Environmental Monitoring Report

Project Number: 42267-031
Semestral Report: October 2022 – March 2023
September 2023

India: Rajasthan Secondary Towns Development Sector Project

Part 1 of 5: Main Report (Pages 1-156) and Appendices 1-2

Prepared by Rajasthan Urban Drinking Water Sewerage and Infrastructure Corporation Limited, Government of Rajasthan for the Asian Development Bank.

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No. F3 (301)(87)/RUIDP/PMU/Env/ 5610 Date: 24.08.2023

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SFG Log: 5624

Sub: Submission of Semi-annual Environmental Monitoring Report for the period October 2022 to March 2023 for RUIDP Phase-IV (RSTDSP)

Dear Sir,

In the matter of above cited subject, we are submitting herewith Semi-annual Environmental Monitoring Report (SEMR) for the period of October 2022 to March 2023 for Rajasthan Secondary Towns Development Sector Project (RSTDSP) for your perusal and approval.

Kindly send approval and link of website where this SEMR will be disclosed.

Enclosure - As above

(Arun Vyas)
Additional Project Director

No. F3 (301)(87)/RUIDP/PMU/Env/ 5611-12 Date: 24.08.2023

Copy to following for information and necessary action-

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2. Mr. Nilesh Kumar, Environmental Safeguard Specialist, ADB, INRW, New Delhi

(Kapil Gupta)
Deputy Project Director (T)

Semi-Annual Environmental Monitoring Report

PROJECT NO: 42267-031
Loan No.: 3972-IND

India: Rajasthan Secondary Towns Development Sector Project (RSTDSP)

Implementation of Environmental Management and Monitoring Plan

Reporting Period: October 2022 to March 2023

Rajasthan Urban Drinking Water, Sewerage and Infrastructure Corporation- External Aided Project (RUDSICO-EAP)

{Erstwhile Rajasthan Urban Infrastructure Development Program (RUIDP)}

Prepared by: Local Self Government Department, Govt. of Rajasthan

ABBREVIATIONS

ACM	–	Asbestos Containing Materials
ADB	–	Asian Development Bank
CMSC	–	Construction Management and Supervision Consultant
CPCB	–	Central Pollution Control Board
CTE	–	Consent to Establish
CTO	–	Consent to Operate
DI	–	Ductile Iron (Pipe)
DWC	–	Double Walled Corrugated (Pipe)
EA	–	Executing Agency
EHS	–	Environmental Health & Safety
EMP	–	Environmental Management Plan;
ESS	–	Environmental Safeguard Specialist
FSSM	–	Faecal Sludge and Septage Management
FSTP	–	Faecal Sludge Treatment Plant
GoR	–	Government of Rajasthan
HDPE	–	High Density Poly Ethylene
IA	–	Implementing Agency
IEC	–	Information, Education and Communication
IEE	–	Initial Environmental Examination;
KLD	–	Kilolitre/Day
LSGD	–	Local Self Government Department
MLD	–	Million Liters per Day
NOC	–	No Objection Certificate
NTP	–	Notice to Proceed
PCC	–	Plain Cement Concrete
PHED	–	Public Health Engineering Department
PIU	–	Project Implementation Unit;
PMCBC	–	Project Management and Capacity Building Consultant
PMU	–	Project Management Unit
PO	–	Project Officer
RoW	–	Right of Way
RPCB/RSPCB	–	Rajasthan State Pollution Control Board
RSTDSP	–	Rajasthan Secondary Towns Development Sector Project
RUIDP	–	Rajasthan Urban Infrastructure Development Project
(RUDSICO-EAP)	–	Rajasthan Urban Drinking Water, Sewerage And Infrastructure Corporation- External Aided Project
SEMP	–	Site Specific Environment Management Plans
SIP	–	Service Improvement Plan
SBR	–	Sequential Batch Reactor
SPM	–	Suspended Particulate Matters
SPS (ADB)	–	Safeguard Policy Statement, 2009
SPS	–	Sewage Pumping Station
SSO	–	Safeguard and Safety Officer
STP	–	Sewage Treatment Plant
ULB	–	Urban Local Body
WTP	–	Water Treatment Plant

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Executive Summary

1. Rajasthan Secondary Towns Development Sector Project (RSTDSP), the fourth phase of investment projects financed by Asian Development Bank (ADB) and implemented by the Rajasthan Urban Drinking Water Sewerage and Infrastructure Corporation Limited (RUDSICO), previously known as Rajasthan Urban Infrastructure Development Project (RUIDP). RSTDSP will support the ongoing efforts of the Government of Rajasthan towards improving the water and wastewater services in about 14 towns.[1] RSTDSP seeks to improve water supply and sewerage (WSS) services in secondary towns with populations between 20,000-115,000 through a sector loan modality. The project is aligned with the following impact(s): (i) access to potable, affordable, reliable, equitable, and environmentally sustainable drinking water supply in all urban areas of Rajasthan improved; and (ii) health status of urban population, especially the poor and under-privileged improved. The policy-based loan will provide financial support to the state government to implement reforms and the project loan will introduce innovations in water supply and wastewater management, such as continuous pressurised water supply, and long-term O&M (10 years) embedded construction contracts for nonrevenue water (NRW) reduction and sustainability of operations, latest standards of treatment of waste water and reuse of treated effluent etc.

2. The desired output of this sector project are: 1) Water supply infrastructure in project towns improved with climate-resilient and inclusive features. By 2027, 2) Sanitation systems in project towns improved with climate-resilient, cost-effective and inclusive features.[2] By 2027, 3) Institutional and human capacities strengthened for service improvements, gender equality and sustainability.

3. As per preliminary examination and scope of works impact assessment for all the subprojects has been done and no significant impacts are envisaged as per ADB SPS 2009 and therefore all the subprojects under RSTDSP are categorized in Environmental Category B and Initial Environmental Examinations (IEEs) are prepared for all the subprojects accordingly. Environmental management and monitoring plan has been prepared for all the sub projects and included in respective draft IEEs and attached with bid documents of the contracts. Draft IEEs have

[1] The project towns under consideration for the sector loan are: Abu Road, Banswara, Didwana, Fatehpur, Khetri, Kuchaman, Ladnu, Laxmangarh, Makrana, Mandawa, Pratapgarh, Ratangarh, Sardarshahar and Sirohi. Out of these towns, Khetri and Mandawa are heritage towns.

2 Climate resilient and inclusive features included are: improvements in the distribution system to reduce losses; rainfall water harvesting; energy-efficient pumps; solar panels at project facilities; pressure control mechanisms in the water system to help avoid losses through pipe bursts; and wastewater reuse for productive uses.

been updated as per change in scope of works or change in locations; and submitted to ADB for approval.

4. This Semi-Annual Environmental Monitoring Report for the period October 2022 to March 2023; analyses the project performance in respect to environmental safeguards and documents/monitors compliance status with National/ State/ Local Statutory Environmental Requirements along with compliance to approved IEE and EMPs as per ADB SPS 2009.

5. Up to March 2023, contracts for all 14 project towns have been awarded (Ratangarh, Laxmangarh and Fatehpur under single contract as package, no. RSTDIP/RTG-FTP-LXG/01, Sardarshahar – package no. RSTDIP/SRD/01, Abu Road and Sirohi under single contract as package no. RSTDIP/SHR-ABR/01, Pratapgarh; package no. RSTDIP/PRT/01, Banswara; package no. RSTDIP/BNS/04, Khetri; package no. RSTDIP/KTR/03, Mandawa; package no. RSTDIP/MDW/03, Kuchaman; package no. RSTDIP/KMN/02, Didwana, Makrana and Ladnu under single contract as package no. RSTDIP/LDN-DID-MKN/01. Work has started in all 14 towns (Ratangarh, Laxmangarh, Fatehpur, Sardarshahar, Abu Road, Sirohi, Pratapgarh, Banswara, Khetri, Mandawa, Kuchaman, Ladnu, Makrana and Didwana).

6. FSSM works: Contract for Faecal Sludge and Septage Management (FSSM) subproject has been awarded for one package of four towns, namely, Bandikui, Shahpura, Neem ka Thana and Jobner to M/s Genius-LNA JV and another combined FSSM package of 9 towns, namely, Bari, Deeg, Pilibanga-Suratgarh, Shahpura- Bhilwara, Bhinder-Kanor, Gangapur, Bhawani Mandi, Dausa and Tijara to M/s MTS-EIEPL JV. Contractor is mobilized in the both packages of FSTP towns and a physical progress of 4% has been achieved up to the reporting period and major work undertaken during the reporting period being construction of boundary wall of FSTPs.

7. IEEs of all 14 project towns have been approved by ADB. IEEs were further updated due to amenendments in project scope or location and submitted to ADB, approved by ADB and uploaded on ADB and RUDSICO_EAP portals. However, the Service Improvement Plan (SIP) for the all subproject towns is approved and IEE of all 14 subproject towns Ratangarh, Laxmangarh, Fatehpur, Sardarshahar, Abu Road, Sirohi, Pratapgarh, Banswara, Kuchaman, Ladnu, Didwana, Makrana, Mandawa & Khetri are being updated as per approved SIP scope and updated IEE will be submitted to ADB shortly for review and approval.

8. During this reporting period, orientations for environmental safeguard requirements were done in 5 towns (Kuchaman, Mandawa, Ladnu, Makrana- Didwana towns) by CMSC-1&2 Environmental Safeguard Professional and Safeguard Support staff. Participants in these orientation programs were PIU, contractors, CMSC engineers and supervisors. Onsite trainings were also conducted in these towns at different work sites to contractors' site supervisors, labours and operators.

9. Contractors have submitted the Site-Specific Environment Management Plans (SEMP) in pre-construction phase of each sub project towns, which are approved and being followed in construction works. These SEMPs also include Solid Waste and Spoil Management Plan, Traffic

Management Plan, Health and Safety Plans, Workers camps plans, COVID-19 prevention and control plan, Asbestos Management Plan etc.

10. Sufficient staffs in PMU, PIUs, consultants (PMCBC/CMSC) and contractor are mobilized as suggested in EARF for the effective implementation and monitoring of compliance of EMP and ADB SPS.

11. Periodical monitoring is being conducted by environmental professional/safeguard support of CMSC1 &2 through site visits which includes public consultations, consultations with labors and contractors' staff, verification of documents and environmental monitoring for ambient air, ambient noise, water quality and soil quality analysis through third party monitoring agencies.

12. In compliance to country's legal requirements for STPs, WTPs & FSTPs; Consent to Establish (CTE) is being obtained from Rajasthan State Pollution Control Board (RSPCB) in all project towns. There are total 19 STPs and 3 WTPs proposed for new construction in all 14 towns (Trenche-I Subprojects) and CTE for all of them is obtained till this reorting period and CTO will be obtained prior to commissioning of plants. Up to March 2023, total 22 applications for CTEs for STPs and WTPs were submitted out of which 22 CTEs have been issued by RSPCB. There are existing 3 STPs proposed for upgradation and 2 WTPs proposed for rehabilitation; which will require consent to establish and consent to operate. Consent to Establish has been obtained from Rajasthan State Pollution Control Board for 3 STPs proposed for upgradation and 2 WTPs proposed for rehabilitation also.

13. CTE for recently awarded FSTP packages includes construction of 13 FSTPs under 2 clusters (Trrenche-I Saving subprojects). Of these two clusters, one cluster consists 4 towns namely Bandikui, Neem ka thaana, Shahpura(Bhilwaara) and Jobner and other cluster consist 9 towns namely Bari, Deeg, Pilibanga-Suratgarh, Shahpura- Bhilwara, Bhinder-Kanor, Gangapur, Bhawani Mandi, Dausa and Tijara. CTE for these FSTPs will be required to obtain prior to construction. CTEs for 13 new FSTP will be applied before start of construction works. Apart from these 13 FSTPs, 1 new Faecal Sludge Treatment Plant is also proposed in Kuchaman, which will also require CTE before start of construction works.

14. Under the prevailing conditions of COVID-19 pandemic in Rajasthan, RUIDP issued guidelines for COVID-19 to all contractors, in line with guidelines issued by Union and State governments. All contractors also prepared Standard Operating Procedures (SOPs) for COVID-19 and are implementing all the mitigation measures as required and instructed by State Government, Union Ministry of Health and Family Welfare and RUIDP.

15. This semi-annual environmental monitoring report presents progress of works, status of compliance of environmental safeguards requirements including legal compliance, EHS management at project sites and current practices at sites. The project (RSTDSP) is compliant with all the environmental statutory provisions of the Governments (National and Rajasthan) as well as ADB SPS 2009.

Semi-Annual Environmental Monitoring Report
(October 2022 to March 2023)

1. INTRODUCTION

1. **Project Description**: Rajasthan Secondary Towns Development Sector Project (RSTDSP), the fourth phase of investment projects financed by Asian Development Bank (ADB) and implemented by the Rajasthan Urban Drinking Water Sewerage and Infrastructure Corporation Limited- External Aided Projects (RUDSICO-EAP)), previously known as Rajasthan Urban Infrastructure Development Project (RUIDP). RSTDSP will support the ongoing efforts of the Government of Rajasthan towards improving the water and wastewater services in about 14 towns.[3] RSTDSP seeks to improve water supply and sewerage (WSS) services in secondary towns with populations between 20,000-115,000 through a sector loan modality. The project is aligned with the following impact(s): (i) access to potable, affordable, reliable, equitable, and environmentally sustainable drinking water supply in all urban areas of Rajasthan improved; and (ii) health status of urban population, especially the poor and under-privileged improved. The project will have the following outcome: quality, reliability, equity and sustainability of WSS services in project towns of Rajasthan improved. The investments in WSS with 10-year O&M contracts, coupled with institutional strengthening of Rajasthan Urban Drinking Water, Sewerage and Infrastructure Corporation Limited (RUDSICO) and ULBs in district headquarters, heritage towns and other market centers are expected to ensure operational sustainability and improve quality of life in project towns, including for the poor and vulnerable. The project is also expected to build resilience of communities to manage health pandemics.

2. The loan will provide financial support to the state government to implement reforms and the project loan will introduce innovations in water supply and wastewater management, such as continuous pressurised water supply, and long-term O&M (10 years) embedded construction contracts for nonrevenue water (NRW) reduction and sustainability of operations, latest standards of treatment of waste water and reuse of treated effluent etc.

[3] The project towns under consideration for the sector loan are: Abu Road, Banswara, Didwana, Fatehpur, Khetri, Kuchaman, Ladnu, Laxmangarh, Makrana, Mandawa, Pratapgarh, Ratangarh, Sardarshahar and Sirohi. Of these towns, Khetri and Mandawa are heritage towns.

3. **Project Outputs:** The project will have three outputs-

Output 1: Water supply system in at least eight project towns improved. By 2027, at least eight project towns with approximately 100,000 households will have 5 (3 new and 2 rehabilitated) water treatment plants (WTPs) and 1,350 km distribution networks to provide safer, more reliable and more equitable water supply services. The systems are designed for 24-hour supply and expected to provide 24-hour supply most of the time, except during prolonged dry spells; and GOR is continuously working to augment its water supply. Water safety plans will be implemented to ensure potable water at all times, including during intermittent supply. Distribution networks follow a district metered area approach allowing the network to be hydraulically isolated so water losses can be more easily identified and resolved and nonrevenue water (NRW) targets met; and so pressures can be managed for equitable distribution. All households will have a water meter allowing for volumetric billing. The water supply improvements are expected to benefit all, including the urban poor, by reducing water collection time from other sources, which may be costly or unhygienic; and by minimizing earning losses from missed work due to waterborne diseases.

Output 2: Sanitation system in at least 13 project towns developed or improved. By 2027, at least 13 towns with approximately 103,000 households will have 19 sewage and 1 fecal sludge treatment plants, 1,300 km sewer networks, and desludging trucks for city-wide inclusive sanitation (CWIS) through a combination of onsite and sewerage solutions ensuring that everybody, including the urban poor, benefits from the improved services, better health and a cleaner and more hygienic environment. The approach is cost-effective as it (i) limits sewers to core areas with outer areas served through organized desludging and safe transportation and treatment of sludge; and (ii) prioritizes the rehabilitation of STPs to meet current effluent standards over construction of new assets. Household sewer connections are included, including for poor households living in sewered zones. As a climate adaptation measure, project consultants will provide support to ULBs in at least 5 project areas to identify users and structure agreements for wastewater reuse.

Output 3: Institutional and human capacities strengthened for sustainable service delivery, gender equality and improved public health. By 2027, the project will have strengthened the capacity and ensured readiness of project ULBs to manage water supply and/or sanitation services and recover O&M costs. The project will strengthen the skills of at least 500 staff and 500 elected representatives of 14 project ULBs in contract management to monitor contractor's performance and service levels; construct or improve an office space for new WSS divisions, and

develop ULBs' standard operating procedures for O&M. A data platform with supervisory control and data acquisition (SCADA) and geographic information system (GIS) will be established in each of the 14 project ULBs to support decision-making and efficient service delivery. The project includes capacity strengthening of RUDSICO by making its financial management system certified by an accredited institution. To promote gender equity and community awareness, the project includes an internship program in RUDSICO so that at least 500 college-age women to gain professional experience in a technical field with broader objective.

4. **Environmental category of the sub-projects:** As per preliminary examination and scope of works; impact assessment for all the subprojects has been done and no major significant impacts are envisaged as per ADB SPS 2009 and therefore all the subprojects under RSTDSP are categorized in Environmental Category B and Initial Environmental Examinations (IEEs) are prepared for all the subprojects accordingly. As per national environmental categorization (EIA Notification 2006) none of the subproject activities comes under Category A or Category B, therefore Environmental Impact Assessment or Environmental Clearance is not required for any of the subprojects under RSTDSP.

5. **Details of site personnel and/or consultants responsible for environmental management:** Out of fourteen project towns (with 09 packages), contract for all 14 sub-projects are awarded and civil work are undergoing in all towns. Necessary Orientation of the PIU, Consultants and Contractor staff is done by Social and environmental experts of PMCBC (assisted by safeguard support staff) and regular monitoring is being conducted by PIU and CMSC team at site. However, to facilitate day to day monitoring, all PIUs have one nominated engineer as Safeguard and Safety Officer (SSO), who is responsible to coordinate for Safeguard activities in their respective towns. SSO, PIU ensures day to day monitoring of implementation and coordinates with PIU, CMSC/PMCBC Social/ Environmental Expert and Contractor for effective safeguard implementation. SSO is also responsible at town level to ensure that all the Grievances received are resolved as per Grievance Redress Mechanism (GRM) prescribed in IEE/RP & EARF/RF. Contractors of each town have also deputed one EHS officer to implement the mitigation measures as per EHS requirements in their respective towns.

6. Details of personnel responsible for safeguard implementation and monitoring at different levels are given in following **Table-1**.

Table -1: Details of personnel responsible for environmental monitoring

A. PMU, PMCBC, CMSC and PIUs level

Name of Official	Location	Designation	Contact Details
PMU & PMCBC at Jaipur			
Mr. Vijay Choudhary Retired on 31.10.2022)	PMU, Jaipur	Project Officer (Env)	9460553535
Mr. Sandeep Bhargava (Joined on 01.11.2022)	PMU, Jaipur	Project Officer (Env)	9414775820
Mrs. Shruti Singh	PMU Jaipur	Assistant Project Officer (Env)	9461481054
Dr. Surendra Nagdali (Mobilized on dated 17.08.2022)	PMCBC, Jaipur	Environment Safeguard Specialist, PMCBC	Email: snagdali@yahoo.com Mob.-7678358158
Mr. Mohammada Saakira (mobilized on dated 26.05.2022	PMCBC, Jaipur	Safeguard Support-Environment -1, PMCBC	Email: msaakira88@gmail.com Mobile: 8209120205
PIU Zonal Offices- Jodhpur and Jaipur			
Dr. Mahavir Prasad Saini	CMSC-2 Jodhpur	Environmental Safeguard Professional, CMSC-2	Email: enviro.cmsc2@gmail.com Mob. -9509557249
Mr. Vardan Srivastava	CMSC-1, Jaipur	Environmental Safeguard Professional, CMSC-1	Email: env.cmsc01@gmail.com Mob. - 9410085379
Mr. Mani Sharma	CMSC-1, Jaipur	Environmental Safeguard Support, CMSC-1	Mob- 8360043214 Email: mani.kumar@haskoningindia.co.in
Mr. Sandeep Tanwar	CMSC-2 Jodhpur	Environmental Safeguard Support, CMSC-2	Email: sktanwar306@gmail.com Mob- 9897343579
PIUs and CMSCs at towns			
Mr. Surendra Godra, J.E.	PIU, Laxmangarh	SSO, PIU, Laxmangarh	9667518549
Mr. Om Prakash Bairwa	PIU, Ratangarh	SSO, PIU, Ratangarh	8949818985
Mr. Dinesh Fogat	PIU, Sardarshahar	SSO, PIU, Sardarshahar	8949425829
Sh. Manoj Mittal, E.E.	PIU,Fatehpur	SSO, PIU, Fatehpur	8112206994
Mr. Ashok Kadwasara	PIU, Sirohi	SSO, PIU, Sirohi	9929355255
Mr. Sunil Bishnoi	PIU, Abu Road	SSO, PIU, Abu Road	9783767531
Mr. Prabhulal Bhabor	PIU, Banswara	SSO, PIU, Banswara	9413306238
Mr. Madan Lohar	PIU, Pratapgarh	SSO, PIU, Pratapgarh	8949383811
Mr. Jitendra Meena	PIU, Kuchaman	SSO, PIU, Kuchaman	9509139684
Mr. Jitendra Choudhary	PIU, Ladnun	SSO, PIU, Ladnun	9783433002

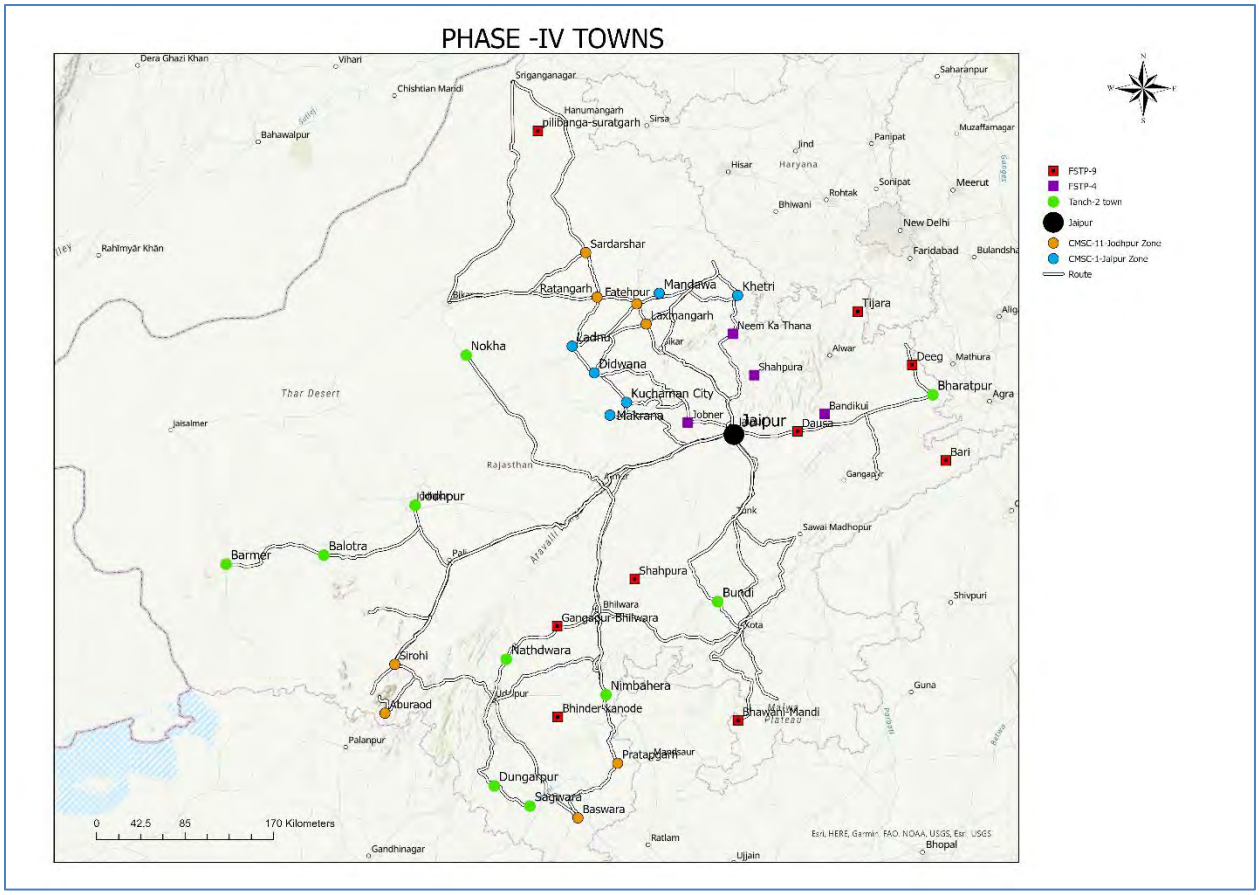
Mr. Jitendra Choudhary	PIU, Didwana	SSO, PIU, Didwana	9783433002
Mr. Deepak Mandan, E.E.	PIU, Makrana	SSO, PIU, Makrana	9828117635
Mr. Devendra Saini	PIU, Mandawa	SSO, PIU, Mandawa	8005535181
Mr. Devendra Saini	PIU, Khetri	SSO, PIU, Khetri	8005535181
Mr. Afzal Ansari	Ratangarh/Laxmangarh /Sardarshahar/Fatehpur	Safeguard Support Environment CMSC-2	8299562677
Mr. Amit Kumar Chauhan	Abu Road/ Sirohi	Safeguard Support Environment CMSC-2	7683044085
Ms. Aditi Tiwari	Pratapgarh/ Banswara	Environmental Safeguard Support, CMSC-2	9165746877
Mr. Yogesh Atreya	Mandawa Town	Gender, Social & Environmental Safeguards Support Staff, CMSC-I	9460126777
Mr. Bhajan Lal Meena	Kuchaman Town	Gender, Social & Environmental Safeguards Support Staff, CMSC-I	8003939456
Mr. Laxmi Narayan Yadav	Khetri Town	Environmental Safeguard Support, CMSC-I	9079942396
Mr. Ravi Kumar Verma	Ladnu Town	Environmental Safeguards Support Staff, CMSC-I	9983487296

B. Contractors' EHS personals

S No.	Town	Name of EHS Engineer	Contract Details	Contractors' Firm
CMSC-II Towns				
1.	Sardarshahar	Mr. Rakesh Sahu	9412313638	Larsen &Toubro Ltd.
2.	Ratangarh	Mr. M. Mustafa	9995979964	Larsen & Toubro Ltd.
3.	Fatehpur	Mr. M. Mustafa	9995979964	Larsen & Toubro Ltd.
4.	Laxmangarh	Mr. M. Mustafa	9995979964	Larsen & Toubro Ltd.
5.	Abu Road	Mr. Monuj Saikia	9894813736	Larsen & Toubro Ltd.
6.	Sirohi	Mr. Satish Vaniya	9983304779	Larsen & Toubro Ltd.
7.	Pratapgarh	Mr. Ashutosh Kumar	8861200971	Khiladi Infra Projects Ltd
8.	Banswara	Mr.Faizullah Mohd.	7903257109	BIPL-SC-HP Joint Venture
CMSC-I Towns				
9.	Kuchaman	Mr. Anurag Behrwal	9119104582	M/s Larsen &Toubro Ltd.
10.	Ladnun	Mr. Jeevan Kumar	9446224558	M/s Larsen & Toubro Ltd.
11.	Didwana	Mr. Jeevan Kumar	9446224558	M/s Larsen & Toubro Ltd.
12.	Makrana	Mr. Jeevan Kumar	9446224558	M/s Larsen & Toubro Ltd.
13.	Mandawa	Mr. Manoj Kumar Joya	9785868515	M/s L N Agarwal
14.	Khetri	Mr. Raj Kapoor Meena	9166949686	M/s Lahoty

7. **Description of sub-projects:** Under RUIDP Phase-IV, Trenche-I, there are 14 subproject towns (Abu Road, Banswara, Didwana, Fatehpur, Khetri, Kuchaman, Ladnu, Laxmangarh, Makrana, Mandawa, Pratapgarh, Ratangarh, Sardarshahar and Sirohi) are selected under this loan. There are total 9 package in 14 project towns under Trenche-I. Threr are 13 FSTP towns under Trenche-I saving subprojects namely, Bandikui, Neem ka thaana, Shahpura(Bhilwaara),Jobner, Bari, Deeg, Pilibanga-Suratgarh, Shahpura- Bhilwara, Bhinder-Kanor, Gangapur, Bhawani Mandi, Dausa and Tijara. Threr are two FSTP works packages of 4 and 9 towns each in Trenche –I, Saving subprojects . Location of all project towns in Rajasthan State map is shown in Figure 1.

Figure 1: Sub-project Locations in Rajasthan State Map



8. Sub-projects along with Contract Cost are described in the Table-2 below-

Table -2: Description of sub-projects under RSTDSP (Project no. 42267-031)

S No.	Town	Package No.	Name of Contractor	NTP Date	Contract Cost (INR)	Contract Cost (US$) *	Description of works
1	Ratangarh	RSTDIP/ RTG-FTP-LXG/01	M/s Larsen & Toubro Limited	15.6.2020	182,44,31,237.00	240,11,108.26	Construction of Sewer Network with House sewer connections; Construction of Sewage Treatment Plant & Sewage Pumping Station; Allied works and operation services of the system for 10 Years
2	Laxmangarh		M/s Larsen & Toubro Limited	15.6.2020	49,45,94,511.00	650,92,95.66	Construction of Works of Water Supply Distribution Network Improvements with House service connections for non revenue water reduction; Continuous pressurized water supply and operation services of the entire system for 10 years
3	Fatehpur		M/s Larsen & Toubro Limited	15.6.2020	114,89,74,252.00	151,21,504.49	Construction of Sewer Network with House sewer connections; Construction of Sewage Treatment Plant & Sewage Pumping Station; Allied works and operation services of the system for 10 Years
4	Sardarshahar	RSTDIP/ SRD/01	M/s Larsen & Toubro Limited	15.6.2020	196,70,00,000.00	258,87,437.68	Design and construction works of water supply and providing sewer network with house sewer connection along with construction of Sewage Treatment Plant & Sewerage Pumping Station; all allied works and operation services of the entire system for 10 years
5	Abu Road	RSTDIP/SHR-ABR/01	M/s Larsen & Toubro Limited	18.6.2020	263,77,98,830.00	345,87,823.18	Construction works of water Supply production; Distribution Network improvements with house services connections for non-revenue water reduction and continuous water supply and providing Sewer network with house sewer connections; Construction of Sewage Treatment Plant and all allied works and operation services

S No.	Town	Package No.	Name of Contractor	NTP Date	Contract Cost (INR)	Contract Cost (US$) *	Description of works
							of the entire system for 10 years
6	Sirohi		M/s Larsen & Toubro Limited	18.6.2020	213,92,01,170.00	280,50,020.71	Construction works of water Supply production; Distribution Network improvements with house services connections for non-revenue water reduction and continuous water supply and providing Sewer network with house sewer connections; Construction of Sewage Treatment Plant and all allied works and operation services of the entire system for 10 years
7	Pratapgarh	RSTDIP/PRT/01	M/s. Khilari Infrastructure Pvt. Ltd.	28.10.2020	190,60,00,255.00	257,45,696.51	Construction of Sewerage System including sewerage network, Sewage Treatment Plant, sewage pumping station and house sewer connection along with all allied works and operation services of the entire system for 10 years
8	Banswara	RSTDIP/BNS/04	M/s. BIPL-SC-HP Joint Venture	11.02.2021	320,74,60,597.00	435,81,759.39	Construction Works of Water Supply production and Distribution Network improvements with house services connections for non-revenue water reduction and continuous water supply and providing Sewer network with house sewer connections along with construction of Sewage Treatment Plant & Sewerage Pumping Station and all allied works and operation services of entire system for 10 years
9	Khetri	RSTDIP/KTR/03	M/s. Lahoty-LNA (JV)	20.03.2021	79,63,81,137.50	109,93,392.45	Construction works of Water Supply Production and Distribution Network Improvements with house service connections for nonrevenue water reduction and continuous water supply and Providing Sewer Network with House connections, and

S No.	Town	Package No.	Name of Contractor	NTP Date	Contract Cost (INR)	Contract Cost (US$) *	Description of works
							construction of Sewage Treatment Plant and all allied Works and operation services of the entire system for 10 years
10	Mandawa	RSTDIP/ MDW/03	M/s. LNA-R & B (JV), Jaipur	08.03.2021	106,12,15 ,221.40	14,502,0 32.35	Construction Works of Water Supply production and distribution network Improvements with house service connections for nonrevenue water reduction and continuous water supply and Providing Sewer Network with House connections, and construction of Sewage Treatment Plant, Sewage Pumping Station and all allied Works and operation services of the entire system for 10 years at Mandawa (Jhunjhunu)
11	Kuchaman	RSTDIP/K MN/02	M/s Larsen & Toubro Limited,	05.05.2021	313,93,75 ,000.00	42,458,4 12.22	Construction Works of Water Supply Production and Distribution Network Improvements with house service connections for nonrevenue water reduction and continuous water supply and Providing Sewer Network with House sewer connections, and construction of Sewage Treatment Plant & Sewage Pumping Station and all allied Works and operation services of the entire system for 10 years at Kuchaman (Nagaur)
12	Didwana	RSTDIP/L DN-DID-MKN/01	M/s Larsen & Toubro Limited,	05.05.2021	87,39,66, 167.00	11,819,4 57.78	Construction Works of Sewer Network with House sewer connections, and construction of Sewage Treatment Plant & Sewage Pumping Station and allied Works and operation services of the entire system for 10 years at Didwana (Nagaur)

S No.	Town	Package No.	Name of Contractor	NTP Date	Contract Cost (INR)	Contract Cost (US$) *	Description of works
13	Makrana		M/s Larsen & Toubro Limited,	05.05.2021	142,98,18,867.00	19,336,771.12	Construction Works of Sewer Network with House sewer connections, and construction of Sewage Treatment Plant & Sewage Pumping Station and allied Works and operation services of the entire system for 10 years at Makrana (Nagaur)
14	Ladnu		M/s Larsen & Toubro Limited,	05.05.2021	174,40,93,122.00	23,586,994.33	Construction Works of Sewer Network with House sewer connections, and construction of Sewage Treatment Plant and all allied Works and operation services of the entire system for 10 years at Ladnun (Nagaur)
Trenche-I Saving Subprojects under RSTDSP							
1	Combined package of four towns-Bandikui, Neem ka Thana, Shahpura and Jobner	RSTDSP/ NKT-SHR-BAN-JOB/01	M/s Genius-LNA JV	21.06.2022	15,72,57,783.00	20,12,809.44	Design, Supply, Construction, Testing, Trial run and commissioning of FSTP with 5 years operation and maintenance at Neem Ka Thana, Shahpura (Jaipur), Bandikui, Jobner Rajasthan including supply, testing of vehicle mounted suction machine for feacal sludge desludging.
2	Combined package of 9 towns, Bari, Tijara, Dausa, Deeg, Shahpura (Bhilwara), Bhinder-Kanode, Gangapur (Bhilwara), Bhawani Mandi, Pilibanga-Suratgarh	RSTDSP/ FSTP-9 Towns/03	M/s MTS-EIEPL JV	11.11.2022	463457750	57,46,702.32	Design, Supply, Construction, Testing, Trial run and commissioning of FSTP with 5 years operation and maintenance at Bari, Tijara, Dausa, Deeg, Shahpura (Bhilwara), Bhinder-Kanode, Gangapur (Bhilwara), Bhawani Mandi, Pilibanga-Suratgarh

*** Calculated on the basis of US$ rate on the date of Notice to Proceed of concerned contracts**

9. **Overall status of sub-projects and cumulative progress of works:** Contracts are awarded for 14 project towns in (Ratangarh, Laxmangarh and Fatehpur under single contract as package, no. RSTDIP/RTG-FTP-LXG/01, Sardarshahar– package no. RSTDIP/SRD/01, Abu Road and Sirohi under single contract as package no. RSTDIP/SHR-ABR/01, Pratapgarh; package no. RSTDIP/PRT/01, Banswara; package no. RSTDIP/BNS/04, Khetri; package no. RSTDIP/KTR/03, Mandawa; package no. RSTDIP/MDW/03, Kuchaman; package no. RSTDIP/KMN/02, Didwana, Makrana and Ladnu under single contract as package no. RSTDIP/LDN-DID-MKN/01. Work has started in all 14 towns (Ratangarh, Laxmangarh, Fatehpur, Sardarshahar, Abu Road, Sirohi, Pratapgarh, Banswara, Khetri, Mandawa, Kuchaman, Ladnu, Makrana and Didwana). Overall status of the project and work progress is given in following **Table 3 & 4**

Table 3: Overall status of sub-projects (up to 31.03.2023)

S. No.	Sub-Project Towns and Package Number	Status of Sub-Project				Type of Works*	Progress of Works**
		Design	Pre-Construction	Construction	Operation Phase		
1	Laxmangarh-RSTDIP/RTG-FTP-LXG/01			√		Water Supply	96%
2	Ratangarh-RSTDIP/RTG-FTP-LXG/01			√		Sewerage System	76%
3	Fatehpur-RSTDIP/RTG-FTP-LXG/01			√		Sewerage System	92%
4	Sardarshahar-RSTDIP/SRD/01			√		Sewerage System, Water Supply & Rehabilitation	56%
5	Sirohi- RSTDIP/SHR-ABR/01			√		Sewerage System, Water Supply & Rehabilitation	76%
6	Abu Road-RSTDIP/SHR-ABR/01			√		Sewerage System, Water Supply & Rehabilitation	78%
7	Pratapgarh-RSTDIP/PRT/01			√		Sewerage System	80%
8	Banswara-RSTDIP/BNS/04			√		Sewerage System, Water Supply & Rehabilitation	71%
9	Khetri- RSTDIP/KTR/03			√		Sewerage System, Water Supply & Rehabilitation	52%
10	Mandawa-RSTDIP/MDW/03			√		Sewerage System, Water Supply & Rehabilitation	67%

S. No.	Sub-Project Towns and Package Number	Status of Sub-Project				Type of Works*	Progress of Works**
		Design	Pre-Construction	Construction	Operation Phase		
11	Kuchaman-RSTDIP/KMN/02			√		Sewerage System, Water Supply & Rehabilitation	47%
12	Ladnu- RSTDIP/LDN-DID-MKN/01			√		Sewerage System	44%
13	Didwana-RSTDIP/LDN-DID-MKN/01			√		Sewerage System	62%
14	Makrana RSTDIP/LDN-DID-MKN/01			√		Sewerage System	67%
Trenche-I Saving Subprojects under RSTDSP							
1	Combind package of four towns -Bandikui, Neem ka Thana, Shahpura and Jobner	√				Faecal Sludge and Septage Management (FSSM)	4% of Physical Progress Site survey and soil investigation completed in all four towns. Boundary wall works are in progress. A financial progress of 2% is achieved.
2	Combined package of 9 towns, Bari, Tijara, Dausa, Deeg, Shahpura (Bhilwara), Bhinder-Kanode, Gangapur (Bhilwara), Bhawani Mandi, Pilibanga-Suratgarh	√				Faecal Sludge and Septage Management (FSSM)	Site survey and soil investigation completed. Boundary wall works are in progress in Dausa, Tijara, Pilibanga and Shahura (Bhilwara). A financial progress of 8% is achieved.

* For details of proposed works refer Table 4, **As per P1 format received from respective town PIU

Table 4: Cumulative Progress of Works up to 31.03.2023

Town: Ratangarh

<table>
<tr><th>Contract description</th><th colspan="3">Cumulative Progress of works up to 31.03.2023</th></tr>
<tr><td rowspan="4">Package no - RSTDIP/RTG-FTP-LXG/01

Works under package- Construction Works of Providing Sewer Network with House sewer connections along with construction of Sewage Treatment Plant & Sewage pumping Station and all allied Work and operation services of the entire system for 10 years at Ratangarh (Churu).

Name of Contractor- M/s-Larsen & Toubro Limited

Contract type- Design, Build and Operate

Date of Start- 22.06.2020

Cumulative Financial Progress- 62.00%

Cumulative Physical Progress- 76.0 %

Stipulated Date of completion of Design Build- 21.06.2023</td><td colspan="3">Sewerage Work:</td></tr>
<tr><td>Item</td><td>Scope</td><td>Progress</td></tr>
<tr><td rowspan="2">STP (2 No.)</td><td>STP-1
6.1 MLD at Gaushala (51.65% physical progress)</td><td>• 6.1 MLD STP-
Nagar Palika, Ratangarh issue the letter for re-start of work on 17-05-2022 on behalf of Lok Adalat decision. And work re-started on 18.05.2022.

Physical Progress:
• SBR-concreting of Raft, Center & Outer wall up to 3 mtr. completed & shuttering work selector zone concreting work is in progress.
• Slab Completed & Steel work for wall is under progress. Admin Building: Ground floor slab completed and column work for 1st floor under progress.
• TEER- 3rd bracing shuttering work is in progress.
• MPS- 5th lift concerting completed work is in progress.
• E&M work: Grit Separator, Decanter, Diffuser, Blower, pump, Sluice gates and fine screen, VFD panel, PCC are procured.</td></tr>
<tr><td>STP -2
3.8 MLD Near NH-11 (78.20% physical progress)</td><td>• 3.80 MLD STP – 78.20 %
Physical Progress:
• SBR: Trial run work is in progress.
• PTU: work completed.
• TEER: Work completed.
• Guard Room: Finishing work completed.
• E&M work: Diffuser, LT Panel procured and screen, Volute press, pump, Decanter, Transformer, Sludge dewatering unit, RMU, CTPT, & Blower installed. Power connection completed.
• Admin Building: Finishing work is under progress. Blower foundation & cable trench completed, DG & RMU Foundation work completed, Electrical connection completed & Road. Boundary wall work completed and Diffuser work completed, Land Scaping and Plantation work under progress.</td></tr>
<tr><td>SPS (2 No.)</td><td>SPS -1
3.8 MLD BSNL Office (83.0% physical progress)</td><td>• 3.80 MLD SPS-
83.0%: Physical Progress:
• SUMP: Trial run work under progress.
• Ancillary Building: Plaster Completed. Road work completed Finishing work is under progress.
• Guard Room: - Plaster Completed. Finishing work is under progress.</td></tr>
</table>

Contract description	Cumulative Progress of works up to 31.03.2023		
			• EM & I: LT Panel, pump, transformer, Sluice gates, Coarse Screen, RMU, CTPT & Valves installed. Power connection completed.
		SPS -2 4.6 MLD near Main Ginani (55.80% Physical progress)	• **4.60 MLD SPS: 55.80%:** • **Physical Progress:** • SUMP: Wet well completed. • Metering, Finishing. Work is in progress. • Guard Room: Finishing. Work is in progress. • DG, Transfer & RMU foundation work completed. • Pump, Transformer procured.
	Lateral sewer (upto dia 300)	129.0 KM	• Supply: 129.0 Km • Laid: - 123.747 Km • Hydro Testing:101.34 Km
	Outfall RCC Pipe	1.82 KM	• Supply: -Nil • Laid: -Nil
	PVC-U pipe(110 & 160 mm dia)	91.50 KM	• Supply: -76.59km • Laid:- 46.40km
	Manholes (All types)	5485 Nos	• Installation Shallow MH: 3927 Nos
		3673	• Precast Supply: 1513 Nos • Laid precast MH: 1271 Nos
	Inspection Chamber (A types)	11355 Nos	• Supply: 10337 Nos • Installation:- 9528 Nos
	HDPE pipe (PE 100 PN 6) Trenchless	14.63 KM	• Supply: 14.264 Km • Laid: - 12.109 Km
	D.I K-9 Pipes (Pumping Main)	3.50 KM	• Supply: - 3.327 Km • Laid: 1.937 Km
	D.I K7 Pipes	3.50 KM	• Supply: Nil • Laid: Nil

For Road Cutting & Restoration-

Road cutting	Road restoration Base Layer	Road restoration Top Layer
• Kuccha: - 12.63 Km • CC- 36.43 Km • BT- 60.747 Km • Interlock -14.98 Km • Total –124.787 km	• Kuccha: - 12.63 Km • CC-36.43 Km • BT- 59.701 Km • Interlock – 14.941 Km Total –123.702 km	• Kuccha: - 12.63 Km • CC- 36.43 Km • BT- 57.125 Km • Interlock -14.93 Km • Total -121.115 km

Building and Miscellaneous work

Item Description	Scope of Work	Progress made so far
CRMC Building	2 Nos. (Near Nagar Palika & Ginani)	**CRMC-1** (Nagar Palika): - Overall 98.20% completed finishing work is under progress. **CRMC-2:** Floating work is under progress.

Town: Laxmangarh

Contract description

Package no - RSTDIP/RTG-FTP-LXG/01

Works under package- Construction Works of Water Supply Distribution Network Improvements with House service connections for non-revenue water reduction; Continuous pressurized water supply and operation services of the entire system for 10 years at Laxmangarh (Sikar)

Name of Contractor- M/s-Larsen& Toubro Limited

Contract type- Design, Build and Operate

Date of Start- 22.06.2020

Cumulative Financial Progress- 89.0%

Cumulative Physical Progress-96.0%

Stipulated Date of completion of Design Build- 21.06.2023

Cumulative Progress of works up to 31.03.2023

Water Supply:

Item	Scope of work	SIP Scope	Progress
CWR	100 KL at AEn Campus	100 KL at AEn Campus	100 % work completed.
	250 KL at Bad ke Balaji	250 KL at Bad ke Balaji	100 % work completed.
Distribution Network	150.303 km	161.04 km	a) Supply: - 161.04Km b) Laid: - 161.04 Km c) Inter-connection- 128 d) Hydro Testing: 130.485 Km e) Commissioning: NIL
House Service Connection upto meter	9007 Nos	6695 nos	a) Laying/Installation: 8995 Nos b) Testing: NIL c) Commissioning: NIL
Chlorination Rooms	02 nos	02 nos	1). Bad Ke Balaji H/W: 100 % work completed.2). Aen Campus H/W: 100 % work completed.
Metering	EMFM -16		a) Supply: 0 Nos. b) Installation: 0 Nos c) Testing: NIL d) Commissioning : NIL
	BFM -31		a) Supply: 0 Nos. b) Installation: 0 Nos c) Testing: NIL d) Commissioning : NIL
Pressure Transmitters	55 Nos.		a) Supply: 0 Nos. b) Installation: 0 Nos c) Testing: NIL d) Commissioning : NIL
No. of DMAs	14 Nos.	14	-

For Road Cutting & Restoration-

Road cutting	Road restoration Base Layer	Road restoration Top Layer
• Kuccha: -90.75 Km • CC- 74.53 Km • BT- 1.80 Km Total -167.08 km	• Kuccha: -90.75 Km • PCC- 74.29 Km • BT-1.80 Km Total –166.84 km	• Kuccha: -90.75 Km • CC- 74.29 Km • BT- 1.0 Km • Total -159.2 km

Building and Miscellaneous work

Item Description	Scope of Work	Progress made so far
CRMC Building opp to EE office	1 nos.	100 % work completed.
CRMC Building at AEn office	1 nos.	100 % work completed.
MCC	1 Nos	40% Completed. SCADA work in progress

Refurbishment Work:

Pump House	02 no's	80% Completed

Contract description	Cumulative Progress of works up to 31.03.2023		
			Installation of EMI of HSC Pump (stand by) is in progress
	Tube well	34 no's	84% completed EMI procurement is in progress and replacement of EMI in progress
	OHSR	08 no's	84.65 % completed Installation of EMI work is in progress

Town: Fatehpur

Contract description	Cumulative Progress of works up to 31.03.2023			
Package no - RSTDIP/RTG-FTP-LXG/01 **Works under package-** Construction works of Sewer Network with House sewer connections; Construction of Sewage Treatment Plant & Sewage Pumping Station; Allied works and operation services of the system for 10 Years at Fatehpur (Sikar) **Name of Contractor-** M/s-Larsen& Toubro Limited **Contract type- Design, Build and Operate** **Date of Start-** 22.06.2020 **Cumulative Financial Progress- 83.0%** **Cumulative Physical Progress- 92.0%** **Stipulated Date of completion of Design Build- 21.06.2023**	**Sewerage Work:**			
	Item	**Scope of work**	**SIP Scope**	**Progress**
	STP (1 No.)	4.3 MLD at Nari Bari Road in existing STP Campus	Same as Scope of work	90.30% completed Installation of EMI work under progress
	MPS	MPS for 4.3 MLD STP (Nari Bari Village Road in Existing STP Campus)	Same as Scope of work	MPS:- Civil work completed. Mechanical work is in under progress. DG/Transformer::- Civil work completed.
	SPS (3 No.)	3.5 MLD near dholi Sati Temple	Same as Scope of work	90.30% completed Installation of EMI work under progress
		0.60 MLD, (Near Aksha Maszid:- Zone-2) Khasra no. 982, National Highway no. 52, Jahanghir ki kui	Same as Scope of work	80.25% completed Finishing & EMI work under progress
		1.1 MLD Near Railway underpass Nawalgarh road-Zone-1 (Khasra no. 1806)	Same as Scope of work	85.20% completed Finishing work under progress
	Lateral sewer (upto dia 250 mm)	93.494 Km	85.482 Km	a) Supply: 85.482Km b) Laid: - 85.482 Km c) Testing: 85.352 Km d) Interconnection: - 131 no. e) Gap closing: - 44 no. f) Deflection Test: 82.392 Km e) Commissioning: NIL

Contract description	Cumulative Progress of works up to 31.03.2023

Outfall (above dia 315)	1.533 KM	1.500 Km	a) Supply: NIL b) Laid: -NIL c) Testing: NIL d) Commissioning: Nil
PVC-U pipe (110 & 160 mm dia)	66 KM	34.92 Km	34.10 km
Manholes (All types)	7478 Nos	4231 Nos.	4226 Nos
Inspection Chamber (A types)	6600 Nos	2809 Nos.	2783 Nos.
Population Benefitted due to commissioned	60000	60000	-
House Sewer Connection	6484 Nos.	6484 Nos.	2416 Nos.

For Road Cutting & Restoration-

Road cutting	Road restoration Base Layer	Road restoration Top Layer
• Kuccha: 50.512 Km • CC –33.67 Km • BT –1.30 Km • Interlock– 0.00 Km Total: - 85.482 Km	• Kuccha: 50.512 Km • CC –33.0 Km • BT –1.30 Km • Interlock– 0.00 Km Total: - 84.812 Km	• Kuccha: 50.512 Km • CC –33.0Km • BT –0.8 Km • Interlock– 0.00 Km Total: - 84.312 Km

Building and Miscellaneous work

Item Description	Scope of Work	SIP Scope	Progress made so far
CRMC Building	1 Nos. (Nagar Palika)	Same as Scope of work	100 % work completed.
CCC Building	-		NA
MCC Building	-		NA
PLC SCADA	-		NA

Trenchless Work

Item Description	Scope of Work	SIP Scope	Progress made so far
HDPE Pipe	10.24 Km	15.09 m	a) 15.09 km
DI Pipe	5.95 Km	2.89 Km	a) 2.11 km

Town: Sardarshahar

Contract description	Cumulative Progress of works up to 31.03.2023

Package no - RSTDIP/SRD/01

Works under package- Construction Works of Water Supply Production and Distribution Network Improvements with house service connections for nonrevenue water reduction and continuous water supply and providing sewer network with house sewer connections along with construction of Sewage Treatment Plant & Sewerage Pumping Station; all allied works and operation services of the entire system for 10 years at Sardarshahar (Churu).

Name of Contractor- M/s-Larsen& Toubro Limited

Contract type- Design, Build and Operate

Date of Start- 22.06.2020

Cumulative Financial Progress- 47.0%

Cumulative Physical Progress- 56.0%

Stipulated Date of completion of Design Build- 21.06.2023

Water Supply:

Item	Scope	SIP Scope	Progress
Total Distribution Network			-
HDPE Pipe (75mm to 315mm) (180mm)	190.01 Km	260.519 Km Extra Item-1.009	a) Supply: -185.89 km b) Laid: - 184.02 km c) Testing: - 132.328 km d) Commissioning: -NIL
DI Pipe K7 (100mm to 400mm)	10.379 km	11.981 Km	a) Supply: - 7.175 km b) Laid: - 3.836 km c) Hydro Testing: -1.80 km d) Commissioning: -NIL
DI Pipe K9	2.100 Km	6.100 km	a) Supply: -1.774 km b) Laid: - 0.980 km c) Hydro Testing: - Km d) Commissioning: - NIL
House Service Connection	22000 Nos	22907 Nos.	a) Laying/installation: -9779 nos
Domestic Water Meter (15mm,20mm & 25mm)	22000 Nos	22907 Nos.	a) Supply: - 2800 Nos. b) Installation: - 1183 Nos. c) Testing: - NIL d) Commissioning: - NIL
Metering	EMFM-17 Nos	Equal to BOQ	a) Supply: 13 Nos. b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
	BFM- 51 Nos.	Equal to BOQ, Subject to change as per redesigning of Network	a) Supply: 51 Nos. b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
Pressure Transmitters	85 Nos.	Equal to BOQ	a) Supply: 52 Nos. b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
No. of DMAs	26 Nos.	26 Nos.	-
RWR	-	-	-
WTP	-	-	-
Pump House	1 Nos. at PHED Campus	1 Nos. at PHED Campus	Concreting of maintenance bay grade slab and ramp for Chlorination room completed. Surface preparation for painting work is in progress for external and internal wall. Delivery wall chamber (EMF + Valve). Fabrication work in progress for I-beam erection completed. Cable tray fixing is in progress. Pump shifting, fitting & EOT work is in progress

Contract description	Cumulative Progress of works up to 31.03.2023			
	CWR	1 No. (2400 KL PHED Campus)	1 No. (2400 KL PHED Campus	**CWR Tank: -** CWR Tank: - Structural work of CWR has been completed. Hydrotesting of CWR basin nos -1 work is progress, Nipple grouting is in progress. Plaster work of head room work completed. Tapping work existing CWR is in progress. Water filling in 2nd basin is in progress.
	OHSR	-	-	-
	Rehab Work (WTP,PH,CWR, OHSR etc)	Existing PH, CWR, in PHED Campus Surya mandir, Bharodhan, Holidora, Ramnagar	Existing PH, CWR, in PHED Campus Surya mandir, Bharodhan, Holidora, Ramnagar	Work started in Surya Mandir OHSR 2% and Bharodhan, OHSR 2%.
	Population benefitted due to commissioned	1.09 lacs	1.09 Lacs	
	Wastewater			
	STP (03 Nos.)	3.4 MLD at North Campus	3.4 MLD at North Campus	**TEER 540 KL: -** Painting and handrailing work completed. Plinth protection work completed. **SBR:** - Decanter installation in completed. hydrotest in progress. Air line piping work is in progress. **PTU: -** Screen and gate fixing Completed. concreting of inlet portion walkway slab completed. Finishing work is in progress. **Admin building: -** Plaster work completed. Painting work is in progress. Upgradation Baffle wall casted up to required top level. Instructed to start side channel work and material procurement. **Staff Quarters**: - 1st floor slab work completed. Head room slab is in completed. Brick work at ground floor is in progress.
		2.3 MLD at South Campus	2.3 MLD at South Campus	**TEER 730 KL: -** Painting and handrailing work completed. Plinth protection work Completed. **SBR**- Decanter installation completed. electro mechanical work in progress. Epoxy (bitumen paint) work in progress. RAS/SAS foundations erecting of pump work completed.

Contract description	Cumulative Progress of works up to 31.03.2023			
				Admin building: - Painting and electrical work in progress. Flooring work is in progress.**PTU: -** Electro mechanical equipment installation work completed **Upgradation 5 MLD** Reinforcement and shuttering of Buffle wall in progress. **Staff Quarters: -** Footing completed & column above plinth beam completed. Column work above ground level work completed. Bar bending and shuttering work for 1st floor slab is in progress.
		1.6 MLD at Gandhi Vidhya Mandir Campus	1.6 MLD at Gandhi Vidhya Mandir Campus	Excavation and dressing is in progress for integrated building of PCC preparation.
	MWPS	1	1	-
		0.60 MWPS		Raft completed and partition wall shuttering and reinforcement completed & slab & beam at 253.50 ML work completed. Slab & beam at 254.20 ML is in progress.
	SPS	2.3 MLD at Gaushala Land near BSNL Office	2.3 MLD at Gaushala Land near BSNL Office	Top slab shuttering and reinforcement is in progress.
		0.65 MLD at IGNP Guest House	0.65 MLD at IGNP Guest House	Wall 2nd lift reinforcement binding and wall shuttering completed, Wall 2 lift reinforcement & shuttering is in progress.
	Lateral Sewer (up to dia 315) (200mm,250mm,300mm)	51.789	50.39	a) Supply: 43.300 km b) Laid: -39.722 km c) Testing: - 27.311 km d) Commissioning-NIL
	Outfall (350mmto600mm)	4.222 Km	0.918	a) Supply: 0.500 km b) Laid: 0.298 km c) Testing: NIL d) Commissioning-NIL
	PVC-U Pipe (110 & 160 mm dia)	76 Km	51.02	a) Supply: - 44.39 km b) Laid: - 28.858 km c) Testing: NIL d) Commissioning: -NIL
	Manholes (All types)	4319 Nos.	2964 nos.	a) Supply: 1870 Nos b) Installation: - 1703 Nos c) Testing: - 1284 Nos d) Commissioning: - Nil

Contract description	Cumulative Progress of works up to 31.03.2023

Inspection Chamber (All types)	7600 .	7600 Nos.	a) Supply: 3016 Nos b) Installation: - 2960 Nos c) Testing: - NIL d) Commissioning: - NIL
Population benefitted due to commissioned	1.09 lacs	1.09 lacs	-

For Road Cutting & Restoration-

Road cutting	Road restoration Base Layer	Road restoration Top Layer
• Kuccha: 90.507 Km • CC –76.963 Km • BT/WMM –16.55 Km • Interlock– 0.00 Km • Total= 184.022 Km	• Kuccha: - 90.507 Km • CC PCC –74.511 Km • BT/WMM 12.544 Km • Interlock – 0.00 Km Total = 177.562 Km	• Kuccha: - 90.507 Km • CC PCC –73.443 Km • BT/WMM 12.544 Km • Interlock – 0.00 Km Total= 176.494 Km

Building and Miscellaneous work

Item Description	Scope of Work	SIP Scope	Progress made so far
CRMC -1	1. PHED Campus	1. PHED Campus	• Structure Completed. Finishing work in progress.
CRMC -1	1. AEn, PHED campus	1. AEn, PHED campus	• Head room slab concreting completed. Cement plastering and wall conduiting is in progress and external painting work is in progress.
CCC Building (1 No.)	PHED Campus	PHED Campus	• Structure Completed. Painting & electric work in progress.
MCC Building (1 No.)	PHED Campus	PHED Campus	• Structure Completed. Painting & electric work in progress.
PLC SCADA	1 No.	1 No.	-
Trenchless Work			
HDPE Pipe (250mm to 630mm)	11.866 Km	9.60	a) Supply: - 9.58 Km b) Laid: - 4.834 Km c) Testing: - Nil d) Commissioning: -Nil
RCC Pipe(600mm)	Extra Item	4.19	a) Supply: - Nil b) Laid: - Nil c) Testing: - Nil
MS Pipe (450mmto 500mm)	Extra Item	200 mtr	a) Supply: - 0.100 km b) Laid: - 0.100 Km c) Testing – NIL d) Comissioning – NIL

Town: Abu Road

Contract description	**Cumulative Progress of works up to 31.03.2023**

Package no - RSTDIP/SHR-ABR/01

Works under package- Construction works of water Supply production; Distribution Network improvements with house services connections for non revenue water reduction and continuous water supply and providing Sewer network with house sewer connections; along with construction of Sewage Treatment Plant; all allied works and operation services of the entire system for 10 years at Abu Road

Name of Contractor- M/s-Larsen& Toubro Limited

Contract type- Design, Build and Operate

Date of Start- 22.06.2020

Cumulative Financial Progress- 62.0%

Cumulative Physical Progress- 78.0 %

Stipulated Date of completion of Design Build- 21.06.2024

Water Supply

Item	**Scope**	**Revised Scope of work**	**Progress**
HDPE Pipe	138.56 Km	138.56 Km	a) Supply: 134.572 Km b) Laid: -. 106.596Km c) Testing103.28 km d) Commissioning: NIL
DI Pipe K7	33.08 Km	18.09 km	a) Supply: 18.09 Km b) Laid: -13.056 km c) Testing: 12.6 km d) Commissioning: NIL
DI Pipe K9 (Transmission Mains)	32.44Km	33.08 Km	a) Supply: - 29.35 Km b) Laid: - 20.668 Km c) Testing: 19.02 km d) Commissioning: NIL
House Service Connection	12800 Nos	12800 Nos.	a) Laying/Installation: 7132 Nos. b) Testing: NIL c) Commissioning: NIL
Domestic Water Meter	12800 Nos	12800 Nos.	a) Supply: NIL b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
Metering	EMFM-13 Nos	13 Nos.	a) Supply: NIL b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
	BFM- 59 Nos.	59 Nos	a) Supply: NIL b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
Pressure Transmitters	88 Nos.	88 Nos.	a) Supply: NIL b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
No. of DMAs	20 Nos.	20 Nos.	-
RWR	-		-
WTP 10 MLD	1 No	1 No.	**Clariflocculator**- Hydrotesting completed. **Chemical House:** Plastering in progress **Admin Building**- brickwork and plastering in progress. **Staff Quarters** - Finishing works in progress **Guard room metering room** – Plaster Completed.
Pump House	4 No	4 Nos.	Santpur, Luniyapura, Market Area and Housing Board
	Santpur	Santpur	Roof slab concreting completed, Brickwork in progress
	Luniyapura	Luniyapura	Plastering completed

Contract description	Cumulative Progress of works up to 31.03.2023			
		Market Area	Market Area	Work Halted due to local issues
		Housing Board	Housing Board	Excavation completed, PCC in progress
	CWR	5 No.	5 Nos.	Santpur , Luniyapura, Market Area, Gandhinagar and Housing Board
		Luniyapura CWR	Luniyapura CWR	• Civil Work completed
		Santpur CWR	Santpur CWR	• Civil Work completed
		Market Area CWR	Market Area CWR	• Work Halted due to local issues
		Housing Board CWR	Housing Board CWR	• Civil Work completed.
		Gandhi Nagar CWR	Gandhi Nagar CWR	• Civil Work completed.
	Intake	1	1	Online application proceeds on dated 13.08.2021, Now the final proposal submitted to Nodal officer on dated 27.07.2022. Query raised by Nodal officer to DFO dated 23.08.22 and DFO replied the same on dated 28.08.2022, proposal accept & approved by Nodal officer Jaipur on Dated 13.09.2022 presently application forwarded to State Government.
	Wastewater			
	STP (02 Nos.)	6.9 MLD	6.9 MLD	**SBR**- completed. **PTU-** completed. **Staff Quarter**- Finishing work in progress. **Admin Building-** Finishing work in progress. **Guard Room & Metering Room**-Completed. **TEER**- Column upto dome beam in progress **MPS**- Completed.
		2.3 MLD	2.3 MLD	**SBR**-Completed. **PTU-** Civil work completed. **MPS-** completed. **Admin Building** – Finishing work in progress. **Staff Quarter-** Finishing work in progress **Guard Room & Metering Room**-Finishing work in progress **TEER-** Yet to be started.

Contract description	Cumulative Progress of works up to 31.03.2023

			Retaining wall- Completed.
DWC Pipes	82.39 Km	82.39 Km	a) Supply: 82.698Km b) Laid: -79.565 Km c) Testing: 75.58 Km d) Commissioning: NIL
RCC Pipes	1.59 Km	1.59 Km	a) Supply: 1.125 km b) Laid: - 1.108 km c) Testing: 1.108 km d) Commissioning: NIL
PVC-U Pipe	130 Km	130 Km	a) Supply: 93.516 Km b) Laid: - 39.935 Km c) Testing: 36.72 Km d) Commissioning: NIL
Manholes (All types)	5185 Nos.	5185 Nos.	a) Supply: 4524 nos. b) Installation: -3360 Nos. c) Testing: 3037 Nos. d) Commissioning: NIL
Inspection Chamber (All types)	13000 Nos.	13000 Nos.	a) Supply: 8122 Nos. b) Installation: - 7919 Nos. c) Testing:7378 nos. d) Commissioning: NIL
Population benefitted due to commissioned	66016	66016	

For Road Cutting & Restoration-

Item Description	Scope of Work	Progress made so far
Road Cutting	95.35 Km	• Kuccha: - 9.22 Km • CC-66.26 Km • BT- 7.4 Km
Road Restoration	95.35 Km	• Kuccha: -9.22 Km (Only Kuccha) • CC Km (up to PCC-65.365 km, Full CC-65.641 km • BT Km (up to WMM)-6.92 km

Building and Miscellaneous work

Item Description	Scope of Work	Progress made so far
CRMC Building	1	Brickwork and Plastering in progress
CCC Building	1	Final painting pending
MCC Building	1	Finishing work pending
PLC SCADA	11	Drawings under review
Trenchless Work		
HDPE Pipe	15.78 km	a) Supply: 15.79 Km b) Laid: - 14.596 Km c) Testing: 10.12 Km d) Commissioning: NIL
RCC Pipe	1.59 km	a) Supply: 1.125 km b) Laid: - 1.108 km c) Testing: 1.108 km d) Commissioning: NIL
MS Pipe	210 mtrs	a) Supply: NIL b) Laid: - NIL c) Testing: NIL d) Commissioning: NIL

Town: Sirohi

Contract description	Cumulative Progress of works up to 31.03.2023

Package no - RSTDIP/SHR-ABR/01

Works under package- Construction works of water Supply production; Distribution Network improvements with house services connections for non-revenue water reduction and continuous water supply and providing Sewer network with house sewer connections; along with Construction of Sewage Treatment Plant and all allied works and operation services of the entire system for 10 years at Sirohi

Name of Contractor- M/s-Larsen& Toubro Limited

Contract type- Design, Build and Operate

Date of Start- 22.06.2020

Cumulative Financial Progress- 46.0%

Cumulative Physical Progress- 76.00 %

Stipulated Date of completion of Design Build- 21.06.2024

Water Supply

Item	Scope of work	SIP Scope	Progress
HDPE Pipe	118 Km	129.198 km	a) Supply: - 132.829 km b) Laid111.831 km c) Testing: - 110.500 km d) Commissioning:- NIL
DI Pipe K7	5.4 Km	5.257 km	a) Supply: - 6.331 km b) Laid: - 3.393 km c) Hydro Testing: - 3.393 km d) Commissioning:- Nil
DI Pipe K9	36.76 Km (as per BOQ) Revised -29.92 Km	24.730 km	a) Supply: - 27.620 km b) Laid: - 23.504 km c) Hydro Testing: - 23.209 km d) Commissioning:- Nil
House Service Connection	8900 Nos	12428 Nos.	a) Laying/install: - 7923 nos b) Testing: - 7646 nos c) Commissioning:- Nil
Domestic Water Meter	8900 Nos	12428 Nos.	a) Supply: - 1273 Nos. b) Installation: - Nil c) Testing: - Nil d) Commissioning: - Nil
Metering	EMFM-10 Nos	EMFM- 10 Nos.	a) Supply: - 10 Nos. b) Installation: - Nil c) Testing: - Nil d) commissioning: - Nil
	BFM- 11 Nos.	BFM- 32 Nos	a) Supply: - 20 Nos. b) Installation: - Nil c) Testing: - Nil. d) commissioning: - Nil
Pressure Transmitters	47 Nos.	51 Nos.	a) Supply: - 51 Nos. b) Installation: - Nil c) Testing: - Nil d) Commissioning: - Nil
No. of DMAs	20 Nos. (with 7 Nos Zones)	-	As per revised scheme
Intake	8.60 MLD Intake well at Angore	-	Soil investigation has been done. Construction permission of Intake well received from WRD. Approach Channel bridge excavation done by 50m. length & PCC also done for 6 footings.
	3.90 MLD Intake well at Kalkaji	-	Source Deleted (As per revised scheme)
WTP	9 MLD WTP at Angore	-	Cascade Aerator Columns Beams completed. Staff quarter sanitary fittings and window fittings work completed, Filter house 4th wall lift completed. Walk way slab over clear water

Contract description	Cumulative Progress of works up to 31.03.2023			
				channel completed and columns are completed. Cascade Aerator, Distribution chamber, Parsal flume and by pass Channel bottom beam & Slab completed, Wall and Chambers shuttering & reinforcement is completed. Sludge storage yard beam completed. Chemical house PACL storage wall Completed. Admin building 1st floor roof slab Completed Brick work completed & Plastering work is in progress. Clarifloculator inner side wall completed and outer wall londer slab & final lift completed. CLF walk way completed. CWR sump portion and raft completed. Side wall final lift Completed.
	Pump House (3 Nos)	1. At Teen Batti 2. At Kalkaji 3. At Sardulpura	-	1. **Teen Batti CWR-PH**: - Raft completed. Side wall shuttering & reinforcement work is in progress. 2. **Kalkaji CWR-PH: -**, Excavation & PCC completed, PCC laid.3. **Sardulpura CWR-PH** :- Excavation & PCC completed Raft Steel & shuttering work is in progress.
	CWR	Existing CWR (3 Nos.) 1. 200 KL at Teen Batti 2. 567 KL at Kalkaji 3. 100 KL at Sardulpura	-	
		Proposed CWR (3 nos) 1. 470 KL at Teen Batti 2. 1450 KL at Kalkaji 3. 270 KL capacity at Sardulpura	-	1. **Teen Batti CWR-PH: -** Hydro Test is in Progress. 2. **Kalkaji CWR-PH**: - CWR sump portion 5th lift completed. CWR wall 4th lift completed and 5th lift reinforcement & shuttering work is in progress.3. **Sardulpura CWR-PH: -** Sump 2nd lift wall completed, CWR 2nd lift wall Completed. 3rd lift shuttering & reinforcement is in progress.
	GLSR	Existing GLSR (3 Nos.) 1. 567 KL at Tankariya on hillocks	-	Comes under refurbishment plan

Contract description	Cumulative Progress of works up to 31.03.2023			
		2. 400 KL at Bhatakhera on hillocks 3. 200 KL at Bhatakhera hillocks		
		Proposed GLSR 1. 270 KL at Bhatakhera on hillocks 2. 580 KL at Tankeria on hillocks	-	-
	Tube well & Open Well	12 nos of existing tube wells and open wells 6 nos. of existing open well 2. 6 nos. of existing tube well	-	Comes under refurbishment plan
	OHSR	Existing OHSR 2 nos of existing OHSR to be used 1. 200 KL capacity existing OHSR at RHB 2. 270 KL capacity existing OHSR at Sardulpura	-	Comes under refurbishment plan
		Proposed OHSRs	-	-
	Population benefitted due to commissioned	35000		-
	Wastewater			
	STP (2 nos.)	5 MLD	-	**STP (5 MLD): -** SBR civil work completed and decantor fixed and Hand railing & finishing work is in progress, TEER civil work completed and hydro test completed. Admin building GF roof Slab Done, 1st floor roof slab

Contract description	Cumulative Progress of works up to 31.03.2023			
				completed, Brick work is in progress. 1st floor roof slab above the Blower room completed. Blower and piping works is in progress. PTU Completed Hand railing completed. Staff quarter Painting work is in progress. Guard room & metering room Brick & Plastering is in progress. MPS civil work completed, sludge tank over admin building completed. Sludge storage yard plinth beam completed, Column Completed up to roof. RMU, Transformer, DG set foundation completed.
		1.7 MLD	-	**STP (1.7 MLD): -** PTU completed. TEER civil work completed and TEER hydro test completed. SBR civil work completed and decantor fixing work completed, Sluice gate and screen chambers installation work is in progress. Staff quarters plaster completed and flooring work is in progress. Admin building handrail and 1st floor Roof slab completed and brick work is in progress. Sludge storage yard plinth beam completed, Column completed. RMU and DG set foundation completed. MPS civil work completed. RMU, Transformer, DG set foundation completed.
	MPS	-	-	**STP (5 MLD): -.MPS** Civil work completed.**STP (1.7 MLD): -**. Civil work completed.
	SPS	-	-	-
	Lateral Sewer (upto dia 315)	78.76 Km	79.010 Km	a) Supply: - 71.698 km b) Laid: - 68.085 km c) Testing: - 67.168 km d) Deflection test: - 67.168 km e) Commissioning:- Nil
	Outfall (above dia 315)	3.9 Km	1.658 Km	a) Supply: - 1.600 km b) Laid: - 1.398 km c) Testing: - 1.398 km d) Commissioning:- Nil
	PVC-U Pipe (110 & 160 mm dia)	90 Km	—	a) Supply: - 49.973 km b) Laid: - 33.203 km c) Testing: - 32.600 km d) Commissioning:- Nil

Contract description	Cumulative Progress of works up to 31.03.2023

Manholes (All types)	5990 .	4800 Nos.	a) Supply: - 3200 nos b) Installation: - 3134 nos c) Testing: -3134 nos a) Commissioning:- Nil
Inspection Chamber (All types)	9000 .	11002 Nos	a) Supply: - 5586 nos b) Installation: - 4916 nos c) Testing: - 4916 nos d) Commissioning: - Nil

For Road Cutting & Restoration-

Item Description	Scope of Work	Progress made so far
Road Cutting	Granular Course - 31585 cum CC- 20,980 cum BT -3170 cum	Kachha/WMM: - 81.750 km CC:- 39.20 km BT:- 5.87 km
Road Restoration	Granular Course - 31585 cum CC- 20,980 cum BT -3170 cum	a) CC: 38.30 Km (upto PCC); 38.00 Km (upto CC) b) BT: 4.15 Km (upto WBM); 4.15 Km (upto BT) Kachha/WMM:- 81.750 km

Building and Miscellaneous work

Item Description	Scope of Work	SIP Scope	Progress made so far
CRMC Building	1	-	CRMC civil work completed. Doors & window installation completed.
CCC Building	1	-	CCC civil work completed. Doors & window installation completed.
MCC Building	1	-	MCC building plastering and finishing work is in progress.
PLC SCADA	-		-
Trenchless Work			
HDPE Pipes	10.8 Km	9.59 km	A) Supply: - 9.069Km B) Laid: - 7.986 Km C) Testing: - 7.986 Km D) Commissioning:- Nil
RCC Pipes	-		-
MS Pipes	-		-

Town: Pratapgarh

Contract description	Cumulative Progress of works up to 31.03.2023
	Wastewater

Contract description

Package no - RSTDIP/PRT/01

Works under package- Construction Works of Providing Sewer Network with House sewer connections along with construction of Sewage Treatment Plant & Sewage pumping Station and all allied Work and operation services of the entire system for 10 years at Pratapgarh town

Name of Contractor- Khilari Infrastructure PVT.LTD.

Contract type- Design, Build and Operate

Date of Start- 02.11.2020

Cumulative Financial Progress- 61.0%

Cumulative Physical Progress- 80.0 %

Stipulated Date of completion - 01.11.2024

Cumulative Progress of works up to 31.03.2023

Item	Scope	SIP Scope	Progress
STP (1 nos.)	7 MLD	7 MLD	50.36%
MWP	0.1 MLD	0.1 MLD	60.09%
SPS	7 MLD	7 MLD	62.24 %
Lateral Sewer (up to dia 315)	92.69 Km	107.678 km	a) Supply: 103.802 Km b) Laid: -100.792 Km c) Testing: 100.792 Km d) Deflection Test: NIL e) Commissioning: NIL
Outfall (above dia 315)	7.665 Km	3.103 KM	a) Supply: 2.750 Km b) Laid: -2.695 km c) Testing: 2.695 km d) Commissioning: NIL
PVC-U Pipe (110 & 160 mm dia)	108 KM	88.091 KM	a) Supply: 73.296 Km b) Laid: -60.02 km c)Testing: 58.29 km d) Commissioning: NIL
Manholes (All types)	6884 Nos.	6831 Nos	a) Supply (P1, P2, P3): 4313 nos b) Installation:5897 Nos. c) Testing: 5370 Nos. d) Commissioning: NIL
Inspection Chamber (All types)	10800 Nos.	11188 Nos	a) Supply: 10345 nos b) Installation: -10098 nos. c) Testing: 9065 Nos. d) Commissioning: NIL
House connection	11100	11418	

For Road Cutting & Restoration-

Item Description	Scope of Work	SIP Scope	Progress made so far
Road Cutting	a) CC: 29.6 Km b) BT: 64.2 Km c) Kuchha/WMM: 8.8 Km	a) CC: 51 Km b) BT: 58 Km c) Kuchha/WMM: 8.3 Km	• CC-44.564 Km • BT-42.659 Km • Kuccha/WMM: -11.706 Km • Interlock tiles: 1.108 km
Road Restoration	a) CC: 29.6 Km b) BT: 64.2 Km c) Kuchha/WMM: 8.8 Km	a) CC: 51 Km b) BT: 58 Km c) Kuchha/WMM: 8.3 Km	**a) CC:**44.451 km (up to PCC), 44.451 km (up to CC) **b) BT:**42.550 km (up to WMM) 41.592 km (up to BT) **c) Kuccha**-11.706 Km **d) Interlock tiles**-0.782 km

Building and Miscellaneous work

Item Description	Scope of Work	SIP Scope	Progress made so far
CRMC Building-1	1	1	90.32%

Contract description	Cumulative Progress of works up to 31.03.2023			
	CRMC Building -2	1	1	90.24%
	CCC Building	0	0	-
	MCC Building	2	2	Including STP & SPS
	PLC SCADA	2	2	Including STP & SPS
	Trenchless Work			
	HDPE Pipes/DI K7	8.950 km	6.756 km	a) Supply: 3.734 km b) Laid: -3.450 km c) Testing: 3.450 km d) Commissioning: NIL
	RCC Pipes (600 to 765MM)	0.245 km	0.0 km	a) Supply: 0.0 Km b) Laid: - 0.0 Km c) Testing: NIL d) Commissioning: NIL
	MS Pipes	NIL	206 Mtr	a) Supply:206 Meter b) Laid: - 151 Meter c) Testing: Meter d) Commissioning: Meter

Town: Banswara

Contract description	Cumulative Progress of works up to 31.03.2023		
Package no - RSTDIP/BNS/04 **Works under package-** Construction Works of Water Supply Production and Distribution Network Improvements with house service connections for nonrevenue water reduction and continuous water supply and Providing Sewer Network with House sewer connections along with construction of Sewage Treatment Plant & Sewerage Pumping Station and all allied Works and operation services of the entire system for 10 years at Banswara. **Name of Contractor-** BIPL-SC-HP Joint Venture **Contract type- Design, Build and Operate** **Date of Start-** 01.02.2021	**Water Supply**		
	Item	**Scope**	**Progress**
	Total distribution network	**353.675 km**	
	HDPE Pipe	57.612 km	a) Supply: - 44.577 km b) Laid: - 41.808 km c) Testing: - 38.730 km d) Commissioning: - 0.0 km
	DI Pipe K7	287.386 km	a) Supply: - 271.725 km b) Laid: - 257.046 km c) Hydro Testing: - 254.340 km d) Commissioning: - 0.0 km
	DI Pipe K9	8.677 km	a) Supply: - 7.952 km b) Laid: - 2.7 km c) Hydro Testing: - 0.0 km d) Commissioning: - 0.0 km
	House Service Connection	24111 Nos	a) Laying/Installation: - 15753 Nos. b) Testing: - NIL
	Domestic Water Meter	24111 Nos.	a) Supply: - 1000 Nos. b) Installation: - 721 Nos. c) Testing: - NIL
	Metering	EMFM- 32 Nos	a) Supply: - NIL b) Installation: - NIL. c) Testing: NIL d) commissioning: - NIL
		BFM- 18 Nos.	a) Supply: NIL b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL

Cumulative Financial Progress- 57.0% **Cumulative Physical Progress- 71.0%** **Stipulated Date of completion –** 31.01.2025	Pressure Transmitters	72 Nos.	a) Supply: NIL b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
	No. of DMAs	28 Nos.	
	WTP	1 no.= 9.25 MLD (AEn Campus)	**Clariflocculator CLF-01.** – RCC work completed. **Clariflocculator CLF-02.** - RCC work completed. **Admin Building**: Civil work completed, finishing work under progress. **Inlet Chamber and connecting chamber**- Inlet chamber excavation work is under progress. **CCT-** RCC work is completed. **Sand Filter Bed-**4th lift vertical wall reinforcement and formwork is under progress. **Annex Building:** - Column up to slab reinforcement and formwork is under progress. **Backwash Recovery tank:** - 1st lift reinforcement and formwork work is under progress.
	Pump House	1. At Existing AEn Campus 2. At Kagdi WTP Campus	Excavation Work is under Progress.
	CWR	CWR-1550 KL (AEn Campus, PHED main campus)	Slab Reinforcement and formwork work is under progress
	OHSR	-	-
	Rehab work (WTP,PH,CWR, OHSR etc.)	-	-
	Population benefitted due to commissioned	-	-
	Wastewater		
	STP (1 nos.)	9.60 MLD (existing STP Campus)	1. **SBR**- - Outer wall walkway Reinforcement and Formwork is under Progress. 2. **MPS**- Civil work is completed. 3. **Staff Quarter**- Civil work complete and finish work is under progress. 4. **TEER**- RCC work is completed and finishing is under progress 5. **Admin Building**- RCC work is completed, Brick Masonry work is under progress. 6. **TESR-** RCC work is completed and Finishing work is under progress. 7. **PTU**- 2nd lift vertical wall reinforcement and formwork work is under progress. **8.CCT-** RCC work is completed.

		9.Sludge Building- RCC work is completed and Brick Masonry work is under progress. **10.Sludge Sump-** RCC work is completed. **11.Inlet Chamber-**Distribution chamber 2nd lift Reinforcement
SPS	SPS-1 : 0.60 MLD (Ward no. 21 near Nathelav Pond)	Panel room finishing work is under progress
	SPS-2: 1.7 MLD (Ward no. 1 near Pratapgarh Road)	Inlet chamber excavation work is under progress.
Lateral Sewer (up to dia 300 HDPE-DWC)	Total = 99.456 km	a) Supply: 92.830 km b) Laid: - 90.695km c)Testing: - 90.695 km d)Deflection test: 88.170 Km e) Commissioning-0 km
Outfall (above dia 300 RCC NP4)	Total = 2.668 km -	a) Supply: 1.279 km b) Laid: 1.113 km c)Testing:0 Km d)Commissioning: -0 km
PVC-U Pipe (110 & 160 mm dia)	138 Km	a) Supply: - 57.887 km b) Laid: - 46.704 km c)Testing: - NIL d)Commissioning: - NIL
Manholes (All types)	Total= 5578 Nos. Precast RCC MH=3256 nos Shallow MH= 2090 nos Sewer-Brick MH=232	a) Supply: 3218 nos b) RCC manhole Installation: -2829 Nos c) Shallow manhole :1692 nos d) Type A- 40 Nos e) Type C- 14 Nos e) Testing: 4515 Nos. f) Commissioning: 0 nos.
Inspection Chamber (All types)	11251 nos.	a) Supply: 8394 nos b) Installation: -8615 Nos. c) Testing: 0 Nos. d) Commissioning: NIL
HSC	11251 nos.	2100 Nos.
Population benefitted due to commissioned	-	-

For Road Cutting & Restoration-

Item Description	Scope of Work	Progress made so far
Road Cutting	-	a) CC:- 47.911 km b) BT: -39.095 km c) Kuccha/WMM: - 210.553 km • Interlock Tiles: - 3.995 km
Road Restoration		a) CC: - (upto PCC):-46.618 km (upto CC):- 46.279 km b) BT: - Nil (upto WMM); 38.376 km Nil(upto BT):- 38.190 km c)Kuccha/WMM: - 210.553 km d)Interlock Tiles: - 3.995 km

Building and Miscellaneous work

	Item Description	Scope of Work	
	CRMC Building (03 Nos.)	**1. At AEN campus**	**1. CRMC (AEN Campus)-** Civil Work is Completed and finishing work is under progress
		2. At Dahod Road(Khandu Colony)	**2. CRMC (Khandu Colony)-** Civil Work is Completed and finishing work is under progress.
		3. At Housing board colony	**3. CRMC (housing board)-** Civil Work is Completed and finishing work is under progress.
	CCC Building 1 No.	**At AEN campus**	Civil Work is Completed and finishing work is under progress. (Physical progress-85.0%)
	MCC Building 1 No.	At AEn Campus	Civil Work is Completed and finishing work is under progress. (Physical progress-85.0%)
	PLC SCADA	-	Nil
	Trenchless Work		
	HDPE pipe (Trenchless)	Total=6.040 km	a) Supply: - 2.952 km b) Laid: - 2.623 km c) Testing: - 0.0 km d) Commissioning: -0.0 km

Town: Kuchaman

Contract description	**Cumulative Progress of works up to 31.03.2023**			
Town: Kuchaman				
Package no - RSTDIP/KMN/02 **Works under package-** Construction Works of Water Supply Production and Distribution Network Improvements with house service connections for nonrevenue water reduction and continuous water supply and Providing Sewer Network with House sewer connections along with construction of Sewage Treatment Plant and Sewerage Pumping Station: all allied Works and operation services of the entire system for 10 years at Kuchaman **Name of Contractor-** M/s. Larsen & Turbo Pvt. Ltd. **Contract type- Design, Build and Operate**	**Water Supply**			
	Item	**Scope of work**	**SIP Scope**	**Progress**
	Total distribution network	**343.59 km**	**417.64 km**	**-**
	HDPE Pipe	327.7 km	400.57 km	a) Supply: 290.70 Km b) Laid: - 233.975 Km c) Testing: 219.0 Km d) Commissioning: 0.0 km
	DI Pipe K7	4.8 Km	6.14 km	a) Supply: 4765 mtr b) Laid: -4765.6 mtr c) Hydro Testing: 3200 mtr d) Commissioning: 0.0 km
	DI Pipe K9	11.13 km	10.93 km	a) Supply:10870 mtr b) Laid: - 6568.4 mtr c) Hydro Testing: 5000 mtr d) Commissioning: km
	House Service Connection	14900 Nos	14900 nos.	a) Laying/Installation: - b) Laid: -6800 Nos. c) Testing: 5970 Nos. d) Commissioning: 0 Nos
	Domestic Water Meter	14900 Nos	14900 nos.	a) Supply: NIL b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
	Metering	EMFM	EMFM	a) Supply: NIL b) Installation: -NIL

Contract description	Cumulative Progress of works up to 31.03.2023			
Date of Start- 18.5 2021 **Cumulative Financial Progress- 40.0%** **Cumulative Physical Progress- 47.0%** **Stipulated Date of completion –** 31.10.2024				c) Testing: NIL d) Commissioning: NIL
		BFM	BFM	a) Supply: NIL b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
	Pressure Transmitters	0 Nos.	-	a) Supply: NIL b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
	No. of DMAs	12 Nos.	23 nos.	-
	RWR	-	-	-
	WTP	NIL		-
	Pump House	4 nos.		Excavation in progress
	CWR 04 Nos.	CWR 1 (600 KL)	CWR 1 (600 KL)	PCC and raft of CWR & first lift (1.2 m) of sump and excavation & PCC of pump house is completed and reinforcement work is in progress.
		CWR 2 (1200 KL)	CWR 2 (1200 KL)	Pump House and CWR completed up to 2.4 mtr and shuttering of balance work is in progress.
		CWR 3 (920 KL)	CWR 3 (920 KL)	1st lift of CWR wall completed. Excavation work of pump house is in progress.
		CWR 4 (730 KL)	CWR 4 (730 KL)	Concreting of CWR slab and pump house first roof slab completed and reinforcement & shuttering work of column is in progress.
	OHSR	Nil		-
	Rehab work (WTP,PH,CWR, OHSR etc.)	-		-
	Population benefitted due to commissioned	-		-
	Wastewater			
	STP (1 nos.)	7.60 MLD		1. **TEER:** Column up to third bracing completed and shuttering and reinforcement of columns after third bracing & staircase under progress.

Contract description	Cumulative Progress of works up to 31.03.2023			
				2. **Admin building** – Concrete work of first floor completed and shuttering and reinforcement of second floor slab & brick work are under progress. 3.**SBR**' Centre walks way is completed and shuttering and reinforcement work of side walk way is in progress. 4.**Staff quarter** RCC work completed and brick work is in progress. 5. **MPS:** Concreting work of second lift (7.2 mtr) completed and Reinforcement & shuttering of fourth lift vertical wall is in progress. Note: - Civil Work Progress - 63.36% Overall Progress - 25.01%
	SPS	3.10 MLD	3.10 MLD	Land allotted by Nagar parishad on dated 03.11.2022. Guard Room PCC Done. Wet Well excavation done 2 mtr. and PCC of Wall Done for Sinking. Work stopped by local public.
		0.85 MLD	0.85 MLD	RCC work of wet well, guard Room & meter room completed and brick work to be started. Note: - Civil Work Progress - 63.09% Overall Progress - 24.15%
	MPS	1	1	Reinforcement & shuttering work of wall for Sinking work in progress.
	Lateral Sewer (up to dia 315)	148.942 Km	136.28 Km	a) Supply: 122.364 Km b) Laid: - 86.803 Km c) Testing: 50.407 Km d) Deflection Test:49.525 Km d) Commissioning: 0 km
	Outfall (above dia 315)	3.62 Km	3.38 km	a) Supply: 3.20 km (Total) RCC Pipe (350mm)-603 mtr RCC Pipe (400mm)-540 mtr RCC Pipe (500mm)-725 mtr RCC Pipe (600mm)- 562.50 mtr b) Laid: - 3.02 km c) Testing: 2335 mtr d) Commissioning: Nil
	PVC-U Pipe (110 & 160 mm dia)	108.0 Km	60.2 km	a) Supply: 60.2 Km b) Laid: -29.0 Km c) Testing: 22.0 Km

Contract description	Cumulative Progress of works up to 31.03.2023

			d) Commissioning: NIL
Manholes (All types)	10352 Nos.	7910 km	a) Supply: 4889 nos b) Installation: -4156 Nos. c). Testing: 3500 Nos. d) Commissioning: 0 nos.
Inspection Chamber (All types)	10800 Nos.	10800 nos.	a) Supply: 6110 nos b) Installation: -4710 Nos. c) Testing: 3645 Nos. d) Commissioning: NIL
Population benefitted due to commissioned	-		-

For Road Cutting & Restoration-

Item Description	Scope of Work	Progress made so far
Road Cutting	a) CC:47.01 Km b) BT:14.9 Km c) WMM: 0 Km d) Kuchha: 125.7	**a)** CC-61.66 km **b)** BT-11.15 km **c)** WMM: -Km **d)** Kaccha: 161.16 km
Road Restoration	a) CC: 45.99Km b) BT: 4.50 Km c) Kuchha: 125.7 d) WMM: 0 Km	**a) CC:** 61.23 km (up to CC) **b) BT:** 9.27 km (up to PMC) 0 km (up to BT) **c) WMW: 2.03 km** d) Kaccha: 161.16
Balance Road Restoration (Km)	a) CC: Km b) BT: Km c) WMM: Km d) Kuchha	**a)** CC-0.43 km **b)** BT-1.88 km **c)** WMM: -Km **d)** Kaccha: Nil

Building and Miscellaneous work

S.No.	Item Description	Scope of Work	SIP Scope	Progress made so far
A	CRMC centre	CRMC 01	CRMC 01	Required land for SPS01 and CRMC 01 is demanded 40X40 m but Nager parishad has provide land 2102.37 Sq. ft. Which less against required land, so SPS will be on priority after that space available for CRMC building would be constructed.
		CRMC 02	CRMC 02	Sanitary fitting and finishing work in progress.
B	CCC Building	1	1	work completed up to first floor slab and shuttering of first slab is in progress.
C	MCC Building	1	1	Excavation and PCC of footings completed. No work

Contract description	Cumulative Progress of works up to 31.03.2023				
					since last six and half months.
	D	PLC SCADA	1	1	NIL
	Trenchless Work				
	A	HDPE Pipes	8.2 Km	10.11 KM	a) Supply: 7.70 km b) Laid: -6.881 km c) Testing: Nil d) Commissioning: Nil
	B	RCC Pipes	3.620 Km		a) Supply: 2.11 Km b) Laid: -1.028 Km c) Testing: Nil d) Commissioning: Nil
	C	MS Pipes	-	-	a) Supply: Meter b) Laid: - Meter c) Testing: Meter d) Commissioning: Meter

Town: Didwana

Contract description	Cumulative Progress of works up to 31.03.2023			
Package no - RSTDIP/DID/01 **Works under package-** Construction Works of Providing Sewer Network with House sewer connections along with construction of Sewage Treatment Plant & Sewage pumping Station and all allied Works and operation services of the entire system for 10 years at Didwana **Name of Contractor-** M/s. Larsen & Turbo Limited **Contract type- Design, Build and Operate** **Date of Start-** 18.5.2021 **Cumulative Financial Progress- 56.0%** **Cumulative Physical Progress- 62.0%** **Stipulated Date of completion –** 16.05.2024	**Wastewater**			
	Item	**Scope**	**SIP Scope**	**Progress**
	STP	3.0 MLD	3.0 MLD	• BEP Approved • GA drawing approved. • Hudraulic & Process Flow diagram approved. • Piping and instrumentation diagram approved. • TEER design calculation, Numeration, piping arrangement drawing and RC detail approved. • Guard & Metering Room architectural, Numeration and RC detail approved • Staff quarter architectural, Numeration and RC detail approved • **SBR Unit: -** Excavation and PCC and raft completed. 5th & Final Lift wall Concrete completed. • **PTU** Excavation, PCC, Raft, slab, stairetc. work completed. • **Admin Building**: - Excavation & PCC &footing & 1st floor roof slab reinforcement completed. Brick work is going on. • **TEER**: - PCC, Raft completed & 1st Brace Beam WIP. • **Staff Quarter**: - PCC, Footing & Plinth Beam& Lintel beam & GF & 1st floor slab completed. Brick work is going on.

				• **MPS:-** Reinforcement & Shuttering of 4th liftcompleted.
	MPS	-	-	-
	SPS 02 Nos.	SPS-1: 1.7 MLD (Salt area)	SPS-1: 1.7 MLD (Salt area)	Sinking of sump is completed up to 6th lift.
		SPS -2: 1.3 MLD (RSEB Campus)	SPS -2: 1.3 MLD (RSEB Campus)	Boundary wall & Sump work Completed. Guard Room & Meter Room Excavation & PCC completed.
	Lateral Sewer (upto dia 315)	• 200 mm HDPE DWC SN8)-1600mtr • 250 mm HDPE -100/PN-6)-6500mtr • 250 mm HDPE DWC SN8)-48400mtr • 315 mm (HDPE-100/PN-6)-975 mtr	• 200 mm (HDPE DWC SN8) -42739mtr • 250 mm (HDPE PE-100/PN-6) – 4837mtr • 250 mm (HDPE DWC SN8) – 640mtr • 315 mm (HDPE PE-100/PN-6) – 1149mtr	a) Supply: 200 mm (DWC): 42.738 km 250 mm (DWC): 0.800 km b) Laying Laid: -42.717 Km (200 mm DWC) Laid: 0.666 Km (250mm DWC) c) Testing: 42.717 Km d) Deflection Test: 42.717 Km e) Commissioning: 14.743 km
	Outfall (above dia 315)	• 350mm (RCC NP-4) – 200mtr • 400mm (HDPE PE-100/PN-6) – 2525mtr • 900mm(RCCNP-4) – 800 mtr	• 350mm (RCC NP-4) – 366mtr • 400mm (HDPE PE-100/PN-6) – 43 mtr • 900mm(RCCNP-4) – 800 mtr	a) Supply: 0.50 Km b) Laid: - 0.453 Km c) Testing: 0.175 Km d) Commissioning: NIL

PVC-U Pipe (110 & 160 mm dia)	• 110mm - 37490mtr • 160mm – 6510mtr	• 110mm – 16782 mtr • 160mm – 2916mtr	a) Supply: 19.992 Km (110 mm) 2.916 km (160 mm) b) Laid: - 16.517 km (110 mm) c) Laid: - 2.916 km (160 mm) d)Testing: 14.5 (110mm) e) Testing: 2.90 km (160mm) f) Commissioning: 4.875 km
Manholes (All types)	4137 (Nos)	2372 (Nos)	a) Supply: 2238 nos b) Installation: 2181 Nos. c) Testing: 2050 Nos d) Commissioning: 693 nos.
Inspection Chamber (All types)	4400 Nos	3283 Nos	a) Supply: 3344 nos b) Installation: -3101 nos. c) Testing:2790 Nos d) Commissioning: 935 Nos
Population benefitted due to commissioned	36184	36184	-
House Sewer Connection	3800 (Nos)	3283 Nos.	970 Nos Completed
DI Pumping Main	150mm-1100 mtr 200 mm-2600 mtr	300mm-1300 mtr 250 mm-2400mtr	Supply:- 2310.0 Mtr (250mm)

For Road Cutting & Restoration-

Item Description	Scope of Work	Progress made so far
Road Cutting	a) CC: Km b) BT: Km c) Kuchha/WMM: Km	a) CC: 25.147 km b) BT: 5.245 km c) WBM: 0.447 km d) Kuccha: 12.220 km e) Interlocking Tiles: 0.778 km
Road Restoration	a) CC: Km b) BT: Km c) Kuchha: Km	**a) CC:** 25.055 km (up to PCC) 25.055 km (up to CC) **b) BT:** 5.245 km (up to WBM) 5.245 km (up to BT) **c) WBW: 0.447 Km** d) Kaccha: 12.220 km e) Interlocking Tiles : 0.778 Km

Building and Miscellaneous work

Item Description	Scope of Work	SIP Scope	Progress made so far
CRMC Building	1	1	Civil work 100% Completed.
CCC Building	-	-	-
MCC Building	-	-	-
PLC SCADA	-	-	-
Trenchless Work			

	HDPE Pipes	• 250mm (HDPE PE-100/PN-6) – 6500 mtr • 315mm (HDPE PE-100/PN-6) – 975 mtr • 400mm(HDPE PE-100/PN-6) – 2525 mtr	• 250mm (HDPE PE-100/PN-6) – 4837 mtr • 315mm (HDPE PE-100/PN-6) – 1149 mtr • 400mm(HDPE PE-100/PN-6) – 43 mtr	a) Supply: 6.425 km (250,315,400 mm) b) Laid: - 5.427 Km (250mm HDPE) c) Laid: 0.872 Km (315 mm HDPE) c) Testing:6.299 km d) Commissioning: 2.25 km
	RCC Pipes	NIL		a) Supply: Nil b) Laid: Nil c) Testing: Nil d) Commissioning: Nil
	MS Pipes	NIL		a) Supply: Nil b) Laid: Nil c) Testing: Nil d) Commissioning: Nil

Town: Ladnu

Contract description	**Cumulative Progress of works up to 31.03.2023**		
Package no - RSTDIP/LDN/01 **Works under package-** Construction Works of Providing Sewer Network with House sewer connections along with construction of Sewage Treatment Plant and all allied Works and operation services of the entire system for 10 years at Ladnu (Nagaur) **Name of Contractor-** M/s. Larsen & Turbo Limited **Contract type- Design, Build and Operate** **Date of Start-** 18.5 2021 **Cumulative Financial Progress- 34.0%**	**Waste Water**		
	Item	**Scope**	**Progress**
	STP (2 nos.)	5.5 MLD	**Staff quarter**: - work complete up to Plinth beam bottom. **Admin Building**: - Second Floor Slab Completed. **SBR Unit** Walkway casting completed. **TEER Unit**: - Column casting up to 1st bracing bottom. There was no work after 24.07.2022.**PTU Unit**:- Slab work completed
		2.4 MLD	**SBR** PCC completed and reinforcement cutting and binding in progress. PTU PCC Completed. Adming Building: PCC completed. Staff quarter : PCC in progress.
	Lateral Sewer (up to dia 315)	97.164 km	a) Supply: 75.0 Km b) Laid: -72.520 Km c) Hydro Testing: 69.0 km d) Deflection Test: Nil e) Commissioning: Nil
	Outfall (above dia 315)	9.527 km	a) Supply: 6.260 km b) Laid: -5.955 km c) Testing: Nil d) Commissioning: Nil

Cumulative Physical Progress- 44.0 %

Stipulated Date of completion – 16.5.2024

PVC-U Pipe (110 & 160 mm dia)	78.88 Km	a) Supply: 47.982Km b) Laid: -31.531 km c) Testing: Nil d) Commissioning: Nil
Manholes (All types)	5355 nos.	a) Supply: 3431 nos b) Installation: 3144 Nos c) Testing: NIL d) Commissioning: NIL
Inspection Chamber (All types)	13148 Nos.	a) Supply: 6539 nos. b) Installation: -6279 nos. c) Testing: NIL d) Commissioning: NIL
Population benefitted due to commissioned	-	-

For Road Cutting & Restoration-

Item Description	Scope of Work	Progress made so far
Road Cutting	a) CC: Km b) BT: Km c) Kuchha/WMM: Km	a) CC: 58.176 km b) BT:5.085 km c) Kuccha/WMM:11.412 km
Road Restoration	a) CC: Km b) BT: Km c) Kuchha/WMM: Km	**a) CC/CB: 56.800 km** (up to PCC/CB)) **b) BT:** 3.334 km (up to WBM) 2.95 km (up to PMC layer with seat coat) a) WBW/Kuccha: 11.412 km **b)**
	Balance Restoration	a) CC/CB: 1.376 km b) BT: 2.138 km c) Kucha:0 Km

Building and Miscellaneous work

Item Description	Scope of Work	Progress made so far
CRMC Building	2	Civil work up to finishing level completed. Water supply, sanitary and furnishing work is in progress.
CCC Building	0	-
MCC Building	0	-
PLC SCADA	1	-
Trenchless Work		
HDPE Pipes	6.048 km	a) Supply: 3.258 Km b) Laid: -1.911 Km c) Testing: NIL d) Commissioning: NIL
RCC Pipes	2.55 Km	a) Supply: NIL b) Laid: -NIL c) Testing: NIL d) Commissioning: NIL

	MS Pipes	0.06 km	a) Supply: NIL b) Laid: -NIL c) Testing: NIL d) Commissioning: NIL

Town: Makrana

Contract description	**Cumulative Progress of works up to 31.03.2023**			
Package no - RSTDIP/MKN /01 **Works under package-** Construction Works of Providing Sewer Network with House sewer connections along with construction of Sewage Treatment Plant & Sewage pumping Station and all allied Works and operation services of the entire system for 10 years at Makrana **Name of Contractor-** M/s. Larsen & Turbo Limited **Contract type- Design, Build and Operate** **Date of Start-** 18.5.2021 **Cumulative Financial Progress- 56.0%** **Cumulative Physical Progress 67.0%** **Stipulated Date of completion –** 16.5.2024	**Wastewater**			
	Item	**Scope of work**	**SIP Scope**	**Progress**
	STP (01 No.)	7.7 MLD	7.7 MLD	• The BEP of C Tech STP approved. • **Admin Building:** Removal of Shuttering and Props for Sludge Dewatering Base Slab and Beam is in progress completed up to 47 %. Casting of Base Slab was completed on 18.2.2023. Shuttering for Roof Slab for Chlorinator cum MCC Room and Laying of Reinforcement Steel for Roof Beam 100 % completed. Casting of Columns completed 100 % up to Roof Slab of Workshop cum Store Room. Casting of Roof Slab for Ladies and Gents Toilet 100 % completed. Casting of Staircase 1st Flight and 1st Landing 100 % completed. Shuttering and Reinforcement for Staircase 2nd Flight, Beam and 2nd Landing 100% completed. Casting of Tie Beam for Air Blower Room 40 % completed and Laying of Reinforcement Steel for Remaining Tie Beam is in progress. • **SBR:** Final Walkway work is in progress. • **PTU:** Walkway 100 % Completed. • Staff Quarters: Plinth Beam casting is in progress. • **EMI:** out of 25 items, 5 QAPs are approved, 4 are returned by PMCBC for resubmission and 16 QAP's with data sheets are yet to be submitted by the Contractor to PMCBC.
	SPS (02 Nos.)	SPS-1: 2.3 MLD (Jhalara Road)	SPS-1: 2.3 MLD (Jhalara Road)	• The BEP submitted by Contractor on dated 22.02.2022. • **Boundary Wall:** Laying of Brick Masonry for boundary wall 100% completed. Laying of brick Masonry for parapet wall for guard room and control room 10% completed. Laying of reinforcement Steel for Lintel Beam 97 % Completed for guard room and control room.

				• **EMI:** out of 13 items, 2 QAP's with data sheets are approved and remaining 11 QAP's with data sheets are yet to be submitted by the contractor to PMCBC. • **MPS:** Excavation work is in progress.
		SPS-2: 1.80 MLD (Matabhar Road)	SPS-2: 1.80 MLD (Matabhar Road)	• The BEP submitted by the contractor on dated 22.2.2022. • **Security guard room and Metering room:** Laying of Brickwork 60.8% completed. • **Raw sewaage collection and pump house:** Casting of Stub columns upto plateform for top slab and casting of top slab also completed. Casting of Stub columns above top slab and Tie Beam 100% completed. • **EMI:** Out of 13 items, 1 QAP with data sheet is approved and remaining 12 QAP with data sheets are yet to be submitted by the contractor to PMCBC.
	Lateral Sewer (upto dia 315)	• 200mm (HDPE DWC SN8)-78694mtr • 250mm (HDPE PE-100/PN-6)-5925 mtr • 250mm (HDPE DWC SN8)-1096 mtr • 315mm(HDPE PE-100/PN-6/)-1361 mtr	• 200mm (HDPE DWC SN8) - 78694 mtr • 250mm (HDPE PE-100/PN-6) –5925 mtr • 250MM (HDPE DWC SN8) – 1096 mtr • 315mm (HDPE PE-100/PN-6) –1361 mtr	a) Supply: 79.682 Km (200 mm DWC) b) 0.108 km (250 mm DWC) c) 7.905 km (250mm HDPE trenchless) d) 1.401 Km (315mm HDPE trenchless) **Laid Pipe Line: -** Laid: -79.682 Km (200 mm DWC) a) Laid:0.106 Km (250mm DWC) b) 6.517 (250mm HDPE trenchless) c) 1.236 Km (315mm HDPE trenchless) d) Testing:76.571 Km (200mm DWC) e) Testing:0.106 Km (250mm DWC) a) Deflection test:76.571 km (200 mm DWC) b) Testing:6.42 Km (250mm HDPE trenchless) c) Testing:1.191 Km (315 mm HDPE trenchless) d) Commissioning – Nil
	Outfall (above dia 315)	• 350mm (RCC NP-4)-3076 mtr • 400mm (RCC NP-4)-62 mtr • 400mm (HDPE	• 350mm (RCC NP-4) - 3076 mtr • 400mm (RCC NP-4) – 62 mtr • 400mm (HDPE PE-	a) Supply: 2.185 km (350mm RCC pipe) b) Laid: - 1.842 km (350mm RCC) c) Supply: 0.859 (400mm HDPE) d) Laid: - 0.840 km (400mm HDPE) c) Testing: 1.836 km (350 mm RCC pipe) d) Commissioning: NIL

	PE-100/PN-6)-533 mtr (SIP 859.65 mtr) • 1200mm(RCC NP-4)-500 mtr	100/PN-6) – 859.65 mtr • 1200mm (RCC NP-4) – 500 mtr	
PVC-U Pipe (110 & 160 mm dia)	• 110mm-78660mtr • 160mm-10340mtr	• 110mm – 41772 mtr • 160mm – 5490 mtr	a) Supply: 41.772 Km (110 mm) 5.490 km (160 mm) b) Laid: - 24.436 km (110 mm) : - 2.081 km (160 mm) c)Testing: 24.276 km (110 mm) 2.081 km (160 mm) d) Commissioning: NIL
Manholes (All types)	6806 Nos.	4303 Nos	a) Supply: 4200 nos b) Installation: 4145 Nos. c) Testing: 3880 Nos. d) Commissioning: NIL
Inspection Chamber (All types)	8900 Nos.	7877 Nos	a) Supply: 6144 nos b) Installation: -5941 Nos c) Testing: 5786 Nos. d) Commissioning: NIL
Population benefitted due to commissioned	53777	53777	-

For Road Cutting & Restoration-

Item Description	Scope of Work	Progress made so far
Road Cutting	a) CC: Km b) Interlocking tiles: Km c) BT: Km d) WMM: Km e): Kuchha : Km	• CC-21.716 km • Interlocking tiles: 4.284 km • BT-3.935 Km (upto WMM) • WMM – 1.489 Km • Kuccha: - 51.113 Km
Road Restoration	c) CC: Km d) Interlocking tiles: Km c) BT: Km d) WMM: Km e): Kuchha : Km	a) CC:21.669 Km b) Interlocking tiles:4.284 Km c) BT:3.935 km (up to WMM) d) WMM: 1.489 KM e) Kuccha/WMM: 51.113km

Building and Miscellaneous work

Item Description	Scope of Work	Progress made so far
CRMC Building	1	Fixing of Aluminium Doors, Windows and Aluminium Grills for windows with Door for Gents and Ladies Toilet 100 % completed. Inside and outside painting 1st coat 100% completed. Painiting for MS main gate cum wicket gate 1st coat 100% completed.Laying of interlocking paver tiles around the premises 100 % completed and Laying of Stone tiles 100 % completed on plinth Protection.

	CCC Building	-	-
	MCC Building	-	-
	PLC SCADA	-	-
	Trenchless Work		

Town: Khetri

Contract description	**Cumulative Progress of works up to 31.03.2023**			
Package no - RSTDIP/KTR/03 **Works under package-** Construction Works of Water Supply Production and Distribution Network Improvements with house service connections for nonrevenue water reduction and continuous water supply and Providing Sewer Network with House sewer connections along with construction of Sewage Treatment Plant and all allied Works and operation services of the entire system for 10 years at Khetri. **Name of Contractor-** M/s. Lahoty-LNA (JV), Jaipur **Contract type- Design, Build and Operate** **Date of Start-** 22.03.2021 **Cumulative Financial Progress- 48.0%** **Cumulative Physical Progress- 52.0** % **Stipulated Date of completion –** 20.03.2024	**Water Supply**			
	Item	**Scope of work**	**SIP Scope**	**Progress**
	Total distribution network	**50.38 km**	54.823 km	a) Supply: 54.823 Km b) Laid: - 38.293 Km c) Testing: 20.491 Km d) Commissioning Nil
	HDPE Pipe (Dia. 20,25 & 32 mm)	22 km	22 km	a) Supply: 22 Km b) Laid: - 8.600 Km c) Testing: Nil d) Commissioning: Nil
	DI Pipe K7	44.11 Km	48.28 km	a) Supply: 48.28 Km b) Laid: -34.037 km c) Hydro Testing: 19.879 km d) Commissioning: Nil
	DI Pipe K9	6.274 km	6.535 km	a) Supply:6.535 Km b) Laid: -4.256 Km c) Hydro Testing: 0.612 km d) Commissioning: Nil
	House Service Connection	4400 Nos	4400 Nos	a) Laying/Installation: -1648 Nos. b) Testing: NIl c) Commissioning: NIL
	Domestic Water Meter	4400 Nos	4400 Nos	a) Supply: Nil b) Installation: -Nil c) Testing: Nil d) Commissioning: Nil
	Metering	EMFM-17 nos.	EMFM- 7 nos.	a) Supply: Nos b) Installation: - Nos c) Testing: Nos d) Commissioning: Nos
		BFM – 13 nos.	BFM – 2 nos.	a) Supply: Nil b) Installation: - Nil c) Testing: Nil d) Commissioning: Nil
	Pressure Transmitters	28 Nos.	8 nos.	a) Supply: Nil b) Installation: -Nil c) Testing: Nil d) Commissioning: Nil
	No. of DMAs	9 Nos.	9 nos.	-
	Pump House	2 nos.	2 nos.	**JEn campus**:.1st lift RCC vertical wall casting completed. **AEn Campus:**Lintel Beam casting completed.
	CWR (500 Kl)	1 nos.	1 No.	Dome & walkway casting completed.

Rehab work (WTP,PH, CWR, OHSR etc.)	OHSR/GLSR-07 nos. and 7 nos. of tube wells survey work in progress. Awaited for final report.		
Population benefitted due to commissioned	18,209 souls		
Wastewater			
STP (1 nos.)	3.15 MLD	3.15 MLD	Excavation work for SBR, MPS completed & staff quarter 1st floor column casting completed & TEER 4th lift column casting above 4th bracing beam work completed.
Lateral Sewer (up to dia 315)	31.325 Km	32.556 km	a) Supply: 25.062 Km b) Laid: -24.259 Km c) Testing: 16.092 Km d) Deflection Test: Nil d) Commissioning: Nil
Outfall (above dia 315)	2.897 Km	2.522 km	a) Supply: 2.420 km b) Laid: - 1.230 km c) Testing: Nil d) Commissioning: Nil
PVC-U Pipe (110 & 160 mm dia)	45.0 Km	20.480 km	a) Supply: 10.468 Km b) Laid: - 5.300 Km c) Testing: 1.800 km d) Commissioning: NIL
Manholes (All types)	2231 Nos.	1857 Nos.	a) Supply: 1080 nos b) Installation: -1014 Nos. c). Testing: 520 Nos. d) Commissioning: 0 nos.
Inspection Chamber (All types)	4500 Nos.	4146 Nos.	a) Supply: 1097 nos b) Installation: -1036 Nos. c) Testing: 550 nos. d) Commissioning: Nil.
Population benefitted due to commissioned	18209 souls		

For Road Cutting & Restoration-

Item Description	Scope of Work	Progress made so far	Remark
Road Cutting	a) CC: 21.483 Km b) BT: 10.955 Km c) Kuchha/WMM: Km	• CC-24.75 Km • BT-0.549 Km • Kuccha/WMM: -4.223 Km	24.750 km of CC cutting is for water supply & sewer work 0.549 km of BT cutting is for water supply work. 4.223 km of Kachha / WMM cutting for water supply and sewer work.
Road Restoration	a) CC: Km b) BT: Km c) Kuchha: Km	**a) CC:** 26.948 km (up to PCC) 21.975 km (up to CC) **b) BT:** 0.0 km (up to WMM)	19.125 km of water supply and sewer work and 2.850 km of water supply.

			0.549 km (up to BT) **c) Kuchha: 4.223 Km**	

Building and Miscellaneous work

Item Description	Scope of Work	SIP Scope	Progress made so far
CRMC Building	1 no.	1 no.	Plastering work completed
CCC Building	1 no.	1 no.	Plastering work completed
MCC Building	1 no.	1 no.	1st floor slab casting completed & plaster work in progress.
PLC SCADA	1 no.	1 no.	-
Trenchless Work			
HDPE Pipes	0.333 Km	0.0 km	a) Supply: 0 km b) Laid: -0 km c) Testing: NIL d) Commissioning: NIL

Town: Mandawa

Contract description	Cumulative Progress of works up to 31.03.2023

Package no - RSTDIP/MDW/03

Works under package- Construction Works of Water Supply Production and Distribution Network Improvements with house service connections for nonrevenue water reduction and continuous water supply and Providing Sewer Network with House sewer connections along with construction of Sewage Treatment Plant and Sewerage Pumping Station: all allied Works and operation services of the entire system for 10 years at Mandawa.

Name of Contractor- M/s. LNA-R & B (JV), Jaipur

Contract type- Design, Build and Operate

Date of Start- 22.03.2021

Cumulative Financial Progress- 53.0%

Water Supply

Item	Scope of work	SIP scope	Progress
Total distribution network	116.82 km	121.429 Km	a) Supply: 113.100 Km b) Laid: - 107.401 Km c) Testing: 65.345 Km d) Commissioning: Nil
HDPE Pipe (75 mm to 250 mm dia.)	108.40 km	112.589 Km	a) Supply: 113.100 Km b) Laid: - 104.738 Km c) Testing: 65.345 Km d) Commissioning: Nil
DI Pipe K7 (100 mm to 350 mm)	6.62 Km	6.947 Km	a) Supply: 6.947 km b) Laid: - 2.273 km c) Hydro Testing: Nil d) Commissioning: Nil
DI Pipe K9 (100 mm to 150 mm dia)	1.89 km	1.89 km	a) Supply: 1.893 km b) Laid: - 0.390 km c) Hydro Testing: Nil d) Commissioning: Nil
HDPE pipe (20,25,32 mm)	27.0 km	27.0 km	a) Supply: 27.0 km b) Laid 11.277 Km c) Hydro testing: 5.950 Km d) Commisioning: 0.0 Km
House Service Connection	5400 Nos	6426 Nos.	a) Laying/Installation: -3540 Nos. b) Testing: 2105 Nos. c) Commissioning: NIL
Domestic Water Meter	5400 Nos	6426 Nos.	a) Supply: 6426 Nos. b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
Metering	EMFM-1 nos.	EMFM-1 nos.	a) Supply: NIL b) Installation: -NIL

Cumulative Physical Progress- 67.0 %

Stipulated Date of completion – 20.03.2024

			c) Testing: NIL d) Commissioning: NIL
	BFM – 18 nos.	BFM – 18 nos.	a) Supply: NIL b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
Pressure Transmitters	24 Nos.	24 Nos.	a) Supply: NIL b) Installation: -NIL c) Testing: NIL d) Commissioning: NIL
No. of DMAs	5 Nos.	5 Nos.	-
Pump House	1 no.	1 no.	GAD & Layout drawing is approved and due to change of capacity drawing are resubmitted and approved. Column casted upto roof slab.
CWR (500 Kl)	1 no.	1 no.	GAD & Layout drawing is approved and due to change of capacity drawing are resubmitted and approved. Top dome casted completed.
Rehab work (WTP, PH, CWR, OHSR etc.)	OHSR- 1 no. CWR – 0 nos. Pump House- 1 nos	OHSR- 1 no. CWR – 0 nos. Pump House- 1 nos	-
Population benefitted due to commissioned	25610	25610 souls	
Wastewater			
STP (01 no.)	3.90 MLD	3.90 MLD	GAD, Layout plan and flow diagram drawing are approved. Civil work completed in MPS, SBR shuttering of final lift of vertical wall in progress. Water filling for leakage test in progress at TEER. Floor tiles work in progress at Admin Building. Process Building Lintel Beam in progress. Plaster of metering room completed.
SPS (0.40 MLD)	1 No.	1 No.	Structural design and drawing are approved. Brick work in SPS. Metering Room plaster completed and plaster work at SPS completed. Plaster work of boundary wall completed. SCADA room footing pcc completed.
Lateral Sewer (upto dia 315)	47.4 Km	47.326 Km	a) Supply: 47.888 Km b) Laid: - 46.715 Km c) Testing: 35.622 Km d) Deflection Test: Nil d) Commissioning: Nil
Outfall (RCC NP-4, 400 mm dia)	1.0 Km	1.0 Km	a) Supply: Nil b) Laid: - Nil

			c) Testing: 0 km d) Commissioning: Nil
PVC-U Pipe (110 & 160 mm dia)	43.50 Km	21.930 Km	a) Supply: 12.00 Km b) Laid: -9.413 Km c) Testing: Nil d) Commissioning: NIL
Manholes (All types)	3664 Nos.	3053 Nos.	a) Supply: 2749 nos b) Installation: -2562 Nos. c). Testing: 1045 Nos. d) Commissioning: Nil
Inspection Chamber (All types)	4350 Nos.	5140 Nos	a) Supply: 2249 nos b) Installation: - 2477 Nos. c) Testing: 0 Nos. d) Commissioning: NIL
Population benefitted due to commissioned	25610 souls		

For Road Cutting & Restoration-

Item Description	Scope of Work	Progress made so far	Remarks
Road Cutting	a) CC: Km b) BT: Km c) Kuchha/WMM: Km	• CC-47.375 Km • BT-0.530 Km • Kuccha/WMM: -73.840 Km • Interlock tiles :- 4.110	14.750 km of CC & 1.950 Km interlock tiles road cutting for water supply & 32.625 km cc & 2.160 Km interlock tile road for sewer work.
Road Restoration	a) CC: Km b) BT: Km c) Kuchha: Km	**a) CC:** 45.435 km (up to PCC) 45.356 km (up to CC) **b) BT:** 0.0 km (up to WBM) 0.0 km (up to BT) **c) Kuccha: 73.840 km** **d) Interlock Tiles:- 4.110 Km**	Kachha road 59.390 for water supply & 14.610 km for sewer work

Building and Miscellaneous work

Item Description	Scope of Work	SIP Scope	Progress made so far
CRMC Building	1 No.	1 No.	Door and window work in progress.
CCC Building	1 No.	1 No.	
MCC Building	1 No.	1 No.	Brick work upto roof slab of 1st floor completed.
PLC SCADA	1 No.	1 No.	-
Trenchless Work			
HDPE Pipes (PE-100 PN-6, 250 mm to 500 mm dia)	5.0 Km	5.587 km	a) Supply: 5.587 km b) Laid: -3.844 km c) Testing: 0.600 km d) Commissioning: Nil
RCC Pipes	0.0 Km	0.00 km	a) Supply: 0 km b) Laid: -0 km

				c) Testing: 0 km d) Commissioning: Nil

Note- Photographs of Proposed works and safeguard compliance is shown in **Appendix 1**

10. **Change in Scope of works and/or Location of Project Components**. During review of design there occurred some changes in scope of works and/or location of project components. These changes are being reported through updated IEEs. Such changes up to reporting period are listed below-

Table -5: Change in Scope of works and/or Locations of Project Components

S. No.	Name of Town	Change in Scope		Change in Location	
		Original scope as per Updated IEE	**Change in scope**	**Original location As per Draft IEE**	**Change in location**
1.	**Abu Road**	CWPH – 6 nos	CWPH are 5 nos (Gandhi Nagar pump house has been deleted from the scope)	**-**	**-**
		Water Supply distribution Network-134 km	Water supply distribution network 138.56 km	**-**	**-**
		Sewage network 100.90 km	Sewerage network 99.693 km.	-	-
2	**Sirohi**	Intake well, - 2nos (7.40 MLD water from Angore Dam 3.90 MLD from Kalkaji dam)	Intake well -1 Nos 8.6 MLD capacity at Angore dam (Intake well at Kalkaji dam is dropped from scope)	**-**	**-**
		Raw water main - 13.191 km 2.49 km and 400mm (dia.) from Angore Dam to WTP 10.70 km (L) and 300mm (Dia.) from Kalkaji Dam to WTP	Raw water main-5.257 km (from Angore Dam to WTP) Raw water main from Kalkaji dam to WTP has been dropped		
		CWR and pump house in Kalkaji HW, Capacity-580 KL	CWR and pump house in Kalkaji HW, Capacity-1450 KL		
		Clear water reservoirs (CWR) 4 nos new (750 KL,	Clear Water reservoir and pump house		

		470 KL, 580 KL and 270 KL)	(580 KL) at Kalkaji HW have changed from 580 KL to 1450 KL		
		Transmission mains – 36.76km	Transmission main 24.730 km	-	-
		Water Supply distribution network- 117.40 km	Water Supply distribution network-129.2	-	-
		Sewer collection network- 93.46 km	Sewer collection 80.66 km	-	-
		Treated Effluent Elevated Reservoir (TEER) – 2 no.s (550 KL and 240 KL)	Treated Effluent Elevated Reservoir (TEER) – 2 nos and their capacity is revised from 550 KL to 500 KL and from 240 KL to 170 KL.	-	-
3	**Laxmangarh**	**Water supply distribution networks (162.64Km) including House service connection of 9007**	Water supply network decreased from 162.64 km to 161.04 km -		
4	**Ratangarh**	Sewage collection network including manholes & 14.63 km trenchless	Sewerage collection network 145.317 km	CRMC-2 Building premises of SPS in Main Ginani	- CRMC-2 Building 3.8 MLD STP premises near NH-11.
5	**Sardarshahar**	-	-	CWR (2400 KL)- North west corner of the campus of Public health engineering department (PHED) at Hanumangarh Road	CWR (2400 KL)- South west direction in the campus of PHED Office
		Water supply distribution networks – 193 km	Water supply distribution networks – 260.519 km	-	-
		Sewage Pumping Station (SPS) – 2 nos	1 SPS is not considered due to non availability of NOC for land.	-	

		Manhole with pumping Stations (MWPS)-0	Two MWPS, one near Krishi Mandi (0.6 MLD) and another at Bahadur Singh Colony (0.6 MLD) are added in the scope.	-	-
		Sewer Networks- 68 km	Sewer 61.527 km		
6	**Fatehpur**	Sewage Collection networks – 92.4 km with trenchless laying of sewer 15.12 km	Sewage Collection networks – 100.57 km with 15.09 km trenchless laying	-	-
7	**Pratapgarh**	**Sewage collection network -**104.68 km	**Sewage collection network -**117.743 km	STP (7 MLD) near Kila Road	STP (7 MLD) near Gupt Ganga Temple area
8	**Banswara**	Transmission system of 15.80 Kms of pipe dia from 100 mm to 500 mm of DI K-9 Pipes	transmission main 8.87 km	SPS-2 (1.70 MLD) Pratapgarh Raod	SPS-2 (1.70 MLD) Pratapgarh Raod which is 500 m away from previously proposed location
		Distribution network of 286.70 Km	Distribution network of 353.675 km	CRMC1- Pratapgarh Road	CRMC1- Housing Board Colony.
		sewage collection system- 89.0 Kms including 4,3 km trenchless	sewage collection system- 108.164 km including 6.040 km trenchless	CRMC2- Kagdi Pickup to Khandu Colony.	CRMC2- Khandu Colony.
9	**Didwana**	Sewage collection network – 61.00 km	Sewer collection network 49.78 km	SPS -1 (1.7 MLD) Degana Road	SPS -1 (1.7 MLD) near Salt Lake area.
				CRMC building RSEB powerhouse campus	CRMC building near Post office
10	**Khetri**	Water Supply Distribution network- 44 km	Distribution network 54.283 km	STP (3.15 MLD) Near Kharia Kua	STP (3.15 MLD) Village Nanu wali Bawdi Khasra No 984-988, Khetri
		Sewage collection network – 34.0 km	Sewer network 34.778 km	-	-

11	**Kuchaman**	Water supply distribution network 313.746 km	Water supply distribution network 417.64 km	--	-
		Sewage collection network Length: 149.77 m including 8.2 km trenchless	Sewage collection network Length: 160.77m including 10.118 km trenchless	-	-
12	**Makrana**	Sewage collection network 95.04 km including 11.61 kms Trenchless	Sewage collection network 95.11 km including 11.69 kms Trenchless	SPS-1 Jhalara Pond,	SPS-1 Jhalra Pond at South-West Corner of Rajput Samaj Shamshan Ghat.
		-	-	2. SPS- near Sheetla Mata Sewa Samiti	2. SPS-2 Matabhar road.
		-	-	CRMC building near Jhalra Pond	CRMC building near Nagar Parishad and Fire Station Office
13	**Mandawa**	Water Supply Distribution network-108.4km	Water Supply Distribution network-12.589	-	-
		Clear Water Reservoir (CWR)- 1 Nos. of 1200 KL capacity	Clear Water Reservoir (CWR)- 1 Nos. of 550 KL capacity	-	-
		Transmission mains from CWR to OHSR/ESR - Length- 0.98 kms	1. Transmis sion mains from CWR to OHSR/ESR - Length-6.947 kms	-	-
		Rising Main - Langth -0.91 km	Rising Main - Langth -1.89 km	-	
14	**Ladnu**	Sewerage network 127.100 km	Sewerage network 1212.739 km	STP 2.4 MLD Vishwanathpura	STP 2.4 MLD Sujangarh Road

2. COMPLIANCE STATUS WITH NATIONAL/ STATE/ LOCAL STATUTORY ENVIRONMENTAL REQUIREMENTS

11. Under RSTDSP all the statutory compliances are being fulfilled. Environmental regulatory compliances including consents for STP/WTP/Batching plant/ crushers/hot mix plants etc. from Rajasthan State Pollution Control Board (RSPCB) and clearances from other statutory authorities are being obtained before start of construction work. None of the project or its component fall within criteria set under EIA Notification 2006 therefore EIA clearance is not required in any project. Wild Life Act is also not applicable in any subproject in all the 14 project towns. Other

statutory requirements include forest clearance, tree cutting permissions, Permission for road crossing from State and national Highway Authorities, Permission for railway crossings from Indian Railways Department, permission from Central/State Archaeological Department etc. Status of environmental statutory requirements and their compliances are given in **Table 6** below-

Table-6: Compliance of Sub-Projects with Statutory Requirements Applicable

S.N.	Package number	Name of Town and type of projects	Forest Clearance	Tree Cutting Permission	Permission from State/ National Archaeological dept.	Permission for NH/Highways/ Railways for crossing	Labor License of contractor And Workmen Compensation (WC) Policy	Permissions for Road Cutting	Permission for utility shifting
	1	2	3	4	5	6	7	8	9
1	RSTDIP/RTG-FTP-LXG/01	Ratangarh Sewerage	Not required	Tree Cutting permission obtained for 2 STPs and CRMC sites	Not required	• **National Highway Crossing:** NIL • **Railway Crossing:** Permission obtained for Railway crossing from Railway department vide letter no. 639/Pipe Xing/Km.323/8-9/RTGH/2021/12 dated 27.12.2021.	Labour License Valid up to 31/12/2023 WC Policy valid up to 30.03.2023	• Not required	• No Utility shifting is required up to this reporting period
2		Fatehpur Sewerage	Not required	No tree cutting is required	Not required	• **National Highway Crossing**: Permission obtained vide letter no. NHAI/PIU/Sikar/RBFS/2022-23/508 **Railway Crossing:** Permission obtained vide	Labour License Valid up to 31/12/2023 WC Policy valid up to 30.03.2023	• PWD Road cutting near churu bus stand is required and it is under process with PWD Department	• No Utility shifting is required up to this reporting period

S.N.	Package number	Name of Town and type of projects	Forest Clearance	Tree Cutting Permission	Permission from State/ National Archaeological dept.	Permission for NH/Highways/ Railways for crossing	Labor License of contractor And Workmen Compensation (WC) Policy	Permissions for Road Cutting	Permission for utility shifting
						letter no. NWR-JP-2022-WL-19			
3		Laxmangarh Water Supply	Not required	Tree Cutting permission obtained for 4 trees at CWR site at Bad Ke Balaji, PHED campus	Not required	• **National Highway Crossing:** NIL • **Railway Crossing:** NIL	Labour License Valid up to 31/12/2023 WC Policy valid up to 30.03.2023	• Not required	• No Utility shifting is required up to this reporting period
4	RSTDIP/SRD/ 01	Sardarshahar Water Supply and Sewerage	Not required	Tree Cutting permission obtained for 5 Trees at CWR and CRMC site at PHED campus.	Not required	• **National Highway Crossing**: NIL • **Railway Crossing**: permission obtained for Railway Crossing Vide letter no. 639W/PipeXing/Km46/4/SRDR /2021/03 dated 12.08.2021 for WW pipe line and vide letter no. 639W/ PipeXing/Km46/ 4/ SRDR/ 2021/ 02 dated 12.08.2021 for	Labour License Valid up to 31/12/2023 WC Policy valid up to 30.03.2023	• Not required	• No Utility shifting is required up to this reporting period

S.N.	Package number	Name of Town and type of projects	Forest Clearance	Tree Cutting Permission	Permission from State/ National Archaeological dept.	Permission for NH/Highways/ Railways for crossing	Labor License of contractor And Workmen Compensation (WC) Policy	Permissions for Road Cutting	Permission for utility shifting
						Water supply Pipe line.			
5	RSTDIP/SHR-ABR/01	Abu Road Water Supply and Sewerage	In Abu Road Town, some portion of raw water pipe line from intake to WTP is proposed through earthen pathway in forest areas, which requires forest clearance from Department of Forest. PIU has submitted application to divert 3.6795 ha of forest land through proposal no. FP/RJ/WATER/ 145797/2021 dated 13.08.2021. Permission is till awaited from Forest Department, Sirohi.	Presently not required for any site except for pipe laying and intake at Bhainsa Singh Dam, which is covered under forest clearance	Not required	• **National Highway Crossing**: Applied to obtain the permission from NHAI for National Highway (NH-27) crossing- **Permission awaited** • **Railway Crossing** Permission obtained for Railway crossing vide letter no. W/220/1 dated 18.02.2022	Labour License Valid up to 31.12.2023 WC Policy valid up to 30.03.2023	• Not required	• No Utility shifting is required up to this reporting period

S.N.	Package number	Name of Town and type of projects	Forest Clearance	Tree Cutting Permission	Permission from State/ National Archaeological dept.	Permission for NH/Highways/ Railways for crossing	Labor License of contractor And Workmen Compensation (WC) Policy	Permissions for Road Cutting	Permission for utility shifting
6		Sirohi Water Supply and Sewerage	Not required	09 trees at Angore Pump house WTP (9.0 MLD) at PHED campus and 09 trees at CWR site at Teen Batti Pump House permission obtained from the Thasildar office Sirohi Tree Cutting permission obtained for 1 tree at STP (1.7 MLD) at Revdar Road	Not required	• **National Highway Crossing**: NIL • **Railway Crossing**: NIL	Labour License Valid up to 31.12.2023 WC Policy valid up to 30.03.2023	• **DD Deposited to PWD for Road cutting permission** Permission awaited	• No Utility shifting is required up to this reporting period
7	RSTDIP/PRT/ 01	Pratapgarh Sewerage	Not required	Tree Cutting permission obtained for 1 tree at STP site and 3 trees at CRMC sites	Not required	• **National Highway Crossing**: Permission obtained for National Highway 113 crossing vide Letter No. no.RW/JA/RJ/PS/ utility//2021/464/3	Labour License Valid up to 31.12.2023 WC Policy valid up to 24.11.2023	• Permission obtained for road cutting from PWD.for 3 roads.	• No Utility shifting is required up to this reporting period

S.N.	Package number	Name of Town and type of projects	Forest Clearance	Tree Cutting Permission	Permission from State/ National Archaeological dept.	Permission for NH/Highways/ Railways for crossing	Labor License of contractor And Workmen Compensation (WC) Policy	Permissions for Road Cutting	Permission for utility shifting
						02-305 dated 29.04.2022 from Ministry of Road Transport & Highways • **Railway Crossing:** NIL			
8	RSTDIP/BNS/ 04	Banswara Water Supply and Sewerage	Not required	Tree Cutting permission obtained for 10 nos. of trees at WTP site at PHED campus.	Not required	• **National Highway Crossing**: Permission for National Highway 113 crossing has been obtained vide letter no/ 2021/22/1006 dated 21.01.2022 • **Railway Crossing:** NIL	Labour License Valid up to 31.12.2023 WC Policy valid up to 27.03.2024	• Permission Obtained from PWD, RSRDC and RVUNL for Road cutting	• No Utility shifting is required up to this reporting period
9	RSTDIP/KTR/ 03	Khetri Water Supply and Sewerage	Not required	Presently no tree cutting required	Not required	• State Highway Crossing permission obtained	Labour License Valid up to 31.12.2023 WC Policy- Valid up to 23.08.2023	• Not required (All roads are Municipal Roads)	• No Utility shifting is required up to this reporting period
10	RSTDIP/LDN-DID-MKN/01	Ladnu Sewerage	Not required	Presently no tree cutting required	Not required	• National Highway: NIL • Railway Crossing:	Labour License	• Not required	• No Utility shifting is required up to

S.N.	Package number	Name of Town and type of projects	Forest Clearance	Tree Cutting Permission	Permission from State/ National Archaeological dept.	Permission for NH/Highways/ Railways for crossing	Labor License of contractor And Workmen Compensation (WC) Policy	Permissions for Road Cutting	Permission for utility shifting
						NIL	Valid up to 31/12/2023 WC Policy- Valid up to 30.03.2023		this reporting period
11		Didwana Sewerage	Not required	Tree cutting permission obtained under letter no. 3049-3051 on dated 07.12.2021	Not required	• National Highway: NIL • Railway Crossing: NIL	Labour License Valid up to 31/12/2023 WC Policy- Valid up to 30-03-2023	• Not required	• No Utility shifting is required up to this reporting period
12		Makrana Sewerage	Not required	The Permission of around 130 Neem trees at STP site (7.7 MLD) obtained from Municipal council, Makrana vide letter no. L/2021-22/3440 dated 16.12.21 with plantation of trees with its thrice capacity	Not required	• **State Highway Crossing:** Permission obtained for SH crossing from PWD vide letter no. PIU/ PPP /Laxmangarh/MMB/Utility/21-22/D-601 dated 11.01.2022 • **Railway Crossing:** Permission for Railway crossing obtained vide	Labour License Valid up to 31/12/2023 WC Policy- Valid up to 30-03-2023	• Permission Obtained for Road cutting.	• No Utility shifting is required up to this reporting period

S.N.	Package number	Name of Town and type of projects	Forest Clearance	Tree Cutting Permission	Permission from State/ National Archaeological dept.	Permission for NH/Highways/ Railways for crossing	Labor License of contractor And Workmen Compensation (WC) Policy	Permissions for Road Cutting	Permission for utility shifting
						letter no. Letter No: - Application ID: NWR-JU-2022-WL-263 dated 24-09-2022			
13	RSTDIP/KMN/1002	Kuchaman Water Supply and Sewerage	Not required	Presently no tree cutting required	Not required	• National Highway: NIL • Railway Crossing: NIL	Labour License Valid up to 31/12/2023 WC Policy- Valid up to 30.03.2023	• Not required	• No Utility shifting is required up to this reporting period
14	RSTDIP/MDW/03	Mandawa Water Supply and Sewerage	Not required	Permission for 13 tree cutting at 3.90 MLD STP site, obtained	Not required	• Presently Not required	Labour License Valid up to 31/12/2023 WC Policy- Valid up to 09.03.2024	• Not required	• No Utility shifting is required up to this reporting period

Note: As ULB is part of the project and asset owner of all municipal roads and all the DPRs are also approved by ULB, there is general acceptance of road cutting for RSTDSP project works in all towns. For any specific requirement, approval from ULB shall be taken and reported in SEMR.

Table 6A: Status of Consents from State Pollution Control Board for STPs/WTPs

S.No.	Town	Capacity of STP	Capacity of WTP	Location	Status of CTE
New Construction					
1	Ratangarh	3.8 MLD		Johad	CTE issued, Valid from 03.12.2020 to 30.11.2025 under Air Act Valid from 12.02.2021 to 30.01.2026 under Water Act
2	Ratangarh	6.10 MLD		Near Gaushala	CTE issued, Valid from 03.12.2020 to 30.11.2025 under Air Act Valid from 12.02.2021 to 30.01.2026 under Water Act
3	Fatehpur	4.3 MLD		Naribari village road	CTE issued, Valid from 07.9.2020 to 31.08.2025 under Air Act Valid from 16.02.2021 to 31.01.2026 under Water Act.
4	Sardarshahar	2.30 MLD		STP South Campus	CTE issued, Valid from 15.10.2020 to 30.09.2025 under Air Act Valid from 13.02.2021 to 31.01.2026 under Water Act
5	Sardarshahar	3.40 MLD		STP North Campus	CTE issued, Valid from 15.10.2020 to 30.09.2025 under Air Act Valid from 13.02.2021 to 31.01.2026 under Water Act
6	Sardarshahar	1.60 MLD		Near Ashok Circle in land of GVM	CTE issued valid from 10.02.2023 to 31.01.2028
7	Abu Road	6.9 MLD		Santpur	CTE Issued, Valid from 15.02.2021 to 31.01.2026
8	Abu Road	2.3 MLD		Manpur	CTE Issued, Valid from 15.02.2021 to 31.01.2026
9	Abu Road		10 MLD	Santpur PHED campus	CTE Issued, Valid from 15.02.2021 to 31.01.2026
10	Sirohi	5 MLD		Near Nehru Nagar	CTE Issued, Valid from 11.02.2021 to 31.01.2026
11	Sirohi	1.7 MLD		Near Revdar Road	CTE Issued, Valid from 11.02.2021 to 31.01.2026
12	Sirohi		9 MLD	Angore PHED campus	CTE Issued, Valid from 31.03.2021 to 28.02.2026
13	Banswara	9.6 MLD		At Udaipur Road	CTE Issued, Valid from 08.07.2021 to 30.06.2026
14	Banswara		9.25 MLD	PHED AEN Campus	CTE Issued, Valid from 17.11.2021 to 31.10.2026
15	Pratapgarh	7 MLD		Kila Road Pratapgarh	CTE issued, Valid from 30.11.2021 to 31.10.2026
16	Didwana	3MLD		Near Mela Maidan	CTE Issued, Valid from 11.02.2021 to 31.03.2026
17	Kuchaman	7.6 MLD		Near Dashahara Ground	CTE Issued, Valid from 29.01.2021 to 31.12.2025
18	Ladnu	5.50 MLD		Asota Village	CTE Issued, Valid from 27.01.2021 to 31.12.2025
19	Ladnu	2.4 MLD		Sujangarh Road	CTE issued, Valid from 04.11.2022 to 31.10.2027
20	Makrana	7.70 MLD		Existing campus of STP	CTE Issued, Valid from 08.02.2021 to 31.01.2026
21	Khetri	3.15 MLD		Location Changed from Near Kharia kua to Village Nanu wali Bawdi Khasra No 984-988, Khetri	CTE Issued, Valid from 17.11.2022 to 31.10.2027
22	Mandawa	3.9 MLD		Bissau Road	CTE Issued, Valid from 16.02.2021 to 31.01.2026
Upgradation/Rehabilitation works					
23	Sardarshahar	5 MLD WSP		South campus	CTE issued and Valid from 16.09.2022 to 31.08.2027
24	Sardarshahar	2 MLD WSP		North Campus	CTE issued and Valid from 16.09.2022 to 31.08.2027
25	Banswara		4.5 MLD	WTP at Kagdi Pickup weir	CTE issued and Valid from 09.12.2022 to 30.11.2027
26	Banswara		10.40 MLD	AEN Campus	CTE issued and Valid from 17.11.2022 to 31.10.2027
27	Banswara	6.34 MLD WSP		Udaipur Road	CTE Issued, Valid from 19.10.2022 to 30.09.2027

Table 7: Compliance of Clearance Conditions

Name of plant and locations	Conditions of Clearance / Permission	Status of Compliance
A. RSPCB consents		
General conditions included in Consent to Establish of STPs		
All STPs	In addition to above total suspended solids in the treated effluent before disposal shall not exceed 20 mg/l.	Complied in design- Total suspended solids in the treated effluent before disposal shall not exceed 20 mg/l.
	That no treated/untreated waste water shall be discharged into any river or water body and entire treated sewage shall be utilized in plantation/horticulture and other gainful purposes.	To be complied during operation- No treated/untreated waste water shall be discharged into any river or water body and entire treated sewage shall be utilized in plantation/horticulture and other gainful purposes, plan will be prepared by contractor for reuse of treated effluent in beneficial uses.
	That the Sludge will be properly digested de-watered & the treated sludge will be used as manure or will be disposed in a scientific manner.	Complied in design- sludge drying units have been proposed in STPs. Sludge will be properly digested de-watered & the treated sludge will be used as manure or will be disposed in a scientific manner.
	That the unit shall undertake spray of insecticides time to time to control fly/mosquito growth in the area	To be complied during operation- Regular spray of insecticides shall be done during operation in premises of STP to control fly/mosquito growth in the area
	That the unit shall undertake plantation in two rows of suitable species all along the periphery of the site of the STP to control foul smell.	To be complied before operation- Plantations are proposed in two rows all along the periphery of the site of the STP to control foul smell
	That above stated effluent standards is subject to the Hon'ble NGT order dated 30/4/2019 in matter of O.A. no 1069/2018 Nitin Shankar Deshpande Vs Union of India and Ors.	Complied- treated effluent parameters meets the standards as per given NGT orders in all STP designs
	That efforts should be made to reuse the treated sewage to the maximum possible extent and minimize its discharge. A network of pipelines should be laid from the treated sewage collection tank to fields for utilization.	To be complied- Treated sewage shall be reused in beneficial purposes to the maximum possible extent, reuse plan for treated effluent and sludge shall be prepared by DBO contractor in consultation with local body.
	That adequate measures shall be taken to avoid foul odour during treatment and disposal of sewage and sludge.	Being complied; Adequate measures such as dense plantations around STPs are being planted to avoid foul odour during treatment and disposal of sewage and sludge before start of operation of STPs

Name of plant and locations	Conditions of Clearance / Permission	Status of Compliance
TOWN WISE SPECIFIC CONDITIONS FOR BELOW MENTIONED CONSENTS OF STP'S		
2.3 MLD STP, Sardarshahar	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs.1341 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
3.4 MLD STP, Sardarshahar	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs.1564 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
1.7 MLD STP, Sirohi	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs.1180.4 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
	That Project Proponent shall apply for Consent to Establish under Air(Prevention & Control of Pollution), Act, 1981 for D.G. Set of 160 KVA	Application for DG set under Air Act shall be done before installation of DG set- presently DG set is not being installed
5 MLD STP, Sirohi	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs.2290 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
	That Project Proponent shall apply for Consent to Establish under Air(Prevention & Control of Pollution), Act, 1981 for D.G. Set of 300 KVA	Application for DG set under Air Act shall be done before installation of DG set- presently DG set is not being installed
2.3 MLD STP, Abu Road	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs.1852 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
	That Project Proponent shall apply for Consent to Establish under Air(Prevention & Control of Pollution), Act, 1981 for D.G. Set of 225 KVA	Application for DG set under Air Act shall be done before installation of DG set- presently DG set is not being installed
6.9 MLD STP, Abu Road	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs.2536 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
	That Project Proponent shall apply for Consent to Establish under Air(Prevention	Application for DG set under Air Act shall be done before installation of DG set- presently DG set is not being installed

Name of plant and locations	Conditions of Clearance / Permission	Status of Compliance
	& Control of Pollution), Act, 1981 for D.G. Set of 585 KVA	
4.3 MLD, Fatehpur	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 2064 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
3.8 MLD, Ratangarh Town	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 1663 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
6.10 MLD, Ratangarh Town	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 2177.7 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
7 MLD STP, Pratapgarh	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 1440 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
	That Project Proponent shall apply for Consent to Establish under Air(Prevention & Control of Pollution), Act, 1981 for D.G. Set of 125 KVA	Application for DG set under Air Act shall be done before installation of DG set- presently DG set is not being installed
3.15 MLD STP, Khetri	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 865 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
	That Project Proponent shall apply for Consent to Establish under Air(Prevention & Control of Pollution), Act, 1981 for D.G. Set of 180 KVA	Application for DG set under Air Act shall be done before installation of DG set- presently DG set is not being installed
3.9 MLD STP, Mandawa	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 1625 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
	That Project Proponent shall apply for Consent to Establish under Air(Prevention & Control of Pollution), Act, 1981 for D.G. Set of 180 KVA	Application for DG set under Air Act shall be done before installation of DG set- presently DG set is not being installed
7.6 MLD STP, Kuchaman	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 2697 lacs and in case	Noted and shall be complied if there is any change in project cost- presently not applicable

Name of plant and locations	Conditions of Clearance / Permission	Status of Compliance
	of any increase in the project cost, the project proponent shall be liable to deposit balance amount	
	That Project Proponent shall apply for Consent to Establish under Air(Prevention & Control of Pollution), Act, 1981 for D.G. Set of 365 KVA	Application for DG set under Air Act shall be done before installation of DG set- presently DG set is not being installed
5.5 MLD STP, Ladnu	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 2475 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
	That Project Proponent shall apply for Consent to Establish under Air(Prevention & Control of Pollution), Act, 1981 for D.G. Set of 300 KVA	Application for DG set under Air Act shall be done before installation of DG set- presently DG set is not being installed
7.7 MLD STP, Makrana	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 2726 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
	That Project Proponent shall apply for Consent to Establish under Air(Prevention & Control of Pollution), Act, 1981 for D.G. Set of 365 KVA	Application for DG set under Air Act shall be done before installation of DG set- presently DG set is not being installed
3 MLD STP, Didwana	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 2230 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
	That Project Proponent shall apply for Consent to Establish under Air(Prevention & Control of Pollution), Act, 1981 for D.G. set of 180 KVA	Application for DG set under Air Act shall be done before installation of DG set- presently DG set is not being installed
9.6 MLD STP, Banswara	That fee for this consent to establish has been deposited on the basis of estimated project cost and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
1.6 MLD STP, Sardarshahar	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 1024 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
2.4 MLD STP Ladnu	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 1780 lacs and in case of any increase in the project cost, the	Noted and shall be complied if there is any change in project cost- presently not applicable

Name of plant and locations	Conditions of Clearance / Permission	Status of Compliance
	project proponent shall be liable to deposit balance amount	
5 MLD WSP Sardarshahar	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 442 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
2 MLD WSP Sardarshahar	That fee for this consent to establish has been deposited on the basis of estimated project cost of Rs. 233.22 lacs and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
6.34 MLD WSP Banswara	That fee for this consent to establish has been deposited on the basis of estimated project cost and in case of any increase in the project cost, the project proponent shall be liable to deposit balance amount	Noted and shall be complied if there is any change in project cost- presently not applicable
General conditions included in Consent to Establish of WTPs		
All WTPs	That the provisions of EIA notification 14/09/2006 by MoEF shall be strictly followed and the unit shall obtain Environmental Clearance under 8(a) of the aforesaid notification if required and the sole responsibility of the same shall lie on the project proponent.	Not applicable
	That this consent to establish is issued to the unit on the basis of documents submitted by the applicant, if any discrepancy is found in the document/facts submitted by the unit then the applicant shall be liable for legal action in accordance with provisions of law.	Noted
	That no industrial trade effluent i.e. wastewater from water re-circulation system, shall be discharged inside/outside the premises. The entire process water shall be re-circulated with the processes through proposed settling tanks	Complied- The entire process water shall be re-circulated with the processes through proposed settling tanks, no any discharge from WTP shall be done
	That the back-wash water shall be treated through adequately design treatment system and should be completely recycled into the process thus maintaining zero discharge inside and outside the premises	Complied- The entire process water shall be re-circulated with the processes through proposed settling tanks, no any discharge from WTP shall be done
	That the domestic effluent shall be disposed off in soak pits through properly designed septic tanks	Noted and shall be complied with during detail design
	That no source of air emission shall be permitted under this consent, unit shall	DG set may be only source of air pollution in WTP. Application for DG set under Air Act

Name of plant and locations	Conditions of Clearance / Permission	Status of Compliance
	apply for separate consent to establish under the provisions of Air Act-1981 if there is proposal for any source of air emission	shall be done before installation of DG set- presently DG set is not being installed
	All the conditions and instructions as provided in the General conditions for Consent to establish/consent to operate under Water (Prevention & Control of Pollution) Act -1974 shall be complied with strictly	Noted and shall be complied with
	That rain water harvesting system shall be provided to harness rain water for domestic purposes & that the industry shall not dig new well / tube well without prior permission from the competent authority	Provision for rain water harvesting system is taken in project cost- shall be complied during detail design
	That the industry shall ensure that noise from the unit does not exceed the prescribed noise standards for industrial area i.e. 75 dB(A) Leq during day time and 70 dB(A) Leq during night time to meet the prescribed ambient noise standards. Day time is reckoned in between 6 A.M. and 9 P.M. and night time is reckoned between 9 P.M. to 6 A.M.	Being Complied- Quarterly environmental monitoring was done at WTP premises. Recent noise quality measurements shows that noise level is within prescribed limits
	That the unit shall maintain plantation at least in the 33% of total area within the unit premises	Noted and shall be complied during detail design
	That the consent is valid subject to fulfillment of all the other statutory requirements in other Laws/Acts/Rules as applicable.	Noted
	That this consent is not an evidence for ascertaining the title of land	Noted
	That this consent is only for environment purpose not be liable for any other purpose.	Noted
	That unit shall comply with standards, with respect to drinking water, as prescribed by the Bureau of Indian Standards in IS 10500-2012 as amended till date.	Design standards of WTP are as per applicable norms of CPHEEO
	That the unit shall apply for renewal of consent at least 120 days in advance prior to expiry date of this consent letter else additional fee shall have to be deposited in accordance with the Rajasthan Water & Air (Prevention & Control of Pollution) (Amendment) Rules 2016	Noted and shall be complied with

Name of plant and locations	Conditions of Clearance / Permission	Status of Compliance
TOWN WISE SPECIFIC CONDITIONS FOR BELOW MENTIONED CONSENTS OF WTP		
10 MLD WTP, Abu Road	That this consent is being issued to EE, PHED for Operating of Water Treatment Plant of capacity 10.0 MLD at Near Moksh Dham, Santpur, Abu Road, Sirohi. In case of any increase in capacity or addition/ modification/ alteration/ or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish from the Board.	Noted and shall be complied if there is any change in capacity or addition/ modification/ alteration/ or change in product mix or process or raw material or fuel- not applicable at present
	That this Consent to Establish is valid for Water Treatment Plant (with recycling system) for a investment of 1247 lakh under 'Orange' category. any change in production & its capacity unit has to seek prior consent to establish/operate from the State Board	Noted and shall be complied if there is any such change- not applicable at present
	That this consent is subject to any order or direction from any Court of the competent jurisdiction	Noted
9 MLD WTP, Sirohi	That this consent is being issued to EE, PHED for Operating of Water Treatment Plant of capacity 9.0 MLD at near Angore Sirohi. In case of any increase in capacity or addition/ modification/ alteration/ or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish from the Board.	Noted and shall be complied if there is any change in capacity or addition/ modification/ alteration/ or change in product mix or process or raw material or fuel- not applicable at present
	That this Consent to Establish is valid for Water Treatment Plant (with recycling system) for a investment of Rs. 336.3 lakh under 'Orange' category. any change in production & its capacity unit has to seek prior consent to establish/operate from the State Board	Noted and shall be complied if there is any such change- not applicable at present
9.25 MLD WTP, Banswara	That this consent is being issued to EE, PHED for Operating of Water Treatment Plant of capacity 9.25 MLD at Office of Executive Engineer, Thikriya Dahod Road, Banswara. In case of any increase in capacity or addition/ modification/ alteration/ or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish from the Board.	Noted and shall be complied if there is any change in capacity or addition/ modification/ alteration/ or change in product mix or process or raw material or fuel- not applicable at present
	That this Consent to Establish is valid for Water Treatment Plant (with recycling system) for a investment of Rs. 1100.00 lakh under 'Orange' category. any change in production & its capacity unit has to	Noted and shall be complied if there is any such change- not applicable at present

Name of plant and locations	Conditions of Clearance / Permission	Status of Compliance
	seek prior consent to establish/operate from the State Board	
4.5 MLD WTP, Banswara	That this consent is being issued to EE, PHED for Operating of Water Treatment Plant of capacity 4.5 MLD at Existing WTP at Kagdi Pick up weir Dam Banswara. In case of any increase in capacity or addition/ modification/ alteration/ or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish from the Board.	Noted and shall be complied if there is any change in capacity or addition/ modification/ alteration/ or change in product mix or process or raw material or fuel- not applicable at present
	That this Consent to Establish is valid for Water Treatment Plant (with recycling system) for a investment of 511.0 lakh under 'Orange' category. any change in production & its capacity unit has to seek prior consent to establish/operate from the State Board	Noted and shall be complied if there is any such change- not applicable at present
10.4 MLD WTP, Banswara	That this consent is being issued to EE, PHED for Operating of Water Treatment Plant of capacity 10.4 MLD at PHED AEN Campus, Near Old Bus Stand Banswara. In case of any increase in capacity or addition/ modification/ alteration/ or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish from the Board.	Noted and shall be complied if there is any change in capacity or addition/ modification/ alteration/ or change in product mix or process or raw material or fuel- not applicable at present
	That this Consent to Establish is valid for Water Treatment Plant (with recycling system) for a investment of 1181.0 lakh under 'Orange' category. any change in production & its capacity unit has to seek prior consent to establish/operate from the State Board	Noted and shall be complied if there is any such change- not applicable at present
B. Tree cutting permission		
Office Premises and Bad ke Balaji Campus, Laxmangarh	Tree Cutting permission given without any terms & condition.	Kindly refer Appendix 3 for copy of the same
PHED Campus, Sardarshahar	Number of new trees to be grown under Rule 24 J (2)- total 25 trees	Complied- contractor has planted 50 trees in STP campus of Sardarshahar
	Wood of cut trees shall be used for cremation and after planting 25 new trees on Government land/Public place, a physically verified report by Local Revenue Officer (Patwari) shall be submitted.	Only 2 trees cut till now and efforts are being taken to save other trees. Wood of cut trees are kept at site and shall be handed over to Nagar Palika, when all trees are cut as per design requirement
Aaraji No.3035/3026 and	• Applicant shall cut the trees on his own expenses and within the stipulated duration.	Tree is cut at site and wood of tree is kept at site for further process Tree plantation shall be done by contractor.

Name of plant and locations	Conditions of Clearance / Permission	Status of Compliance
1135 Pratapgarh (STP site)	• Applicant shall be responsible for his own for any damage/public loss • After bidding of wood of cut trees, the amount shall be deposited in treasury • Applicant shall plant 5 trees in place of 1 tree.	
PHED Campus, Banswara	• Due to the presence of electricity line, trees should be cut with proper protective measures. • There should be no issue in transportation on road area • There should be no damage/public loss • After bidding of wood of cut trees, the amount shall be deposited in treasury	10 nos. tree cutting has been done
3.8 MLD STP Site Ratangarh	• Tree cutting permission obtained from Municipal Council under letter no. 2021/1496 on dated 12.07.2021	
CWR & PH, Sirohi	• The Permission of 9 trees at CWR & PH obtained from Tehsildar office, Sirohi vide letter no. 2022/348 dated 16.03.2022 plantation of trees with its quadruple capacity	
Didwnana	• The Permission for 5 Neem Tree cutting obtained from Tehsildar office under letter no. 3049-3051 on dated 07.12.2021	
Makrana	• The Permission of around 160 Neem trees at STP site (7.7 MLD) obtained from Municipal council, Makrana vide letter no. L/2021-22/3440 dated 16.12.21 plantation of trees with its thrice capacity	

COMPLIANCE STATUS WITH ENVIRONMENTAL LOAN COVENANTS

Table -8: Compliance with Environmental Loan Covenants

Section	Loan Covenants	Compliance Status	Action Required
LA. Schedule 4. Execution of Project			
Implementation Arrangements	3. The Borrower shall ensure or cause the EA to ensure that its PMU, Zonal Project Offices, and its PIUs within the Project ULBs, employ sufficient staff including increasing the number of adequate staff as included in the PAM, with relevant expertise in the fields of project management, financial management, engineering, procurement, operations and management, and environmental and social safeguards implementation. The EA will ensure that the PMU, Zonal Offices, and the PIUs housed in the Project ULBs, are equipped with the necessary staff, office space, facilities, equipment, support staff and management information systems for the entire duration of the Project and thereafter.	Complied- Sufficient staff is mobilized in PMU, Zonal PIUs, and town PIUs as per PAM and equipped with required office, facilities, equipment and support staff	Nil
	4. The Borrower shall ensure or cause the EA to ensure that towards smooth implementation of the Project, grievances if any from stakeholders relating to the Project implementation or use of funds are addressed effectively and efficiently.	Being Complied, Grievance Redress Mechanism is functional	Nil
Counterpart Support	5. (c) As necessary, respective counterpart staff, land facilities, and implementation and monitoring of respective EMPs, RPs and RIPPs as applicable (including unforeseen expenses beyond the estimates), utility shifting, operations and maintenance of Project facilities, and general Project management expenses in a timely manner through approved annual budget allocations or other means; and	Being complied- annual budget for expenses for project management is being allocated by Government	Nil
	(d) Sufficient funds to satisfy the EA's liabilities arising from any Works, Goods and/or Consulting Services contract under the Project.	Being complied- sufficient budget is allocated by Government	Nil
Subproject Selection Criteria	6. The Borrower shall ensure or cause the EA to ensure that: (a) All Subprojects are selected and approved in accordance with the agreed Subproject Selection Criteria and approval process stipulated in the PAM;	Being complied- all Subprojects are selected and approved in accordance with the agreed Subproject Selection Criteria	Nil
	(b) All documents forming the basis for screening, selection and processing of Subprojects are made available to ADB upon request and are kept for such purposes for a minimum period of five years after submission of the Project completion report.	Being complied- all documents as required by ADB are being provided by PMU	Nil

Section	Loan Covenants	Compliance Status	Action Required
Condition for award of contracts	11. The Borrower shall ensure, or cause the EA to ensure, that no Works contract is awarded which involves environmental impacts until the EA has: (a) Prepared, submitted and obtained final approval of the relevant IEE from ADB and the relevant forest and environment clearances from statutory authorities of the Borrower and the State as applicable;	Being Complied- all works are awarded after draft IEEs are approved by ADB, IEEs are being updated as per approved designs	Nil
	(b) Incorporated the relevant provisions from the respective EMP into the related Works contract;	Being Complied, IEE and EMP is part of works contracts	Nil
	(c) Prepared and submitted to ADB a groundwater sustainability report for each Subproject that involves ground water extraction.	Complied- Ground water sustainability report is included in IEEs, where ground water extraction is required	Nil
Safeguards-Environment	13. The Borrower shall ensure or cause the EA to ensure that the preparation, design, construction, implementation, operation and decommissioning of Subprojects and Project facilities comply with (a) all applicable laws and regulations of the Borrower and the State relating to environment, health, and safety; (b) the Environmental Safeguards; (c) the EARF; and (d) all measures and requirements set forth in the IEE (including the heritage impact assessment wherever applicable) and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report. No Category A subprojects will be financed under the Project.	Being Complied- only category B projects are considered in RSTDSP, all the applicable laws and regulations are being complied, environmental safeguards as per EARF are being complied	Nil
	17. Notwithstanding the stipulation that no Category A Subprojects under environment, involuntary resettlement or indigenous people, will be financed under the Project, in the unforeseen situation of change in categorization of a Subproject that is under implementation, to Category A, the Borrower shall ensure or cause the EA to ensure, in consultation with ADB that such Subproject shall be completed in full compliance of the ADB Safeguard Policy requirements and applicable laws and regulations of the Borrower and the State.	Being Complied, all sub-projects are under Category B and not fulfilling the criteria of Category A	Nil
Human and Financial Resources to Implement Safeguards Requirements	18. The Borrower shall ensure or cause the EA to ensure that all necessary budgetary and human resources to fully implement the EMPs, the RPs and any RIPPs (as applicable) are made available on a timely basis.	Being Complied- required budget and staff is provided in all project towns	Nil

Section	Loan Covenants	Compliance Status	Action Required
Safeguards – Related Provisions in Bidding Documents and Works Contracts	19. The Borrower shall ensure or cause the EA to ensure that all bidding documents and contracts for Works contain provisions that require contractors to: (a) Comply with the measures and requirements relevant to the contractor set forth in the IEE, the EMP, the RP(s) and any RIPP, if any (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report;	Being Complied- IEE and EMP is part of bid and contract documents of each project and being complied at site	Nil
	(b) Make available a budget for all such environmental and social measures;	Being complied- EMP cost is included in contract bids	Nil
	(c) Provide the EA with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, the RP/RIPP (as applicable);	Being Complied- any unanticipated environmental impacts are being reported to ADB through IEE updates, QPRs and SEMRs	Nil
	(d) Adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and	Being Complied- conditions of roads, agricultural land and other infrastructure are being recorded before start of construction works	Nil
	(e) Fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	Pathways are restored as soon as construction is completed in that stretch. Permanent establishments (Stores, etc) Will be reinstated after construction is completed	NIL
Safeguards Monitoring and Reporting	20. The Borrower shall ensure or cause the EA to ensure the following: (a) submit semiannual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;	Being complied- Semiannual Safeguards Monitoring Reports are being submitted to ADB	Nil
	(b) If any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEEs, the EMPs, the RPs or any RIPP (as applicable), promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and	Being Complied- any unanticipated environmental impacts are being reported to ADB through IEE updates, QPRs and SEMRs	Inform to ADB about any unanticipated environmental and/or social risks and impacts raised during construction works

Section	Loan Covenants	Compliance Status	Action Required
	(c) Report any breach of compliance with the measures and requirements set forth in the relevant EMP, the RP or RIPP (as applicable) promptly after becoming aware of the breach.	Will be Complied- any breach of compliance with the measures and requirements set forth in the relevant EMP, the RP or RIPP (as applicable) shall be reported to ADB	Inform to ADB about any breach of EMP, RP or RIPP
Prohibited List of Investments	21. The Borrower shall ensure or cause the EA to ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities	Complied- no prohibited investment activities are being considered in RSTDSP	Nil
Labor Standards	22. The Borrower shall ensure or cause the EA to ensure that Works contracts under the Subprojects and the Project follow all applicable labor laws of the Borrower and the State and that these further include provisions to the effect that contractors (i) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; and (ii) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions. Such contracts shall also include clauses for termination in case of any breach of the stated provisions by the contractors.	Being complied- HIV/AIDS awareness Training was carried out in Sardarshahar, Abu Road, Sirohi and will be done in Banswara, Mandawa, Khetri, Makrana, Kuchaman, Didwana & Ladnu towns in due course. Being Complied- Project is implementing all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions.	Nil
Project Agreement. Article II. Particular Covenants			
Section 2.05.	(a) The State shall take out and maintain with responsible insurers, or make other arrangements satisfactory to ADB for, insurance of Project facilities to such extent and against such risks and in such amounts, as shall be consistent with sound practice.	Being Complied- all the required insurances as per contract agreement and need is being done in all projects	Nil
	(b) Without limiting the generality of the foregoing, the State, shall insure, or cause to be insured, the Goods to be procured including imported for the Project against hazards incident to the acquisition, transportation and delivery thereof to the place of use or installation, and for such insurance any indemnity shall be payable in a currency freely usable to replace or repair such Goods.	Being Complied- all the required insurances as per contract agreement is being done in all projects	Nil

3. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

12. Environmental management and monitoring plan has been prepared for all the sub projects and included in respective IEEs. Periodical monitoring is conducted by environmental Professional and support staff of CMSC1 & 2 through site visits, public consultations, consultations with labors and contractors' staff, verifications of documents and environmental monitoring for ambient air and noise conditions, soil and water quality analysis through third party monitoring agencies.

13. As per IEEs, contractor is required to submit Site Specific EHS Plan (SEMP). SEMP of all 14 towns are submitted by the contractor and approved. Contractors are following mitigation measures as per SEMP and EMP at project sites.

14. Compliance status with the environmental management and monitoring plan of the sub-projects are given in following **Table 9**, photographs of safeguard compliance is shown in **Appendix 1**, and environmental site visit reports are attached in **Aappendix 4**.

ENVIRONMENTAL MONITORING TABLES

Table 9: EMP Compliance Status of All Sub-projects under RSTDSP
(Abbreviations of town names- RTG: Ratangarh, FTP: Fatehpur, LXM: Laxmangarh, SRD: Sardarshahar, SHR: Sirohi, ABR: Abu Road, PRT: Pratapgarh, BNS: Banswara, KTR: Khetri, MND:Mandawa, KMN: Kuchaman, LDN: Ladnu, MKR: Makrana, DID: Didwana)

Table 9A: Design Phase

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)													Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
Sewerage Treatment Plant- Odour nuisance and aesthetics: • Provide a green buffer zone of 10-20 m wide all around the STP, and 5-10 m around SPSs, with trees in multi-rows. This will act as a visual screen around the facility and will improve the aesthetic appearance. Treated wastewater shall be used for plantation. • Develop layout plan of STP such that odour generating units (such as sludge / solids handling facilities are located away from the surrounding area with future development potential.	• Buffer zone provided around STP with dense tree plantations • STP layout	C	C	NA	C	BC	C	C	C	C	C	C	C	C	C	DBO Contractor / PIU
All Work sites-Tree cutting and site preparation: • Minimize removal of trees by adopting to site condition and with appropriate layout design of STP/SPS or any other site with trees • Obtain prior permission for tree cutting at STP/SPS site or at any other site that may require tree cutting finalized during detailed design • Plant and maintain 3 trees for each tree that is removed	• List of trees to be cut • Tree cutting permission • Compensatory plantations	C	C	C	C	C	BC	C	C	C	C	C	C	C	C	DBO Contractor / PIU/ CMSC/PMCBC
Design of water supply system - Non-compliance or non-adherence with the environmental considerations proposed in preliminary designs during detailed design: Ensure compliance with the following during the detailed design: • Adopting conjunctive use approach water source; utilizing feasible surface water sources and groundwater source optimally thereby reducing the existing groundwater abstraction to the extent possible • Locating components and facilities appropriately by avoiding sensitive locations like forests and protected areas (environmentally, socially, and archeologically). • Designing the entire system to maintain optimal flow and terminal pressure, and optimizing the overall energy usage. • Avoiding usage of asbestos containing materials. • Reducing the incidence of water borne diseases by providing 100% population including urban poor with potable water supplies • Provision of appropriate personal protection equipment to the workers and staff	• Project components away from environmentally sensitive areas • Energy efficient design • ACM management plan • 100 % coverage of population with improved water supply • Use of PPEs by workers	NA	NA	C	C	C	C	NA	C	B	C	C	NA	NA	NA	DBO Contractor
Design sewerage system - Non-compliance or non-adherence with the environmental considerations proposed in preliminary designs during detailed design: Ensure compliance with the following during the detailed design:	• Project components away from environmentally sensitive areas • Reuse plan for treated effluent • Energy efficient design	• C • BC* • C	• C • BC* • C	NA NA NA	• C • BC* • C	• C • BC* • C	• C • BC* • C	• C • BC* • C	• C • BC* • C	• C • BC* • C	• C • BC* • C	• C • BC* • C	• C • BC* • C	• C • BC* • C	• C • BC* • C	DBO Contractor/ PIU/ CMSC/PMCBC

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
• Locating components and facilities appropriately by avoiding sensitive locations like forests and protected areas (environmentally, socially, and archeologically). • Treatment and reuse of sludge from treatment process; providing a covered shed of adequate space to air dry the processed sludge for at least 15 days at STPs • Designing the entire system to maintain optimal flow and terminal pressure, and optimizing the overall energy usage • Avoiding usage of asbestos containing materials • Reducing the incidence of water borne diseases by providing 100% population including urban poor with potable water supplies • Reuse of treated wastewater from STP for non-potable uses thereby reducing the load in freshwater resources • Adopting a combined approach of sewerage system and faecal sludge and Septage management to cover 100% population of the town with safe collection, conveyance and treatment of sewage generated in the town Provision of appropriate personal protection equipment to the workers and staff	• ACM management plan • FSSM plan for areas where sewerage networks are not feasible	• BC • C	• BC • C	BC NA	• BC • C	• BC • C	• BC • C	• C • C	• C • C	• BC • C	• BC • C	• BC • C	• BC • C	• BC • C	• BC • C	*Reuse plan for trated effluent is being prepared for the towns in consultation with ULBs
Seismic sensitivity - Damage to infrastructure and potential risks: project area in moderate earthquake risk zone (Zone II): Designs of project component structures shall comply with relevant codes of design such as Bureau of Indian Standard (BIS) specifications for earthquake resistant design (IS: 1893: Criteria for earthquake resistant design of structures).	• Earthquake resistant design of project structures	C	C	C	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor/PIU/ PMCBC
Groundwater source - Source sustainability and over exploitation of groundwater: • Prepare a groundwater harvesting and artificial recharge plan; • Creation of artificial recharge pits in public places / public buildings. Local body can issue a notification to this effect. • Household level artificial recharge (like roof top rainwater harvesting) should be encouraged. • Groundwater regulation – options to close / discontinue all the tube wells in houses used for domestic purposes in Town in a phased manner once the project is implemented		NA	NA	NA	BC	NA	C	NA	NA	BC	BC	NA	NA	NA	NA	DBO contractor/PIU/ PHED
Groundwater contamination: • Prepare a source protection plan for tube wells and open wells • Ensure proper construction of tube wells including casing pipes to prevent water contamination from well spaces, and due to flooding • Measures should be taken to control the open defecation, and to close all unsafe latrines (for example pit latrines). • Awareness programs shall be conducted regarding the sanitation practices and its effect on groundwater quality	Tube wells and open wells	NA	NA	NA	BC	BC	BC	NA	NA	BC	BC	NA	NA	NA	NA	PHED/PIU
Water Treatment Plant (WTP) - Inefficient treatment, treated water characteristic not satisfying the standards: • Design treatment process that is suitable for raw water	• Design parameters of WTP meeting with national standards • Raw water quality test reports	NA	NA	NA	NA	C	C	NA	C	NA	NA	NA	NA	NA	NA	DBO Contractor/ CMSC

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)													Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
source characteristics duly considering the seasonal variation in quality if any • Duly consider quality of ground water that will be supplemented for surface water supply variations • Treated water and supplied water at consumer end should meet the drinking water standards all times	• Treated water quality test reports															
Water Treatment Plant (WTP) - Design to prevent pollution due to waste water and sludge: • Ensure that the following are included in the WTP design: • Back wash water reuse system and sludge recovery and disposal system • Back water cycling components: Filter backwash holding tank, recovered water storage tank and pumping for • recycling • Sludge management system components: Gravity thickeners for sludge from clarifiers, mechanical sludge dewatering system, storage facility for dewater desludge • Disposal of sludge at a landfill or the disposal site provided by the ULB	• Design of WTP including back wash water recycle • Sludge management from WTP	NA	NA	NA	NA	C	C	NA	C	NA	NA	NA	NA	NA	NA	DBO Contractor/PIU
WTP, CWRs and STP - Hazardous/ harmful chemicals: • Reduce the use of chemicals in the treatment process to the extent possible (water treatment); provide non-chemical alternatives or easily recoverable and/or reusable chemicals or biocompatible alternatives. • Establish proper handling/ storage/ application system according to the relevant standards, safety precautions and prevent accidental release/spill • Provide leak/ spill detection, collection/ capture and safe disposal facilities such as chlorine absorption and neutralization facility • Provide ventilation, lighting, entry and exit facilities visible and audible alarm facilities to alert chemical/chlorine leak • Facility for isolation in the even to major leakages • Eye wash and shower facility • Personal protection and safety equipment for the operators (masks, oxygen cylinders, gloves, etc.,) • Provide training to the staff in safe handling and application of chemicals, material safety, and standard operating procedures and emergency responses • Develop emergency response procedures	• Detail design of STP, WTP and CWR • Eye wash and shower facility included in STP design • Emergency response procedure for chemical hazard	C	C	C	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor/ PMCBC/ CMSC
Clear Water Reservoirs (CWRs) - Hazardous / harmful chemicals: • Establish proper handling / storage / application system according to the relevant standards, safety precautions and prevent accidental release / spill • Provide ventilation, lighting, entry and exit facilities; visible and audible alarm facilities to alert chemical/chlorine leak • Personal protection and safety equipment for the operators (masks, oxygen cylinders, gloves, etc.,) • Provide training to the staff in safe handling and application of chemicals, material safety, and standard operating procedures and emergency responses	• Chlorine handling, storage and safety plan • Use of PPEs by workers handling chlorine cylinders • Training records • Emergency response plan	NA	NA	C	C	C	C	NA	C	C	C	C	NA	NA	NA	DBO Contractor/ PMCBC/ CMSC

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
• Develop emergency response procedures																
Sewage Treatment Plant (STP)- Hazardous / harmful chemicals: • Reduce the use of chemicals in the treatment process to the extent possible; provide non-chemical alternatives or easily recoverable and/or reusable chemicals or biocompatible alternatives. • Establish proper handling / storage / application system according to the relevant standards, safety precautions and prevent accidental release / spill • Provide leak/spill detection, collection / capture and safe disposal facilities such as chlorine absorption and neutralization facility • Provide ventilation, lighting, entry and exit facilities; visible and audible alarm facilities to alert chemical/chlorine leak • Facility for isolation in the event of major leakages • Eye wash and shower facility • Personal protection and safety equipment for the operators (masks, oxygen cylinders, gloves, etc.,) • Provide training to the staff in safe handling and application of chemicals, material safety, and standard operating procedures and emergency responses • Develop emergency response procedures	• Detail design of STP • Eye wash and shower facility included in STP design • Emergency response procedure for chemical hazard	C	C	NA	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor/ CMSC
Sewage Treatment Plant (STP)- Inefficient sewage treatment, treated effluent characteristics not satisfying the CPCB/RPCB standards: • Ensure that the selected process is appropriate for the town and meets discharge standards and facilitate reuse • (Treated effluent should meet the criteria set by RSPCB/CPCB or the following bid specified parameters, whichever are stringent: pH 6.5 – 9.0 BOD5, mg/l ≤10 COD, mg/l ≤50 TSS, mg/l ≤20 NH4-N, mg/l <25 Total nitrogen, mg/l <10 Fecal Coliform, MPN/100 ml <1000	• BOD at 20^0C for 5 days- less than 10 mg/l • Total suspended Solids (TSS)- less than 20 mg/l • Total nitrogen- less than 10 mg/l	C	C	NA	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor/ PMCBC/ CMSC
Change in raw sewage quality - Mixing of industrial effluent with sewage: • No industrial wastewater shall be allowed to dispose into municipal sewers • As there is a risk of potential mixing of industrial waste, no domestic wastewater from industrial units shall be allowed into municipal sewers • Ensure that there is no illegal discharge through manholes or inspection chambers • Conduct public awareness programs; in coordination with RSPCB and CLC.	• Separate sewerage networks for domestic sewage • Outlet parameters as per latest Govt. norms	C	C	NA	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor and PIU / PMU

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)													Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
• Conduct regular wastewater quality monitoring (at inlet and at outlet of STP) to ensure that the treated wastewater quality complies with the effluent standards																
Sewage Treatment Plant (STP)- Use of treated wastewater for reuse applications: • Develop wastewater reuse plan for Town in consultation with CLC as per the Sewerage and Wastewater Policy, 2016. The Reuse Plan shall inter alia include the following: • Identify potential reuse application in Town, and establish quality criteria for each of the use • For applications that use treated wastewater directly (e.g., agriculture), the quality required for such application in safe manner considering health, environment and crop yield concerns shall be ensured; • Prepare a reuse plan for agriculture, if that is the priority use or one of the applications as per the CLC in Town, clearly indicating the limits (geographical / crops / type of application / type of soils etc.,); adopt international good practice suggested by agencies like World Health Organization (WHO), Food and Agricultural Organization (FAO) of the United Nations. • Plan should include awareness and training provisions and responsibilities; these can be conducted by concerned department (e.g., Agricultural Department, District Collectorate) • Carryout regular / online monitoring of critical quality parameters of treated wastewater to ensure that they meet the preset standards established for reuse	• Reuse plan for treated effluent • Outlet parameters as per latest Govt. norms	• BC* • C	• BC* • C	NA	• BC* • C	• BC* • C	• BC* • C	• BC* • C	• BC* • C	• BC* • C	• BC* • C	• BC* • C	• BC* • C	• BC* • C	BC* C	DBO Contractor / PIU/CMSC/ PMCBC *Reuse plan for treated effluent is being prepared for the towns in consultation with ULBs
STP - Treated effluent discharge into water channel/drains and associated impacts on river water and downstream users: • Obtain of consent of RSPCB for discharge of treated wastewater into drains • Conduct a baseline water quality assessment of receiving water body • Regularly monitor the treated wastewater quality at STP and ensure that it meets the discharge standards Monitor water quality periodically during operation phase as per the Environmental Monitoring Plan	• Consent to Establish from RSPCB • Reuse plan of treated effluent • STP effluent- monitoring • Water Quality monitoring of receiving water body	• C • BC* • TC# • BC	• C • BC* • TC# • BC	NA	• C • BC* • TC# • BC	• C • BC* • TC# • BC	• C • BC* • TC# • BC	• C • BC* • TC# • BC	• C • BC* • TC# • BC	• C • BC* • TC# • BC	• C • BC* • TC# • BC	• C • BC* • TC# • BC	• C • BC* • TC# • BC	• C • BC* • TC# • BC	• C • BC* • TC# • TC	Contractor/PIU *Reuse plan for treated effluent is being prepared for the towns in consultation with ULBs # Will be done during Operation phase of the project.
Sewage Treatment Plant (STP)/WTP- Sludge management and reuse: • Prepare a sludge management plan • Prepare a dried Sludge utilization plan for Town with the help of Agriculture Department / CLC; plan should also include if any additional processing is required for sludge to use as soil conditioner • Plan should clearly identify various potential uses and demand in Town and surroundings • Establish usage limits, where required, (geographical /	• Reuse plan for treated sludge	• BC*	• BC*	NA	• BC*	• BC*	• BC*	• BC*	• BC*	• BC*	• BC*	• BC*	• BC*	• BC*	BC*	DBO Contractor/PIU *Reuse plan for treated Sludge is being prepared for the towns in

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)													Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
crops / type of application / type of soils etc.,); adopt international good practice suggested by agencies like World Health Organization (WHO), Food and Agricultural Organization (FAO) of the United Nations. • Identify a landfill / suitable site for disposal of surplus dried sludge • Monitor sludge quality during operation phase as per the Environmental Monitoring Plan, ensure that it meets the quality parameters established by FCO • In case of sludge not meeting the quality parameters, it shall not be used as soil condition, and shall be disposed at appropriate disposal site (if it falls under hazardous category, it shall be disposed as per the Hazardous Waste Management Rules, 2016)															consultation with ULBs
Sewage pumping stations - Handling and disposal of accumulated waste at identified disposal sites: • Prepare a waste handling and management plan for the work, considering handling, disposal and occupational and public health safety • Assess the working conditions, develop appropriate working method, and work shall be only conducted under continuous supervision of EHS supervisor • Waste shall not be handled manually; use appropriate equipment • All workers shall be provided with necessary personal protection equipment, including gloves, boots, face / gas masks and oxygen cylinders in handy for emergency use etc.; if gas emission is suspected at any point of time, workers shall use gas masks with oxygen cylinders • Inform surrounding public about the work • Fire control and safety equipment shall be provided at the work site • Waste shall be properly covered during transport • Manage the solid waste as per the Solid Waste Management Rules, 2016	• Waste Management Plan as per Solid Waste Management Rules 2016	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/PIU
Sewage pumping stations - Noise and odour generation from sewage pumping operations, and public and occupational safety: • Provide low noise, efficient pumping systems • Provide dedicated power supply to SPS, if possible, otherwise DG set to be used during power failure, should be soundproof and having acoustic enclosures with low/permitted air emission standards • Design SPS with appropriate retention time, so as not to retain the sewage in the sump for long time to avoid generation of odorous gases • Firm barricades should be provided all round during construction of SPS; • Boundary wall of sufficient height should be provided during operation phase so that no children/residents can entre in the SPS premises • Plantations should be provided if space available to reduce foul smell of sewer during operation	Design of SPS covering all these parameters	C	C	NA	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor/PIU

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)													Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
• No worker's camps should be allowed during construction works at SPS site • Entry should be restricted through provision of gate and guard during SPS operation. • Highest Flood Level (HFL) should be used as a basis while deciding on the SPS dimensions. Also, all the prevention methods including buffer capacity secondary tank and alternative power arrangements should be implemented so that sewage does not either leak during power outages or percolate into ground and pollute water.															
Sewer network – collection and conveyance - Poor design leading to overflows, blockages, and creating nuisance, pollution: Limit the sewer depth where possible • Sewers shall be laid away from water supply lines and drains (at least 1 m, wherever possible); • In all cases, the sewer line should be laid deeper than the water pipeline (the difference between top of the sewer and bottom of water pipeline should be at least 300 mm) • In unavoidable, where sewers are to be laid close to storm water drains, appropriate pipe material shall be selected (stoneware pipes shall be avoided) • For shallower sewers and especially in narrow roads, use small inspection chambers in lieu of manholes; • Design manhole covers to withstand anticipated loads and ensure that the covers can be readily replaced if broken to minimize silt/garbage entry • Ensure sufficient hydraulic capacity to accommodate peak flows and adequate slope and gas vents in gravity mains to prevent buildup of solids and hydrogen sulfide generation • Take necessary precautionary measures to protect sewer network, and to avoid disposal of solid wastes, debris, wastewater into newly laid sewers from the time it is constructed to the start of operation phase	• Sewer network design covering all these parameters	C	C	NA	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor/PIU/ PMCBC
FSSM - Occupational health and safety issues, and impact on STP process: Conduct detailed survey of the households to be covered with FSSM to design the system to suit the local conditions, such as type of septic tanks and their location in the houses • Create awareness program on the FSSM from collection to treatment system that will be adopted • Design the sewage treatment process duly considering mixing of Septage • Ensure that the FSSM system is completely mechanized no human touch, even accidentally, from collection at household to discharge into STP, and in periodic cleaning of tankers • Demarcate a proper area for cleaning of mobile tankers in STP premises, and ensure that the wastewater shall be discharged into STP • Provide proper training to the workers, and staff in safe handling of FSSM tasks, provide all necessary personal protection equipment	• FSSM plan and design covering all these requirements	C	C	NA	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)													Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
• Ensure proper facilities for workers including showers, wash areas, toilets, drinking water, eating and resting places • Conduct regular health checks • Prepare Health and Safety Plan for FSSM																
Physical Cultural resource **- Encroachment/ damage to protected monuments and chance finds:** • consult Department of Archaeology and Museums to obtain an expert assessment of the archaeological potential of the site; • consider alternatives if the site is found to be of high risk; • include state and local archaeological, cultural and historical authorities, and interest groups in consultation forums as project stakeholders so that their expertise can be made available; and • develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved. This should involve: a. Having excavation observed by a person with archaeological field training; contractor should employee a person with a formal certification course in archaeology from recognized (such as Institute of Archaeology, ASI, Delhi) during the ground excavation activities b. Conduct awareness training to contractor & supervision staff prior to start of excavation; c. Stopping work immediately to allow further investigation if any finds are suspected; Calling in the ASI if a find is suspected, and taking any action they require to ensure its removal or protection in situ	• List of ASI/State protected monuments • Chance Finds protocol	NA C	NA C	NA C	NA C	NA C	NA C	NA C	NA C	NA C	NA C	NA C	NA C	NA C	NA C	DBO Contractor/ PIU/ CMSC/ PMCBC
Asbestos cement (AC) pipes in existing water supply system & Other locations: clearing, transfer and disposal; work in narrow streets, and interventions in existing AC pipelines - Health impacts due to air borne asbestos if handled unsafely, cut, drilled or broken into pieces: • Develop ACM Management Plan (AMP) that includes identification of hazards, the use of proper safety gear and disposal methods. • (Conduct awareness program on safety during the construction work • Undertake the construction work stretch-wise; excavation, pipe laying and trench refilling should be completed on the same day • (Provide barricades, and deploy security personnel to ensure safe movement of people and also to prevent unnecessary entry and to avoid accidental fall into open trenches • Identify risk of intervention with existing AC pipes. If there is significant risk, implement the AMP strictly that includes	• ACM plan covering all these requirements	NA	NA	BC	BC	BC	BC	NA	BC	BC	BC	BC	NA	NA	NA	DBO Contractor/PIU/ PMCBC/ CMSC

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)													Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
identification of hazards, the use of proper safety gear and disposal methods. • Maintain records of AC pipes as per the AMP • Refer to the instructions of the Asbestos Expert																
Asbestos materials in existing PHED campus- Health impacts due to air borne asbestos if handled unsafely, cut, drilled or broken into pieces: • Conduct risk assessment to determine extent of asbestos materials currently on-site • Coordinate and provide support to the asbestos management service provider on the requirement of sampling, testing and disposing existing asbestos materials • Ensure the selected area for temporary storage is suitable for safe storage of asbestos materials • Incorporate international and national standards considered in designing the temporary storage • Ensure that handling and disposal of asbestos materials are carried out by specially trained service provider/s following Government of India requirements, or in their absence, internationally recognized procedures	• ACM plan covering all these requirements	BC	BC	BC	BC	BC	BC	NA	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/PMU
Preparation of plans and protocols - Various impacts: • Preparation of waste handling and management plan for SPS sites • Prepare traffic management plan • Prepare occupational health and safety plan • Prepare spoils management plan	• Site Specific Environment, Health and Safety plan, covering all these plans	C	C	C	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor CMSC and PMCBC

C- Compiled, TC – To be complied, BC- Being Complied

Table 9 B. Pre-Construction Phase

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)													Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MNW	KMN	DID	MKR	LDN	
Compliance with environmental subproject selection criteria - Environmental impacts due to subproject: Compliance with environmental subproject selection criteria	Compliance with environmental subproject selection criteria	C	C	C	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor, PIU, CMSC/PMCBC
Environmental monitoring of baseline conditions of air, noise, water and soil - To establish base line environmental conditions: Environmental monitoring through NABL accredited laboratory	Baseline environmental monitoring of ambient air, noise, water and soil conducted	C	C	C	C	C	C	C	C	C	C	C	C	C	C	DBO contractor
Legal compliance - Environmental legal noncompliance may attract legal actions Failure to obtain necessary consents Permits, NOCs etc. can result to design revisions and /or stoppage of works: • Obtain all consents, clearances (CTE/CTO from RSPCB), permits NOCs etc. before start of	List of consents required as per IEE	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO contractor/ PIU/Consultants

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)													Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MNW	KMN	DID	MKR	LDN	
construction works • Ensure that all necessary approvals for construction to be obtained by contractor are in place before start of construction • Following consents are required- • Tree cutting-local authority • Storage, handling and transport of hazardous materials- RSPCB • Sand mining, quarries, borrow areas- Department of mines and Geology • Traffic diversion/road cutting- local authority, traffic police • Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs etc. Include in detailed design drawings and documents all conditions and provisions; if necessary															
Utilities - Telephone lines, electric poles and wires, water lines within proposed project area: • Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during construction phase; and • Require construction contractors to prepare a contingency plan to include actions to be taken in case of unintentional interruption of services. • Require contractors to prepare spoils management plan	• List of affected utilities • Utilities contingency plan • Spoil management plan	C	C	C	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor in collaboration with PIU and with approval of PMU
Social and Cultural Resources - Ground disturbance can uncover and damage archaeological and historical remains: Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized, and measures are taken to ensure they are protected and conserved	Chance finds protocol	C	C	C	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor/ CMSC and PIU
Construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas.- Disruption to traffic flow and sensitive receptors: • Prioritize areas within or nearest possible vacant space in the project location; • If it is deemed necessary to locate elsewhere, consider sites that will not promote instability and result in destruction of property, vegetation, irrigation, and drinking water supply systems; • Do not consider residential areas; • Take extreme care in selecting sites to avoid direct disposal to water body which will inconvenience the community. • For excess spoil disposal, ensure o site shall be selected preferably from barren, infertile lands. In case agricultural land needs to be selected, written consent from landowners (not	• Location plan of Construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas • Spoil management plan	C	C	C	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor/ CMSC and PIU

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)													Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MNW	KMN	DID	MKR	LDN	
lessees) will be obtained; (b) debris disposal site shall be at least 200 m away from surface water bodies; (c) no residential areas shall be located within 50 m downwind side of the site; and (d) site is minimum 250 m away from sensitive locations like settlements, ponds/lakes or other water bodies.																
Sources of Materials - Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and water logging, and water pollution: • Prioritize sites already permitted by the Department of Mines and Geology • If other sites are necessary, inform construction contractor that it is their responsibility to verify the suitability of all material sources and to obtain the approval of PMU and • If additional quarries will be required after construction is started, inform construction contractor to obtain a written approval from PIU.	Permission from Govt. for procurement of construction materials	C	C	C	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor to prepare list of approved quarry sites and sources of materials with the approval of PIU
Consents, permits, clearances, NOCs, etc.- Failure to obtain necessary consents, permits, NOCs, etc. can result to design revisions and/or stoppage of works: • Obtain all necessary consents (including CTE for STP from RSPCB), permits, clearance, NOCs, etc. prior to award of civil works. Following consents are required- • Tree cutting- local authority • Storage, handling and transport of hazardous materials- RPCB • Sand mining, quarries, borrow areas- Department of mines and Geology • Traffic diversion/road cutting- local authority, traffic police • Ensure that all necessary approvals for construction to be obtained by contractor are in place before start of construction • Acknowledge in writing and provide report on compliance all obtained consents, permits, clearance, NOCs, etc. • Include in detailed design drawings and documents all conditions and provisions if necessary	List of consents required as per IEE	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor and PIU and Consultant
Asbestos materials in existing PHED campus & other Locations - Health impacts due to air borne asbestos if handled unsafely, cut, drilled or broken into pieces: • Coordinate and provide support to the asbestos management service provider on the requirement of sampling, testing and disposing existing asbestos material	ACM plan covering all these requirements	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/PIU/ CMSC

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTP	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MNW	KMN	DID	MKR	LDN	
• Coordinate and implement the the construction of the temporary storage per specification of the asbestos management service provider • Provide support to the asbestos management service provider supervising the removal, transport, disposal and documentation of the asbestos materials • Conduct awareness workshops and trainings to stakeholders on the risks of the asbestos materials • Maintain records of asbestos materials inventory • Ensure that handling and disposal of asbestos materials are carried out by specially trained service provider/s following Government of India requirements, or in their absence, internationally recognized procedures																

C- Compiled, TC – To be complied. BC- Being Complied

Table 9 C: Construction Phase

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTH	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
EMP Implementation - Irreversible impact to the environment, workers, and community: • Contractor is required to depute a qualified and experienced EHS officer/supervisor for monitoring of EMP implementation measures Project manager and all key workers will be required to undergo EMP implementation including spoils management, Standard operating procedures (SOP) for construction works; occupational health and safety (OH and S), core labor laws, applicable environmental laws, etc.	• EHS officer deputed by contractor • Training for project manager and other key workers conducted in pre-construction phase	C	C	C	C	C	C	C	C	C	C	C	C	C	C	Construction Contractor/ PIU/ PMCB/ CMSC
Air Quality - Emissions from construction vehicles, equipment, and machinery used for installation of pipelines resulting to dusts and increase in concentration of vehicle-related pollutants such as carbon monoxide, sulfur oxides, particulate matter, nitrous oxides, and hydrocarbons: • Plan the work sites properly, and demarcate the sites for stockpiling of, soils, gravel, and other construction materials away from the traffic, vehicle, general worker movement to avoid disturbance of loose materials • Damp down exposed soil and any stockpiled material on site by water sprinkling; • Use tarpaulins to cover sand and other loose material when transported by trucks; • Clean wheels and undercarriage of haul trucks prior to leaving construction site • Don't allow access in the work area except workers to limit soil disturbance and prevent access by	• Site plan of stockyard for soil, gravel and other construction materials • Covered transport of loose materials • PUC of vehicles • CTE/CTO of batching plant, hot mix plant, crushers and DG sets • Construction raw materials from authorized sources • Air quality monitoring conducted	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/ PIU/ CMSC

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTH	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
barricading and security personnel • Fit all heavy equipment and machinery with air pollution control devices which are operating correctly • contractor's vehicles and equipment should compulsorily have PUC and submit to PIU before deployment at site • Obtain, CTE and CTO for batching plant, hot mix plant, crushers and DG set etc. if specifically established for this project. • If contractor procures any material (such as ready mix concrete, asphalt/macadam, aggregates etc.,) from third party agencies, contractor shall ensure that such agencies have all necessary clearances / permissions as required under the law; these include CTE/CTO from RSPCB, environmental clearance, etc.; contractor shall collect the copy of these certificates and submit to PIU; PIU will approve the source only after all the certificates are submitted • Conduct air quality monitoring according to the Environmental Management Plan (EMP).															
Surface water quality - Works in rains/ Mobilization of settled silt materials, and chemical contamination from fuels and lubricants during installation of pipelines can contaminate nearby surface water quality: • Prepare and implement a spoils management plan • Avoid stockpiling of earth fill especially during the monsoon season unless covered by tarpaulins or plastic sheets; • Prioritize re-use of excess spoils and materials in the construction works. If spoils will be disposed, consult with PIU on designated disposal areas; • Inspect all the drainage at construction site/construction camp/labor camp etc. and clear all the drainage lines so that no water stagnation/flooding may occur during heavy rainfall • As for a possible avoid trench works and excavation works (pipe laying) during monsoon season to avoid any water logging and accident due to it • If open trenches are not avoidable during monsoon, keep ready all the mitigations measures to avoid water logging such as dewatering pumps and sufficient pipes, traffic assistance, barricades etc. • Inspect and verify all the emergency measures and emergency control system before start of monsoon, keep the emergency response committee on high alert during monsoon/heavy rain fall	• Spoils management plan • Stockpiling of soils • Inspection of drainage pattern at stockyard • Monsoon preparedness plan • Emergency preparedness plan	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/ PIU/ CMSC/ PMCBC

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTH	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
• Install temporary silt traps or sedimentation basins along the drainage leading to the water bodies; • Place storage areas for fuels and lubricants away from any drainage leading to water bodies; • Dispose any wastes generated by construction activities in designated sites; and • Conduct surface quality inspection according to the Environmental Management Plan (EMP).																
Surface water quality - Degradation of water quality of Angore, Kalka Ji and Bhainsa Singh dams due to intake works: • Select a construction methodology that is least disturbing, and appropriate for the in-situ soil condition, and able to complete the construction work prior to onset of monsoon • Schedule the construction works during low water level period – late winter months to pre monsoon (February – June/July); ensure that works are completed during the same period to prior to onset of monsoon; • Erect temporary barriers to form enclosed construction area with least disturbance • Allow adequate time to settle the distributed solids to prior to pumping out water; only clear/clarified water shall be pumped back into the reservoir; any silt laden water should be pumped to a silt pond • Avoid/minimize use of fuels, chemicals and lubricants; ensure no spillage • Clear the work site after completion at least to pre project conditions, ensure that there are no materials, debris, spills etc., and prior to removal of temporary barriers / coffer dam • Implement work site safety at works in water bodies	• Construction work plan • Work schedule • Safety arrangements • Water quality monitoring	NA	NA	NA	NA	TC*	TC*	NA	BC	NA	NA	NA	NA	NA	NA	DBO contractor/ PIU/ CMSC/ PMCBC *will be complied during execution. Execution not yet started.
Noise Levels - Increase in noise level due to earth-moving and excavation equipment, and the transportation of equipment, materials, and people: • Plan activities in consultation with PIU/Consultant so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance; • Horns should not be used unless it is necessary to warn other road users or animals of the vehicle's approach; • Minimize noise from construction equipment by using vehicle silencers, fitting jackhammers with noise-reducing mufflers, and portable street barriers the sound impact to surrounding sensitive receptor; and • Maintain maximum sound levels not exceeding 80 decibels (dB A) when measured at a distance of 10 m or more from the vehicle/s.	• Use of PPEs to reduce impact of sound on workers • Checking of vehicle silencers, noise-reducing mufflers • Noise quality monitoring at sites	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/ PIU/ CMSC

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTH	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
• Periodical monitoring of noise quality as per EMP																
Landscape and aesthetics - Impacts due to excess excavated earth, excess construction materials, and solid waste such as removed concrete, wood, packaging materials, empty containers, spoils, oils, lubricants, and other similar items: • Prepare and implement spoils management plan • Avoid stockpiling of excess excavated soils; • Coordinate with ULB/PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas; • Recover used oil and lubricants and reuse or remove from the sites; • Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas; • Remove all wreckage, rubbish, or temporary structures which are no longer required; and • Request PIU to report in writing that the necessary environmental restoration work has been adequately performed before acceptance of work	• Spoils management plan • Solid waste management plan • Site observations	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/ PIU/ CMSC
Existing Infrastructure and Facilities - Disruption of service and damage to existing infrastructure at specified project location: • Obtain from PIU the list of affected utilities and operators if any; • Prepare a contingency plan to include actions to be done in case of unintentional interruption of service	• List of affected utilities and contingency plan to restore if damaged • Site observations	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/ PIU/ CMSC
Ecological Resources – Terrestrial - Loss of vegetation and tree cover: • Minimize removal of vegetation and disallow cutting of trees; • If tree-removal will be required, obtain tree-cutting permit from the concerned department; and • Plant 3 native trees for every one that is removed	• Tree cutting list • Tree cutting permission • Compensatory plantation	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/ PIU/ CMSC
Land Use- Environmental Issues due to land use change: The impact due to change in land use will be negligible due to this project	Land documents of sites	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/ PIU/ CMSC
Accessibility - Traffic problems and conflicts near project locations and haul road: • Plan sewer line works to minimize traffic disturbance / blockades; as the sewer lines are to be laid in all the roads and streets in the town, work planning is crucial to minimize the inconvenience to public. • Prepare and implement a Traffic Management Plan • Duly consider and select sections for trenchless method of pipe laying based on traffic conditions • Plan transportation routes so that heavy vehicles	• Work Plan • Traffic Management Plan • Site observations • Project information boards • Prior public consultations by contractor's team • Accessibility provided during works	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/ PIU/ CMSC

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTH	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
do not use narrow local roads, except in the immediate vicinity of delivery sites; • Schedule transport and hauling activities during non-peak hours; • Locate entry and exit points in areas where there is low potential for traffic congestion; • Keep the site free from all unnecessary obstructions; • (Drive vehicles in a considerate manner; • Coordinate with Traffic Police for temporary road diversions and with for provision of traffic aids if transportation activities cannot be avoided during peak hours; • Notify affected sensitive receptors 1-week in advance by providing sign boards informing nature and duration of construction works and contact numbers for concerns/complaints. • Plan and execute the work in such a way that the period of disturbance/ loss of access is minimum. • Provide pedestrian access in all the locations until normalcy is restored. Provide wooden/metal planks over the open trenches at each house to maintain the access															
Socio-Economic – Income. - Impede the access of residents and customers to nearby shops: • Prepare and implement spoils management plan • Contractor to Implement RP and to follow mitigation measures prescribed • Leave spaces for access between mounds of soil; • Provide walkways and metal sheets where required for people; • Increase workforce in front of critical areas such as institutions, place of worship, business establishment, hospitals, and schools; • Consult businesses and institutions regarding operating hours and factoring this in work schedules; and • Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.	• Spoil management plan • Mitigation measures as per RP and IEE • Prior public consultations by contractor's team with shopkeepers • Project information boards	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/ PIU/ CMSC
Socio-Economic - Employment - Generation of temporary employment and increase in local revenue: • Employ local labour force, or to the maximum extent possible • Comply with labor laws	Labour records	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor
Occupational Health and Safety - Occupational hazards which can arise during work: • Comply with all national, state and local core labor laws • Following best practice health and safety	• Site specific EHS Plan • Work plans • Use of PPEs by workers • Safety signage and information boards • Drinking water and rest sheds	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTH	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
guidelines: IFC's General EHS Guidelines[i4] and Sector Specific (Sanitation) Guidelines • Develop and implement site-specific occupational health and safety (OH and S) Plan which will include measures such as: a) excluding public from the site; (b) ensuring all workers are provided with and use personal protective equipment like helmet, gumboot, safety belt, gloves, nose musk and ear plugs; (c) OH and S Training for all site personnel; (d) documented procedures to be followed for all site activities; and (e) documentation of work-related accidents; • Conduct work in confine spaces, trenches, and at height with suitable precautions and using standards and safe construction methods; do not adopt adhoc methods; all trenches deeper than 1.5 m shall be provided with safety shoring/braces; and avoid open cutting method for trenches deeper than 3.5 m by adopting trenchless technology • Develop site specific OHS plan for sewage pumping stations works; SPS sites are located in low lying areas with accumulated waste and harmful working conditions • Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site; • Provide medical insurance coverage for workers; • Secure all installations from unauthorized intrusion and accident risks; • The project area experiences extreme temperature during summer months of April and May, which may affect the health of workers engaged in construction work. Contractor should take necessary measures during summers including the following: o work schedule should be adjusted to avoid peak temperature hours (12 – 3 PM); (b) provide appropriate shade near the workplace; allow periodic resting and provide adequate water, and (c) provide necessary medicine and facilities to take care of dehydration related health issues • Provide supplies of potable drinking water; • Provide clean eating areas where workers are not exposed to hazardous or noxious substances; • Provide H and S orientation training to all new	• First aid facilities at site • Site protection and barricades • Medical and health insurance of workers • Health check-up records of workers • Safety trainings/ orientations records • Solid waste management • Site observations															

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTH	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
workers to ensure that they are apprised of the basic site rules of work at the site, personal protective protection, and preventing injuring to fellow workers; • Provide visitor orientation if visitors to the site can gain access to areas where hazardous conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted; • Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas; • Ensure moving equipment is outfitted with audible back-up alarms; • Mark and provide sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal. Signage shall be in accordance with international standards and be well known to, and easily understood by workers, visitors, and the general public as appropriate; • Disallow worker exposure to noise level greater than 85 dB A for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively. • Conduct regular health check-ups for workers • Provide periodical awareness camps and special trainings for workers for health issues and risks in construction sites • Provide proper solid and liquid waste management system in workers' campsite, separate from spoils and debris disposal, as their presence can add to existing waste volume at the project sites.																
Occupational and community health and safety - Hazardous working conditions due to presence of asbestos containing material / AC Pipes in work sites: clearing, transfer and disposal; work in narrow streets, and interventions in existing AC pipelines **Health impacts due to air borne asbestos if handled unsafely, cut, drilled or broken into pieces:** • Implement the ACM Management Plan (AMP) that includes identification of hazards, the use of proper safety gear and disposal methods. • Conduct awareness program on safety during the construction work • Undertake the construction work stretch-wise; excavation, pipe laying and trench refilling should be completed on the same day • Provide barricades, and deploy security personnel to ensure safe movement of people and also to prevent unnecessary entry and to avoid accidental fall into open trenches	• Site specific EHS Plan • Work plans • Use of PPEs by workers • Safety signage and information boards • Drinking water and rest sheds • First aid facilities at site • Site protection and barricades • Medical and health insurance of workers • Health check-up records of workers • Safety trainings/ orientations records • Solid waste management • Site observations	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/ PIU/ CMSC

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTH	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
• Identify risk of intervention with existing AC pipes. If there is significant risk, implement the AMP strictly that includes identification of hazards, the use of proper safety gear and disposal methods. • Appropriate actions as defined in the Asbestos Management Plan will have to be adhered to • Maintain records of AC pipes as per the AMP																
Community Health and Safety.- Traffic accidents and vehicle collision with pedestrians during material and waste transportation: • Trench excavation and pipeline works shall be conducted in a safe manner; if the allowing public movement along the work sites (pedestrians or vehicles as the case may be) is likely to cause safety risks, movement should be blocked temporarily and work shall be conducted; in such areas, conducting night work or working in small stretches to avoid blockage of traffic/movement no more than few hours in due consultation with the local community and ULB shall be planned • All trenches deeper than 1.5 m shall be provided with safety shoring/braces; and avoid open cutting method for trenches deeper than 3.5 m by adopting trenchless technology • Survey the surrounding vulnerable buildings for likely issues in structural stability / differential settlement during the excavation works • Provide prior information to the local people about the • Plan routes to avoid times of peak-pedestrian activities. • Liaise with PIU/ULB in identifying high-risk areas on route cards/maps. • Maintain regularly the vehicles and use of manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure. • Provide road signs and flag persons to warn of on-going trenching activities	• Work plan • Barricades • Trench safety • Public consultation records with nearby residents • Safety signage and project information boards	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor/ CMSC
Safety of sensitive groups (children, elders etc.) and other pedestrians in narrow streets - Trench excavation in narrow streets will pose high risk to children and elders in the locality: • Provide prior information to the local people about the nature and duration of work • Conduct awareness program on safety during the construction work • Undertake the construction work stretch-wise; excavation, pipe laying and trench refilling should be completed on the same day • Provide barricades, and deploy security personnel to ensure safe movement of people and also to prevent unnecessary entry and to avoid accidental fall into open trenches	• Work plan • Barricades • Trench safety • Public consultation records with nearby residents • Safety signage and project information boards	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTH	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
Night Works - Public inconvenience due to traffic diversion, disturbance due to excessive noise and access loss, occupational health and safety issues etc: • Prepare a night work protocol and obtain prior approval from PIU, and strictly implement and report on implementation of protocol during the workers; • Contractors should have handheld noise level meter for measurement of noise during night hours • Contractors should have handheld lux meter for the measurement of illumination during night hours • Preferably electrical connection is available for running equipment otherwise soundproof/super silent Diesel Generator set should be available • Sound level should not increase as prescribe by CPCB • Illumination should be as prescribed in protocol • As far as possible ready-mix concrete from batching plant to be used, otherwise the concrete should be prepared away from residential areas and brought to the site • All the noisy activities like hammering, cutting, crushing, running of heavy equipment should be done in daytime and avoided in nighttime • Workers engaged in night works should have adequate rest/sleep in daytime before start of night works • Worker engaged for night works should have previous experience of night works and should be physically fit for such works including clear vision in night. • All the necessary provisions of traffic aids such as traffic signals, road signage, barricades, cautions boards, traffic diversion boards etc. should be available with fluorescent/retro-reflective arrangements • Workers should be trained before start of night works about risks and hazards of night works and their mitigation measures and should be provided all the protective aids (PPEs) including fluorescent/retro-reflective vests • Horns should not be permitted by equipment and vehicles • Workers should not shout and create noise • First aid and emergency vehicles should be available at site • Emergency preparedness plan should be operative during night works • Old persons and pregnant women and women having small kids should not work in night-time • All the vehicles and equipment being used at night works should have adequate type of silencers/enclosures/mufflers to reduce noise	• Night work plan approval from PIU • Noise and illumination monitoring during night works • Public consultations before night works • Workers records • First aid and emergency plans for night works • Nearby sensitive receptors • Site restoration after night works	TC*	TC*	TC*	TC*	TC*	TC*	TC*	TC*	TC*	TC*	TC*	TC*	TC*	TC	TC*= to be complied when night works will be required. No night work is being conducted. DBO Contractor

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTH	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
• All the vehicles should be checked for working head lamps, tail lamps, inner lights etc. before start of night works • PIU/DSC site engineers and contractor's safety personnel should closely monitor the safety of works continuously and noise and illumination levels on hourly basis and maintain photographic and video graphic records as well as register the observations. • Night works should be stopped early in the morning at least one hour before start of pedestrian/traffic movement • After completion of night works all the site should be cleaned and maintained obstruction free for daytime movement of vehicles and pedestrians • Drivers and workers should be alert and responsive during night works • All the wages to workers working in night hours should be as per the applicable labour acts • Avoid any nuisance which may create problems to nearby habitants and work peacefully during night hours • Night works should not be conducted near hospitals and during peak seasons such as peak tourist season, students' exam times etc.																
Work in narrow streets - will pose high risk to children and elders in the locality: • Conduct awareness program on safety during the construction work • Undertake the construction work stretch-wise; excavation, pipe laying and trench refilling should be completed on the same day • Provide barricades, and deploy security personnel to ensure safe movement of people and also to prevent unnecessary entry and to avoid accidental fall into open trenches • Trench excavation and pipeline works shall be conducted in a safe manner; if the allowing public movement along the work sites (pedestrians or vehicles as the case may be) is likely to cause safety risks, movement should be blocked temporarily and work shall be conducted; in such areas, conducting night work or working in small stretches to avoid blockage of traffic/movement no more than few hours in due consultation with the local community and ULB shall be planned	• Work plan • Barricades • Trench safety • Public consultation records with nearby residents • Safety signage and project information boards	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor
Construction camps and worker facilities - Temporary air and noise pollution from machine operation, water pollution from storage and use of fuels, oils, solvents, and lubricants. Unsanitary and poor living conditions for workers: • Consult with PIU before locating project offices,	• Approval of site from PIU • Tree cutting for camps • Facilities for workers e.g. ventilated rooms, first aid, crèche,	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTH	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
sheds, and construction plants; • Minimize removal of vegetation and disallow cutting of trees; • Provide drinking water, water for other uses, and sanitation facilities for employees; • Provided temporary rest and eating area at all work sites • Ensure conditions of livability at work camps are always maintained at the highest standards possible; living quarters and construction camps shall be provided with standard materials (as far as possible to use portable ready to fit-in reusable cabins with proper ventilation); thatched huts, and facilities constructed with materials like GI sheets, tarpaulins, etc., shall not be used as accommodation for workers; accommodation shall meet the IFC standards for workers accommodation which include: provision of safe housing, availability of electricity, plumbing, water and sanitation, adequate fire protection and dormitory/room facilities; accommodation shall be in the range from 10 to 12.5 cubic meters (volume) or 4 to 5.5 square meters (surface) per worker, a minimum ceiling height of 2.10 meters; a reasonable number of workers are allowed to share the same room – (standards range from 2 to 8 workers); workers with accompanying families shall be provided with a proper and safe accommodation • Train employees in the storage and handling of materials which can potentially cause soil contamination; • Recover used oil and lubricants and reuse or remove from the site; • Manage solid waste according to the preference hierarchy: reuse, recycling and disposal to designated areas; • Ensure unauthorized persons specially children are not allowed in any worksite at any given time.	cooking areas, toilet and washing facility • Solid waste management at camps • Sanitation facilities and dust bins • Signage															
Social/Physical and Cultural Resources - Risk of archaeological chance finds: • Strictly follow the protocol for chance finds in any excavation work; • Create awareness among the workers, supervisors and engineers about the chance finds during excavation work • Stop work immediately to allow further investigation if any finds are suspected; • Inform local Archeological Department if a find is suspected and take any action, they require to ensure its removal or protection in situ	• Chance finds protocol given in IEE • Training of workers • Consultation with Archaeological department	C BC NA	C BC NA	C BC NA	C BC NA	C BC NA	C BC NA	C BC NA	C BC NA	C BC NA	C BC NA	C BC NA	C BC NA	C BC NA	C BC NA	DBO Contractor
Monsoon preparedness - Disruption of utilities and water logging in trenches: • As for a possible avoid trench works and	• Monsoon preparedness plan	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO contractor

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Status of Compliance (BC: Being Complied, TC: To be Complied, C: Complied, NA: Not Applicable)														Responsibility
		RTG	FTH	LXM	SRD	SHR	ABR	PRT	BNS	KTR	MND	KMN	DID	MKR	LDN	
excavation works (pipe laying) during monsoon season to avoid any water logging and accident due to it • if open trenches are not avoidable during monsoon, keep ready all the mitigations measures to avoid water logging such as dewatering pumps and sufficient pipes, traffic assistance, barricades etc. • keep emergency response system ready before monsoon/heavy rain fall	• Emergency response plan															
Submission of EMP implementation report - Unsatisfactory compliance to EMP: • Appointment of supervisor to ensure EMP implementation • Timely submission of monitoring reports including pictures	• Appointment of EHS officer • Regular submission of reports	C	C	C	C	C	C	C	C	C	C	C	C	C	C	DBO Contractor
Post-construction clean-up - Damage due to debris, spoils, excess construction materials: • Remove all spoils wreckage, rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required; and • All excavated roads shall be reinstated to original condition. • All disrupted utilities restored • All affected structures rehabilitated/compensated • The area that previously housed the construction camp is to be checked for spills of substances such as oil, paint, etc. and these shall be cleaned up. • All hardened surfaces within the construction camp area shall be ripped, all imported materials removed, and the area shall be top soiled and re-grassed using the guidelines set out in the re-vegetation specification that forms part of this document. • The contractor must arrange the cancellation of all temporary services. • Request PIU to report in writing that worksites and camps have been vacated and restored to pre- project conditions before acceptance of work.	• Site clearance and cleaning • Road and utilities restoration • Restoration of site as previous conditions	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	BC	DBO Contractor

C- Compiled, TC – To be complied. BC- Being Complied

Table-9 D: Town Specific EMP Compliance Status of All Sub-projects under RSTDSP

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Compliance Status	Responsibility
Design Phase			
Laxmangarh			
Location impacts of designed components - Nearby community may be affected due to increased pollution during construction and operation: Sites should be selected so that nearby community may have no or minimum impact due to proposed works	• Site locations and lay out plan Mitigation measures to reduce impacts during construction works	C	DBO Contractor/PIU
Abu Road			
STP - Interference with cultural activities (crematorium near discharge point): Abu Road Locate discharge point of STP-1 at Santpur on the downstream of crematorium, and comfortably away from the river section used for rituals / bathing; consult with local community to finalize location	Location of discharge point	C	DBO Contractor / PMCBC/CMSC/PIU
Intake in Bhaisa Singh Dam (Abu Road) and - Water quality and ecological impacts: • Do not utilize the dead storage for supply; ensure that dead storage is available in the dam all times • Design inlet of intake pipe in the dam with appropriate screen to avoid entry of aquatic organisms into inlet • Select a construction methodology that is least disturbing, and appropriate for the in-situ soil condition, and able to complete the construction work prior to onset of monsoon • Schedule the construction works during low water level period – late winter months to pre monsoon (February – June/July); ensure that works are completed during the same period to prior to onset of monsoon; • Erect temporary barriers to form enclosed construction area with least disturbance • Allow adequate time to settle the distributed solids to prior to pumping out water; only clear/clarified water shall be pumped back into the reservoir; any silt laden water should be pumped to a silt pond • Avoid/minimize use of fuels, chemicals and lubricants; ensure no spillage	• Intake design • Clearance for abstraction of raw water from dam • Screen at inlet of intake to avoid entry of aquatic organisms • Construction design of intake • Construction schedule • Safety measures at intake works	TC Intake Design Under Review	DBO Contractor / PMCBC/CMSC/PIU

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Compliance Status	Responsibility
• Clear the work site after completion at least to pre project conditions, ensure that there are no materials, debris, spills etc., and prior to removal of temporary barriers / coffer dam Implement work site safety at works in water body			
All work sites- Physical cultural resources and chance finds: Ensure that worksites are not located in archeologically sensitive areas; liaise and reconfirm with local Archeological Department during detailed design phase; (ii) Create awareness among the workers, supervisors and engineers about the chance finds during excavation work; (iii) Stop work immediately to allow further investigation if any finds are suspected; (iv) Inform local Archeological Department / Museum office if a find is suspected and take any action, they require to ensure its removal or protection in situ	• Records of trainings • Chance Finds protocol	BC	DBO Contractor / PIU
Critical habitat and protected species • Loss of habitat and breeding trees • Change in food availability – carcasses • Induced impacts of improved water supply leading to increased agriculture and cattle rearing in location which in turns increases local use of chemicals harmful to vultures • Disturbance of vultures at feeding locations during construction phase: Before starting any construction activities, conduct pre-construction survey for presence of this species. • If these species are present, the findings should be recorded and reported. No disturbance or works on the site should start/continue until PIU issues clearance to proceed. • PIU should coordinate with the Forestry Department to coordinate the translocation of the affected species. • If these vulture species are present, the design shall ensure that breeding areas are not directly affected by the proposed pipeline routes and permanent infrastructure. Changes in	• Survey of vultures and other species dependent on the available food in the work areas • Bio-diversity assessment	BC	PIU / CMSC with the assistance of PMCBC Bio-diversity expert and DBO contractor

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Compliance Status	Responsibility
route alignment, timing of works and avoidance of tree felling will reduce risk and impacts • Construction work shall be timed to avoid the breeding season if specimens of these birds are found to be using the AoA during the breeding season *Monitoring.* If such species are present the project shall take the opportunity to monitor vulture activities within the project area and develop a local community awareness program to support conservation of the species			
Direct harm or killing of individuals during construction earthworks, tracking of vehicles and equipment across burrows. **Indirect disturbance of individuals through noise and vibration during pipeline construction works. Induced impacts through improved access along pipeline way leave during and after construction period causing increased opportunity for hunting of species for meat trade:** • Before starting any construction activities, conduct survey of species for the EIA process AND prior to construction works, even if not found in initial surveys. • If these species are present, the findings should be recorded and reported. No disturbance or works on the site should start/continue until PIU issues clearance to proceed. • PIU should coordinate with the Forestry Department to coordinate the translocation of the affected species. If such species are present the project shall take the opportunity to monitor vulture activities within the project area and develop a local community awareness program to support conservation of the species	• Survey of vultures and other species dependent on the available food in the work areas • Bio-diversity assessment	BC	PIU / CMSC with the assistance of PMCBC Bio-diversity expert and DBO contractor
Sirohi			
Intake in Angore and Kalkaji Dam# (Sirohi) - Water quality and ecological impacts: • Design inlet of intake pipe in the dam with appropriate screen to avoid entry of aquatic organisms into inlet	• Design of intake • Methodology of intake construction works • Maintenance of construction machineries to prevent any oil spillage • Safety arrangement at intake site	C C BC BC	PIU / CMSC with the assistance of PMCBC

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Compliance Status	Responsibility
• Select a construction methodology that is least disturbing, and appropriate for the in-situ soil condition, and able to complete the construction work prior to onset of monsoon • Schedule the construction works during low water level period – late winter months to pre monsoon (February – June/July); ensure that works are completed during the same period to prior to onset of monsoon; • Erect temporary barriers to form enclosed construction area with least disturbance • Allow adequate time to settle the distributed solids to prior to pumping out water; only clear/clarified water shall be pumped back into the reservoir; any silt laden water should be pumped to a silt pond • Avoid/minimize use of fuels, chemicals and lubricants; ensure no spillage • Clear the work site after completion at least to pre project conditions, ensure that there are no materials, debris, spills etc., and prior to removal of temporary barriers / coffer dam • Implement work site safety at works in water body	• Work schedule	BC	
Khetri			
All work sites - Physical cultural resources and chance finds: • Ensure that worksites are not located in archeologically sensitive areas; liaise and reconfirm with local Archeological Department during detailed design phase; • Create awareness among the workers, supervisors and engineers about the chance finds during excavation work; • Stop work immediately to allow further investigation if any finds are suspected; • Inform local Archaeological Department / Museum office if a find is suspected and take any action, they require to ensure its removal or protection in situ.	• Location of work sites • Chance finds protocol	BC	DBO Contractor/ PIU/ CMSC/ PMCBC
Pre –Construction Phase			
Abu Road			
Works close to forest areas - Disturbance / damage to flora, fauna:	• Survey for bio-diversity near the works of intake, WTP close to forest areas • Locations of work camps	TC (Work of Intake well is yet to start	DBO contractor/ PIU/Consultants

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Compliance Status	Responsibility
• Intake work site and associated work facilities shall be properly demarcated and barricaded; • All works, construction material storage/ancillary works shall be confined to the demarcated areas, no movement of workers, vehicles, equipment allowed outside this area • Ensure proper barricading so that no wildlife, even if it is unlikely, accidentally enters work area • No labour camps shall be located near intake or near forests (maintain minimum 2 km buffer) • Limit the work to daylight hours only; no work after sunset • No workers /personnel shall enter forest areas; it is the DBOC responsibility to take necessary precautions & prevent workers removing/damaging trees/vegetation, hunting / harming animals • Create awareness among workers on environment & safety; • No high noisy works shall be conducted	• Work schedule	and design of intake well is under review) (will be complied before the start of work and during construction)	
Preparation of plans and protocols- Various impacts: (i) Prepare traffic management plan (ii) Prepare occupational health and safety plan (iii) Prepare spoils management plan	Site specific EHS plan covering all these plans	C	DBO Contractor
Banswara			
Preparation of plans and protocols- Various impacts: (i) Prepare traffic management plan (ii) Prepare occupational health and safety plan (iii) Prepare spoils management plan	Site specific EHS plan covering all these plans	C	DBO Contractor
Construction Phase			
Ratangarh			
Construction of CRMC at Main Ginani - Safe disposal of Solid waste accumulated at Ginani, workers and public safety (In Ratangarh): • Provide dedicated power supply at site, if possible, otherwise DG set to be used during power failure, should be soundproof and having acoustic enclosures with low/permitted air emission standards; • Remove solid waste from site and dispose scientifically • Firm barricades should be provided all-round the site;	• Work plan • Design approval • Site safety including signage, barricades, project information boards • Removal of solid waste before start of works • Tree cutting • Noise level monitoring during construction works	C	DBO Contractor

Impacts/ Mitigation Measures (List from IEE)/	Parameters Monitored	Compliance Status	Responsibility
• No workers camps should be allowed during construction works at site; • Entry should be restricted through provision of gate and guard during SPS operation; and			
Construction of CRMC at Nagar Palika Office Campus - Disturbance to public and staff visiting/working in Nagar Palika office, traffic disturbance and safety risks (In Ratangarh and Pratapgarh): • No worker camps should be constructed at CRMC site • Proper barricades and signage should be provided at site • No noisy works and transportation of construction materials/plying of heavy vehicles at/near site during office working hours should be ensured • Removal of extraneous materials from site up to end of day should be ensured • provide proper toilets for workers at site • Avoid tree cutting and if tree cutting is necessary compensatory plantation should be done as per RUIDP policy • Provide dedicated power supply at site, if possible, otherwise DG set to be used during power failure, should be soundproof and having acoustic enclosures with low/permitted air emission standards	• Work plan • Design approval • Site safety including signage, barricades, project information boards • Removal of extraneous materials on same day • Tree cutting • Noise level monitoring during construction works	C	DBO Contractor

OVERALL COMPLIANCE WITH EMP IN DIFFERENT PACKAGES

Table-10: Overall Compliance with EMP

SNo.	Sub-Project Name	Package no.	EMP/ CEMP Part of Contract Documents (Y/N)	CEMP/ EMP Being Implemented (Y/N)	Status of Implementation (Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfactory)	Action Proposed and Additional Measures Required
1.	Ratangarh Sewerage Works	RSTDIP/RTG-FTP-LXG/01	Yes	Yes	Satisfactory	No any
2.	Fatehpur Sewerage Works		Yes	Yes	Satisfactory	No any
3.	Laxmangarh Water Supply Works		Yes	Yes	Satisfactory	No any
4.	Sardarshahar Water Supply and Sewerage Works	RSTDIP/SRD/01	Yes	Yes	Satisfactory	No any
5.	Sirohi Water Supply and Sewerage Works	RSTDIP/SHR-ABR/01	Yes	Yes	Satisfactory	No any
6.	Abu Road Water Supply and Sewerage Works		Yes	Yes	Satisfactory	No any
7.	Pratapgarh Sewerage Works	RSTDIP/PRT/01	Yes	Yes	Satisfactory	No any
8.	Banswara Water Supply and Sewerage Works	RSTDIP/BNS/04	Yes	Yes	Satisfactory	No any
9	Khetri Water Supply and Sewerage Works	RSTDIP/KTR/03	Yes	Yes	Satisfactory	No any
10	Mandawa Water Supply and Sewerage Works	RSTDIP/MDW/03	Yes	Yes	Satisfactory	No any
11	Kuchaman Water Supply and Sewerage Works	RSTDIP/KMN/02	Yes	Yes	Satisfactory	No any
12	Ladnu Sewerage Works	RSTDIP/LDN-DID-MKN/01	Yes	Yes	Satisfactory	No any
13	Didwana Sewerage Works		Yes	Yes	Satisfactory	No any
14	Makrana Sewerage Works		Yes	Yes	Satisfactory	No any

Table 11: Package-wise IEE Status

Package Number	Components	Design Status (Preliminary Design Stage/Detailed Design Completed)	Final IEE based on Detailed Design				Site-specific EMP (or Construction EMP) approved by Project Manager? (Yes/No)	Remarks
			Not yet due (detailed design not yet completed)	Submitted to ADB (Provide Date of Submission)	Disclosed on project website (Provide Link)	Final IEE provided to Contractor/s (Yes/No)		
RSTDIP/ RTG-FTP-LXG/01	Ratangarh Sewerage Works	Detail Design under process	✓				Yes	Second Updated IEE Approved by ADB in Nov., 2021 and uploaded on ADB website link shared.
	Fatehpur Sewerage Works	Detail Design under process	✓				Yes	Second Updated IEE Approved by ADB in Nov., 2021 and uploaded on ADB website link shared
	Laxmangarh Water Supply Works	Detail Design under process	✓				Yes	Second Updated IEE Approved by ADB in Aug., 2021 and uploaded on ADB website link shared
RSTDIP/ SRD/01	Sardarshahar Water Supply and Sewerage Works	Detail Design under process	✓				Yes	First Updated IEE Approved by ADB in Aug., 2021 and uploaded on ADB website link shared
RSTDIP/ SHR-ABR/01	Sirohi Water Supply and Sewerage Works	Detail Design under process	✓				Yes	Second Updated IEE Approved by ADB in Nov., 2021 and uploaded on ADB website link shared
	Abu Road Water Supply and Sewerage Works	Detail Design under process	✓				Yes	Second Updated IEE Approved by ADB in Nov., 2021 and uploaded on ADB website link shared
RSTDIP/ PRT/01	Pratapgarh Sewerage Works	Detail Design under process	✓				Yes	First Updated IEE Approved by ADB in Sept., 2021 and uploaded on ADB website link shared

Package Number	Components	Design Status (Preliminary Design Stage/Detailed Design Completed)	Final IEE based on Detailed Design				Site-specific EMP (or Construction EMP) approved by Project Manager? (Yes/No)	Remarks
			Not yet due (detailed design not yet completed)	Submitted to ADB (Provide Date of Submission)	Disclosed on project website (Provide Link)	Final IEE provided to Contractor/s (Yes/No)		
RSTDIP/ BNS/04	Banswara Water Supply and Sewerage Works	Detail Design under process	✓				Yes	Submitted Updated IEE on 07.09.2021 as per latest approved designs and shared with ADB
RSTDIP/ KTR/03	Khetri Water Supply and Sewerage Works	Detail Design under process	✓				Yes	Submitted First Updated IEE on 20.09.2021 as per latest approved designs and shared with ADB
RSTDIP/ MDW/03	Mandawa Water Supply and Sewerage Works	Detail Design under process	✓				Yes	Submitted First Updated IEE on 07.09.2021 as per latest approved designs and shared with ADB
RSTDIP/ KMN/02	Kuchaman Sewerage Works	Detail Design under process	✓				Yes	First Updated IEE Approved by ADB in Sept., 2021 and uploaded on ADB website
RSTDIP/ LDN-DID-MKN/01	Ladnu Sewerage Works	Preliminary Design Stage	✓				Yes	IEE Approved by ADB in May 2020 and uploaded on ADB website
RSTDIP/ LDN-DID-MKN/01	Didwana Sewerage Works	Detail Design under process	✓				Yes	First Updated IEE Approved by ADB in Sept., 2021 and uploaded on ADB website link shared
RSTDIP/ LDN-DID-MKN/01	Makrana Sewerage Works	Detail Design under process	✓				Yes	First Updated IEE Approved by ADB in Sept., 2021 and uploaded on ADB website link shared

Note: Draft IEEs are disclosed in RUIDP website- https://urban.rajasthan.gov.in/content/raj/udh/ruidp/en/safeguard-policies/initial-environmental-examination--iee-reports/fordetails.html updated IEEs also has been disclosed at this link after approval from ADB

4. APPROACH AND METHODOLOGY FOR ENVIRONMENTAL MONITORING OF THE PROJECT

15. **Institutional Arrangement for Environmental Mmanagement:** For the measurement of effectiveness of the environmental performance of contractor, regular environmental monitoring is required. In RSTDSP there is well established organizational structure for environmental monitoring. Project Officer (Environment) with support of Assistant Project Officer (Environment) in PMU is overall looking environmental issues in the project. Safeguard and Safety Officers (SSO) deputed in each PIU are responsible for day to day monitoring of environmental performance of project contractor. In PMCBC; Environment Safeguard Specialist (ESS) is deputed with environmental safeguard support staff who are responsible for review the updated IEE/EMP and monitoring of environmental safeguard compliances during construction phase. ESS will support PO (Environment) at PMU and SSOs at PIUs in implementation, management and monitoring of all environmental safeguards related activities. The town level consultant team (Construction Management and Supervision Consultants-CMSCs) includes Environmental Safeguard Professional and Environmental Safeguard Support personals, who are responsible for updating the IEE/EMP, monitoring of implementation measures on project sites and reporting to PIU/PMU. CMSCs also include Assistant Construction Manager (ACM) at each PIU responsible for the construction supervision including environmental safeguards at subproject town level. Community Action and Participation Consultants (CAPC) will support PIUs in construction facilitation, community consultation/participation, grievance registration and redress during the construction. The contractors have appointed an Environment, Health and Safety (EHS) Officer in each town who are responsible on a day-to-day basis for (i) ensuring implementation of EMP, (ii) coordinating with the ACM and environment safeguards specialists (all levels PO, SSO & ESS); (iii) community liaison, consultations with interested/affected parties, and grievance redress; and (iv) reporting.

16. **Site visits.** Site visit is carried out by ESS, PMCBC and Environment Safeguard Professionals of CMSCs and/or their safeguard support staff on regular basis for the monitoring of contractor's performance towards social, environment, health and safety issues as described in EMP. During site visit the safeguard personnel visit all the working sites along with town consultants engineers/PIU engineers, contractor's EHS supervisor and site engineers and verifyy the compliances towards environmental safeguard outlined in EMP. During site visit safeguard team also interacts with labors and nearby habitants and shopkeepers to find out whether they are facing any difficulties due to construction works and discusses these issues with PIU and contractor for remedial action to be taken. During site

visit if any issue is identified which is not addressed in IEE/EMP it is discussed with PIU/PMU and further would be updated in IEE with mitigation measures for it.

17. **Document Checks.** At project offices (PU/PIUs) and during visit to project towns various documents related to environmental safeguard compliances are regularly checked by ESS. Main documents checked are contractors EHS plan, PUC of contractor's vehicles, agreements with other parties, environmental monitoring (air, water, noise, soil etc.) reports, training records, NOCs, consents, permits from other departments, work plan and site plans, grievances register, first aid register, equipment fitness reports etc.

18. **Consultations.** Consultation is a process in the project cycle to ensure the involvement of the public as stakeholders in project execution through consultation and focus group discussion meetings. Stakeholders' participation and consultation have been taken up as a continual course of action, which promote public understanding and help to minimize grievances due to ongoing work in the project. Consultation during project implementation is an integral part of the environmental management process, which not only minimizes the risks of public agitation/resistance against the project but also eradicate the gap between the community and the project management authorities, which leads to timely completion of the project and making the project people friendly.

19. Keeping in mind the objective of minimizing adverse impact and the need of the stakeholders' participation for the smooth implementation of the project, consultation with the members of different sections of society, the affected people, identified vulnerable groups including women headed households, slum dwellers, vendors, vegetable seller, tourist and students of the project area were carried out during planning phase. As per ADB policy consultations will be continued throughout the project implementation period. Consultations are essential part of site visit of safeguard team to project areas.

20. The main objectives of undertaking these consultations are:

- To seek inputs from the stakeholders on the project execution and understand the difficulties/priorities / concerns of the communities.
- To make affected persons aware of the project impacts.
- Dissemination of information to build awareness among DPs and other stakeholders and inform them about the nature of inconvenience which may be anticipated during implementation of the project.
- Discuss about the training requirements to enhance their skills & restore the livelihood.

21. **Monitoring of ambient environmental conditions.** Environmental Monitoring for ambient air, noise, water and soil is being carried out quarterly in all project towns. The details of environmental monitoring are described in chapter 6.

5. NATIONAL STANDARDS

Table -12: National Ambient Air Quality Standards

Sl No:	Pollutants	Time weighted average	Concentration in ambient air		Method of measurement	IFC Standards (µg/m3)
			Industrial, Residential, Rural & Other Areas	Ecologically Sensitive Areas		
1	Sulphur Dioxide (SO_2) µg/m^3	Annual 24 hours	50 80	20 80	Improved West and Geake-Ultraviolet fluorescence	50 (Annual) 20 (24-hr) 500 (10-min)
2	Nitrogen Dioxide (NO_2) µg/m^3	Annual 24 hours	40 80	30 80	Modified Jacob & Hochheiser (Na-Arsenite) Chemiluminescence	40 (Annual) 80 (24-hr) 200 (1-hr)
3	Particulate Matter (Size less than 10 µm) or PM10 µg/m^3	Annual 24 hours	60 100	60 100	Gravimetric -TOEM -Beta attenuation	20 (Annual) 50 (24-hr)
4	Particulate Matter (Size less than 2.5 µm) or PM2.5 µg/m^3	Annual 24 hours	40 60	40 60	Gravimetric -TOEM -Beta attenuation	10 (Annual) 25 (24-hr)
5	Carbon Monoxide (CO) µg /m^3	8 hours 1 hours	02 04	02 04	Non Dispersive Infra Red (NDIR) Spectroscopy	2,000 (8-hr) 4,000 (1-hr) 100,000 (15-min)

Table -13: National and ADB SPS's Noise Quality Standards

As per the Noise Pollution (Regulation and Control) Rules, 2000

Area code	Category of area/zone	Noise Limit in dB (A)		ADB SPS Noise Limit dB (A)	
		Day time	Night time	Day time	Night time
a	Industrial area	75	70	70	70
b	Commercial area	65	55	70	70
c	Residential area	55	45	55	45
d	Silence zone	50	40	-	-
e	Institutional/Educational	-	-	55	45

Table -14: Drinking Water Quality Standards (As per IS 10500:2012)

Organoleptic and Physical Parameters

(Foreword *and* Clause *4)*

Sl No.	Characteristic	Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source	Method of Test, Ref to Part of IS 3025	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
i)	Colour, Hazen units, *Max*	5	15	Part 4	Extended to 15 only, if toxic substances are not suspected in absence of alter- nate sources
ii)	Odour	Agreeable	Agreeable	Part 5	a)Test cold and when heated b)Test at several dilutions
iii)	*p*H value	6.5-8.5	No relaxation	Part 11	—
iv)	Taste	Agreeable	Agreeable	Parts 7 and 8	Test to be conducted only after safety has been established
v)	Turbidity, NTU, *Max*	1	5	Part 10	—
vi)	Total dissolved solids, mg/l, Max	500	2 000	Part 16	—

NOTE — It is recommended that the acceptable limit is to be implemented. Values in excess of those mentioned under 'acceptable' render the water not suitable, but still may be tolerated in the absence of an alternative source but up to the limits indicated under 'permissible limit in the absence of alternate source' in col 4, above which the sources will have to be rejected.

Table -15: General Parameters Concerning Substances Undesirable in Excessive Amounts

(Foreword *and* Clause *4)*

Sl No.	**Characteristic**	**Requirement (Acceptable Limit)**	**Permissible Limit in the Absence of Alternate Source**	**Method of Test, Ref to**	**Remarks**
(1)	(2)	(3)	(4)	(5)	(6)
i)	Aluminium (as Al), mg/l, *Max*	0.03	0.2	IS 3025 (Part 55)	—
ii)	Ammonia (as total ammonia-N),	0.5	No relaxation	IS 3025 (Part 34)	—
	mg/l, *Max*				
iii)	Anionic detergents (as MBAS) mg/l, *Max*	0.2	1.0	Annex K of IS 13428	—
iv)	Barium (as Ba), mg/l, *Max*	0.7	No relaxation	Annex F of IS 13428* or IS 15302	—
v)	Boron (as B), mg/l, *Max*	0.5	1.0	IS 3025 (Part 57)	—
vi)	Calcium (as Ca), mg/l, *Max*	75	200	IS 3025 (Part 40)	—
vii)	Chloramines (as Cy, mg/l, *Max*	4.0	No relaxation	IS 3025 (Part 26)* or APHA 4500-Cl G	—
viii)	Chloride (as Cl), mg/l, *Max*	250	1 000	IS 3025 (Part 32)	—
ix)	Copper (as Cu), mg/l, *Max*	0.05	1.5	IS 3025 (Part 42)	—
x)	Fluoride (as F) mg/l, *Max*	1.0	1.5	IS 3025 (Part 60)	—
xi)	Free residual chlorine, mg/l, *Min*	0.2	1	IS 3025 (Part 26)	To be applicable only when water is chlorinated. Tested at consumer end. When protection against viral infec tion is required, it should be

Sl No.	Characteristic	Requirement (Acceptable Limit)	Permissible Limit in the Absence of Alternate Source	Method of Test, Ref to	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
					minimum 0.5 mg/l
xii)	Iron (as Fe), mg/l, *Max*	0.3	No relaxation	IS 3025 (Part 53)	Total concentration of manganese (as Mn) and iron (as Fe) shall not exceed 0.3 mg/l
xiii)	Magnesium (as Mg), mg/l, *Max*	30	100	IS 3025 (Part 46)	—
xiv)	Manganese (as Mn), mg/l, *Max*	0.1	0.3	IS 3025 (Part 59)	Total concentration of manganese (as Mn) and iron (as Fe) shall not exceed 0.3 mg/l
xv)	Mineral oil, mg/l, *Max*	0.5	No relaxation	Clause **6** of IS 3025(Part 39) Infrared partition method	—
xvi)	Nitrate (as NOA mg/l, *Max*	45	No relaxation	IS 3025 (Part 34)	—
xvii)	Phenolic compounds (as $C_6H.OH$), mg/l, *Max*	0.001	0.002	IS 3025 (Part 43)	—
xviii)	Selenium (as Se), mg/l, *Max*	0.01	No relaxation	IS 3025 (Part 56) or IS 15303*	—
xix)	Silver (as Ag), mg/l, *Max*	0.1	No relaxation	Annex J of IS 13428	—
xx)	Sulphate (as SO4) mg/l, *Max*	200	400	IS 3025 (Part 24)	May be extended to 400 pro vided that Magnesium does not exceed 30
xxi)	Sulphide (as H_2S), mg/l, *Max*	0.05	No relaxation	IS 3025 (Part 29)	—
xxii)	Total alkalinity as calcium	200	600	IS 3025 (Part 23)	—
	carbonate, mg/l, *Max*				
xxiii)	Total hardness (as $CaCO_3$), mg/l, *Max*	200	600	IS 3025 (Part 21)	—
xxiv)	Zinc (as Zn), mg/l, *Max*	5	15	IS 3025 (Part 49)	—

NOTES

1 In case of dispute, the method indicated by '*' shall be the referee method.

2 It is recommended that the acceptable limit is to be implemented. Values in excess of those mentioned under 'acceptable' render the water not suitable, but still may be tolerated in the absence of an alternative source but up to the limits indicated under 'permissible limit in the absence of alternate source' in col 4, above which the sources will have to be rejected

Table -16: Surface Water Quality Standards for class B (bathing)
(As per IS 2296:1982)

S.No.	Characteristic	Tolerance Limit
1.	pH Value	6.5 to 8.5
2.	Dissolved Oxygen, mg/l/ Max	5.0
3.	Biochemical Oxygen Demand	3.0
4.	Total Coliform Organisms, MPN/100 ml, Max	500
5.	Fluorides (as F) <mg/l, Max	1.5
6.	Colour, Hazen Units, Max	300
7.	Cyanides (as CN), mg/l, Max	0.05
8.	Arsenic (as As), mg/l, Max	0.2
9.	Phenolic Compounds (As C_6H_5OH) mg/l, Max	0.005
10.	Chromium (as Cr^{6+}), mg/l, Max	1.0
11.	Anionic detergents (as MBAS), mg/l, Max	1.0
12.	Alpha emitters, mc/ml, Max	10^{-8}

Table-17: Discharge Standards to be achieved as per NGT order dtd. 30.04.2019

Sl. No.	Parameters	Parameters Limit
1	pH	5.5-9.0
2	BOD (mg/l)	Not more than 10 mg/l
3	COD (mg/l)	Not more than 50 mg/l
4	TSS (mg/l)	Not more than 20 mg/l
5	P-Total (mg/l)- for discharge into ponds/lakes	Not more than 1.0 mg/l
6	N-Total (mg/l)	Not more than 10 mg/l
7	Fecal Coliform (MPN/100ml)	Desirable- Less than 100 MPN/100ml Permissible- 230 MPN/100ml

Note: The discharge standards as directed by NGT to be achieved are already being followed in RSTDSP projects.

6. MONITORING OF ENVIRONMENTAL PARAMETERS IN PROJECT LOCATIONS (AMBIENT AIR, WATER QUALITY, SOIL QUALITY AND NOISE LEVELS)

22. Before start of project activities baseline monitoring is done in each project towns at prominent locations identified in IEE to establish the baseline data of ambient conditions of environment in the project areas. During construction phase monitoring for ambient environmental conditions (air, water, noise and soil) is conducted on quarterly duration on the locations identified in IEE/EMP. During site visit if any other requirement for environmental monitoring is found, which is not identified in IEE/EMP, contractor is required to do monitoring after approval of CMSC/PIU. Monitoring results are compared from baseline data and/or national standards and if unacceptable deviation is found, mitigation measures are prepared by ESS of CMSC and conveyed to contractor for compliance. Type of environmental monitoring with parameters and location is given in following **Table 18** and method of monitoring and equipment used is given in **Table 19.**

Table-18: Types, parameters and locations of environmental monitoring

S.No.	Type of monitoring	Parameters	Locations
1.	Ambient Air Quality	Particulate Matters PM_{10}, SO_x, NO_x, Carbon Monoxide (CO), Particulate Matter $PM_{2.5}$	WTP, STP, SPS, Pipe laying site specially near sensitive locations
2.	Ambient Noise monitoring	L_{day} and L_{night}(in Leq dBA) 24 hrs basis	WTP, STP, SPS, Pipe laying site specially near sensitive locations
3.	Surface Water quality	pH, Turbidity, Total Hardness, DO, BOD, COD, Chloride, Hg, Iron, TDS, TSS, Calcium, Zn, Cr^{+6}, Magnesium, Copper, Manganese, Sulphate, Cyanide, Nitrate, Sodium, Potassium, Fluoride, Cadmium, Arsenic, Lead, Boron, Selenium, Aluminium, Total residual Chlorine	Surface water resources (river, pond, lake etc.) if within 500 mtrs of project affected area, intake source
4.	Ground Water quality	pH, TDS, Total Hardness, Zn, Chloride, Iron, Copper, DO, Manganese, Suplhate, Nitrate, Fluiride, Hg, Cadmium, Cr^{+6}, Arsenic, Lead, Total Alkalinity, Phosphate, Phenolic compound	WTP, STP, SPS and any central location in the town
5.	Soil Quality	pH, Elect. Conductivity (at 25^0C), Moisture (at 105^0C), Texture (silt, clay, sand), Calcium (as CaO), Magnesium (as Mg), Permeability, Nitrogen (as N), Sodium (as Na), Phosphate (as PO4), Potassium (as K), Organic Matter, oil and grease	WTP, STP, SPS

Table 19: Method of monitoring and equipment used

S.No.	Parameter of monitoring	Equipment used	Methodology	Protocol of test
Air Quality				
1.	PM_{10}	Fine Particulate Sampler (e.g. Envirotech APM 550)	Collection of particulate matter on filter papers and gravimetric analysis	IS 5182 (part 23): 2006
2	$PM_{2.5}$	PM2.5 sampler (e.g. Envirotech APM 154)	Collection of particulate matter on filter papers and gravimetric analysis	As per CPCB guidelines
3	SOx	Respirable Dust Sampler with gaseous attachment (e.g. Envirotech APM 460BL), UV/VIS spectrophotometer	Absorption of a gases in liquid absorbent and analysis by improved West and Geike	IS 5182 (part 2): 2001
4	NOx	Respirable Dust Sampler with gaseous attachment (e.g. Envirotech APM 460BL), UV/VIS spectrophotometer	Absorption of a gases in liquid absorbent and analysis by Modified Jacob and Hochheiser (Na-arsenite)	IS 5182 (part VI):2006
5	CO	Single Gas Analyser (CO meter)	Detection method	IS 5182 (part 10): 1999
Noise Quality				
6	Noise Level (Day time and night time)	Noise level meter (Envirotech SLM 100)	Instrumental	IS 9989
Water Quality				
7	pH	pH meter	Instrumental	IS:3025 (part 11): 2002
8	Turbidity	Manual Grab Sampling in Sterilized Sample collection bottle and lab analysis	Gravimetric Analysis	IS:3025 (part 10): 1984
9	Total Suspended Solids (TSS)	-do-	Gravimetric Analysis	IS:3025 (part 15): 1984
10	Total Dissolved Solids (TDS)	-do-	Gravimetric Analysis	IS:3025 (part 16): 2006
11	Total Hardness as $CaCO_3$	-do-	Qualitative Analysis	IS:3025 (part 21): 2009
12	Chloride as Cl	-do-	Qualitative Analysis	IS:3025 (part 32): 2003
13	Sulphate as SO_4	-do-	Qualitative Analysis	IS:3025 (part 24): 2003
14	Iron as Fe	-do-	Qualitative Analysis	IS:3025 (part 53): 2003
15	Fluoride as F	-do-	Qualitative Analysis	IS:3025 (part 60): 2008
16	Zinc as Zn	-do-	Qualitative Analysis	IS:3025 (part 49): 1994
17	Copper as Cu	-do-	Qualitative Analysis	IS:3025 (part 42): 1992
18	Manganese as Mn	-do-	Qualitative Analysis	IS:3025 (part 59): 2006
19	Mercury as Hg	-do-	Qualitative Analysis	IS:3025 (part 48): 1994
20	Cadmium	-do-	Qualitative Analysis	IS:3025 (part 41): 1992
21	Chromium as Cr	-do-	Qualitative Analysis	IS:3025 (part 52): 2003
22	Total Arsenic as As	-do-	Qualitative Analysis	IS:3025 (part 37): 1988
23	Lead as Pb	-do-	Qualitative Analysis	IS:3025 (part 47): 1994
24	Dissolved Oxygen (DO)	-do-	Qualitative Analysis	IS:3025 (part 38): 1989
25	Chlorine (residual free)	-do-	Qualitative Analysis	APHA 22nd edition-4500Cl B
26	Calcium as Ca	-do-	Qualitative Analysis	IS:3025 (part 40): 2003
27	Magnesium as Mg	-do-	Qualitative Analysis	APHA 22nd edition

S.No.	Parameter of monitoring	Equipment used	Methodology	Protocol of test
28	Total Alkanity as $CaCO_3$	-do-	Qualitative Analysis	IS:3025 (part 23): 2003
29	Colour	-	Physical observation	APHA 22nd edition
30	Odour	-	Physical observation	APHA 22nd edition
31	Taste	-	Physical observation	APHA 22nd edition
32	Phenolic Compound	-do-	Qualitative Analysis	IS:3025 (part 43): 1992
33	Total Residual Chlorine	-do-	Qualitative Analysis	IS:3025 (part 26): 1986

7. ENVIRONMENTAL MONITORING DURING REPORTING PERIOD

23. Baseline environmental monitoring for ambient air, noise, water and soil has been conducted in all towns. Results show that ambient air quality in these towns are well within the prescribed standards, whereas noise quality is slightly higher in most of project towns due to prevailing ambient conditions such as noise from vehicles and other activities near the monitoring locations. During reporting period environmental monitoring was conducted in all towns whereas Construction phase environmental monitoring (quarterly) was conducted in 14 towns (Banswara, Kuchaman, Didwana, Ladnu, Makrana, Khetri, Abu Road, Pratapgarh, Sardarshahar Mandawa, Sirohi, Fatehpur, Laxmangarh and Ratangarh. Results of environmental monitoring (baseline and periodical) during reporting period is given in Appendix 11. Summary of environmental monitoring conducted during reporting period is given below in Table -20.

Table 20: Summary of environmental monitoring conducted under RSTDSP during October 2022 to March 2023

S. No	Name of town	Stage of project monitoring	Type of environmental monitoring	Period of sampling	Locations covered	Summary of Results and comparison with National Standards and ADB SPS requirements
1	Kuchaman	Construction	Air Quality, Noise Quality, Soil Quality	27.12.2022 to 31.12.2022	• STP Site, Near New Bus Stand • Pipe Laying Site - I, Dalla Balaji Road • 73OKL CWR, Budsu Road • 1200KL CWR Pachwa Road • Labour Colony, Pachwa Road • Pipe Laying Site- 2, Guljarpura • SPS Site, RUIDP Office	• Air quality monitoring conducted at 7 locations and all results are within national standards for all parameters in all 7 locations. PM10 (ranges from 76.6 to 90.2 µg/m3 and PM 2.5 (ranges from 36.4 to 50.0 µg/m3). PM10 and PM2.5 values in all 7 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 7 locations. Day time results ranges from 58.5 to 64.3 dBA and night time results ranges from 39.3 to 42.8 dBA. Results show that during day time, noise quality results were higher than the national standards as well as ADB SPS recommended standards for residential areas at all 7 locations whereas during night time results for all 7 locations are within prescribed limits as per both standards for residential area.
	Kuchaman	Construction	Air Quality, Noise Quality, Soil Quality	25.03.2023 to 27.03.2023	• STP Near Bus Stand • L&T Labor Colony • L&T Site 1200 KL, Pachwa Road • RUIDP Office, Kuchaman • Pipe Laying Site - 1 Gujjarpura • Pipe Laying Site - 2 Dalla Balaji Road • 730 KL CWR Budsu Road	• Air quality monitoring conducted at 7 locations and all results are within national standards for all parameters in all 7 locations. PM_{10} (ranges from 54.0 to 71.0 µg/m3 and PM 2.5 (ranges from 32.0 to 48.0 µg/m^3). PM_{10} and $PM_{2.5}$ values in all 7 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 7 locations. Day time results ranges from 57.6 to 62.0 dBA and night time results ranges from 37.8 to 40.9 dBA. Results show that during day time, noise quality results were higher than the national standards as well as ADB SPS recommended standards for residential areas at all 7 locations whereas during night time results for all 7 locations are within prescribed limits as per both standards for residential area.
2.	Makrana	Construction	Air Quality, Noise Quality, Water quality	11.12.2022 to 13.12.2022	• STP Site - 1 • SPS Site – 1 • SPS Site – 2	• Air quality monitoring conducted at 4 locations and all results are within national standards for all parameters in all 4 locations. PM_{10} (ranges from 79.0 to 88.0 µg/m^3 and PM 2.5 (ranges from 42.0 to 52.0 µg/m^3).PM_{10} and $PM_{2.5}$ values in all 4 locations are more than applicable ADB SPS

S. No	Name of town	Stage of project monitoring	Type of environmental monitoring	Period of sampling	Locations covered	Summary of Results and comparison with National Standards and ADB SPS requirements
			and Soil Quality		• Pipe Laying Site	limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations. Day time results ranges from 60.8 to 64.6 dBA and night time results ranges from 40.4 to 50.9 dBA. Results show that during day time, noise quality results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas at all 4 locations whereas during night time results were within prescribed limits as per both standards for residential area (except for STP site – 1 location 50.9 dBA).
	Makrana	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	27.03.2023 to 28.03.2023	• SPS 2.3 MLD Site • STP 7.7 MLD Site • SPS 2.1 MLD Site • Pipe Laying Site, Matavar Road	• Air quality monitoring conducted at 4 locations and all results are within national standards for all parameters in all 4 locations. PM_{10} (ranges from 67.0 to 77.0 µg/m^3 and PM 2.5 (ranges from 33.0 to 46.0.0 µg/m^3).PM_{10} and $PM_{2.5}$ values in all 4 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations. Day time results ranges from 56.9 to 61.7 dBA and night time results ranges from 39.0 to 45.7 dBA. Results show that during day time, noise quality results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas at all 4 locations whereas during night time results were within prescribed limits as per both standards for residential area (except for STP site – 7.7 MLD location 45.7 dBA).
3.	Khetri	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	09.11.2022 to 10.11.2022	• Near PHED office old • Near Ajeet Govt Hospital • Near UP Koshadhikari office • Near JEN Staff Colony • In Jai Singh Govt School • Near ITI College • Near Prashashnik Bhawan	• Air quality monitoring conducted at 7 locations and all results are within national standards for all parameters in all 7 locations, whereas PM_{10} (ranges from 60.75 to 80.45 µg/m^3 and PM $_{2.5}$ (ranges from 31.55 to 43.55 µg/m^3) values in all 7 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 7 locations. Day time results ranges from 53.5 to 59.3 dBA and night time results ranges from 40.3 to 47.1 dBA. Results show that during day time, noise quality results were slightly higher than the national standards as well as ADB SPS

S. No	Name of town	Stage of project monitoring	Type of environmental monitoring	Period of sampling	Locations covered	Summary of Results and comparison with National Standards and ADB SPS requirements
						recommended standards for residential areas at all locations except 2 Locations (Near PHED office old 53.5 dBA and in Jai singh Govt. School 54.5 dBA) whereas during night time at 4 locations i.e. Near Ajeet Govt Hospital, Near UP Koshadhikari office, Near JEn Staff Colony and STP proposed site results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas.
	Khetri	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	08.02.2023 to 11.02.2023	• STP Construction Site • Construction Site JEn Campus • Construction Site AEn Campus • Construction Site Nr. Polo Ground • Construction Site Nr. Lahoty Store Yard • Construction Site Nr. Shani Temple	• Air quality monitoring conducted at 6 locations and all results are within national standards for all parameters in all 6 locations, whereas PM_{10} (ranges from 62.35 to 81.35 µg/m^3 and $PM_{2.5}$ (ranges from 32.45 to 41.75 µg/m^3) values in all 6 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 6 locations. Day time results ranges from 51.5 to 56.5 dBA and night time results ranges from 39.1 to 45.1 dBA. Results show that during day time, noise quality results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas at 3 locations (AEn Campus, Polo Ground & Shani Temple) whereas during night time results are within prescribed limits as per both standards for residential area at all locations.
4.	Didwana	Construction	Air Quality, Noise Quality, Water quality and Soil Quality	08.12.2022 to 10.12.2022	• – • STP Site - 01 • SPS Site- 02 • Pipe Laying Site- 1 (Zone-6) • Pipe laying Site- 2 (Zone-7)	• Air quality monitoring conducted at 4 locations and all results are within national standards for all parameters in all 4 locations. PM_{10} (ranges from 74.0 to 80.0 µg/m^3 and PM 2.5 (ranges from 36.0 to 43.0 µg/m^3). All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations. Day time results ranges from 58.6 to 61.6 dBA and night time results ranges from 39.8 to 42.9 dBA. Results show that during day time, noise quality results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas at all 4 locations whereas during night time results for all 4 locations are within prescribed limits as per both standards for residential area.
	Didwana	Construction	Air Quality, Noise Quality,	28.03.2023 to 30.03.2023	• STP 3 MLD Site	• Air quality monitoring conducted at 4 locations and all results are within national standards for all parameters in all 4 locations. PM_{10}

S. No	Name of town	Stage of project monitoring	Type of environmental monitoring	Period of sampling	Locations covered	Summary of Results and comparison with National Standards and ADB SPS requirements
			Ground Water Quality, Soil Quality		• Pipe Laying Site • SPS 1.7 MLD Site • SPS 1.3 MLD Site	(ranges from 63.0 to 74.0 µg/m^3 and PM 2.5 (ranges from 31.0 to 42.0 µg/m^3). All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations. Day time results ranges from 56.9 to 62.5 dBA and night time results ranges from 38.9 to 43.0 dBA. Results show that during day time, noise quality results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas at all 4 locations whereas during night time results for all 4 locations are within prescribed limits as per both standards for residential area.
5.	Ladnu	Construction	Air Quality, Noise Quality, Water quality and Soil Quality	06.12.2022 to 08.12.2022	• STP Site - 01 • STP Site – 02 • Pipe Laying Site Janta Colony	• Air quality monitoring conducted at 3 locations and all results are within national standards for all parameters in all 3 locations. PM_{10} (ranges from 82.0 to 88.0 µg/m^3 and PM 2.5 (ranges from 41.0 to 45.0 µg/m^3).PM_{10} and $PM_{2.5}$ values in all 3 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 3 locations. Day time results ranges from 57.7 to 63.4 dBA and night time results ranges from 38.5 to 41.5 dBA. Results show that during day time, noise quality results were higher than the national standards as well as ADB SPS recommended standards for residential areas whereas during night time results for all 3 locations are within prescribed limits as per both standards for residential area.
	Ladnu	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	30.03.2023 to 01.04.2023	• STP -1 (5.5 MLD) Site • STP -1 (2.4 MLD) Site • Pipe Laying Site, Dayanad Colony • Pipe Laying Site, Ladnu	• Air quality monitoring conducted at 4 locations and all results are within national standards for all parameters in all 4 locations. PM_{10} (ranges from 54.0 to 66.0 µg/m^3 and PM 2.5 (ranges from 30.0 to 39.0 µg/m^3). PM_{10} and $PM_{2.5}$ values in all 3 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations. Day time results ranges from 55.7 to 64.0 dBA and night time results ranges from 38.1 to 44.6 dBA. Results show that during day time, noise quality results were higher than the national standards as well as ADB SPS recommended standards for residential areas at all 4 locations whereas during night

S. No	Name of town	Stage of project monitoring	Type of environmental monitoring	Period of sampling	Locations covered	Summary of Results and comparison with National Standards and ADB SPS requirements
						time results for all 4 locations are within prescribed limits as per both standards for residential area.
6.	Pratapgarh	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	03.10.2022	• STP Site Pratapgarh • Sewerage Pumping Station Near Kila Parisar Pipe Laying Site	• Air quality monitoring conducted at 3 locations in October 2022 and results are within national standards for all parameters in all locations, whereas PM_{10} (ranges from 77.85 to 86.24 µg/m^3) and $PM_{2.5}$ (ranges from 32.14 to 40.82 µg/m^3) values in all 3 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted in October 2022 at 3 locations and day time results range from 51.3 to 60.8 dBA. The results are higher than national standards as well as ADB SPS recommended standards for residential areas in STP site & pipe laying site. Whereas, Night time results ranges from 42.6 to 48.2 dBA in which the results are higher than both the standards i.e. national standards and ADB SPS limits areas in STP site & pipe laying site.
	Pratapgarh	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	18.02.2023 to 19.02.2023	• STP Site • Sewerage Pumping Station • Nakoda Nagar	• Air quality monitoring conducted at 3 locations in February 2023 and results are within national standards for all parameters in all locations, whereas PM_{10} (ranges from 75.42 to 80.65 µg/m^3) and $PM_{2.5}$ (ranges from 30.14 to 34.17 µg/m^3) values in all 3 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted in February 2023 at 3 locations. Day time results range from 52.0 to 58.5 dBA whereas night time results ranges from 43.0 to 46.0 dBA. The results Shows that Day time results are higher than applicable ADB SPS limits at 2 locations (STP Site 58.5 dBA & Nakoda Nagar 57.8 dBA) whereas night time results are slightly higher at STP site (46.0 dBA).
7.	Sardarshahar	Construction	Air Quality, Noise Quality, Water quality and Soil Quality	05.12.2022 to 08.12.2022	• • PHED Campus (CWR 24 KL) • STP-1 (2.3 MLD South Campus)	• Air quality monitoring conducted at 5 locations and all results are within national standards for all parameters in all 6 locations. PM_{10} (ranges from 69.15 to 80.01 µg/m^3 and PM 2.5 (ranges from 27.53 to 33.67 µg/m^3). PM_{10} and $PM_{2.5}$ values in all 6 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards.

S. No	Name of town	Stage of project monitoring	Type of environmental monitoring	Period of sampling	Locations covered	Summary of Results and comparison with National Standards and ADB SPS requirements
					• Zone -2 (Dev Apartment) Pipe Laying • STP-2 (3.40 MLD North Campus) • SPS (2.30 MLD) Gaushala Land	• Noise quality monitoring conducted at 5 locations. Day time results ranges from 48.14 to 53.94 dBA and night time results ranges from 38.96 to 44.02 dBA. Results show that during day and night time, noise quality results were within prescribed limit as per the national standards as well as ADB SPS recommended standards for residential areas at all locations.
	Sardarshahar	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	23.03.2023 to 26.03.2023	• STP – 1 (2.3 MLD) South Campus • STP – 2 (3.4 MLD) North Campus • PHED Campus (CWR 2400 KL) • Pipe Laying Zone - 1 • 1.6 MLD STP • MWPS Zone - 2	• Air quality monitoring conducted at 6 locations and all results are within national standards for all parameters in all 6 locations. PM_{10} (ranges from 70.05 to 79.06 µg/m^3 and PM 2.5 (ranges from 30.48 to 33.14 µg/m^3). PM_{10} and $PM_{2.5}$ values in all 6 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 6 locations. Day time results ranges from 51.82 to 54.12 dBA and night time results ranges from 39.44 to 45.72 dBA. Results show that during day and night time, noise quality results were within prescribed limit as per the national standards as well as ADB SPS recommended standards for residential areas at all locations.
8.	Abu Road	Construction	Air Quality, Noise Quality, Ground Water Quality, Drinking water and Soil quality	07.11.2022 to 09.11.2022	• Luniapura CWR • Kui CWR • Manpur Labor Colony • Near STP & WTP Santpur • Network Location (Abkari Abu Road)	• Air quality monitoring conducted at 5 locations and results are within national standards for all parameters in all locations, whereas PM_{10} (ranges from 69.73 to 76.75 µg/m^3) and PM $_{2.5}$ (ranges from 30.06 to 46.20 µg/m^3**)** values in all 5 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 5 locations and day time results range from 54.09 to 62.49 dBA. Day time results show that In all 5 locations results are higher than national standards as well as ADB SPS recommended standards for residential areas. Whereas during night time results were within prescribed limit as per the national standards as well as ADB SPS recommended standards for residential areas at all 5 locations.
	Abu Road	Construction	Air Quality, Noise Quality,	28.03.2023 to 29.03.2023	• Manpur STP	• Air quality monitoring conducted at 4 locations and results are within national standards for all parameters in all locations, whereas PM_{10}

S. No	Name of town	Stage of project monitoring	Type of environmental monitoring	Period of sampling	Locations covered	Summary of Results and comparison with National Standards and ADB SPS requirements
			Ground Water Quality, Soil Quality		• Manpur Workmen Camp • Near STP & WTP Santpur • HDPE Pipe Laying Kesarganj	(ranges from 69.78 to 73.65 µg/m^3) and PM $_{2.5}$ (ranges from 28.96 to 33.89 µg/m^3**)** values in all 5 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations and day time results range from 52.44 to 62.54 dBA and night time results ranges from 42.73 dBA to 48.22 dBA. Day time results show that In 3 locations results are higher than national standards as well as ADB SPS recommended standards for residential areas. Whereas during night time results were within prescribed limit as per the national standards as well as ADB SPS recommended standards for residential areas at 2 locations.
9.	Mandawa	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	08.12.2022 to 09.12.2022	• SPS – 1 PHED Campus Beside SPS Site • CWR site - 1 • STP Site – 1 • Pipe Laying Site within the preferably Near ward no. 17	• Air quality monitoring conducted at 4 locations and all results are within national standards for all parameters in all 4 locations, whereas PM10 (ranges from 73.84 to 77.94 µg/m^3 and PM 2.5 (ranges from 34.24 to 47.82 µg/m^3) values in all 4 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations. Day time results ranges from 51.48 to 56.28 dBA and night time results ranges from 40.69 to 44.19 dBA. Results show that during day time, noise quality results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas at 2 locations (i.e. STP site – 1 and Pipe laying Site) whereas results during night time, noise quality results were within prescribed limit as per the national standards as well as ADB SPS recommended standards for residential areas at all locations.
	Mandawa	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	27.03.2023 to 31.03.2023	• SPS - 1 (PHED Campus) Besides SPS Site • CWR Site - 1 • STP Site - 1	• Air quality monitoring conducted at 4 locations and all results are within national standards for all parameters in all 4 locations, whereas PM_{10} (ranges from 71.47 to 78.65 µg/m^3 and $PM_{2.5}$ (ranges from 29.16 to 36.37 µg/m^3) values in all 4 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards.

S. No	Name of town	Stage of project monitoring	Type of environmental monitoring	Period of sampling	Locations covered	Summary of Results and comparison with National Standards and ADB SPS requirements
					• Pipe Laying Site (Dumra Ki Dhani)	• Noise quality monitoring conducted at 4 locations. Day time results ranges from 51.0 to 56.6 dBA and night time results ranges from 43.5 to 46.9 dBA. Results show that during day time and night time, noise quality results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas at 2 locations (i.e. CWR Site -1 & STP site – 1)
10.	Banswara	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	19.10.2022 to 21.10.2022	• AEN Campus (PHED) WTP • Kagdi WTP Site • STP Site • SPS at Nathelav pond • Custom Chauraha	• Air quality monitoring conducted in Banswara town at 5 locations and all results are within national standards for all parameters in all 5 locations, whereas PM10 (ranges from 58.5. to 88.3 µg/m^3 and PM 2.5 (ranges from 30.1 to 48.5 µg/m^3). Results in all 5 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 5 locations. Day time results ranges from 46.0 dBA to 58 dbA and night time results ranges from 40.0 dBA to 48.0 dBA. Results show that during day time, noise quality results were higher than prescribed limit as per the national standards as well as ADB SPS recommended standards for residential areas at 1 location (SPS at Nathelav). Whereas during night time results were within prescribed limit as per the national standards as well as ADB SPS recommended standards for residential areas at 3 locations except Existing STP Site (48.0 dBA) and SPS at Nathelav pond (46.0 dBA)
	Banswara	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	01.03.2023 to 03.03.2023	• AEn (PHED) Campus WTP • Kagdi WTP • STP Site • SPS @ Nathelav • Pipli chowk- Market Area • Pratapgarh Road	• Air quality monitoring conducted in Banswara town at 6 locations and all results are within national standards for all parameters in all 6 locations, whereas PM_{10} (ranges from 62.1 to 88.3 µg/m^3 and PM 2.5 (ranges from 28.6 to 48.5 µg/m^3). Results in all 6 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 6 locations. Day time results ranges from 51.0 dBA to 74.0 dbA and night time results ranges from 46.0 dBA to 63.0 dBA. Results shows that during day time and night time, noise quality results were higher than prescribed limit as per the national standards as well as ADB SPS recommended standards

S. No	Name of town	Stage of project monitoring	Type of environmental monitoring	Period of sampling	Locations covered	Summary of Results and comparison with National Standards and ADB SPS requirements
						for residential areas at all locations (Except 1 Location (WTP Kagdi 51.0 dbA day time).
11	Sirohi	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	06.11.2022 to 07.11.2022	• WTP (9MLD at Angore PHED campus) • Near Workmen camp (STP 5.0 MLD) • 1.7 MLD STP (Near Revdar Road) • Vaidnath Colony (office Area)	• Air quality monitoring conducted in Sirohi town at 4 locations and all results are within national standards for all parameters in all 4 locations, whereas PM10 (ranges from 65.24 to 79.42 µg/m^3 and PM 2.5 (ranges from 29.16 to 38.16 µg/m^3) results in all 4 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations. Day time results ranges from 52.06 dBA to 65.84 dbA and night time results ranges from 43.24 dBA to 46.40 dBA. Results show that during day time, noise quality results were higher than prescribed limit as per the national standards as well as ADB SPS recommended standards for residential areas at 2 locations (Near Workmen Camp 59.68 dBA and (Near Revdar Road 1.7 MLD STP 65.84 dBA). Whereas during night time results were within prescribed limit as per the national standards as well as ADB SPS recommended standards for residential areas at 3 locations except WTP 9 MLD at Angore (46.4 dBA).
		Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	21.02.2023 to 22.02.2023	• Angore WTP • Near Workmen Camp (STP 5.0 MLD) • 1.7 MLD STP (Near Revdar Road) • Vaidnath Colony (Office Area)	• Air quality monitoring conducted at 4 locations and all results are within national standards for all parameters in all 4 locations, whereas PM10 (ranges from 66.28 to 81.34 µg/m^3 and PM 2.5 (ranges from 30.61 to 39.05 µg/m3) values in all 4 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations. Day time results ranges from 53.74 to 63.85 dBA and night time results ranges from 41.22 to 48.03 dBA. Results show that during day time noise quality results were higher at 3 Locations Angore WTP, Near Workmen Camp (STP 5.0 MLD) and 1.7 MLD STP (Near Revdar Road) whereas during night time noise quality results were slightly higher at 3 locations at Angore WTP, Near Workmen Camp (STP 5.0 MLD) and 1.7 MLD STP (Near Revdar Road) other than that noise quality results are within prescribed limit as per the national standards as

S. No	Name of town	Stage of project monitoring	Type of environmental monitoring	Period of sampling	Locations covered	Summary of Results and comparison with National Standards and ADB SPS requirements
						well as ADB SPS recommended standards for residential areas at Vaidnath Colony (Office Area).
12	Ratangarh	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	06.12.2022 to 08.12.2022	• STP 3.8 MLD • RJ Guest House Hospital • SPS 4.6 MLD • Labour Camp • SPS 3.8 MLD • STP 6.1 MLD	• Air quality monitoring conducted at 6 locations and all results are within national standards for all parameters in all 6 locations, whereas PM10 (ranges from 71.87. to 78.61 µg/m^3 and PM 2.5 (ranges from 29.6 to 45.65 µg/m^3) values in all 4 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 6 locations. Day time results ranges from 54.74 to 68.76 dBA and night time results ranges from 43.83 to 56.46 dBA. Results show that during day and night time, noise quality results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas at all locations except 1 location (i.e. RJ guest House)
		Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	21.03.2023 to 23.03.2023	• STP 3.5 MLD • STP 6.1 MLD • SPS 3.8 MLD • SPS 4.6 MLD • Workmen Habitat • At Hospital	• Air quality monitoring conducted at 6 locations and all results are within national standards for all parameters in all 6 locations, whereas PM10 (ranges from 68.6 to 72.15 µg/m^3 and PM 2.5 (ranges from 28.45 to 41.24 µg/m^3) values in all 4 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 6 locations. Day time results ranges from 53.33 to 62.84 dBA and night time results ranges from 41.91 to 55.22 dBA. Results show that during day time, noise quality results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas at all locations except 1 location (i.e. STP 6.1 MLD 54.53 dBA.) whereas results during night time shows that results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas at all locations except 3 (STP 3.8 MLD, STP 6.1 MLD & at Hospital Area).
13	Fatehpur	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	02.12.2022 to 04.12.2022	• STP (4.3 MLD) Near Naribari Village • SPS (3.5 MLD) Dadi sati temple	• Air quality monitoring conducted at 4 locations and all results are within national standards for all parameters in all 4 locations, whereas PM10 (ranges from 70.85 to 74.21 µg/m^3 and PM 2.5 (ranges from 28.96 to 32.11 µg/m^3) values in all 4 locations are more

S. No	Name of town	Stage of project monitoring	Type of environmental monitoring	Period of sampling	Locations covered	Summary of Results and comparison with National Standards and ADB SPS requirements
					• SPS (0.6 MLD) Aqsha Masjid • SPS (1.1 MLD) Near Railway under pass	than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations. Day time results ranges from 52.38 to 59.17 dBA and night time results ranges from 41.72 to 49.78 dBA. Results show that during day and night time, noise quality results were within prescribed limit as per the national standards as well as ADB SPS recommended standards for residential areas at all locations except 1 location (i.e. 1.1 MLD SPS Near Railway under pass)
		Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	25.03.2023 to 26.03.2023	• At Nawalgarh Railway Puliya • Naribari Road 3.5 MLD STP • Workmen Camp Bikaner Puliya • Behind Dholi Sati Temple 3.5 MLD	• Air quality monitoring conducted at 4 locations and all results are within national standards for all parameters in all 4 locations, whereas PM10 (ranges from 67.54 to 75.14 µg/m^3 and PM 2.5 (ranges from 20.69 to 23.83 µg/m^3) values in all 4 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations. Day time results ranges from 64.43 to 68.83 dBA and night time results ranges from 48.21 to 52.21 dBA. Results show that during day and night time, noise quality results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas at all 4 locations.
14	Laxmangarh	Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	01.12.2022 to 02.12.2022	• PHED AEn Campus • Bad ke Balaji PHED Campus • Workmen camp • ExEn Campus	• Air quality monitoring conducted at 4 locations and all results are within national standards for all parameters in all 4 locations, whereas PM10 (ranges from 75.12 to 90.23 µg/m^3 and PM 2.5 (ranges from 35.41 to 40.85 µg/m^3) values in all 4 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations. Day time results ranges from 52.78 to 59.69 dBA and night time results ranges from 41.89 to 47.12 dBA. Results show that during day and night time, noise quality results were within prescribed limit as per the national standards as well as ADB SPS recommended standards for residential areas at all locations except workmen camp area.

S. No	Name of town	Stage of project monitoring	Type of environmental monitoring	Period of sampling	Locations covered	Summary of Results and comparison with National Standards and ADB SPS requirements
		Construction	Air Quality, Noise Quality, Ground Water Quality, Soil Quality	26.03.2023 to 27.03.2023	• RMC & MCC Office Mansi • Bad ka Balaji • AEn Campus • Store Yard & Labor Camp	• Air quality monitoring conducted at 4 locations and all results are within national standards for all parameters in all 4 locations, whereas PM10 (ranges from 70.08 to 77.52 µg/m^3 and PM 2.5 (ranges from 20.59 to 27.35 µg/m^3) values in all 4 locations are more than applicable ADB SPS limits. All other parameters are within prescribed limits as per both standards. • Noise quality monitoring conducted at 4 locations. Day time results ranges from 58.69 to 61.83 dBA and night time results ranges from 42.4 to 48.61 dBA. Results show that during day and night time, noise quality results were slightly higher than the national standards as well as ADB SPS recommended standards for residential areas at all locations except Bad ka Balaji where noise results were 42.40 dBA at night time.

8. ASBESTOS MANAGEMENT

24. Asbestos is a collective name given to a group of minerals that occur naturally as fiber bundles and possess high tensile strength, flexibility, heat resistance, non-biodegradability with chemical and physical durability. Asbestos is hydrated silicates with complex crystal structures. It is found in two configurations: chrysotile (derived from serpentine minerals) and amphibole is a naturally occurring mineral with long thin fibers. The most abundant asbestos used in the world is chrysotile. The use of Asbestos Containing Materials (ACM) propagated due to its economic viability.

25. Presently Asbestos is banned all over India, therefore there is no use of new ACMs at any project site. But, in the existing water supply system, Asbestos pipes are laid earlier, which are still in use by PHED. After completion of RSTDSP construction works, these old lines containing Asbestos pipes will be made defunct and new HDPE pipelines will be made functional for city water supply. There is chance of stored Asbestos pipes at project sites or encounter with ACM during pipe laying works in old/inner areas of towns, where existing water supply networks may contain Asbestos pipes. Keeping in mind the hazardous nature of Asbestos Containing Materials (ACM), Asbestos Management Plan (AMP) is being prepared to prevent the exposure of people to Asbestos. The purpose of this AMP is to identify, use appropriate methodology and scientifically handling /disposal of the Asbestos Containing Materials (ACM) in order to comply with the applicable National legislation and international standards in sync with norms of ADB's SPS 2009. Draft of ACM is already included in draft IEEs, which is being updated as per project town conditions.

26. PMU have mobilized the ACM Management Expert (ACMME) and ACMME is preparing Asbestos Containing Material Management Plan (ACMMP) for the towns where the water supply is a component of subproject. The ACMMP for following towns has been prepared by ACM Expert: Banswara, Abu Road, Sirohi, Khetri, Kuchaman and Mandawa, Laxmangarh and Sardarshahar, and the same is to be updated in IEEs for respective towns for submission to ADB and its approval. Contractors have already been made aware of hazards of ACM during pre-construction and during construction by ACM Expert in his site visit and trainings for ACM management is provided in all project towns.

9. SITE VISITS FOR MONITORING OF CONTRACTORS PERFORMANCE FOR ENVIRONMENTAL SAFEGUARD COMPLIANCE

28. During reporting period environmental safeguard experts of CMSCs visited different sites for monitoring of contractors' environmental safeguard compliances in different sites. Environmental Site visit checklists are given in **Appendix 4** and summary of site visits is given in following **Table – 21**.

Table 21- Summary of Site Visits

S.N.	Town visited, date of visit and name of person conducted site visit	Summary of main findings during site visits	Action taken
1.	**Town: Khetri** **Person visited the Site:** Mr. Vardan Srivastava, Environment Safeguard professional & Mani Kumar, Safeguard Support (Environment & Safety), CMSC-I **Locations visited:** 1. AEn Campus Zone 4; Khetri 2. STP 3.15 MLD (Nanu wali Bawdi); Khetri: 3. Behind Shani Temple; Khetri: 4. Maji Shab ka Bhaag; Khetri: **Date of site Visit:** 17.11.2022	**AEn Campus**	
		• Workers working at site without Personal Protective Equipment's (PPE's).	• EHS officer complied with observation and conducted Tool Box Talk (TBT) or Pep Talk. All workers equipped with Protective Equipment's (PPE's)
		• All hazardous material like cement, paint and oil was found placed openly along with all other material.	• Hazardous material placed at other hazardous room with proper fire extinguisher and sand bucket arrangement outside at the storage area.
		• Incomplete fire point, fire bucket was found empty and no fire extinguisher placed on fire stand.	• EHS officers, complete fire point with Co2 fire extinguisher and ABC fire extinguisher with hanged sufficient sand buckets.
		• Sand and other Aggregate material was dumped at site without proper covering.	• All aggregate and sand storage material kept at site with proper green net coverage or proper tarpaulin protection to avoid unwanted air pollution.
		• Poor housekeeping was found in MCC building staircase area.	• EHS officer complied the finding and made working area neat and clean and free from obstruction.
		• Non- standard scaffold material was found at site. Temporary MS pipe material arrangement establish for height work activity that may lead to incident at site.	• EHS officer make ensure that this type of working arrangement strickly prohibited. Contractor must have standardized scaffold (Coupler, MS Pipe etc.) arrangement and workers must provide site specific training.
		• Concrete mixing machine was found at site without safeguard protection cover and no vehicle chowk was placed at foot rest area to prevent to move in working condition.	• All heavy machineries placed at safe place with proper safeguard protection cover along with vehicle chowk in foot rest area with proper soft barrication tape around the machine while it working or not working condition.
		• Improper material stacking at steel yard area. Material was dumped randomly at work site area.	• Material staking was done properly barricaded with displayed signage board with outer protective cover.
		• Non-standard ladder was found at site which used at site for height work movement.	• Standardized aluminium ladder is being used for height work movement. This type of temporary arrangement is strickly prohibited.

S.N.	Town visited, date of visit and name of person conducted site visit	Summary of main findings during site visits	Action taken
		STP (3.15 MLD); Nanu ke Bawadi; Khetri	
		• No hard barrication was provided at deep excavated MPS structural area.	• Proper hard barricades with dust protected green net is provided so that protection all around the excavation area along with proper safety signage board display at site.
		• Workers working at site without Personal Protective Equipment's (PPE's).	• EHS officer conducted Tool Box Talk (TBT) or Pep Talk before site-specific activity must. All workers equipped with Protective Equipment's (PPE's).
2.	**Town: Kuchaman-Jobner** **Person visited the Site:** • **Mr. Vardan Srivastava, Environment Safeguard professional (CMSC 1)** • **Mr. Jitendra Sharma, Safeguard Support (Gender, Social & Environment), CMSC-1)** **Location Visited:** • **7.6 MLD STP** • **FSTP Land at Jobner** **Date of Site Visit: 06.12.2022**	**STP (7.6 MLD) Nearby New Bus Stand; Kuchaman**	
		• No Proper access and egress provided at structural area and No hard barricading around the site structural area.	• Proper barricades all around excavation area and proper access and staircase to entry and exit the work location Provided. Proper safety signage board Provided.
		• Improper material stacking at steel yard area. Material was dumped randomly at work site area.	• Steel yard area properly barricaded with displayed signage board with outer protective cover.
		• Mobile toilet for site labours was provided at STP site but no water tank facilities in toilet cabins (Male/Female) and poor hygienic conditions in toilet areas.	• Sufficient toilets for both Male and Female workers with water connectivity in toilet areas and display board for Male and Female toilets in labour camp area as well as working site area was provided.
		• Project informative board displayed at site and Safety Signage board was noticed at site with emergency contact details and toll free number.	• Good Practice.
		• No barricading at SBR excavated area.	• Proper hard barricades with orange net protection all around the excavation area with proper safety signage board provided.
		• Sand and other Aggregate material was dumped at site without proper covering.	• Aggregate and sand storage material kept at site with proper green net coverage or proper tarpaulin protection to avoid unwanted air pollution.
		• Empty cement bag was dumped randomly at site.	• Proper material scrap yard for storage of scrap material with proper display maintained.
		• Unwanted scaffold was found at site. Erected scaffold was placed in mudding area with improper base plate and sole plate support. And hand railing was also missing and no inspection tag on it.	• Scaffold erection area is compact and made rigid and erected with proper safe standards.
		• Site Specific Safety Signage board was noticed at site with emergency contact details and toll free number	• Good Practise.

S.N.	Town visited, date of visit and name of person conducted site visit	Summary of main findings during site visits	Action taken
		• Avoid to use cell phone at working area.	• Good Practise.
		• Dustbin Facility provided at site.	• Good Practise
3	**Town: Mandawa** **Person visited the Site:** • **Mr. Vardan Srivastava, Environment Safeguard professional &** • **Mani Kumar, Safeguard Support (Environment & Safety), CMSC-I** **Location Visited:** • **3.9 MLD STP Bisau road** • **SPS Site** • **PHED Jen Campus** **Date of Site Visit: 13.12.2022**	**STP (3.9 MLD) at Bisau Road**	
		• No proper hard barricades, access, staircase and signage was provided at site.	• Proper barricades all around the excavation area provided.
		• Project information board was noticed at site with emergency contact details and toll free number.	• Good Practise
		• Deep excavation was found at nearby MPS area without an outer edge protection of soil collapse down on structural part.	• Metal Safety Net for soil edge protection to avoid soil collapse down was provided and soil heap is placed 1.5m away from excavated edge and safe access for workers to approach the work with proper hand railing at access area provided.
		• No proper safe access for worker to approach the site work.	• Proper access and staircase to entre in to the depth provided
		• At STP entry area hard barricading has required over drainage crossing.	• Proper hard barricading at drainage crossing area to prevent vehicle or any personnel provided.
		• Protruded nails in shuttering material were found on workers access area at site.	• All shuttering material after de-shuttering placed at safe place and protruded nails from de-shuttering material remove.
		• Poor housekeeping was found at site, Rebar's and Shuttering material was placed on the edge of structural excavated area. There was no safe access to move at site.	• Proper housekeeping provided before to start the work and after completion of work at site and all shuttering material and rebar lots placed at safe storage area.
		• Sand and aggregate material heap was found at site without green net or tarpaulin coverage.	• Sand and aggregate material covered with proper tarpaulin and green net cover.
		• No machinery guard was found on batching plant hooper rotating part and also missing concreting machine rotating body cover.	• All auto-mated and manual rotating machine provided with body cover/guard to prevent any kind hand injury.
		• MPS structure peripheral boundary was found without hard barricading.	• All civil confined structural boundary area provided with hard barricading.
		• Empty cement bag was dumped on non-designated place at site.	• All hazardous material stored in designated place with proper covering and signage board & barricading.
		• Electrical joint cables were found naked on ground surface area without outer cover.	• All electrical cables covered with outer cover and grounded carefully so that we can prevent electrocution injury.

S.N.	Town visited, date of visit and name of person conducted site visit	Summary of main findings during site visits	Action taken
		SPS Site, Mandawa;	
		• Project informative board was hidden behind shrubs & excavated soil.	• Project signboards made visible after cutting scrub.
		• No proper hard barricades, access, staircase and signage was provided at site.	• Proper barricades all around the excavation area and access and staircase to entre in to the depth & Provided safety signage provided.
		• Worker was found without safety shoe at site.	• proper Personal Protective Equipment's (PPE's) while working at site is ensured.
		• There is a passage area for residential people beside to SPS site, but there was no barricades provided at structural boundary area.	• Proper barricades, caution signage and other safety arrangements assured all around the site.
		• Electrical cables were found naked on ground surface area without outer cover.	• All electrical cables covered with outer cover and hanged above man height so that we can prevent electrocution injury.
		JEn Campus	
		• Diesel Generator was used at site for power supply. DG set was found in unsafe condition without safeguard cover outside the generator body. There is chance of major body part injury.	• Used only silent DG set of efficient power supply capacity with protective Body cover and remove immediately this DG set.
		• Concrete mixing machine was found at site without safeguard protection cover and no vehicle chowk was placed at foot rest area to prevent to move in working condition.	• Machineries placed at safe place with proper safeguard protection cover along with vehicle chowk in foot rest area with proper soft barricading tape around the machine while it working or not working condition.
		• No hard barricades, access, staircase and signage was provided at site.	• Proper barricades all around the excavation area, proper access and staircase to entre in to the depth with safety signage provided.
		• Hand grinder was found without body guard/cover.	• EHS officer, make ensure that all electronic rotating tools and tackles should be covered prevent hand injury
4.	**Town: Ladnu** **Person visited the Site:** • **Mr. Vardan Srivastava, Environment Safeguard professional &** • **Mani Kumar, Safeguard Support**	**STP (5.5 MLD) Near Asota Village** • Unsafe access and egress point at SBR entry area. Maintain proper step up scaffold access for safe movement • Sand and other Aggregate material was dumped at site without proper covering. • Improper material stacking was found at site.	 • Access and egress made obstruction free and non slippery proper scaffold step walkway provided at entry point. • Aggregate and sand storage material kept at site with proper green net coverage or proper tarpaulin protection to avoid unwanted air pollution. • Material placed at safe storage area with proper material stacking.

S.N.	Town visited, date of visit and name of person conducted site visit	Summary of main findings during site visits	Action taken
	(Environment & Safety), CMSC-I **Location Visited:** • **5.5 MLD STP Near Asota Vilalge** • **2.4 MLD STP Sujangarh Road; Zone 2; Ladnu** **Date of Site Visit: 21.12.2022**	• Improper earthing pit chamber was found at site, not display tested resistance value at earth pit chamber	• Earthing pit covered and displayed with proper inspection information on chamber area.
		• In hazardous storage area, fuel drums store without dip tray protection on ground area and that may be cause of ground spillage and leads to soil contamination	• All hazardous fuels, oil drums placed on proper dip tray protection on ground surface area with proper display of Material Safety Data Sheet (MSDS) in storage area
		• SBR walkway area was found with hindrance of rebar stacking on movement area.	• Structural walkway area made obstruction free and no material stacking is allowed on height structural area
		• Improper scaffold erection was found at site	• Competent scaffolders deployed to erect the scaffold at any structural area. Proper base plate, sole plate and mid rail & guard rail provided.
		• Shuttering material was found stacked at SBR basin partitioning wall area that may lead to major incident/accident at site	• No material stacking allowed at height structural area.
		• Poor housekeeping was found at site. Construction and demolition (C&D) debris material was found at erected scaffold area	• Working area made neat and clean and worker provided safety training on importance of housekeeping at site.
		• Rebar material was dumped randomly outside the rebar stacking area	• Rebar stalking area barricaded at at designated place.
		• Hard barricading was found on the edge excavated area	• Good practices
		• Project informative board displayed at site and Safety Signage board was noticed at site with emergency contact details and toll-free number	• Good practices
		• Provide sufficient toilets and bathrooms (gender specific as per BOCW Act) with proper signage, cleanliness and water arrangement, provide other basic facilities for workers in camps.	• Good practices
		• Labour First aid facilities provided at site.	• Good practices
		• Provided labour rest room facilities for all the labour workers at STP area,	• Good practices
		• Electrical cable hanged above man height to prevent electrocution	• Good practices

S.N.	Town visited, date of visit and name of person conducted site visit	Summary of main findings during site visits	Action taken
		• Hard barricading was provided at confined space area (below 1.5m depth) • Provided machinery safety guard on plate compactor vibrator to prevent hand & leg injury	• Good practices • Good practices
5.	**Town: Makrana** **Person visited the Site:** • **Mr. Vardan Srivastava, Environment Safeguard professional &** • **Mani Kumar, Safeguard Support (Environment & Safety), CMSC-I** **Location Visited:** • **7.7 MLD STP Near Balaji Colony Makrana** • **2.1 MLD SPS, Matavar Road, Makrana** **Date of Site Visit: 27.12.2022**	**STP (7.7 MLD); Nearby Balaji Colony; Makrana** • No Proper access and egress provided at Chlorine Contact Tank (CCT) structural area. • Electrical Extension panel was found in unsafe condition without any compacted surface area from above ground level • Improper material stacking of tin sheet at working site area. Material was dumped randomly • Sand and other Aggregate material was dumped at site without proper covering. • Open cube tank water storage was found • Electrical cables were found naked on ground surface area without outer cover. • Aggregate material was dumped in existing tree boundary. • No water sprinkling on approach road of STP. • No bedding facilities for some of worker rooms in labour campus area. • Diffused and non-inspected fire extinguisher was found at labour camp area • Hazardous oil drums stored in open environment nearby labour campus area. • Poor housekeeping in labour campus area, No water supply in labour toilet.	• Proper access and staircase to entry and exit the work location. Provided with proper safety signage board. • All electrical equipment's placed at safe surface area with proper PCC surface area with proper net bolting and proper barricading area. • Proper material stacking in safe area with proper outer protective cover provided. • All aggregate and sand material kept at safe storage area site with proper green net coverage or proper tarpaulin protection. • Stagnant water storage covered to prevent mosquito's accumulation on water surface area so that to prevent health disease and timely replace stagnant water with fresh water. • Electrical cables covered with outer cover and hanged above man height so that we can prevent electrocution injury. • Sand and other aggregate material dumped at designated area with proper outer covering of material. Trees boundary area cleaned and covered boundary with brick boundary. • Water sprinkling done to avoid air pollution and prevent health Hazard to surrounding workers. • All workers provided with bed arrangements in ventilated room. • Fire extinguisher is inspected and proper inspect tag placed on it. • All hazardous fuel, oil drums, paints should have placed in hazardous room with proper MSDS display of fuel and fire extinguisher at outer area • Proper howusekeeping and water supply in toilet area iidiately ensured.

S.N.	Town visited, date of visit and name of person conducted site visit	Summary of main findings during site visits	Action taken
		• Improper hard barrication on SBR basin walkway.	• Proper hard barrication at site provided with safety signage board display at site.
		SPS (2.1 MLD); Matavar Road; Makrana	
		• Project informative board was found improper condition • Excavated boundary wall area was found non barricaded in open pit form. • Unwanted scaffold erection was found at structural area. • Improper access approach towards pump room • Site Specific Safety Signage board was noticed at site with emergency contact details and toll free number • PPE's Zone maintain at site • Provide Worker Rest Shelter Area for all Labours • Fire Point Facilities at site • Dustbin Facility provided at site • Drinking Water Facilities at Labour Campus Area • Proper material stacking and their barrication provided at site with safety sign board • Proper Scaffold erection and provided base plate and compacted surface area.	• Project informative signage board, safety board restored. • EHS officer, make ensure that all excavated area should be hardly barricaded and also display safety signage board. • unwanted scaffold erection removed. • Access area made obstruction free and step approach with guard railing provided. • Good Practice • Good Practice • Good Practice • Good Practice • Good Practice • Good Practice • Good Practice • Good Practice. • Good Practice.
6.	**Town: Pratapgarh** **Person visited the Site:** **Mr. Mahavir Prasad Saini, Environment Safeguard professional CMSC-II, Jodhpur** **Location visted: (Community hall Pratapgarh)**	**(Orientation Visit only)** Orientation workshop to PIU-RUIDP Pratapgarh, Elected Ward Members of Municipal Cooperation, ULB staff, Pratapgrh, CMSC-II Pratapgarh and Contractor Staff on Project Scope, O&M WSS services, Gender, and Financial Sustainability in Pratapgarh.:	

S.N.	Town visited, date of visit and name of person conducted site visit	Summary of main findings during site visits	Action taken
	Date of Site Visit: 12.01.2023	**Topics Discussed:** • Legal Requirement during operation phase. • Environment Management Plan for Construction and Operation Phases • ADB SPS 2009 and RUIDP safeguards requirements; • Safeguards implementation arrangements and roles and responsibility of different functionaries in the project; • Environment Management Plan and Environment Monitoring Plan • Occupational and community health and safety; • Labour and public safety and labour laws; • Solid waste (domestic, construction, and spoils) management; • Periodical environmental monitoring requirements for air, noise, water and soil; • Areas of safety concerns in construction works; • Public consultations and grievance redress mechanism of RUIDP; • Probable pollutions during construction works and their mitigation measures.	
7.	**Town: Kuchaman** **Person visited the Site:** • **Mr. Vardan Srivastava, Environment Safeguard professional (CMSC 1)** • **Mr. Jitendra Sharma, Safeguard Support (Gender, Social & Environment), CMSC-1)**	**STP (7.6 MLD) Nearby New Bus Stand; Kuchaman** • No Proper access and egress provided at structural area and No hard barricading around the site structural area. • No barrication at SBR excavated area • Improper material stacking at storage yard area. Material was dumped randomly at work site area. • Mobile toilet for site labours has provided at STP site but no water tank facilities in toilet cabins	• Proper barricades all around excavation area and proper access and staircase to entry and exit the work location provided with safety signage board. • Proper hard barricades with orange net protection all around the excavation area with proper safety signage board provided. • Storage yard area properly barricaded with displayed signage board with outer protective cover. • Sufficient numbers of toilets for both Male and Female workers with water availabilty in toilet areas provided with display board for

S.N.	Town visited, date of visit and name of person conducted site visit	Summary of main findings during site visits	Action taken
	Location Visited: • **7.6 MLD STP** • **3.1 MLD SPS** • **0.85 MLD SPS** • **CWR sites** **Date of Site Visit: 16.02.2023**	(Male/Female) and poor hygienic conditions in toilet areas. • Sand and other materials such as Aggregate, dust found dumped at site without proper covering. • Unsafe scaffold erection was found at TEER construction area. Erected scaffold does not provide proper support with bracing and working platform was unsuitable for work performance and hand railing was also missing and found no inspection tag on it. • Non- standard hand tools were found at site. • In Admin Building, Poor housekeeping was found at staircase area. • In Admin Building, deshuttering material was found dumped randomly at access area with protruded nail head. • In Admin Building, Open edge ends was found. • Workers, unsafe Personal Protective Equipment's (PPE's) placement practices at site. • In Admin Building, in-complete hard barrication was found at roof edge area. **CWR-1 (AEN PHED; 600 KL)** • Opened edge was found at site while workers at site • Inadequate First Aid Box was found at site • Some workers working at site without safety shoes • Provide temporary hand railing while working at site • Electrical cables hanged above man height at working area • Site Specific Safety Signage board was noticed at site	Male and Female toilets in labour camp area as well as working site area provided. • Aggregate and sand storage material stored with proper green net coverage or proper tarpaulin protection. • Only competent scaffolder deployed to erect the scaffold. • All working hand tools with FRP handle being used to prevent slip & fall injury at site. • Proper housekeeping at working area being maintained before and after completion of work at site. • Deshuttering material placed at safe storage area after. • Building edge opening covered and hard barrication provided. • EHS officers provided for for height works. Building edge opening covered and hardbarricading provided. • Building edge opening covered and hardbarricading provided. • All working area have first aid facilities and it is prooprly inspected regular basis with inspected tagging. • Safety training was organised for workers to encourage using proper Personal Protective Equipment's (PPE's) while working at site. • Good Practice • Good Practice • Good Practice • Good Practice

S.N.	Town visited, date of visit and name of person conducted site visit	Summary of main findings during site visits	Action taken
		• Labour Rest Shelter provided at site	• Good Practice
8.	**Town: Ladnu** **Person visited the Site:** **• Mr. Vardan Srivastava, Environment Safeguard professional &** **• Mani Kumar, Safeguard Support (Environment & Safety), CMSC-I** **Location Visited:** **• 5.5 MLD STP Near Asota Vilalge** **• 2.4 MLD STP Sujangarh Road; Zone 2; Ladnu** **Date of Site Visit: 02.03.2023**	**STP (5.5 MLD) Near Asota Village; Ladnu** • Improper material stacking was found at site. • Improper earthing pit chamber inspection records was found at site • In hazardous storage area, fuel drums store without dip tray protection on ground area and that may be cause of ground spillage and leads to soil contamination. Incomplete • Hard barrication was found missing on the edge excavated area. • Improper scaffold erection was found at site • Poor housekeeping was found at site. Construction material and other construction & demolition (C&D) debris material was found at site. • Non inspected fire extinguisher was found at site. • Protruded nail de-shuttering material was dumped at site. **Sewage Treatment Plant (2.4 MLD) at Sujhangarh Road; Zone 2; Ladnu** • Vertical Rebar points was found after raft casting. • No hard barrication was found at excavated area. • Electrical cable hanged above man height to prevent electrocution.	**STP (5.5 MLD) Near Asota Village; Ladnu** • Material stacking in safe storage area with was done. • Earthing pit covered and displayed with proper inspection information on chamber area. • All hazardous fuels, oil drums placed on proper dip tray protection on ground surface area with proper display of Material Safety Data Sheet (MSDS) in storage area. • Hard barrication provided (1.5 m distance from excavated edge area) • Only competent scaffolders deployed to erect the scaffold on all structural area. • Working area properly cleaned and worker were given safety training on importance of housekeeping at site. • All fire extinguishers are pressurized and into green zone and inspected by EHS officer. • De-shuttering material placed at appropriate storage area and protruded nail removed • No benchmark vertical rebar point put into concrete casting without rebar cap. To prevent body scratch, hand and leg injury of worker to put rebar cap on it and cut all vertical rebar after work completion at site • all excavated structural area provided with hard barrication with proper safety signage board display at site • Good practices
9.	**Town: Makrana-Dodwana**	**Sewage Treatment Plant (3 MLD) at zone 9; Didwana**	

S.N.	Town visited, date of visit and name of person conducted site visit	Summary of main findings during site visits	Action taken
	Person visited the Site: **• Mr. Vardan Srivastava, Environment Safeguard professional &** **• Mani Kumar, Safeguard Support (Environment & Safety), CMSC-I** **Location Visited:** **• 3.0 MLD STP Zone 09, Didwana;** **• SPS 01- 1.7 MLD, Didwana;** **• SPS 02 – 1.3 MLD, Didwana;** **• 7.7 MLD STP, Nearby Balaji Colony, Makrana** **• 2.1 MLD SPS, Matavar Rioad, Makrana;** **• 2.3 MLD SPS, Makrana** **Date of Site Visit: 13.03.2023**	• Improper material stacking was found at site. • Improper Hard barrication was found on the edge excavated water tank area • Damage Full Body Harness (FBH) was found when worker at height at site. • Poor housekeeping was found at site. Construction material and other construction & demolition (C&D) debris material was found at site • Non inspected fire extinguisher was found at site. • In labour camp area, allocated designated place for drinking water but not seen any arrangement for drinking water facilities for living workers. • Doctor Cabin and Medical Health Check-up Facilities provided at site. • Well maintained Male and Female Let bath and Toilet arrangement at labour camp area. • Dustbin arrangement at labour camp area. • Bed arrangements for labours at labour camp area **Sewage Treatment Plant (7.7 MLD) at Nearby Balaji Colony, Makrana** • Poor housekeeping was found at site. Construction material and other construction & demolition (C&D) debris material was found at site. • No Concrete platform for DG transformer	• Material placed at safe storage area with proper material stacking. • Hard barrication provided surrounding the excavated edge area and open water tank area covered to prevent fall down injury. • Workers provided with work at height training and no one to wear damaged Full Body Harness (FBH) and damaged FBH replaced with new one. Only competent worker work at height. • All working area made neat and clean and worker provided safety training on importance of housekeeping at site. • All fire extinguishers pressurized and into green zone and inspected by competent EHS officer. • Proper labour welfare facilities ensured at site and labour camp area, proper storage of drinking water for all workers ensured. • Good Practices • Good Practices • Good Practices • Good Practices • Proper Housekeeping ensured and worker provided safety training on importance of housekeeping at site. • All Electrical equipment's placed above ground surface area and provided hard compacted surface.

S.N.	Town visited, date of visit and name of person conducted site visit	Summary of main findings during site visits	Action taken
		• No hard barrication was found at excavated area • Open burning was found at labour camp area • Poor Housekeeping was found nearby steel scrap yard. • Ambulance Facilities provided at site • Proper Kitchen Faculties for labour camp workers • Volley Ball playground facilities for site workers • Well maintained Male and Female Let bath and Toilet arrangement at labour camp area • Well maintained planted labour camp area	• All excavated structural area provided with hard barrication at site with proper safety signage board display at site. • LPG gas cylinder provided to workers for cooking purpose. • Proper housekeeping ensured at all dumping yards with proper stacking proper arrangements. • Good practices • Good practices • Good practices • Good practices • Good practices

10. ORIENTATIONS FOR SAFEGUARDS

29. Environmental performance of contractors can be improved and ensured through regular orientations and trainings. Orientations for environmental safeguards including provisions of ADB SPS 2009 and other contractual and legal requirements as per Central and State Governments are necessary for contractors and site staff of PIUs and Consultants to understand the basic EHS requirements during construction works. Safeguard orientations of site engineers of PIUs, CMSCs and contractors is done by PMCBC/CMSC environmental specialists in all towns at pre-construction stage. These orientations included following topics-

- ADB SPS 2009 and RUIDP safeguards requirements
- Contractual and legal requirements as per ADB, RUIDP, Govt. of Rajasthan and Govt. of India legislations, requirement of consents (CTE/CTO) from RSPCB for WTP/STP/DG set etc.,
- Safeguard provisions in contract documents, pre-construction requirements
- Safeguards implementation arrangements and roles and responsibility of different functionaries in the project
- Assessment of environmental impacts and planning for mitigation measures, including best management practices, in the design, construction, operation and maintenance of water supply and sewerage subprojects
- Preparation, updating, and review of IEE
- Preparation of site-specific EMPs/EHS Plan
- Occupational and community health and safety
- Labor and public safety and labor laws
- Heritage conservation, Biodiversity conservation
- Asbestos Management Plan (ACM)

- ❖ Solid waste (domestic, construction, and spoils) management
- ❖ Environmental monitoring including air, noise, water and soil
- ❖ Preparation of monitoring checklists and reports
- ❖ Areas of safety concerns in construction works
- ❖ Public consultations and grievance redress mechanism of RUIDP
- ❖ Good practices, tree plantations
- ❖ Probable pollutions during construction works and their mitigation measures
- ❖ Reuse of treated effluent and sludge from STP
- ❖ COVID-19 prevention and control

30. Environmental safeguard orientations at Kuchaman, Mandawa, Ladnu, Makrana-Didwana and Pratapgarh, was done during this reporting period.

31. During site visits of safeguard experts/safeguard support personnel of CMSC to project sites, onsite orientations for safeguards compliances are regularly being done for site engineers of PIU/CMSC/Contractors, site supervisors, workers and operators. During orientations ADB SPS Policy and safeguard requirements are described to attendees and non-compliances observed during site visits is discussed with them and required rectification and mitigation measures are also described in detail.

32. Contractors' EHS personnel also give orientations and trainings to their site staff and workers regarding environmental safeguard implementation at work sites. Different topics such as safety during trench works, work at height, confined space works, hot works, PPEs, health and sanitation, COVID-19 prevention and control, public safety, barricades etc are covered under the training given by contractors' EHS personal. Details of Contractors' trainings are given in **Appendix 9**.

33. During the reporting period following safeguard orientations were done by CMSC environmental safeguard Professionals-

Table 22- Safeguard Orientations Done by Environmental Safeguard Professionals of PMCBC/CMSC during October 2022 to March 2023)

S. No.	Orientation/Training	Date	Demonstrators	Participants
1	**Town: Kuchaman- Jobner**			
	Orientation regarding requirements of environmental safeguard during project implementation	06.12.2022	Mr. Vardan Srivastava, Environment Safeguard Professional, and Mr. Jitendra Sharma, Safeguard Support (Gender, Social & Environment), CMSC-1)	**PIU:** 1. Mr. Ashok Kumar jain; S.E.., PIU, RUIDP, Kuchaman. **Consultant (CMSC-I):** 1. Vardan Srivastava, Environmental Safeguard Professional, Jaipur. 2. Arun Kanojjia, (ACM); CMSC-01; Kuchaman. **Contractor's team (L& T):** 1. Mr. Anurag Behrwal; EHS Officer; M/s L&T; Kuchaman. 2. Site Engineers M/s L&T, kuchaman **Total Participants- 09** **Male-09** **Female-0**

S. No.	Orientation/Training	Date	Demonstrators	Participants
2	**Town: Manadawa**			
	Orientation regarding requirements of environmental safeguard during project implementation	13.12.2022	Mr. Vardan Srivastava, Environment Safeguard professional & Mani Kumar, Safeguard Support (Environment & Safety), CMSC-I	**PIU:** 1. Mr. Dinesh Kumar Verma, Executive Engineer, PIU, RUIDP, Mandawa 2. Mr. Sanju Poonia, Junior Engineer(JEn), PIU, RUIDP, Mandawa **Consultant (CMSC-I):** 1. Vardan Srivastava, Environmental Safeguard Professional, Jaipur. 2. Mr. Vijay Pal, Assistant Contract Manager (ACM), CMSC -01, Mandawa **Contractor's team (M/s LNA-R&B (JV):** 1. Mr. Manoj Kumar Joya, EHS officer M/s LNA, Mandawa 2. Site Engineers, Workers and Supervisors M/s LNA, Mandawa **Total Participants- 14** **Male-13** **Female-01**
3	**Town: Ladnu**			
	Orientation regarding requirements of environmental safeguard during project implementation	21.12.2022	Mr. Vardan Srivastava, Environment Safeguard professional & Mani Kumar, Safeguard Support (Environment & Safety), CMSC-I	**Consultant (CMSC-I):** 1. Vardan Srivastava, Environmental Safeguard Professional, Jaipur. 2. Mr. Ram Kumar Singhal, Assistant Contract Manager (ACM), CMSC -01, Ladnu 3. Mr. Sher Mohd., Support Engineer, CMSC 01, Ladnu **Contractor's team (L& T):** 1. Mr. Jeevan Kumar, EHS Officer, M/s L&T, Ladnu 2. Mr. Anil Choudhary; Safety Stewards, M/s L&T, Ladnu 3. Mr. Eswaran KP, Senior Construction Manager, M/s L&T, Ladnu 4. Site Engineers, Workers & Supervisors, Ladnu **Total Participants- 24** **Male-24** **Female-0**
4	**Town: Makrana**			
	Orientation regarding requirements of environmental safeguard during project implementation	27.12.2022	Mr. Vardan Srivastava, Environment Safeguard professional & Mani Kumar, Safeguard Support	**Consultant (CMSC-I):** 1. Vardan Srivastava, Environmental Safeguard Professional, Jaipur. 2. Mr. Ganesh Shenoy, Assistant Contract Manager (ACM), CMSC -01, Makrana 3. Mr. Bhagirath Soni, Support Engineer, CMSC 01, Makrana

S. No.	Orientation/Training	Date	Demonstrators	Participants
			(Environment & Safety), CMSC-I	**Contractor's team (L& T):** 1. Mr. Jeevan Kumar, EHS Officer, M/s L&T, Ladnu 2. Mr. Rajesh Kumar Pal, Assistant manager, M/s L&T Makarana 2. Mr. Shyam Pal Singh; Safety Stewards, M/s L&T, Makrana 3. Site Engineers, Workers & Supervisors, Makrana **Total Participants- 20** **Male-14** **Female-06**
5	**Town: Pratapgarh**			
	Orientation regarding requirements of environmental safeguard during project implementation	12.01.2023	Mr. Mahavir Prasad Saini Environment Safeguard professional CMSC-II, Jodhpur	**Consultant (CMSC-II):** 1. Mr. Mahavir Prasad Saini, Environmental Safeguard Professional, CMSC-II Jodhpur. 2. Mr. Dinesh Parmar ACM, CMSC II 3. Mr. Rajiv Sharma, Social Safeguard Professional, CMSC – II, Jodhpur Elected members of Municipal Cooperation & Councillors and officers of ULB (Pratapgarh): **Total Participants- 84** **Male-70** **Female-14**
6	**Town: Kuchaman**			
	Orientation regarding requirements of environmental safeguard during project implementation	16.02.2023	Mr. Vardan Srivastava, Environment Safeguard professional & Mani Kumar, Safeguard Support (Environment & Safety), CMSC-I	**PIU:** 1. Mr. Shok Kumar jain; S.E., PIU, RUIDP, Kuchaman. **Consultant (CMSC-I):** 1. Vardan Srivastava, Environmental Safeguard Professional, CMSC 01, Jaipur. 2. Mr. Bhajan Lal Meena, Social & Environmental Safeguard Support, CMSC-01, Kuchaman **Contractor's team (L& T):** 1. Mr. Anurag Behrwal; EHS Officer; M/s L&T; Kuchaman. 2. Site Engineers M/s L&T, kuchaman **Total Participants- 09** **Male-09** **Female-0**
7	**Town: Ladnu**			
	Orientation regarding requirements of environmental	02.03.2023	Mr. Vardan Srivastava, Environment	**Consultant (CMSC-I):** 1. Vardan Srivastava, Environmental Safeguard Professional, Jaipur.

S. No.	Orientation/Training	Date	Demonstrators	Participants
	safeguard during project implementation		Safeguard professional & Mani Kumar, Safeguard Support (Environment & Safety), CMSC-I	2. Mr. Ram Kumar Singhal, Assistant Contract Manager (ACM), CMSC -01, Ladnu 3. Mr. ravi Kumar Verma, Environment Safeguard Support, CMSC – I, Ladnu **Contractor's team (L& T):** 1. Mr. Jeevan Kumar, EHS Officer, M/s L&T, Ladnu 2. Mr. Anil Choudhary; Safety Stewards, M/s L&T, Ladnu 3. Site Engineers, Ladnu **Total Participants- 24** **Male-24** **Female-0**
8	**Town: Didwana - Makrana**			
	Orientation regarding requirements of environmental safeguard during project implementation	13.03.2023	Mr. Vardan Srivastava, Environment Safeguard professional & Mani Kumar, Safeguard Support (Environment & Safety), CMSC-I	**Consultant (CMSC-I):** 1. Vardan Srivastava, Environmental Safeguard Professional, Jaipur. 2. Mr. Rahul Choudhary; Senior Construction Engineer (SCE); CMSC -01; Didwana 3. Mr. Ganesh Sheoney; Assistant Construction Manager (ACM); CMSC -01; Makrana 4. Mr. Suraj Pal Singh, Support Engineer, CMSC-I, Makrana **Contractor's team (L& T):** 1. Mr. Jeevan Kumar, EHS Officer, M/s L&T, Didwana/Makrana 2. Mr. Anil, Chaudhary, Safety Stewards, M/s L&T, Makrana 3. Site Engineers, Workers & Supervisors, Makrana **Total Participants- 37** **Male-35** **Female-02**

Note- Photographs and attendance sheets of orientations are attached in Appendix 7

11. PUBLIC CONSULTATION & GRIEVANCE REDRESS MECHANISM

A. Public Consultation

34. Public consultations are being conducted by environmental safeguard professionals and environment safeguard support of CMSC through site visits which includes public consultations with project stakeholders including residents and shop owners, road users, public representatives etc, Summary of consultations done during reporting period is given in following table-

Table 23- SUMMARY OF CONSULTATIONS DURING OCTOBER 2022 TO MARCH 2023

S. No.	Date and place of consultation	Works being executed at/near site	Persons consulted	Topics discussed during consultation	Outcome of consultation
1.	On 13.12.22 at Ward No. 09, Mandawa	PCC work went on	Total person Consulted: 02 (Nearby residents)	• Any Grievance due to laying of water supply & sewerage pipeline.	• Local residence is satisfied with project site work and appreciates the site work.
2.	On 21.12.2022 at Teli Road (CC Road Consultattion), Ladnu	Sewerage Laid work went on	Total person Consulted: 04 (Nearby residents)	• Any Grievance due to laying of Sewerage pipeline and other road construction work activities.	• Local residence are satisfied with project site work and appreciate the site work.
3.	On 27.12.2022 at Om Colony Zone 3; Bhatipura Zone 3; Makrana	PCC work went on	Total person Consulted: 10 (Nearby residents)	• Any Grievance due to laying of Sewerage pipeline and other road construction work activities.	• At Om Colony, Zone 3, some of local residences demanded for re construction of the ramps for which were demolished due to laying work , other tha that they had no issues regarding project related site work activity and they appreciate the project work.
4.	On 16.02.2023 at Ankanta Colony, Surendar nagar Jhalra Road, Kuchaman	Excavation work went on for laid down Water supply line	Total person Consulted: 10 (Nearby residents)	• Any Grievance due to laying of Water supply pipeline line & Sewerage pipeline and other road construction work activities.	• At Ankanta Colony, local residences complained about water leakage issue during laying of water supply pipeline and after so many calls when they didn't get any response from company side they were rectified water leakage issue by themselves.
5.	On 02.03.2023 at Teli Road (CC Road Consultattion), Ward no. 36 & Ward no. 16, Ladnu	CC road construction and excavation work went on for laid down sewerage line	Total person Consulted: 08 (Nearby residents)	• Any Grievance due to laying of Sewerage pipeline and other road construction work activities.	• Local residences are satisfied with project site work and appreciate the site work.

S. No.	Date and place of consultation	Works being executed at/near site	Persons consulted	Topics discussed during consultation	Outcome of consultation
6.	On 13.03.2023 at Govt. Girls School, No.04 & Ward No. 33, Didwana	Road restoration and CC road construction work went on	Total person Consulted: 04 (Nearby residents)	• Any Grievance due to laying of Sewerage pipeline and other road construction work activities.	• Local residences are satisfied with project site work and appreciate the site work.

35. Photographs of consultations and attendance sheets as a sample are attached as **Appendix 2**.

B. PROJECT-SPECIFIC GRIEVANCE REDRESS MECHANISM

36. A project-specific, three-tier grievance redress mechanism (GRM) covers both environment and social issues. The GRM will be established to receive, evaluate, and facilitate the resolution of affected persons' concerns, complaints, and grievances about the social and environmental performance at project level. The GRM will aim to provide a time-bound and transparent mechanism to voice and resolve social and environmental concerns related to the project. Assessment of the GRM designed and implemented for Rajasthan Urban Sector Development Program (RUSDP)[5] the system was effective in timely resolution of grievances in a transparent manner.[6] The multichannel, project-specific, three-tier GRM is functional at RUSDP,

[5] The procedures followed for grievance redress during implementation of RUSDP Phase III included the project GRM and the pilot GRM software application (Smart Check) in Pali, the Sampark portal of Government of Rajasthan, and the Chief Minister's helpline. Complaints received through various channels were mostly minor and pertained to damage to existing water supply pipelines and disruption of water supply during construction, delays in road restoration, and pending new connections. Complaints related to damage to private property (compound walls/steps, etc.) were less in number. The grievances were mostly possible to resolve in coordination with the contractors. Complaints received were immediately referred by the CAPC/PMDSC supervision staff to the PIU Nodal officer (safeguards) and concerned engineer at PIU, who advised them on further action. Follow up with the contractor on complaint resolution was undertaken by PIU Nodal officer CAPC and PMDSC and final feedback sought from complainant upon resolution. Complaints requiring inter-departmental coordination were referred to the PMU for resolution, and feedback provided to complainant. The PMU kept regular track of grievances through Whatsapp and email alerts, ensuring registration and follow-up until resolution.

[6] Town-level grievance registration data indicates that a large number of grievances were registered, pointing to the effectiveness of the multi-channel GRM. No major grievance was received for RUSDP Phase III. The GRM helped smoothen the process of project implementation, hence the proposed architecture for the RSTDSP GRM remains similar, with some refinement, taking into account the changes in institutional setup proposed for project implementation.

hence the design of GRM for RSTDSP takes into account the proposed institutional structure for RSTDSP and the positive features and learnings from the previous GRM.[7]

37. **Common GRM.** A common GRM will be in place for social, environmental, or any other grievances related to the project. Implementation of the resettlement plans/RIPPs/DDRs/IEEs will follow the GRM described below. The GRM will provide an accessible and trusted platform for receiving and facilitating resolution of affected persons' grievances related to the project.

38. Public awareness campaigns within entire ULB/Municipal area will ensure that awareness on grievance redress procedures is generated. The nodal officer- social/environment at field level through community awareness and public participation consultant (CAPPC) will conduct ULB/Municipal area-based awareness campaigns to ensure that poor and vulnerable households are made aware of grievance redress procedures and entitlements. Contractors will provide pamphlets to communities prior to start of works and billboards during construction. The pamphlets and billboards will include relevant environmental and social safeguards, GRM information, and contact details of key personnel from PIU and contractors.

39. Affected persons will have the flexibility of conveying grievances/suggestions by dropping grievance redress/suggestion forms in complaint/suggestion boxes that will be installed by project PIUs or by e-mail, by post, or by writing in a complaints register in ULB offices/complaints register at contractor's work site[8] or by sending a Whatsapp message to the PIU[9] or by dialling the phone number of town level PIU/CAPPC or by dialling a toll-free number.[10] Any aggrieved person can also avail the facilities of online grievance monitoring system 'Rajasthan Sampark' portal to register their grievance which is a parallel mechanism of grievance registration, in addition to the project GRM. [11] Careful documentation of the name of the complainant, date of receipt of the complaint, address/contact details of the person, location of the problem area, and how the problem was resolved will be undertaken and feedback provided to the complainant on

[7] Continued logistics support at field level will be key to successful management of grievance redress under RSTDSP. The target date for establishment of the first level (PIU level) and second level (Zonal level) of GRM is before loan negotiation.

[8] RUSDP piloted an online application based live GRM counter for resolution of public grievances over and above the usual process of grievance registration and redressal. This app based GRM - "RUIDP Smart Check" is available at Google play store (free of cost) and is operational. The RUIDP Smart Check "app" was launched in Pali town in July 2017 and is proposed to be scaled up in RSTDSP project towns. For persons without access to the application, the traditional channels will continue to be available.

[9] It is suggested for each PIU to have a dedicated whatsapp group for registration of grievances and receipt of quick feedback, to be followed by more formal communication.

[10] Project contractors in all project towns will have a toll-free number with specific working hours for registration of grievances related to RSTDSP.

[11] http://www.sampark.rajasthan.gov.in/RajSamWelcome.aspx

action/decision taken. The Safeguard and Safety Officer of town/city level PIU will have the overall responsibility for timely grievance redressal on environmental and social safeguards issues and for registration of grievances, related disclosure, with the assistance of project consultants. In case of grievances that are immediate and urgent in the perception of the complainant, the contractor, and officials of PIU with assistance from construction management and supervision consultants (CMSC) and CAPPC on-site will provide the most easily accessible or first level of contact for quick resolution of grievances. Contact numbers and names of the concerned PIU safeguard and safety officer, contractors, CAPPC and CMSC personal will be posted at all construction sites at visible locations.

(i) **1st level grievance**. The contractors, PIU Executive Engineer (EE)/Assistant Engineer (AE) designated as safeguard and safety officer (social and environment), CMSC (safeguard staff) and CAPPC can immediately resolve issues on-site, in consultation with each other and will be required to do so within 7 days of receipt of a complaint/grievance. If required, city level monitoring committee (CLMC)[12] will be involved in resolution of grievances at the 1st level.

(ii) **2nd level grievance**. All grievances that cannot be redressed within 7 days at field/PIU level will be brought to the notice of Zonal PIU headed by Additional Chief Engineer (ACE). The ACE at zonal PIU will resolve the grievance within 7 days of receipt of compliant/grievance in discussion with the ASO, field level PIU, CMSC, CAPPC and the contractor.

(iii) **3rd level grievance**. All the grievances that are not addressed by Zonal PIU within 7 days of receipt will be brought to the notice of the PMU. Depending on the nature of grievance, the Project Officer (Social/Environment) at PMU will resolve the grievance within 15 days of receipt of grievance with necessary coordination of Zonal PIU and CMSC and guidance/instruction of Additional Project Director (APD-PMU).

(iv) Grievances not redressed through this process within/at the project level within stipulated time period will be referred to the CLC/GRC, which has been set up.[13] In its role as a GRC, the CLC will meet whenever there is an urgent, pending grievance. Other grievances can

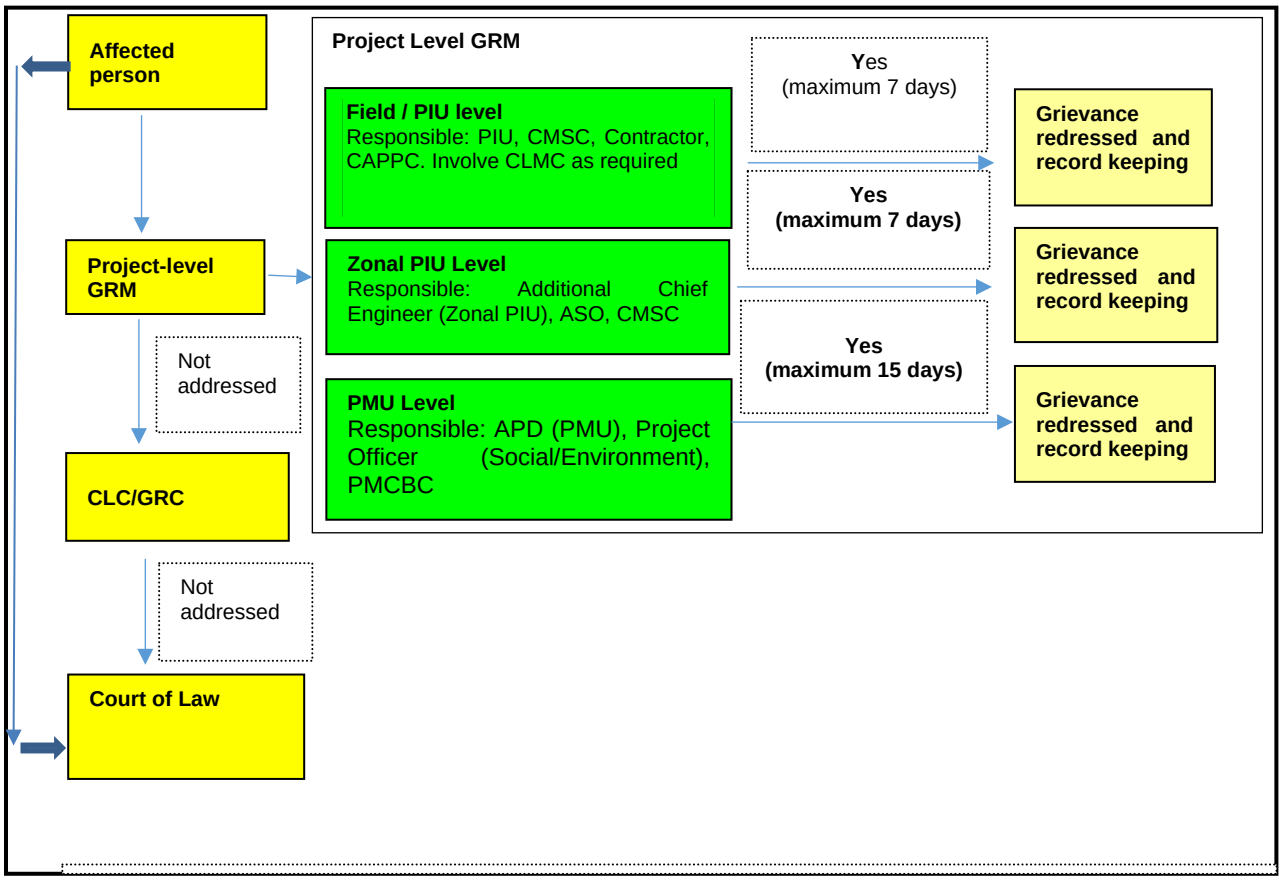
[12] The CLMC has been formed at the town/city level for planning and monitoring of work, resolve issues related to departmental coordination etc. It is headed by Commissioner/Executive Officer ULB (Chairman) and city engineer of public health engineering department (PHED), public works department (PWD) and head of PIU acting as Member Secretary.

[13] City Level Committee (CLC)/grievance redress committees (GRCs) has been constituted for each town/city under the Chairmanship of District Collector to provide overall subproject guidance and "to sort out issues and remove hindrances, if any". CLC formed at city-level/district level with members composed of: District Collector as Chairperson, and following as members: ULB Commissioner/Mayor/Chairman; Deputy Mayor/Vice Chairman ULB; Chairman / Secretary Urban Improvement Trust (UIT); Head of Zonal/field level PIU as Member Secretary; one representative each from relevant government departments as appropriate (PWD/PHED/Town Planning Department etc.). All CLCs in their role as GRCs will have at least one-woman member/chairperson. In addition, for project-related grievances, representatives of affected persons, community-based organizations (CBOs), and eminent citizens will be invited as observers in GRC meetings. The concerned Member of Parliament (MP) and Member of Legislative Assembly are also part of the CLC.

be discussed during its regular meetings. Zonal PIU will inform the CLC regarding any grievances required to be resolved urgently. The GRC will resolve the grievance within 15 days of receiving the complaint. In case of any indigenous peoples impacts in subprojects, the CLC/GRC must have representation of the affected indigenous people community, the chief of the tribe or a member of the tribal council as traditional arbitrator (to ensure that traditional grievance redress systems are integrated) and an NGO working with indigenous people groups.

(v) The multi-tier GRM for the project is outlined below (Figure 02), each tier having time-bound schedules and with responsible persons identified to address grievances and seek appropriate persons' advice at each stage, as required. The GRC will continue to function throughout the project duration.

Figure 2: Grievance Redress Mechanism-RSTDSP



Note: APD = Additional Project Director, ASO = Assistant Safeguards Officer, CAPPC = community awareness and public participation consultant, CMSC = construction management and supervision consultants, CLC = city level committee, CLMC = city level monitoring committee, GRC = grievance redress committee, PIU = project implementation unit, PMU = program management unit, PMCBC = project management and capacity building consultant.

40. The project GRM notwithstanding, an aggrieved person shall have access to the country's legal system at any stage, and accessing the country's legal system can run parallel to accessing

the GRM and is not dependent on the negative outcome of the GRM. In case of grievance related to land acquisition, resettlement and rehabilitation, the affected persons will have to approach a legal body/court specially proposed under the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act (RFCTLARRA), 2013.[14]

41. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism[15]..

42. PMU, RUIDP, Jaipur has issued a letter no. 11367 dtd. 18.12.2020 to all PIUs to establish and explain the GRM under RSTDSP and nomination of required officers at first level in PIUs. Copy of this letter is attached as **Appendix 12.**

43. Grievance Redress Committee is set up under RSTDSP at all levels. Details of GRC members are given in **Table 24**-

Table- 24: Details of GRC Members

GRC Members (Grievance redressal committee members)								
Town Name	**1st Level GRC Members**					**2nd Level GRC Members**	**3rd Level GRC Members**	
	Contractor (Project Manager)	Executive Engineer, PIU	Safeguard and Safety Officer (SSO), PIU	Environment Safeguard -, CMSC	Social Safeguard, CMSC	Zonal Additional Chief Engineer	Project Officer, Environment, PMU	Project Officer, Social, PMU
Ratangarh	Mr. Brijesh Kumar Chaturvedi	Mr. R.D. Garg	Mr. Deepak Mandan	Dr. Mahaveer Saini	Mr. Rajeev Sharma	Mr. S.K. Verma,	Mr. Vijay	Mr. K M Mandawariya

[14] The Authority admits grievance only with reference to the Land Acquisition and R&R issues under the RFCTLARRA, 2013.
[15] Accountability Mechanism. http://www.adb.org/Accountability-Mechanism/default.asp.

GRC Members (Grievance redressal committee members)								
Town Name	**1st Level GRC Members**					**2nd Level GRC Members**	**3rd Level GRC Members**	
	Contractor (Project Manager)	Executive Engineer, PIU	Safeguard and Safety Officer (SSO), PIU	Environment Safeguard -, CMSC	Social Safeguard, CMSC	Zonal Additional Chief Engineer	Project Officer, Environment, PMU	Project Officer, Social, PMU
			Om Prakash Bairwa			Zone-Jodhpur	Choudhary Retired on 31.10.2022 Mr. Mr. Sandeep Bhargava Joined as Project Officer, Environment, on 01.11.2022	Retired on 30.06.2022 Mr. Anil Vijaywargiya
Fatehpur	Mr. Madheshwar Kumar	Sh.. Devendra Saini	Mr. Manoj Mittal, E.E.					
Laxmangarh	Mr. Madheshwar Kumar	Sh. Devendra Saini	Mr. Surendra Godra					
Sardar shahar	Mr. Sandeep Chahar	Mr. Mahesh Gupta	Mr. Dinesh Fogat					
Abu Road	Mr. Pankaj Biswas	Mr. Mahendra Samdhani	Mr. Sunil Vishnoi					
Sirohi	Mr. C.P. Rajesh	Mr. Ashok Kadwasara	Mr. Ashok Kadwasara					
Pratapgarh	Mr. Lalit Trivedi	Mr. Ashok Kumar Jangid	Mr. Madan Lohar					
Banswara	Mr. Mrugank D Trivedi	Mr. Ashok Kumar Jangid	Mr. Prabhulal Bhabor					
Kuchaman	Mr. Shahnavaz Hussian	Mrs. Pratibha	Mr. Jitendra Meena	Mr. Vardan Srivastava	Mr. Nasir Hussain	Mr. Mohan Lal Saini		
Ladnun	Mr. S.K.Singh	Mr. Deepak Mandan	Mr. Jitendra. Choudhary					
Makrana	Mr. S.K.Singh	Mr. Deepak Mandan	Mr. Deepak Mandan					
Didwana	Mr. S.K.Singh	Mr. Deepak Mandan	Mr. Jitendra. Choudhary					
Khetri	Mr. Anil kumar Meena	Mr. Dinesh Kumar Verma	Mr. Devendra Saini					
Mandawa	Mr. Karri Bhujanga Rao	Mr. Dinesh Kumar Verma	Mr. Devendra Saini (On additional Charge)					

44. During October 2022 to March 2023, no grievances related to environment was received Status of grievances during reporting period.

12. CONTRACTORS' ENVIRONMENTAL, HEALTH AND SAFETY (EHS) PERFORMANCES

45. Contractors of different packages have deputed EHS Engineers in their respective towns for compliance of EHS and safeguard issues at site. Contractors have provided workers camps with sufficient and adequate facilities. Proper barricades and signage are being provided during pipe laying works in general. Contractors are also observing different important days (safety week, world environment day, labor day etc.) at their respective sites to recognise the importance of Environment, Health and Safety and making awareness among workers. Various types of environmental, health and safety activities and worker's welfare activities like workers health check-ups, blood donation camps, plantations, social works, safety orientations, COVID-19 awareness and training are also performed by contractors time to time apart from project related EHS compliances. Contractors' performance of EHS is monitored by safeguard specialists/support of PMCBC/CMSCs during their site visit and contractors also submit monthly and quarterly reports of various EHS activities at sites to PIU/CMSC/PMCBC.

46. During reporting period various such activities were performed by different contractors and illustrations are attached as **Appendix 8 and 9** with this report.

47. Site-Specific Environment Management Plans (SEMP) for all towns in pre-construction phase, are already approved and being followed in construction works. These SEMPs also include Solid Waste and Spoil Management Plan, Traffic Management Plan, Health and Safety Plans, Workers camps plans, COVID-19 prevention and control plan, Asbestos Management Plan etc.

48. **Prevention and control measures adopted by contractors during COVID-19 pandemic.** Due to pandemic of COVID-19 there is risk of infection to workers and staff while working at sites, therefore there was requirement to follow COVID appropriate behaviour at all work sites and offices, for which RUIDP prepared guidelines for COVID-19 and issued to all PIUs and contractors with the instruction to strictly follow these guidelines during construction works at sites and all offices of PIU/consultants/contractors. Contractors followed all the guidelines as specified by RUIDP and Governments and prepared SOP for construction activities.

49. All the contractors have prepared separate plan for prevention and control of COVID-19 during pandemic and after resume of works at site. Purpose of these documents are to lay down procedures to be followed during pandemic conditions as per guidelines issued by State Government & local authorities. RUIDP directions, contractors SOPs, their efforts and activities for prevention and control measures for COVID-19; adopted by contractors are reported in **Appendix 10**.

50. **Accident and Incident at project sites.** Contractors are implementing the safety measures at all project sites as per best practices, but there are always chances of accident and incident during construction works. Contractors are reporting accident, incident, near miss and first aid cases on quarterly basis to PIUs/consultants. A report on accident and incident cases during reporting period is attached as **Appendix 13**.

13. SUMMARY OF KEY ISSUES AND REMEDIAL ACTIONS

A. FINDINGS AND KEY ISSUES

51. Up to March 2023, contracts for all 14 project towns (under Trenche I sub projects) have been awarded (Ratangarh, Laxmangarh and Fatehpur under single contract as package, no. RSTDIP/RTG-FTP-LXG/01, Sardarshahar – package no. RSTDIP/SRD/01, Abu Road and Sirohi under single contract as package no. RSTDIP/SHR-ABR/01, Pratapgarh; package no. RSTDIP/PRT/01, Banswara; package no. RSTDIP/BNS/04, Khetri; package no. RSTDIP/KTR/03, Mandawa; package no. RSTDIP/MDW/03, Kuchaman; package no. RSTDIP/KMN/02, Didwana, Makrana and Ladnu under single contract as package no. RSTDIP/LDN-DID-MKN/01. Apart from this, contracts for 13 FSTPs (under Trenche- I saving sub projects) in 2 clusters have also been awarded as RSTDSP/NKT-SHR-BAN-JOB/01 (FSSM Cluster 01) and as RSTDSP/FSTP-9 Towns/03 (FSSM Cluster 02). Contractor is mobilized in the both packages of FSTP towns and a physical progress of 4% has been achieved up to the reporting period and major work undertaken during the reporting period being construction of boundary wall of FSTPs.

52. IEEs of all 14 project towns have been approved by ADB. IEEs were further updated due to amenendments in project scope or location and submitted to ADB, approved by ADB and uploaded on ADB and RUDSICO_EAP portals. However, the Service Improvement Plan (SIP) for the all subproject towns is approved and IEE of all 14 subproject towns Ratangarh, Laxmangarh, Fatehpur, Sardarshahar, Abu Road, Sirohi, Pratapgarh, Banswara, Kuchaman, Ladnu, Didwana, Makrana, Mandawa & Khetri are being updated as per approved SIP scope and updated IEE will be submitted to ADB shortly for review and approval.

53. Contractors have been oriented in pre-construction stages by PMCBC/CMSC environment specialists about requirements of ADB safeguard policy and other contractual and legal compliances. Periodical refresher trainings and orientations is required during regular site visits to ensure compliance of EMP.

54. All the required legal obligations are being fulfilled in the project. In compliance to country's legal requirements for STPs, WTPs & FSTPs; Consent to Establish (CTE) is being obtained from Rajasthan State Pollution Control Board (RSPCB) in all project towns. There are total 19 STPs and 3 WTPs proposed for new construction in all 14 towns (Trenche-I Subprojects) and CTE for all of them is obtained till this reorting period and CTO will be obtained prior to commissioning of plants. Up to March 2023, total 22 applications for CTEs for STPs and WTPs were submitted out of which 22 CTEs have been issued by RSPCB. There are existing 3 STPs proposed for upgradation and 2 WTPs proposed for rehabilitation; which will require consent to establish and

consent to operate. Consent to Establish has also been obtained from Rajasthan State Pollution Control Board for 3 STPs proposed for upgradation and 2 WTPs proposed for rehabilitation. CTE for recently awarded FSTP packages includes construction of 13 FSTPs under 2 clusters (Trrenche-I Saving subprojects). Of these two clusters, one cluster consists 4 towns namely Bandikui, Neem ka thaana, Shahpura(Bhilwaara) and Jobner and other cluster consist 9 towns namely Bari, Deeg, Pilibanga-Suratgarh, Shahpura- Bhilwara, Bhinder-Kanor, Gangapur, Bhawani Mandi, Dausa and Tijara. CTE for these FSTPs will be required to obtain prior to construction. CTEs for 13 new FSTP will be applied before start of construction works. Apart from these 13 FSTPs, 1 new Faecal Sludge Treatment Plant is also proposed in Kuchaman, which will also require CTE before start of construction works.

55. Environmental monitoring (baseline) of ambient conditions (air, Noise, Soil and water) has conducted in all project towns at pre-construction stage. Quarterly environmental monitoring is required to be conducted throughout the construction period in all project towns as per EMP.

56. All precautionary measures for prevention and control of COVID-19 is being undertaken in all projects as per RUIDP, State of Rajasthan and Union Government's guidelines.

B. REMEDIAL MEASURES

57. Following remedial measures and action plan have developed to address the issues of concerns raised in this report.

Table 25: Remedial Measures and Action Plan

Pending Issue	Proposed Remedial Measure	Responsibility	Time Frame
Pending clearances/ consents from regulatory agencies	Follow up for pending Forest clearance for some stretch of raw water rising main at Abu Road. During this reporting period, in-principle permission (Stage-1 clearence) is obtained and final permission (Stage-II) is to be obtained after completing the due procedure.	PIU/CMSC-2	30.09.2023

APPENDIX 1: SELECTED PHOTOS OF SITE VISITS AND CONSTRUCTION WORKS
Khetri Town (Site Visited on dated 17.11.2022)

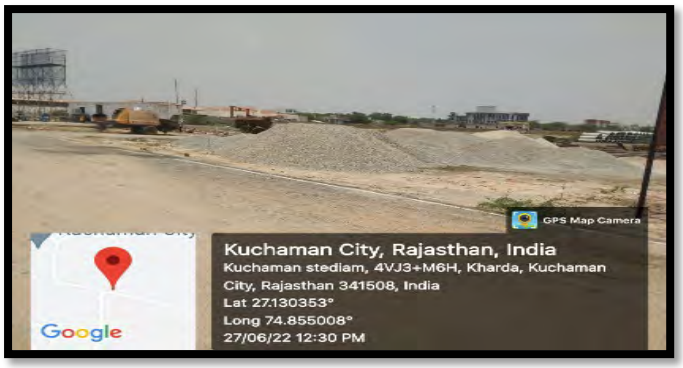
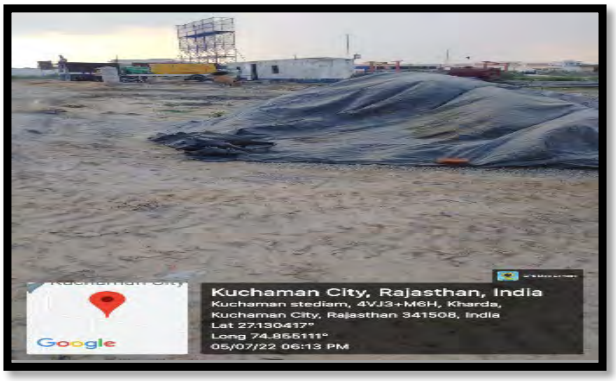
AEn Campus; Zone 4; Khetri	
	
Sand and other Aggregate material was dumped at site without proper covering.	**Action Taken:** All aggregate and sand storage material kept at site with proper green net coverage or proper tarpaulin protection to avoid unwanted air pollution.
	
No hard barricading was provided at deep excavated pump house structural area.	**Action Taken:** Provided proper hard barricading with dust protected green net to protect all around the excavation area along with proper safety signage board display at site.
	
Hazardous material like cement, paint and oil was found placed openly along with all other material.	**Action Taken:** Hazardous material placed at hazardous room like cement material kept with tarpaulin and oil and paint material placed separately in other hazardous room with proper fire extinguisher and sand bucket arrangement outside at the storage area.

	
At working area, open residential working condition was found around structural activities area.	**Action Taken:** Structural work activities areas guarded with long height green net protection surrounding so that nearby residential people do not impose any impact.
STP (3.15 MLD); Nanu ke Bawadi; Khetri	
No hard barricading was provided at deep excavated MPS structural area.	**Action Taken:** Provided proper hard barricading with dust protected green net to protect all around the excavation area
	
Workers working at site without Personal Protective Equipment's (PPE's) And obstructed access and egress point.	**Action Taken:** All workers equipped with Protective Equipment's (PPE's) while working at site.

Site Survey was conducted from STP Inlet Point to Kolihan Mine Tailing Dam Disposal Point:

<table>
<tr><td> 
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<tr><td>Nearby STP Inlet Point</td><td>HCL existing laid line for reuse of waste water from Kolihan Mine</td></tr>
<tr><td colspan="2">HCL existing laid line for reuse of waste water from Kolihan Mine</td></tr>
<tr><td> 
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<tr><td>HCL existing laid line under RoW of SH</td><td>HCL existing laid line for reuse of waste water</td></tr>
<tr><td colspan="2">HCL existing laid line for reuse of waste water from Kolihan Mine</td></tr>
</table>

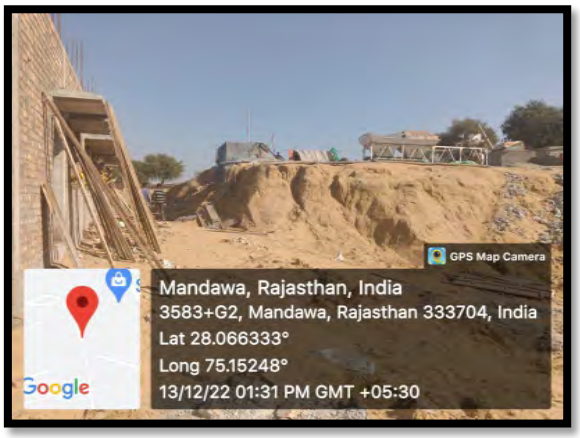
Kuchaman Town (Site Visited on dated 06.12.2022)

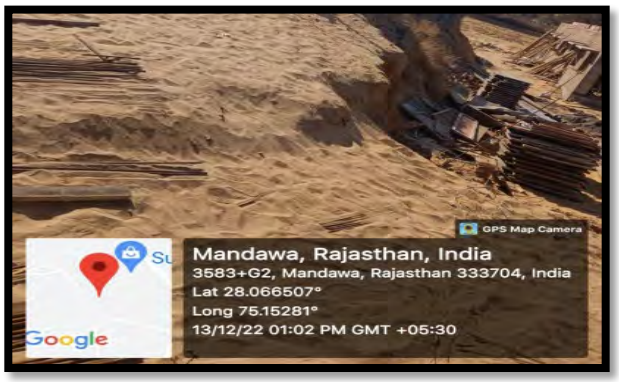
STP (7.6 MLD) Nearby New Bus Stand; Kuchaman	
	
No Proper access and egress provided at structural area and No hard barricading around the site structural area.	**Action Taken:** Provided proper barricading all around excavation area, proper access and staircase to entry & exit the work location and proper safety signage board.
	
Sand and other Aggregate material was dumped at site without proper covering.	**Action Taken: A**ll aggregate and sand storage material kept at site with proper net coverage or proper tarpaulin protection to avoid unwanted air pollution
	
Hazardous oil drum and other useful material were dumped in open environment.	**Action Taken:** Maintained hazardous room with proper oil tray collect platform with specific Material Safety Data Sheet (MSDS) of the material and maintain suitable fire extinguisher at site.

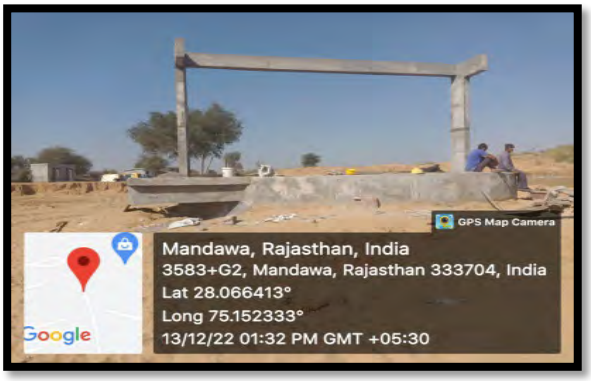
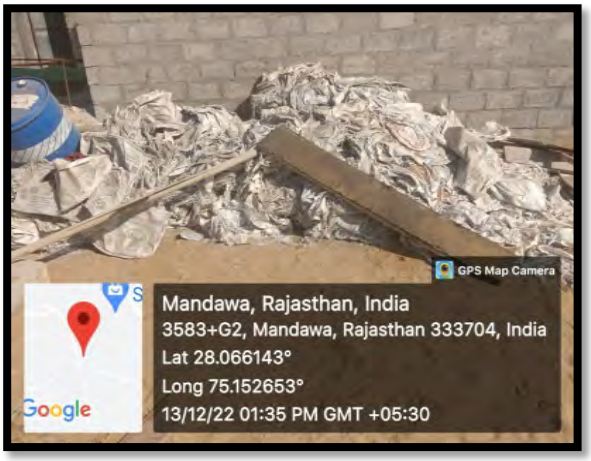
<table>
<tr><td> 
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</td></tr>
<tr><td>Empty cement bag was dumped randomly at site.</td><td>Action Taken: Maintain proper material scrap yard for storage of scrap material with proper display.</td></tr>
<tr><td> 
</td><td>  </td></tr>
<tr><td colspan="2">Good Practise: Site Specific Safety Signage board was noticed at site with emergency contact details and toll free number</td></tr>
<tr><td> 
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<tr><td>Good Practise: Dustbin Facility provided at site</td><td>Good Practise: Avoid to use cell phone at working area</td><td>Good Practise: Emergency contact numbers display board</td></tr>
</table>

Site Visit of FSTP site in Jobner	
	

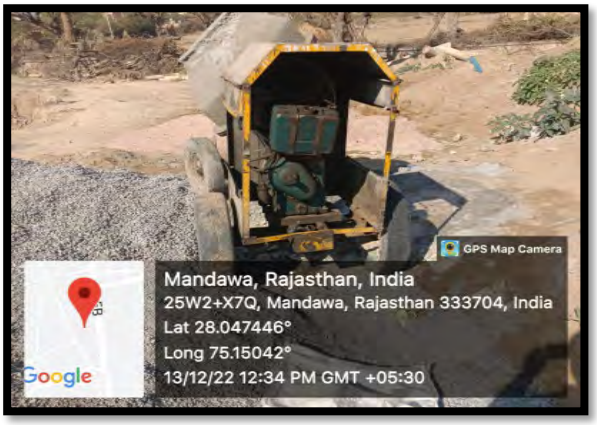
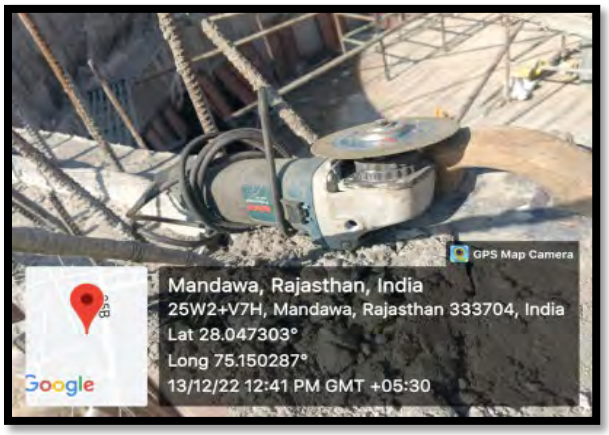
Mandawa Town (Site Visited on dated 13.12.2022)

STP (3.9 MLD) at Bisau Road, Mandawa	
	
No proper hard barricading, access, staircase and signage was provided at site	**Action Taken:** Provided proper barricading all around the excavation area, proper access and staircase to entre in to the depth.
	
Good practice: Project information board was noticed at site with emergency contact details and toll free number	

	
Protruded nails in shuttering material were found on workers access area at site.	**Action Taken:** All shuttering material after de-shuttering placed at safe place and removed protruded nails from de-shuttering material to prevent foot injury.
	
Poor housekeeping was found at site, Rebar's and Shuttering material was placed on the edge of structural excacated area. There was no safe access to move at site.	**Action Taken:** Proper housekeeping maintained before start the work and after completion of work at site and all shuttering material and rebar lots placed at safe storage area so that safe access provided for workers to do the work safely on site.
	
No machinery guard was found on batching plant hooper rotating part and also missing concreting machine rotating body cover	**Action Taken: A**ll auto-mated or manual rotating machine covered with body cover/guard to prevent any kind hand injury.

	
MPS structure peripheral boundary was found without hard barricading.	**Action Taken: A**ll civil confined structural boundary area provided hard barricading to prevent fall down injury.
	
Empty cement bag was dumped on non-designated place at site.	**Action Taken: A**ll hazardous material kept at designated place with proper covering and signage board & barricading.
	
Poor housekeeping was found at SBR basin and non-standard scaffold erection was found at site	**Action Taken:** All working area made neat, clean and obstruction free. Only authorized competent scaffolder erects the scaffold at site so that prevent any kind of minor or major injury.

SPS Site, Mandawa	
	
Project informative board was hidden behind shrubs & excavated soil.	**Action Taken:** All shrubs & excavated soil were removed to make the informative project signboards clearly visible on spot area.
	
Worker was found without safety shoe at site.	**Action Taken:** Provided Personal Protective Equipment's (PPE's) to Workers for working at site.
	
There is a passage area for residential people beside to SPS site, but there was no barricades provided at structural boundary area.	**Action Taken:** Provided proper barricading, caution signage and other safety arrangements all around the site.

JEn Campus, Mandawa	
	
Concrete mixing machine was found at site without safeguard protection cover and no vehicle chowk was placed at foot rest area to prevent to move in working condition.	**Action Taken: A**ll heavy machineries placed at safe place with proper safeguard protection cover along with vehicle chowk in foot rest area with proper soft barricading tape around the machine.
	
Hand grinder was found without body guard/cover	**Action Taken: A**ll electronic rotating tools and tackles covered to prevent hand injury.

Ladnu town (Site Visited on dated 21.12.2022)

<table>
<tr><th colspan="2">STP (5.5 MLD) Near Asota Village; Ladnu</th></tr>
<tr><td>  </td><td> 
  </td></tr>
<tr><td>Unsafe access and egress point at SBR entry area. Instructed to maintain proper step up scaffold access for safe movement</td><td>Action Taken: Access and egress point made obstruction free and provided non slippery proper scaffold step walkway at entry point.</td></tr>
<tr><td> 
</td><td>  </td></tr>
<tr><td>Sand and other Aggregate material was dumped at site without proper covering.</td><td>Action Taken: All aggregate and sand storage material kept at site with proper green net coverage or proper tarpaulin protection to avoid unwanted air pollution.</td></tr>
<tr><td> 
</td><td>  </td></tr>
<tr><td>Improper material stacking was found at site.</td><td>Action Taken: Material placed at safe storage area with proper material stacking and workers maintained proper housekeeping at site.</td></tr>
</table>

	
Improper earthing pit chamber was found at site, Not display tested resistance value at earth pit chamber	**Action Taken:** Every earthing pit were covered and displayed with proper inspection information on chamber area.
	
SBR walkway area was found with hindrance of rebar stacking on movement area	**Action Taken: A**ll structural walkway area made obstruction free and no material stacking was allowed on height structural area to prevent slip, trip & fall injury at site
	
Improper scaffold erection was found at site	**Action Taken: O**nly competent scaffolders erect the scaffold at structural area and provided proper base plate, sole plate and mid rail & guard rail.

	
Shuttering material was found stacked at SBR basin partitioning wall area that may lead to major incident/accident at site	**Action Taken:** No material stacking was allowed at height structural area to prevent major incident/accident at site.
	
Poor housekeeping was found at site. Construction and demolition (C&D) debris material was found at erected scaffold area	**Action Taken:** All working area made neat and clean and worker provided safety training on importance of housekeeping at site
	
Rebar material was dumped randomly outside the rebar stacking area	**Action Taken:** No rebar material dump randomly at working area to prevent slip, trip & fall injury at site. Provided barricading and stored at designated place.

	
Improper scaffold erection was found at site, scaffolding gap was found on erected scaffold access area	**Action Taken:** Only competent scaffolders erect the scaffold at any structural area. Scaffold step access area fixed tightly.
	
No hard barricading was found at most of excavated area	**Action Taken:** All excavated structural area provided hard barricading with proper safety signage board display at site.
	
Hard barricading was found on the edge excavated area	**Action Taken:** Hard barricading provided and distance maintained at least 1.5 m distance from excavated edge area

Good Practices at Site



Project informative board displayed at site and Safety Signage board was noticed at site with emergency contact details and toll-free number



Provide sufficient toilets and bathrooms (Gender specific as per BOCW Act) with proper signage, cleanliness and water arrangement, provide other basic facilities for workers in camps,



First aid facilities provided at site for Workers



Provided rest room facilities for all the labour workers at STP area.

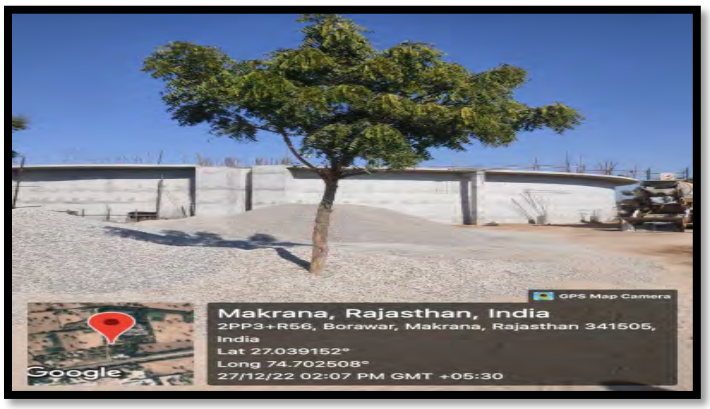


Electrical cable hanged above man height to prevent electrocution



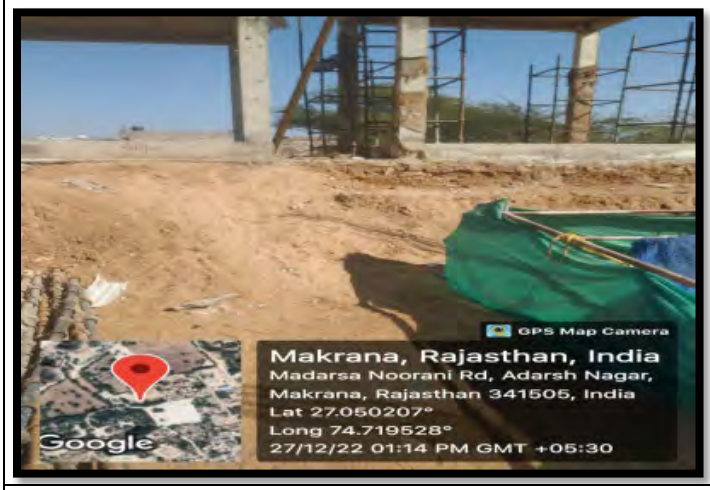
Hard barricading was provided at confined space area (below 1.5m depth)

Makrana Town (Site visited on dated 27.12.2022)	
STP (7.7 MLD); Nearby Balaji Colony; Makrana	
	
No Proper access and egress provided at Chlorine Contact Tank (CCT) structural area	**Action Taken:** Provided proper access and staircase to entry and exit the work location with proper safety signage board.
	
Electrical Extension panel was found in unsafe condition without any compacted surface area from above ground level	**Action Taken:** All electrical equipment's placed at safe surface with proper PCC surface area, proper net bolting and proper barricading area.
	
Sand and other Aggregate material was dumped at site without proper cove**ring.**	**Action Taken: A**ll aggregate and sand material kept at safe storage area site with proper green net coverage or proper tarpaulin protection to avoid unwanted air pollution.

	
Open cube tank water storage was found	**Action taken : S**tagnant water body or pond covered to prevent mosquitoes accumulation on water surface area to prevent health disease and timely replace stagnant water with fresh water
	
Aggregate material was dumped in existing tree boundary	**Action Taken:** Sand and other aggregate material dumped at designated area with proper outer covering of material. Trees boundary area made neat and clean and peripheral covered boundary with brick wall.
	
No water sprinkling on approach road of STP	**Action Taken:** Water sprinkling was done to avoid air pollution and prevent health Hazard to surrounding workers

	
No bedding facilities for some of worker rooms in labour campus area	**Action Taken:** All workers provided proper welfare facilities i.e. ventilated room with proper bed arrangements
	
Diffused and non-inspected fire extinguisher was found at labour camp area	**Action Taken: A**ll fire extinguisher inspected provided proper inspect tag on it. Pressure gauge in green zone and maintained it in proper manner
	
Improper hard barricading on SBR basin walkway	**Action Taken: P**rovided proper hard barricading at site to prevent fall for height injury and also provided proper safety signage board display at site.

	
Project informative board was found improper condition	**Action Taken : A**ll project informative signage board, safety board protected and maintain in presentable manner.
	
Excavated boundary wall area was found non barricaded in open pit form	**Action Taken :** Provided hard barricading and also displayed safety signage board at excavated area.
	
Unwanted scaffold erection was found at structural area	**Action Taken :** Removed unwanted scaffold erection immediately to prevent any minor or major injury.

	
Improper access approach towards pump room	**Action Taken :** Made access area obstruction free and easy going with step approach with guard railing facilities
Good Practice at Site (Makrana)	
	
Site Specific Safety Signage board was noticed at site with emergency contact details and toll free number	
	
PPE's Zone maintain at site	Provided Rest Shelter Area for all Labours

	
Provided proper Scaffold erection, base plate and compacted surface area	Provided Fire Point Facilities at site
	
Provided Drinking Water Facilities at Labour Campus Area	Provided proper material stacking and barricading at site with safety sign board

Environmental Monitoring Report

Project Number: 42267-031
Semestral Report: October 2022 – March 2023
September 2023

India: Rajasthan Secondary Towns Development Sector Project

Part 2 of 5: Appendix 1 (continued) and Appendices 2 - 6

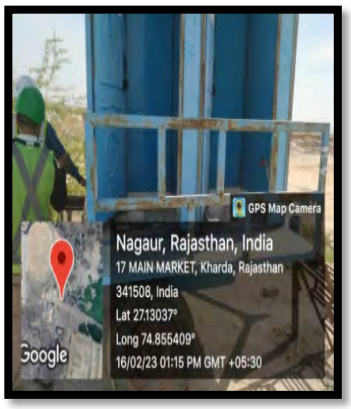
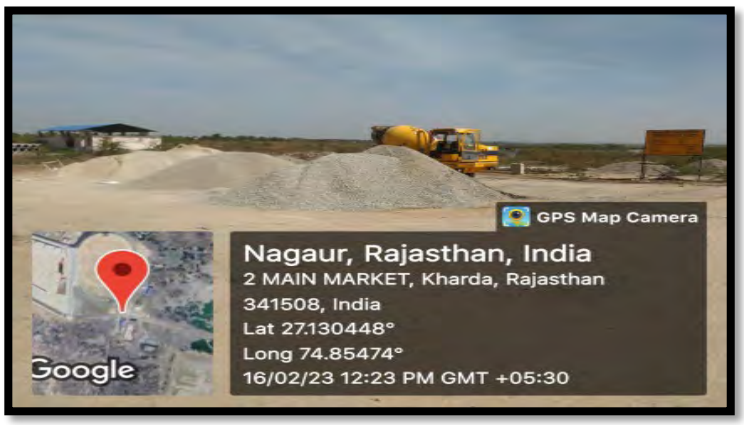
Prepared by Rajasthan Urban Drinking Water Sewerage and Infrastructure Corporation Limited, Government of Rajasthan for the Asian Development Bank.

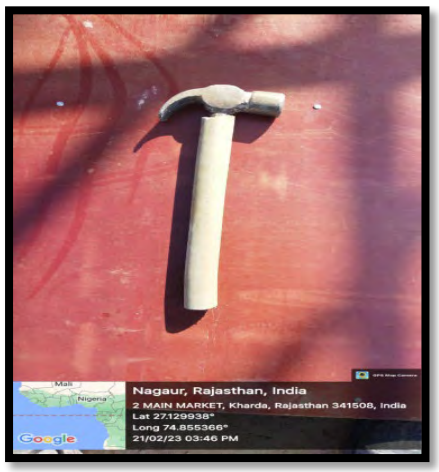
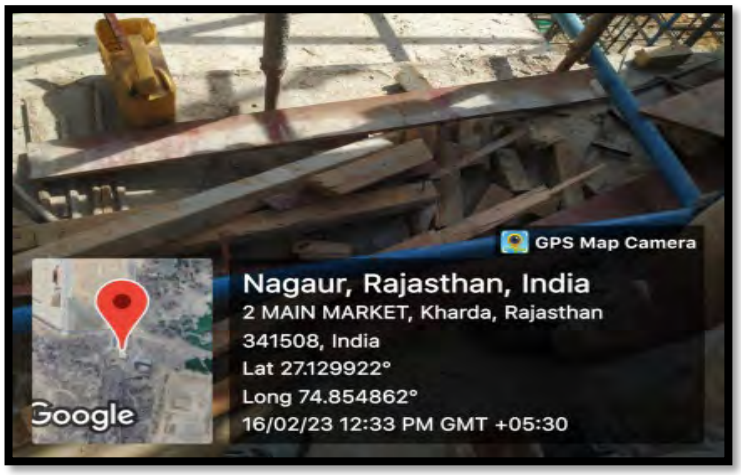
This environmental monitoring report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

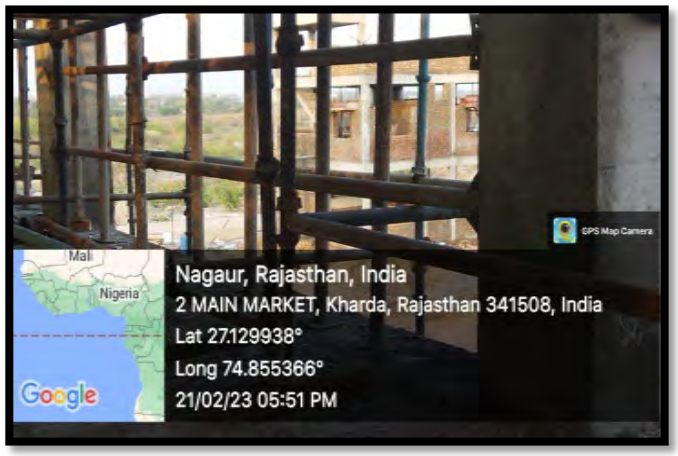
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Asian Development Bank

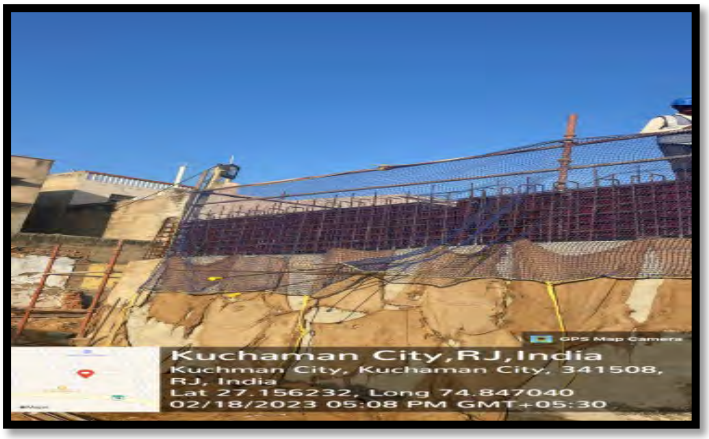
Kuchaman Town (Site Visited on dated 16.02.2023)

STP (7.6 MLD) Nearby New Bus Stand; Kuchaman	
	
No barricading at SBR excavated area	**Action Taken :** Provided proper hard barricading with orange net protection all around the excavation area with proper safety signage board.
 	
Mobile toilet for site labours was provided at STP site but no water tank facilities in toilet cabins (Male/Female) and poor hygienic conditions in toilet areas.	**Action Taken :** Provide sufficient numbers of toilets for both Male and Female workers with water availability in toilet areas and display board for Male and Female toilets in labour camp area as well as working site area.
	
Sand and other materials such as Aggregate, dust found dumped at site without proper covering.	**Action Taken : A**ll aggregate and sand storage material kept at site with proper green net coverage or proper tarpaulin protection to avoid unwanted air pollution

	
SBR unsafe access entry point was found at site, erected scaffolded access was missing upward entry step.	**Action Taken: S**caffold erection completed by competent scaffolders. And access point was made obstruction free and free to move without slip, trip and fall injury..
	
Non- standard hand tools were found at site.	**Action Taken :** Provided all working hand tools with FRP handle so that prevent slip & fall injury at site.
	
In Admin Building, Poor housekeeping was found at staircase area.	**Action Taken:** Provided Proper housekeeping at working area before and after completion of work at site.

	
In Admin Building, Open edge ends was found	**Action Taken : B**uilding edge opening was covered and hardly barricaded to prevent fall down of material or any personal injury.

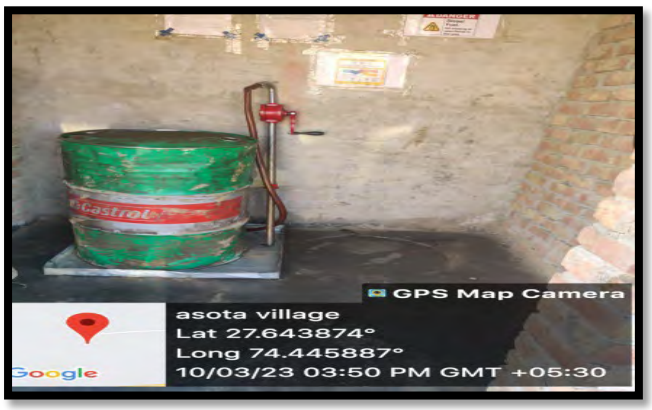
CWR-1 (AEn PHED Campus) ; 600 KL

	
Opened edge was found at site while workers at site	**Action Taken : B**uilding edge opening was covered and hardly barricaded to prevent fall down of material or any personal injury.
	
Some workers working at site without safety shoes	**Action Taken : Provided** all workers proper Personal Protective Equipment's (PPE's) while working at site.

	
Inadequate First Aid Box was found at site	**Action Taken : Provided** first aid facilities to all working areas and it was inspected regular basis with inspected tagging.
Good Practise at Site:	
	
Provide temporary hand railing while working at site	Site Specific Safety Signage board was noticed at site.

Ladnu Town (Site Visited on dated 02.03.2023)

STP (5.5 MLD) Near Asota Village; Ladnu

	
Improper material stacking was found at site.	**Action Taken: All** Materials were placed at safe storage area with proper material stacking and instructed workers to maintain proper housekeeping. at site.
	
Improper earthing pit chamber inspection records was found at site	**Action Taken :** Every earthing pit was covered and displayed with proper inspection information on chamber area and inspected again on before their due date coming.
	
In hazardous storage area, fuel drums store without dip tray protection on ground area and that may be cause of ground spillage and leads to soil contamination	**Action Taken : A**ll hazardous fuels, oil drums were placed on proper dip tray protection on ground surface area with proper display of Material Safety Data Sheet (MSDS) in storage area.

	
Improper scaffold erection was found at site	**Action Taken :** Provided proper base plate, sole plate and mid rail & guard rail **and made ensure that** only competent scaffolders should erect the scaffold at any structural area.
	
Poor housekeeping was found at site. Construction material and other construction & demolition (C&D) debris material was found at site	**Action Taken : Provided proper housekeeping at work site and** safety training on importance of housekeeping at site to all workers.
	
Non inspected fire extinguisher was found at site.	**Action Taken : Provided** fire extinguishers to work areas and made ensure that all fire extinguishers should be pressurized and into green zone and should be regularly inspected by competent EHS officer.

	
Protruded nail de-shuttering material was dumped at site.	**Action Taken:** All de-shuttering materials were placed at appropriate storage area and remove protruded nail to prevent hand injury
	
Vertical Rebar points was found after raft casting	**Action Taken:** Ensured no benchmark vertical rebar point put into concrete casting without rebar cap. To prevent body scratch, hand and leg injury of worker to put rebar cap on it and cut all vertical rebar after work completion at site
	
No hard barrication was found at excavated area	**Action Taken:** Provided hard barricading at excavated structural area at site with proper safety signage board display at site.

Didwana- Makrana towns (Site Visited on dated 13.03.2023)

Sewage Treatment Plant (3 MLD) at zone 9; Didwana	
	
Improper material stacking was found at site.	**Action Taken: All** Materials were placed at safe storage area with proper material stacking. Made ensure workers should maintain proper housekeeping.
	
Improper Hard barricading was found on the edge excavated water tank area	**Action Taken:** Provided hard barricading at surrounding the excavated edge area and made ensure that open water tank area should be covered to prevent fall down injury.
	
Poor housekeeping was found at site. Construction material and other construction & demolition (C&D) debris material was found at site.	**Action Taken:** Provided proper housekeeping at all working area and training provided to workers on importance of housekeeping at site.

	
Non inspected fire extinguisher was found at site.	**Action Taken:** Provided fire extinguishers and ensured that all fire extinguishers should be pressurized and into green zone and inspected by competent EHS officer.
	
In labour camp area, allocated designated place for drinking water but not seen any arrangement for drinking water facilities.	**Action Taken: Provided** proper welfare facilities & proper storage of drinking water to all workers at site and labour camp area for all workers.
	
Good Practices: Doctor Cabin and Medical Health Check-up Facilities provided at site.	**Good Practices**: Well-maintained Male and Female Toilet arrangement at labour camp area.

	
Dustbin arrangement at labour camp area	Bed arrangements for labours at labour camp area.
Sewage Treatment Plant (7.7 MLD) at Nearby Balaji Colony, Makrana	
	
No Concrete platform for DG transformer	**Action taken**: Provided proper hard compacted surface and ensured that all Electrical equipment's should be above ground surface area.
	
Poor Housekeeping was found nearby steel scrap yard.	**Action taken** Provided proper housekeeping and made ensure that all dumping yard should have proper stacking arrangements.

Good Practise at Site



Ambulance Facilities provided at site.



Proper Kitchen Faculties for labour camp workers.



Volley Ball playground facilities for site workers.



Well maintained Male and Female Let bath and Toilet arrangement at labour camp area.



Well maintained planted labour camp area.

APPENDIX 2: SAMPLE PHOTOGRAPHS OF CONSULTATIONS

Photos of Public Consultations at Ladnu town on dated 21.12.2022

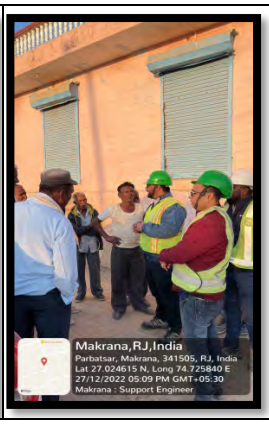




Discussions with Local Public ongoing project work activity and get their feedback on any work related grievance

Photographs of Public Consultation at Makrana town on dated 27.12.2022







Public Consultation at Road Restoration Site, Om Colony, Zone 3, Makrana





Local Farmers Consultation at STP (7.7 MLD); Makrana

Note: Proposal of Reuse plan of treated waste water has discussed with nearby local farmers at STP and they are agreed to take treated water for agricultural purpose.

Photographs of Public Consultation at Kuchaman town on dated 16.02.2023





Photographs of Public Consultation at Ladnu town on dated 02.03.2023



Consultation with Ward Counsillor Mr.Shkir Hussian, Teli Road, Ward No. 16



Consultation with Ward Counsillor Mr. Nadim, Teli Road, Ward No.36

Photographs of Public Consultation at Didwana town on dated 13.03.2023





Public Consultation at Ward No. 33; Didwana

APPENDIX 3: COPIES OF ENVIRONMENTAL CLEARANCES AND PERMITS

A. Details of Consent to Establish (CTEs) reported in Previous SEMRs

S.No.	Component and Town Name	Validity	Reported in which SEMR
1.	2.4 MLD STP at Sujangarh Road, Ladnu	CTE issued, valid from 04.11.2022 to 31.10.2027	Reporting in Current SEMR (October 2022 to March 2023)
2.	3.15 MLD STP at Village Nanu wali Bawdi Khasra No 984-988, Khetri	CTE Issued, Valid from 17.11.2022 to 31.10.2027	Reporting in Current SEMR (October 2022 to March 2023)
3.	1.60 MLD STP at Near Ashok Circle in land of GVM, Sardarshahar	CTE Issued, Valid from 17.11.2022 to 31.10.2027	Reporting in Current SEMR (October 2022 to March 2023)
4.	5 MLD WSP at South Campus, Sardarshahr (Upgradation works of STP)	CTE issued and Valid from 16.09.2022 to 31.08.2027	Reporting in Current SEMR (October 2022 to March 2023)
5.	2 MLD WSP at North Campus, Sardarshahr (Upgradation works of STP)	CTE issued and Valid from 16.09.2022 to 31.08.2027	Reporting in Current SEMR (October 2022 to March 2023)
6.	6.34 MLD WSP at Udaipur Road, Banswara (Upgradation works of STP)	. CTE Issued, Valid from 19.10.2022 to 30.09.2027	Reporting in Current SEMR (October 2022 to March 2023)
7.	10.4 MLD WTP (Upgradation) at AEn Campus, Banswara	CTE issued and Valid from 17.11.2022 to 31.10.2027	Reporting in Current SEMR (October 2022 to March 2023)
8.	4.5 MLD WTP at Kagdi Pickup weir, Banswara	CTE issued and Valid from 09.12.2022 to 30.11.2027	Reporting in Current SEMR (October 2022 to March 2023)

B. Details of other permissions/NOCs

S.No.	Type of permission/NOCs and Town Name	Reported in which SEMR
1	Permission obtained for Railway crossing vide letter no. W/220/1 dated 18.02.2022 at Abu Road.	SEMR (April 2022 to September 2022)
2	Permission obtained for Railway crossing from Railway department vide letter no. 639/Pipe Xing/Km.323/8-9/RTGH/2021/12 dated 27.12.2021 at fatehpur.	SEMR (April 2022 to September 2022)
3	Demand Draft Deposited to PWD for Road cutting permission at Sirohi town & work started by contractor as advised by PWD.	SEMR (April 2022 to September 2022)
4	National Highway Crossing: Permission obtained at Pratapgarh for National Highway 113 crossing vide Letter No. no.RW/JA/RJ/ PS/utility//2021/464/302-305 dated 29.04.2022 from Ministry of Road Transport & Highways	SEMR (April 2022 to September 2022)
5	Permission for National Highway 113 crossing at Banswata has been obtained vide letter no/ 2021/22/1006 dated 21.01.2022	SEMR (April 2022 to September 2022)
6	Permission obtained for SH crossing at Makrana town from PWD vide letter no. PIU/ PPP /Laxmangarh/ MMB/Utility/21-22/D-601 dated 11.01.2022	SEMR (April 2022 to September 2022)
7.	Permission obtained for Railway crossing vide letter no. : NWR-JU-2022-WL-263 dated 24.9.2022 at Makrana.	SEMR (October 2022 to March 2023)

C. Details of Environmental clearances/permission issued in this reporting period

Consent to Establish (CTE) for 2.4 MLD STP, Ladnu

Regional Office Nagour
Rajasthan State Pollution Control Board
First Floor, Cooperative Land Development Bank Ltd, Nagou
Phone: 01582-294353

Registered

File No : F(Tech)/Nagaur(Ladnu)/6859(1)/2022-2023/1986-1987
Order No : 2022-2023/Nagour/12640 **Dispatch Date:** Nov 24 2022 12:01PM

Unit Id : 122328

M/s Nagar palikal Ladnu

Nagar Palika ladnu , Ladnu

Sub: **Consent to Establish** under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under Section 21(4) of Air (Prevention & Control of Pollution) Act, 1981.

Ref: Your application(s) for Consent to Establish dated 04/11/2022 and subsequent correspondence.

Sir,

Consent to Establish under the provisions of Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter to be referred as the Water Act) and under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981, (hereinafter to be referred as the Air Act) as amended to date and rules & the orders issued thereunder ,**is hereby granted** for your **Sewerage Tretment Plant plant** situated / proposed at **Khasra No 3147/128, Area 03238 Hectare** at **Sujaangarh Road Ladnu, RURAL , Ladnu Tehsil:Ladnu District:Nagaur** , Rajasthan under the provisions of the said Act(s). This consent is granted on the basis of examination of the information furnished by you in consent application(s) and the documents submitted therewith, subject to the following conditions:-

1 That this Consent to Establish is valid for a period from **04/11/2022** to **31/10/2027 or date of commencement of production / commissioning of the project or activities whichever is earlier .**

2 That this Consent is granted for manufacturing / producing following products / by products or carrying out the following activities or operation/processes or providing following services with capacities given below:

Particular	Type	Quantity / Capacity
SEWAGE TREATMENT PLANT	Service	2.40 MLD

3 That in case of any increase in capacity or addition / modification / alteration or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish.

4 That the control equipment as proposed by the applicant shall be installed before trial operation is started for which prior consent to operate under the provision of the **Water Act and Air Act** shall be obtained. This consent to establish shall not be treated as consent to operate.

Page 1 of 6

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Date: 2022.11.24 12:01:28 IST
Reason: SelfAttested
Location:

Regional Office Nagour
Rajasthan State Pollution Control Board
First Floor, Cooperative Land Development Bank Ltd, Nagour
Phone: 01582-294353

Registered

File No : F(Tech)/Nagaur(Ladnu)/6859(1)/2022-2023/1986-1987
Order No: 2022-2023/Nagour/12640 Dispatch Date: Nov 24 2022 12:01PM
Unit Id : 122328

5 That the quantity of effluent generation and disposal along with mode of disposal for the treated effluent shall be as under:

Type of effluent	Max. effluent generation (KLD)	Quantity of effluent to be recycled (KLD)	Quantity of treated effluent to be disposed (KLD) and mode of disposal
Domestic Sewage	2400.000	NIL	2,400.000 STP

6 That the domestic sewage shall be treated before disposal so as to conform to the standards prescribed by the Board as notified under the Environment (Protection) Act-1986 for disposal into Inland Surface Water. The main parameters for regular monitoring shall be as under:

Parameters	Standards
pH Value	Between 5.5 to 9.0
Phosphate as P	Not to exceed 1.0 mg/l
Biochemical Oxygen Demand (3 days at 27C)	Not to exceed 10 mg/l
Chemical Oxygen Demand	Not to exceed 50 mg/l
Fecal Coliform	not to exceed 230 MPN/100 ml

7 a. That the industry shall only be established within the converted land of Khasra no.- 3147/128, Ladnu, District- Nagaur.
b. The total capital investment in the project without depreciation shall not exceed 17.81 lacs which includes the cost of Land, Building, Misc. Fixed Assets Plant & Machinery.

Page 2 of 6

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Date: 2022.11.24 12:01:28 IST
Reason: Self Attested
Location:

Regional Office Nagour

Rajasthan State Pollution Control Board

First Floor, Cooperative Land Development Bank Ltd, Nagour

Phone: 01582-294353

Registered

File No : F(Tech)/Nagaur(Ladnu)/6859(1)/2022-2023/1986-1987

Order No : 2022-2023/Nagour/12640 **Dispatch Date:** Nov 24 2022 12:01PM

Unit Id : 122328

8 a. In addition to above total suspended solids in the treated effluent before disposal shall not exceed 20 mg/l.

b. That no treated/untreated effluent shall be discharged into any water body and entire treated sewage shall be utilized in plantation/horticulture/ other gainful purposes.

c. That the sludge will be properly digested, de-watered and used as manure or disposed in a scientific manner.

d. That the unit shall undertake spray of insecticides from time to time to control fly/mosquito growth in the area.

e. That adequate measures shall be taken to avoid foul odour during treatment and disposal of sewage and sludge.

f. That efforts should be made to reuse the treated sewage to the maximum possible extent and minimize its discharge. A network of pipelines should be laid from the treated sewage collection tank to fields for utilisation.

9 a. That above stated effluent standards are subject to the Hon'ble NGT order dated 30/4/2019 in matter of O.A. no 1069/2018 Nitin Shankar Deshpande Vs Union of India and Ors

b. That Online Continuous Effluent Monitoring System(OCEMS) for parameters namely pH, TSS,COD,BOD and flow meter shall be installed and monitoring data shall be connected with the servers of State Board and Central Pollution Control Board within 03 months without fail.

c. That regular maintenance and operation of the OCEMS with temper proof mechanism with facilities for calibration shall be ensured.

d. That guidelines prescribed by CPCB for OCEMS for effluents and Standard Operating Procedure (SOP) for Verification of Installation and Calibration of UV-Vis Dual Beam Scanning & Multipoint calibration mechanism technology based OCEMS (Effluent) used in STPs shall be followed.

e. That the industry shall obtain Environmental Clearance from competent authority under EIA Notification dated 14.09.2006 for any such activity which attracts Environmental clearance under EIA Notification dated 14.09.2006.

Page 3 of 6

Validity unknown
Digitally signed by Savita
Date: 2022.11.24 12:01:28 IST
Reason: SelfAttested
Location:

Regional Office Nagour

Rajasthan State Pollution Control Board

First Floor, Cooperative Land Development Bank Ltd, Nagour

Phone: 01582-294353

Registered

File No : F(Tech)/Nagaur(Ladnu)/6859(1)/2022-2023/1986-1987

Order No : 2022-2023/Nagour/12640 **Dispatch Date:** Nov 24 2022 12:01PM

Unit Id : 122328

10 a. That 33% area of the total area of industry's premises shall be covered by tree plantation. That the unit shall undertake plantation in two rows of suitable species all along the periphery of the site of the STP to control foul smell.

b. That industry shall achieve prescribed standards for air and water as per Environment Protection Act, 1986.

c. The unit shall comply with the provisions of Public Liability Insurance Act, 1991 and any further amendments, if applicable.

d. The unit shall comply with the provisions of Hazardous Waste (Management and Trans-boundary Movement) Rules 2016 and any further amendments, if applicable.

11 a. That the industry shall apply for Consent in prescribed application form with requisite fee before 120 days from expiry of this Consent or commissioning the plant whichever is earlier.

b. That this consent is subject to the permission /NOC / license from appropriate authorities for land use under the related laws/Acts and subject to submission of the same to this office. I

c. That the unit shall comply with NGT orders regarding Environmental Clearance. It shall be the responsibility of Project Proponent to follow and remain aware about each decision/ order/ judgments in this regard.

d. That the unit shall not increase the production beyond the consented production capacity.

e. That no Single use Plastic (SUP) item, which is banned vide MoEF&CC, Govt of India notification dated 12/08/2021 shall be used in the industry/unit premises.

12 a. This consent is not evidence for ascertaining entitlement of land.

b. That this consent is being issued on the basis of documents/ information uploaded by the applicant/industry/process/project. The liability of veracity and correctness of the uploaded document/information shall solely be of the applicant only.

c. This consent shall be subjected to compliance of any direction or order passed by court of law in matter.

d. That the grant of this consent is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

Page 4 of 6

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Regional Office Nagour

Rajasthan State Pollution Control Board

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File No : F(Tech)/Nagaur(Ladnu)/6859(1)/2022-2023/1986-1987

Order No : 2022-2023/Nagour/12640 **Dispatch Date:** Nov 24 2022 12:01PM

Unit Id : 122328

13 That, notwithstanding anything provided hereinabove, the State Board shall have the power and reserves its right, as contained **under Section 27(2) of the Water Act and under Section 21(6) of the Air Act** to review anyone or all of the conditions imposed here in above and to make such variation as it deems fit for the purpose of compliance of the **Water Act and Air Act**.

14 That the grant of this **Consent to Establish** is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

15 That the grant of this **Consent to Establish** shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.

This **Consent to Establish** shall also be subject, besides the aforesaid specific conditions, to the general conditions given in the enclosed Annexure. The project proponent will comply with the provisions of the **Water Act and Air Act** and to such other conditions as may, from time to time, be specified by the State Board under the provisions of the aforesaid Act(s). Please note that, non compliance of any of the above stated conditions would tantamount to revocation of **Consent to Establish** and project proponent / occupier shall be liable for legal action under the relevant provisions of the said Act(s).

Yours sincerely,

Regional Officer[Nagour]

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1 Master File.

Page 5 of 6

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Unit Id : 122328

Regional Officer[Nagour]

Page 6 of 6

Validity unknown
Digitally signed by Savita
Date: 2022.11.24 12:01:28 IST
Reason: SelfAttested
Location:

Consent to Establish (CTE) for 3.15 MLD STP, Khetri

Regional Office Jhunjhnu
Rajasthan State Pollution Control Board
CP 1-90, Automobile Service Sector, RH-2, RIICO, Jhunjhnu
Phone: 01592-295461

Registered

File No : F(Tech)/Jhunjhunu(Khetri)/6699(1)/2022-2023/569-570
Order No : 2022-2023/Jhunjhnu/324 **Dispatch Date:** Nov 17 2022 2:31PM

Unit Id : 122845

M/s Municipal Council Khetri

Municipal Council,Main Market,Sabji Mandi,Ward no.8 , Khetri Tehsil:Khetri District:Jhunjhunu

Sub: **Consent to Establish** under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under Section 21(4) of Air (Prevention & Control of Pollution) Act, 1981.

Ref: Your application(s) for Consent to Establish dated 13/10/2022 and subsequent correspondence.

Sir,

Consent to Establish under the provisions of Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter to be referred as the Water Act) and under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981, (hereinafter to be referred as the Air Act) as amended to date and rules & the orders issued thereunder **,is hereby granted** for your **Sewerage Treatment Plant plant** situated / proposed at **Khasra No 984-988, Village- Nanu Wali Bawdi Khetri Tehsil:Khetri District:Jhunjhunu** , Rajasthan under the provisions of the said Act(s). This consent is granted on the basis of examination of the information furnished by you in consent application(s) and the documents submitted therewith, subject to the following conditions:-

1 That this Consent to Establish is valid for a period from **17/11/2022** to **31/10/2027 or date of commencement of production / commissioning of the project or activities whichever is earlier .**

2 That this Consent is granted for manufacturing / producing following products / by products or carrying out the following activities or operation/processes or providing following services with capacities given below:

Particular	Type	Quantity / Capacity
Sewage Treatment Plant (STP)	Service	3.15 MLD

3 That in case of any increase in capacity or addition / modification / alteration or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish.

Page 1 of 5

Validity unknown
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Date: 2022.11.17 14:28:15 IST
Reason: SelfAttested
Location:

Regional Office Jhunjhnu

Rajasthan State Pollution Control Board

CP 1-90, Automobile Service Sector, RH-2, RIICO, Jhunjhnu

Phone: 01592-295461

Registered

File No : F(Tech)/Jhunjhunu(Khetri)/6699(1)/2022-2023/569-570

Order No : 2022-2023/Jhunjhnu/324 **Dispatch Date:** Nov 17 2022 2:31PM

Unit Id : 122845

4 That the control equipment as proposed by the applicant shall be installed before trial operation is started for which prior consent to operate under the provision of the **Water Act and Air Act** shall be obtained. This consent to establish shall not be treated as consent to operate.

5 That the quantity of effluent generation and disposal along with mode of disposal for the treated effluent shall be as under:

Type of effluent	Max. effluent generation (KLD)	Quantity of effluent to be recycled (KLD)	Quantity of treated effluent to be disposed (KLD) and mode of disposal
Domestic Sewage	3150.000	NIL	3,150.000 On Land For Plantation/Horticulture after adequate treatment

6 That the sources of air emissions along with pollution control measures and the emission standards for the prescribed parameters shall be as under:

Sources of Air Emissions	Pollution Control Measures	Prescribed	
		Parameter	Standard
D.G. Set(180KVA)	ACOUSTIC ENCLOSURE , WITH ADEQUATE STACK HEIGHT	--	--

7 That the domestic sewage shall be treated before disposal so as to conform to the standards prescribed by the Board as notified under the Environment (Protection) Act-1986 for disposal **Into Inland Surface Water**. The main parameters for regular monitoring shall be as under:

Page 2 of 5

Validity unknown
Digitally signed by Deepak Dhanetwal
Date: 2022.11.17 14:38:15 IST
Reason: SelfAttested
Location:

Regional Office Jhunjhnu

Rajasthan State Pollution Control Board

CP 1-90, Automobile Service Sector, RH-2, RIICO, Jhunjhnu

Phone: 01592-295461

Registered

File No : F(Tech)/Jhunjhunu(Khetri)/6699(1)/2022-2023/569-570

Order No : 2022-2023/Jhunjhnu/324 **Dispatch Date:** Nov 17 2022 2:31PM

Unit Id : 122845

Parameters	Standards
pH Value	Between 5.5 to 9.0
Phosphate as P	Not to exceed 1.0 mg/l
Biochemical Oxygen Demand (3 days at 27C)	Not to exceed 10 mg/l
Chemical Oxygen Demand	Not to exceed 50 mg/l
Fecal Coliform	not to exceed 230 MPN/100 ml
N total	10 mg/l

8 In addition to the above, total suspended solids in the treated effluent before disposal shall not exceed 20 mg/l.

9 That this consent to establish is being issued for the establishment of one STP of 3.15 MLD at Khasra No. 984, 985, 986, 987 & 988, near Kolihan Nagar, Village: Nanu wali bawdi, Tehsil: Khetri, District: Jhunjhunu.

10 That fee for this consent to establish has been deposited on the basis of the estimated project cost of Rs. 8.65 Crores and in case of any increase in the project cost, the project proponent shall be liable to deposit the balance amount.

11 That the above-stated effluent standards are subject to the Hon'ble NGT order dated 30/4/2019 in the matter of O.A. no 1068/2018 Nitin Shankar Deshpande Vs Union of India and Ors.

12 That no treated/untreated effluent shall be discharged into any water body and entire treated sewage shall be utilized in plantation/horticulture/ other gainful purposes.

13 That the sludge will be properly digested and de-watered, and the treated sludge will be used as manure or will be disposed of scientifically.

14 That the unit shall undertake spray of insecticides from time to time to control fly/mosquito growth in the area.

15 That the unit shall undertake plantation in two rows of suitable species all along the periphery of the site of the STP to control foul smell.

16 That efforts should be made to reuse the treated sewage to the maximum possible extent and minimize its discharge. A network of pipelines should be laid from the treated sewage collection tank to agriculture fields for utilisation.

17 That adequate measures shall be taken to avoid foul odour during the treatment and disposal of sewage and sludge.

Page 3 of 5

Validity unknown
Digitally signed by Dhanetwal
Date: 2022.11.17 14:26:15 IST
Reason: SelfAttested
Location:

Regional Office Jhunjhnu

Rajasthan State Pollution Control Board

CP 1-90, Automobile Service Sector, RH-2, RIICO, Jhunjhnu

Phone: 01592-295461

Registered

File No : F(Tech)/Jhunjhunu(Khetri)/6699(1)/2022-2023/569-570

Order No : 2022-2023/Jhunjhnu/324 **Dispatch Date:** Nov 17 2022 2:31PM

Unit Id : 122845

18 **That unit shall provide and maintain an acoustic enclosure and adequate stack height with the DG Set of 180 kVA.**

19 **That unit shall not install any other DG Set / any other source of air pollution without obtaining prior consent to establish/ operate from State Board.**

20 **That Online Continuous Effluent Monitoring System(OCEMS) for parameters namely pH, TSS, COD, BOD and flow meter shall be installed and monitoring data shall be connected with the servers of the State Board and Central Pollution Control Board without fail.**

0 That this revised consent letter shall supercede the earlier consent letter no dt. .

21 That, notwithstanding anything provided hereinabove, the State Board shall have the power and reserves its right, as contained **under Section 27(2) of the Water Act and under Section 21(6) of the Air Act** to review anyone or all of the conditions imposed here in above and to make such variation as it deems fit for the purpose of compliance of the **Water Act and Air Act.**

22 That the grant of this **Consent to Establish** is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

23 That the grant of this **Consent to Establish** shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.

This **Consent to Establish** shall also be subject, besides the aforesaid specific conditions, to the general conditions given in the enclosed Annexure. The project proponent will comply with the provisions of the **Water Act and Air Act** and to such other conditions as may, from time to time, be specified by the State Board under the provisions of the aforesaid Act(s). Please note that, non compliance of any of the above stated conditions would tantamount to revocation of **Consent to Establish** and project proponent / occupier shall be liable for legal action under the relevant provisions of the said Act(s).

Page 4 of 5

Validity unknown
Digitally signed by Deepak Dhanetwal
Date: 2022.11.17 14:31:15 IST
Reason: SelfAttested
Location:

Regional Office Jhunjhnu

Rajasthan State Pollution Control Board

CP 1-90, Automobile Service Sector, RH-2, RIICO, Jhunjhnu

Phone: 01592-295461

Registered

File No : F(Tech)/Jhunjhunu(Khetri)/6699(1)/2022-2023/569-570

Order No : 2022-2023/Jhunjhnu/324 **Dispatch Date:** Nov 17 2022 2:31PM

Unit Id : 122845

Yours sincerely,

Regional Officer[Jhunjhnu]

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1 Master File.

Regional Officer[Jhunjhnu]

Page 5 of 5

Validity unknown

Digitally signed by Deepak Dhanetwal
Date: 2022.11.17 14:38:15 IST
Reason: SelfAttested
Location:

Consent to Establish (CTE) for 1.6 MLD STP, Sardarshahar

Regional Office Nagour
Rajasthan State Pollution Control Board
First Floor, Cooperative Land Development Bank Ltd, Nagou
Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5108(1)/2022-2023/2904-2905
Order No: 2022-2023/Nagour/12918 **Dispatch Date:** Mar 17 2023 5:45PM

Unit Id : 124874

M/s 1.6 MLD STP

Executive Officer (EO), Ward No 27, NagarPalika ,
Sardarshahar Tehsil:Sardarshahar
District:Churu

Sub: **Consent to Establish** under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974.

Ref: Your application(s) for Consent to Establish dated 10/02/2023 and subsequent correspondence.

Sir,

Consent to Establish under the provisions of Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter to be referred as the Water Act) as amended to date and rules & the orders issued thereunder ,**is hereby granted** for your **1.60 MLD Sewage Treatment Plant plant** situated / proposed at **160 MLD STP, Hanumangarh Road, Khasra No- 91 Old and 132 New Sardarshahar Tehsil:Sardarshahar District:Churu** , Rajasthan under the provisions of the said Act(s). This consent is granted on the basis of examination of the information furnished by you in consent application(s) and the documents submitted therewith, subject to the following conditions:-

1 That this Consent to Establish is valid for a period from **10/02/2023** to **31/01/2028 or date of commencement of production / commissioning of the project or activities whichever is earlier .**

2 That this Consent is granted for manufacturing / producing following products / by products or carrying out the following activities or operation/processes or providing following services with capacities given below:

Particular	Type	Quantity / Capacity
Treated Effluent	Operation	1.60 MILLION LITRES/ DAY

3 That in case of any increase in capacity or addition / modification / alteration or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish.

4 That the control equipment as proposed by the applicant shall be installed before trial operation is started for which prior consent to operate under the provision of the **Water Act** shall be obtained. This consent to establish shall not be treated as consent to operate.

Page 1 of 6

Validity unknown
Digitally signed by Savita
Date: 2023.03.17 17:45:46 IST
Reason: Self Attested
Location:

Regional Office Nagour
Rajasthan State Pollution Control Board
First Floor, Cooperative Land Development Bank Ltd, Nagour
Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5108(1)/2022-2023/2904-2905
Order No: 2022-2023/Nagour/12918 **Dispatch Date:** Mar 17 2023 5:45PM
Unit Id : 124874

5 That the quantity of effluent generation and disposal along with mode of disposal for the treated effluent shall be as under:

Type of effluent	Max. effluent generation (KLD)	Quantity of effluent to be recycled (KLD)	Quantity of treated effluent to be disposed (KLD) and mode of disposal
Domestic Sewage	1600.000	NIL	1,600.000 STP and Gardening/Plantation

6 That the domestic sewage shall be treated before disposal so as to conform to the standards prescribed by the Board as notified under the Environment (Protection) Act-1986 for disposal into Inland Surface Water. The main parameters for regular monitoring shall be as under:

Parameters	Standards
pH Value	**Between 5.5 to 9.0**
Biochemical Oxygen Demand (3 days at 27C)	**Not to exceed 10 mg/l**
Chemical Oxygen Demand	**Not to exceed 50 mg/l**
Fecal Coliform	**not to exceed 230 MPN/100 ml**
N total	**10 mg/l**
Total Suspended Solids	**Not to exceed 20 mg/l**

7 **a. That the industry shall only be established within the alloted land of Khasra no.-91 (New 132), Sardarshahar City, Tehsil Sardarshahar, Churu.**
b. The total capital investment in the project without depreciation shall not exceed 1024 lacs which includes the cost of Land, Building, Misc. Fixed Assets Plant & Machinery.

Page 2 of 6

Validity unknown
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Reason: Self Attested
Location:

Regional Office Nagour
Rajasthan State Pollution Control Board
First Floor, Cooperative Land Development Bank Ltd, Nagour
Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5108(1)/2022-2023/2904-2905
Order No : 2022-2023/Nagour/12918 **Dispatch Date:** Mar 17 2023 5:45PM

Unit Id : 124874

8 a. In addition to above total suspended solids in the treated effluent before disposal shall not exceed 20 mg/l.
b. That no treated/untreated effluent shall be discharged into any water body and entire treated sewage shall be utilized in plantation/horticulture/ other gainful purposes.
c. That the sludge will be properly digested, de-watered and used as manure or disposed in a scientific manner.
d. That the unit shall undertake spray of insecticides from time to time to control fly/mosquito growth in the area.
e. That adequate measures shall be taken to avoid foul odour during treatment and disposal of sewage and sludge.
f. That efforts should be made to reuse the treated sewage to the maximum possible extent and minimize its discharge. A network of pipelines should be laid from the treated sewage collection tank to fields for utilisation.

9 a. That above stated effluent standards are subject to the Hon'ble NGT order dated 30/4/2019 in matter of O.A. no 1069/2018 Nitin Shankar Deshpande Vs Union of India and Ors
b. That Online Continuous Effluent Monitoring System(OCEMS) for parameters namely pH, TSS,COD,BOD and flow meter shall be installed and monitoring data shall be connected with the servers of State Board and Central Pollution Control Board within 03 months without fail.
c. That regular maintenance and operation of the OCEMS with temper proof mechanism with facilities for calibration shall be ensured.
d. That guidelines prescribed by CPCB for OCEMS for effluents and Standard Operating Procedure (SOP) for Verification of Installation and Calibration of UV-Vis Dual Beam Scanning & Multipoint calibration mechanism technology based OCEMS (Effluent) used in STPs shall be followed.
e. That the industry shall obtain Environmental Clearance from competent authority under EIA Notification dated 14.09.2006 for any such activity which attracts Environmental clearance under EIA Notification dated 14.09.2006.

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Regional Office Nagour
Rajasthan State Pollution Control Board
First Floor, Cooperative Land Development Bank Ltd, Nagour
Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5108(1)/2022-2023/2904-2905
Order No: 2022-2023/Nagour/12918 Dispatch Date: Mar 17 2023 5:45PM
Unit Id : 124874

10 a. That 33% area of the total area of industry's premises shall be covered by tree plantation. That the unit shall undertake plantation in two rows of suitable species all along the periphery of the site of the STP to control foul smell.
b. That industry shall achieve prescribed standards for air and water as per Environment Protection Act, 1986.
c. The unit shall comply with the provisions of Public Liability Insurance Act, 1991 and any further amendments, if applicable.
d. The unit shall comply with the provisions of Hazardous Waste (Management and Trans-boundary Movement) Rules 2016 and any further amendments, if applicable.

11 a. That the industry shall apply for Consent in prescribed application form with requisite fee before 120 days from expiry of this Consent or commissioning the plant whichever is earlier.
b. That this consent is subject to the permission /NOC / license from appropriate authorities for land use under the related laws/Acts and subject to submission of the same to this office. I
c. That the unit shall comply with NGT orders regarding Environmental Clearance. It shall be the responsibility of Project Proponent to follow and remain aware about each decision/ order/ judgments in this regard.
d. That the unit shall not increase the production beyond the consented production capacity.
e. That no Single use Plastic (SUP) item, which is banned vide MoEF&CC, Govt of India notification dated 12/08/2021 shall be used in the industry/unit premises.

12 a. This consent is not evidence for ascertaining entitlement of land.
b. That this consent is being issued on the basis of documents/ information uploaded by the applicant/industry/process/project. The liability of veracity and correctness of the uploaded document/information shall solely be of the applicant only.
c. This consent shall be subjected to compliance of any direction or order passed by court of law in matter.
d. That the grant of this consent is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

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Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5108(1)/2022-2023/2904-2905
Order No : 2022-2023/Nagour/12918 **Dispatch Date:** Mar 17 2023 5:45PM

Unit Id : 124874

13 That, notwithstanding anything provided hereinabove, the State Board shall have the power and reserves its right, as contained **Section 27(2) of the Water Act** to review anyone or all of the conditions imposed here in above and to make such variation as it deems fit for the purpose of compliance of the **Water Act**.

14 That the grant of this **Consent to Establish** is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

15 That the grant of this **Consent to Establish** shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.

This **Consent to Establish** shall also be subject, besides the aforesaid specific conditions, to the general conditions given in the enclosed Annexure. The project proponent will comply with the provisions of the **Water Act** and to such other conditions as may, from time to time, be specified by the State Board under the provisions of the aforesaid Act(s). Please note that, non compliance of any of the above stated conditions would tantamount to revocation of **Consent to Establish** and project proponent / occupier shall be liable for legal action under the relevant provisions of the said Act(s).

Yours sincerely,

Regional Officer[Nagour]

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Page 5 of 6

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First Floor, Cooperative Land Development Bank Ltd, Nagour

Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5108(1)/2022-2023/2904-2905

Order No : 2022-2023/Nagour/12918 **Dispatch Date:** Mar 17 2023 5:45PM

Unit Id : 124874

Regional Officer[Nagour]

Page 6 of 6

Validity unknown
Digitally signed by Savita
Date: 2023.03.17 17:45:48 IST
Reason: Self Attested
Location:

Consent to Establish (CTE) for 5 MLD STP (Upgradation work), Sardarshahar

Regional Office Nagour
Rajasthan State Pollution Control Board
First Floor, Cooperative Land Development Bank Ltd, Nagou
Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5086(1)/2020-2021/1854-1855
Order No : 2022-2023/Nagour/12601 **Dispatch Date:** Nov 14 2022 4:36PM

Unit Id : 106662

M/s STP 2.3 MLD (Near Bikaner Road), STP 3.4 MLD(Near Girgichiya Road)

Janhit Prayas Colony, City Sardarshahar ,
Sardarshahar Tehsil:Sardarshahar
District:Churu

Sub: **Consent to Establish** under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974.

Ref: Your application(s) for Consent to Establish dated 16/09/2022 and subsequent correspondence.

Sir,

Consent to Establish under the provisions of Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter to be referred as the Water Act) as amended to date and rules & the orders issued thereunder **,is hereby granted** for your **STP 5.0 MLD Bikaner Road plant** situated / proposed at **Bikaner Road, City Sardarshahar Sardarshahar Tehsil:Sardarshahar District:Churu** , Rajasthan under the provisions of the said Act(s). This consent is granted on the basis of examination of the information furnished by you in consent application(s) and the documents submitted therewith, subject to the following conditions:-

1. That this Consent to Establish is valid for a period from **16/09/2022** to **31/08/2027 or date of commencement of production / commissioning of the project or activities whichever is earlier** .
2. That this Consent is granted for manufacturing / producing following products / by products or carrying out the following activities or operation/processes or providing following services with capacities given below:

Particular	Type	Quantity / Capacity
SEWAGE TREATMENT PLANT	Activity	5.00 MILLION LITRES/ DAY

3. That in case of any increase in capacity or addition / modification / alteration or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish.
4. That the control equipment as proposed by the applicant shall be installed before trial operation is started for which prior consent to operate under the provision of the **Water Act** shall be obtained. This consent to establish shall not be treated as consent to operate.

Page 1 of 6

Validity unknown
Digitally signed by Savita
Date: 2022.11.14 16:36:20 IST
Reason: Self Attested
Location:

Regional Office Nagour
Rajasthan State Pollution Control Board
First Floor, Cooperative Land Development Bank Ltd, Nagour
Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5086(1)/2020-2021/1854-1855
Order No : 2022-2023/Nagour/12601 **Dispatch Date:** Nov 14 2022 4:36PM
Unit Id : 106662

5 That the quantity of effluent generation and disposal along with mode of disposal for the treated effluent shall be as under:

Type of effluent	Max. effluent generation (KLD)	Quantity of effluent to be recycled (KLD)	Quantity of treated effluent to be disposed (KLD) and mode of disposal
Domestic Sewage	5000.000	NIL	5,000.000 STP

6 That the domestic sewage shall be treated before disposal so as to conform to the standards prescribed by the Board as notified under the Environment (Protection) Act-1986 for disposal into Inland Surface Water. The main parameters for regular monitoring shall be as under:

Parameters	Standards
pH Value	**Between 5.5 to 9.0**
Phosphate as P	**Not to exceed 1.0 mg/l**
Biochemical Oxygen Demand (3 days at 27C)	**Not to exceed 10 mg/l**
Chemical Oxygen Demand	**Not to exceed 50 mg/l**
Fecal Coliform	**not to exceed 230 MPN/100 ml**
N total	**10 mg/l**

7 **a. That the industry shall only be established within the land of Khasra no.- 411/391/208, Tehsil – Sardarshahar & District- Churu.**
b. The total capital investment in the project without depreciation shall not exceed 442 lacs which includes the cost of Land, Building, Misc. Fixed Assets Plant & Machinery.

Page 2 of 6

Validity unknown
Digitally signed by Savita
Date: 2022.11.14 16:36:20 IST
Reason: Self Attested
Location:

Regional Office Nagour
Rajasthan State Pollution Control Board
First Floor, Cooperative Land Development Bank Ltd, Nagour
Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5086(1)/2020-2021/1854-1855
Order No : 2022-2023/Nagour/12601 Dispatch Date: Nov 14 2022 4:36PM
Unit Id : 106662

8 a. That 33% area of the total area of industry's premises shall be covered by tree plantation. That the unit shall undertake plantation in two rows of suitable species all along the periphery of the site of the STP to control foul smell.
b. That industry shall achieve prescribed standards for air and water as per Environment Protection Act, 1986.
c. The unit shall comply with the provisions of Public Liability Insurance Act, 1991 and any further amendments, if applicable.
d. The unit shall comply with the provisions of Hazardous Waste (Management and Trans-boundary Movement) Rules 2016 and any further amendments, if applicable.

9 a. That the industry shall apply for Consent in prescribed application form with requisite fee before 120 days from expiry of this Consent or commissioning the plant whichever is earlier.
b. That this consent is subject to the permission /NOC / license from appropriate authorities for land use under the related laws/Acts and subject to submission of the same to this office.
c. That the unit shall comply with NGT orders regarding Environmental Clearance. It shall be the responsibility of Project Proponent to follow and remain aware about each decision/ order/ judgments in this regard.
d. That the unit shall not increase the treatment beyond the consented capacity.
e. That no Single use Plastic (SUP) item, which is banned vide MoEF&CC, Govt of India notification dated 12/08/2021 shall be used in the industry/unit premises.

10 a. This consent is not evidence for ascertaining entitlement of land.
b. That this consent is being issued on the basis of documents/ information uploaded by the applicant/industry/process/project. The liability of veracity and correctness of the uploaded document/information shall solely be of the applicant only.
c. This consent shall be subjected to compliance of any direction or order passed by court of law in matter.
d. That the grant of this consent is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

Page 3 of 6

Validity unknown
Digitally signed by Savita
Date: 2022.11.14 16:36:20 IST
Reason: Self Attested
Location:

Regional Office Nagour
Rajasthan State Pollution Control Board
First Floor, Cooperative Land Development Bank Ltd, Nagour
Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5086(1)/2020-2021/1854-1855
Order No : 2022-2023/Nagour/12601 Dispatch Date: Nov 14 2022 4:36PM

Unit Id : 106662

11 5. That efforts should be made to reuse the treated sewage to the maximum possible extent and minimize its discharge. A network of pipelines should be laid from the treated sewage collection tank to fields for utilization.
6. That the industry shall obtain Environmental Clearance from competent authority under EIA Notification dated 14.09.2006 for any such activity which attracts Environmental clearance under EIA Notification dated 14.09.2006.
7. In addition to above total suspended solids in the treated effluent before disposal shall not exceed 20 mg/l.
8. That no treated/untreated effluent shall be discharged into any water body and entire treated sewage shall be utilized in plantation/horticulture/ other gainful purposes.
9. That the sludge will be properly digested, de-watered and used as manure or disposed in a scientific manner.
10. That the unit shall undertake spray of insecticides from time to time to control fly/mosquito growth in the area.
11. That the unit shall undertake plantation in two rows of suitable species all along the periphery of the site of the STP to control foul smell.
12. That above stated effluent standards are subjected to the Hon'ble NGT order dated 30/4/2019 in matter of O.A. no 1069/2018 Nitin Shankar Deshpande Vs Union of India and Ors.
13. That adequate measures shall be taken to avoid foul odour during treatment and disposal of sewage and sludge.

12 14. That Online Continuous Effluent Monitoring System(OCEMS) for parameters namely pH, TSS,COD,BOD and flow meter shall be installed and monitoring data shall be connected with the servers of State Board and Central Pollution Control Board within 03 months of grant of this consent without fail.
15. That regular maintenance and operation of the OCEMS with temper proof mechanism with facilities for calibration shall be ensured.
16. That guidelines prescribed by CPCB for OCEMS for effluents and Standard Operating Procedure (SOP) for Verification of Installation and Calibration of UV-Vis Dual Beam Scanning & Multipoint calibration mechanism technology based OCEMS (Effluent) used in STPs shall be followed.
17. The Project Proponent shall submit action plan for reuse of treated sewage within a period of one month.
18. That action plan for modification of STP so as to achieve the standards prescribed at condition no.5 above shall be submitted within three months.

Page 4 of 6

Validity unknown
Digitally signed by Savita
Date: 2022.11.14 16:36:20 IST
Reason: Self Attested
Location:

Regional Office Nagour
Rajasthan State Pollution Control Board
First Floor, Cooperative Land Development Bank Ltd, Nagour
Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5086(1)/2020-2021/1854-1855
Order No : 2022-2023/Nagour/12601 **Dispatch Date:** Nov 14 2022 4:36PM
Unit Id : 106662

13 That, notwithstanding anything provided hereinabove, the State Board shall have the power and reserves its right, as contained **Section 27(2) of the Water Act** to review anyone or all of the conditions imposed here in above and to make such variation as it deems fit for the purpose of compliance of the **Water Act**.

14 That the grant of this **Consent to Establish** is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

15 That the grant of this **Consent to Establish** shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.

This **Consent to Establish** shall also be subject, besides the aforesaid specific conditions, to the general conditions given in the enclosed Annexure. The project proponent will comply with the provisions of the **Water Act** and to such other conditions as may, from time to time, be specified by the State Board under the provisions of the aforesaid Act(s). Please note that, non compliance of any of the above stated conditions would tantamount to revocation of **Consent to Establish** and project proponent / occupier shall be liable for legal action under the relevant provisions of the said Act(s).

Yours sincerely,

Regional Officer[Nagour]

(A): Copy to:-

1 Master File.

Page 5 of 6

Validity unknown
Digitally signed by Savita
Date: 2022.11.14 16:36:20 IST
Reason: Self Attested
Location:

Regional Office Nagour

Rajasthan State Pollution Control Board

First Floor, Cooperative Land Development Bank Ltd, Nagour

Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5086(1)/2020-2021/1854-1855

Order No : 2022-2023/Nagour/12601 **Dispatch Date:** Nov 14 2022 4:36PM

Unit Id : 106662

Regional Officer[Nagour]

Page 6 of 6

Validity unknown
Digitally signed by Savita
Date: 2022.11.14 16:36:20 IST
Reason: Self Attested
Location:

Consent to Establish (CTE) for 2 MLD STP (Upgradation work), Sardarshahar

Regional Office Nagour

Rajasthan State Pollution Control Board

First Floor, Cooperative Land Development Bank Ltd, Nagou

Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5086(1)/2020-2021/1958-1959

Order No : 2022-2023/Nagour/12634 **Dispatch Date:** Nov 18 2022 5:43PM

Unit Id : 106662

M/s STP 2.3 MLD (Near Bikaner Road), STP 3.4 MLD(Near Girgichiya Road)

Janhit Prayas Colony, City Sardarshahar ,
Sardarshahar Tehsil:Sardarshahar
District:Churu

Sub: **Consent to Establish** under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974.

Ref: Your application(s) for Consent to Establish dated 16/09/2022 and subsequent correspondence.

Sir,

Consent to Establish under the provisions of Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter to be referred as the Water Act) as amended to date and rules & the orders issued thereunder ,**is hereby granted** for your **STP 2.0 MLD Near Girgichiya Road plant** situated / proposed at **Near Girgichiya Road, Sardarshahar Sardarshahar Tehsil:Sardarshahar District:Churu** , Rajasthan under the provisions of the said Act(s). This consent is granted on the basis of examination of the information furnished by you in consent application(s) and the documents submitted therewith, subject to the following conditions:-

1 That this Consent to Establish is valid for a period from **16/09/2022** to **31/08/2027 or date of commencement of production / commissioning of the project or activities whichever is earlier .**

2 That this Consent is granted for manufacturing / producing following products / by products or carrying out the following activities or operation/processes or providing following services with capacities given below:

Particular	Type	Quantity / Capacity
SEWAGE TREATMENT PLANT	Activity	2.00 MLD

3 That in case of any increase in capacity or addition / modification / alteration or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish.

4 That the control equipment as proposed by the applicant shall be installed before trial operation is started for which prior consent to operate under the provision of the **Water Act** shall be obtained. This consent to establish shall not be treated as consent to operate.

Page 1 of 6

Signature Not Verified
Digitally signed by Savita
Date: 2022.11.22 15:25:53 IST
Reason: SelfAttested
Location:

Regional Office Nagour

Rajasthan State Pollution Control Board

First Floor, Cooperative Land Development Bank Ltd, Nagour

Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5086(1)/2020-2021/1958-1959

Order No : 2022-2023/Nagour/12634 **Dispatch Date:** Nov 18 2022 5:43PM

Unit Id : 106662

5 That the quantity of effluent generation and disposal along with mode of disposal for the treated effluent shall be as under:

Type of effluent	Max. effluent generation (KLD)	Quantity of effluent to be recycled (KLD)	Quantity of treated effluent to be disposed (KLD) and mode of disposal
Domestic Sewage	2000.000	NIL	2,000.000 STP

6 That the domestic sewage shall be treated before disposal so as to conform to the standards prescribed by the Board as notified under the Environment (Protection) Act-1986 for disposal **Into Inland Surface Water**. The main parameters for regular monitoring shall be as under:

Parameters	Standards
pH Value	**Between 5.5 to 9.0**
Phosphate as P	**Not to exceed 1.0 mg/l**
Biochemical Oxygen Demand (3 days at 27C)	**Not to exceed 10 mg/l**
Chemical Oxygen Demand	**Not to exceed 50 mg/l**
Fecal Coliform	**not to exceed 230 MPN/100 ml**
N total	**10 mg/l**

7 **a. That the industry shall only be established within the converted land of Khasra no.- 01, Sujangarh, Tehsil – Sardarshahar & District- Churu.**
b. The total capital investment in the project without depreciation shall not exceed 233.22 lacs which includes the cost of Land, Building, Misc. Fixed Assets Plant & Machinery.

Page 2 of 6

Signature Not Verified
Digitally signed by Savita
Date: 2022.11.22 15:25:53 IST
Reason: SelfAttested
Location:

Regional Office Nagour

Rajasthan State Pollution Control Board

First Floor, Cooperative Land Development Bank Ltd, Nagour

Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5086(1)/2020-2021/1958-1959

Order No : 2022-2023/Nagour/12634 **Dispatch Date:** Nov 18 2022 5:43PM

Unit Id : 106662

8 a. In addition to above total suspended solids in the treated effluent before disposal shall not exceed 20 mg/l.
b. That no treated/untreated effluent shall be discharged into any water body and entire treated sewage shall be utilized in plantation/horticulture/ other gainful purposes.
c. That the sludge will be properly digested, de-watered and used as manure or disposed in a scientific manner.
d. That the unit shall undertake spray of insecticides from time to time to control fly/mosquito growth in the area.
e. That adequate measures shall be taken to avoid foul odour during treatment and disposal of sewage and sludge.
f. That efforts should be made to reuse the treated sewage to the maximum possible extent and minimize its discharge. A network of pipelines should be laid from the treated sewage collection tank to fields for utilisation.

9 a. That above stated effluent standards are subject to the Hon'ble NGT order dated 30/4/2019 in matter of O.A. no 1069/2018 Nitin Shankar Deshpande Vs Union of India and Ors
b. That Online Continuous Effluent Monitoring System(OCEMS) for parameters namely pH, TSS,COD,BOD and flow meter shall be installed and monitoring data shall be connected with the servers of State Board and Central Pollution Control Board within 03 months without fail.
c. That regular maintenance and operation of the OCEMS with temper proof mechanism with facilities for calibration shall be ensured.
d. That guidelines prescribed by CPCB for OCEMS for effluents and Standard Operating Procedure (SOP) for Verification of Installation and Calibration of UV-Vis Dual Beam Scanning & Multipoint calibration mechanism technology based OCEMS (Effluent) used in STPs shall be followed.
e. That the industry shall obtain Environmental Clearance from competent authority under EIA Notification dated 14.09.2006 for any such activity which attracts Environmental clearance under EIA Notification dated 14.09.2006.

Page 3 of 6

Signature Not Verified
Digitally signed by Savita
Date: 2022.11.22 15:25:53 IST
Reason: SelfAttested
Location:

Regional Office Nagour

Rajasthan State Pollution Control Board

First Floor, Cooperative Land Development Bank Ltd, Nagour

Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5086(1)/2020-2021/1958-1959

Order No : 2022-2023/Nagour/12634 **Dispatch Date:** Nov 18 2022 5:43PM

Unit Id : 106662

10 a. That 33% area of the total area of industry's premises shall be covered by tree plantation. That the unit shall undertake plantation in two rows of suitable species all along the periphery of the site of the STP to control foul smell.

b. That industry shall achieve prescribed standards for air and water as per Environment Protection Act, 1986.

c. The unit shall comply with the provisions of Public Liability Insurance Act, 1991 and any further amendments, if applicable.

d. The unit shall comply with the provisions of Hazardous Waste (Management and Trans-boundary Movement) Rules 2016 and any further amendments, if applicable.

11 a. That the industry shall apply for Consent in prescribed application form with requisite fee before 120 days from expiry of this Consent or commissioning the plant whichever is earlier.

b. That this consent is subject to the permission /NOC / license from appropriate authorities for land use under the related laws/Acts and subject to submission of the same to this office. I

c. That the unit shall comply with NGT orders regarding Environmental Clearance. It shall be the responsibility of Project Proponent to follow and remain aware about each decision/ order/ judgments in this regard.

d. That the unit shall not increase the production beyond the consented production capacity.

e. That no Single use Plastic (SUP) item, which is banned vide MoEF&CC, Govt of India notification dated 12/08/2021 shall be used in the industry/unit premises.

12 a. This consent is not evidence for ascertaining entitlement of land.

b. That this consent is being issued on the basis of documents/ information uploaded by the applicant/industry/process/project. The liability of veracity and correctness of the uploaded document/information shall solely be of the applicant only.

c. This consent shall be subjected to compliance of any direction or order passed by court of law in matter.

d. That the grant of this consent is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

Page 4 of 6

Signature Not Verified
Digitally signed by Savita
Date: 2022.11.22 15:25:53 IST
Reason: SelfAttested
Location:

Regional Office Nagour

Rajasthan State Pollution Control Board

First Floor, Cooperative Land Development Bank Ltd, Nagour

Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5086(1)/2020-2021/1958-1959

Order No : 2022-2023/Nagour/12634 **Dispatch Date:** Nov 18 2022 5:43PM

Unit Id : 106662

13 That, notwithstanding anything provided hereinabove, the State Board shall have the power and reserves its right, as contained **Section 27(2) of the Water Act** to review anyone or all of the conditions imposed here in above and to make such variation as it deems fit for the purpose of compliance of the **Water Act**.

14 That the grant of this **Consent to Establish** is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

15 That the grant of this **Consent to Establish** shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.

This **Consent to Establish** shall also be subject, besides the aforesaid specific conditions, to the general conditions given in the enclosed Annexure. The project proponent will comply with the provisions of the **Water Act** and to such other conditions as may, from time to time, be specified by the State Board under the provisions of the aforesaid Act(s). Please note that, non compliance of any of the above stated conditions would tantamount to revocation of **Consent to Establish** and project proponent / occupier shall be liable for legal action under the relevant provisions of the said Act(s).

Yours sincerely,

Regional Officer[Nagour]

(A): **Copy to:-**

1 Master File.

Page 5 of 6

Signature Not Verified
Digitally signed by Savita
Date: 2022.11.22 15:25:53 IST
Reason: SelfAttested
Location:

Regional Office Nagour

Rajasthan State Pollution Control Board

First Floor, Cooperative Land Development Bank Ltd, Nagour

Phone: 01582-294353

Registered

File No : F(Tech)/Churu(Sardarshahar)/5086(1)/2020-2021/1958-1959

Order No : 2022-2023/Nagour/12634 **Dispatch Date:** Nov 18 2022 5:43PM

Unit Id : 106662

Regional Officer[Nagour]

Page 6 of 6

Signature Not Verified
Digitally signed by Savita
Date: 2022.11.22 15:25:53 IST
Reason: SelfAttested
Location:

Consent to Establish (CTE) for 6.34 MLD STP (Upgradation work), Banswara

Regional Office Banswara
Rajasthan State Pollution Control Board
Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thik. Banswara
Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7358(1)/2022-2023/485-486
Order No : 2022-2023/Banswara/6916 **Dispatch Date:** Dec 1 2022 2:32PM

Unit Id : 113267

M/s Sewerage Treatment

Municipal Council Officer , Banswara

Sub: **Consent to Establish** under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974.

Ref: Your application(s) for Consent to Establish dated 19/10/2022 and subsequent correspondence.

Sir,

Consent to Establish under the provisions of Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter to be referred as the Water Act) as amended to date and rules & the orders issued thereunder **,is hereby granted** for your **6.34 MLD STP existing STP on Udaipur RoadJanawari Banswara . plant** situated / proposed at **634 MLD STP on Udaipur Road, Janawari Tehsil:Banswara District:Banswara** , Rajasthan under the provisions of the said Act(s). This consent is granted on the basis of examination of the information furnished by you in consent application(s) and the documents submitted therewith, subject to the following conditions:-

1 That this Consent to Establish is valid for a period from **19/10/2022** to **30/09/2027 or date of commencement of production / commissioning of the project or activities whichever is earlier .**

2 That this Consent is granted for manufacturing / producing following products / by products or carrying out the following activities or operation/processes or providing following services with capacities given below:

Particular	Type	Quantity / Capacity
SEWAGE TREATMENT PLANT	Activity	6.34 MILLION LITRES/ DAY

3 That in case of any increase in capacity or addition / modification / alteration or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish.

4 That the control equipment as proposed by the applicant shall be installed before trial operation is started for which prior consent to operate under the provision of the **Water Act** shall be obtained. This consent to establish shall not be treated as consent to operate.

Page 1 of 5

Validity unknown
Digitally signed by Shirad Saksena
Date: 2022.12.01 14:32:55 IST
Reason: SelfAttested
Location:

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thikariya, Banswara

Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7358(1)/2022-2023/485-486

Order No : 2022-2023/Banswara/6916 **Dispatch Date:** Dec 1 2022 2:32PM

Unit Id : 113267

5 That the quantity of effluent generation and disposal along with mode of disposal for the treated effluent shall be as under:

Type of effluent	Max. effluent generation (KLD)	Quantity of effluent to be recycled (KLD)	Quantity of treated effluent to be disposed (KLD) and mode of disposal
Domestic Sewage	6340.000	NIL	6,340.000 On Land For Plantation/Horticulture after adequate treatment

6 That the domestic sewage shall be treated before disposal so as to conform to the standards prescribed by the Board as notified under the Environment (Protection) Act-1986 for disposal **Into Inland Surface Water**. The main parameters for regular monitoring shall be as under:

Parameters	Standards
pH Value	**Between 5.5 to 9.0**
Phosphate as P	**Not to exceed 1.0 mg/l**
Biochemical Oxygen Demand (3 days at 27C)	**Not to exceed 10 mg/l**
Chemical Oxygen Demand	**Not to exceed 50 mg/l**
Fecal Coliform	**not to exceed 230 MPN/100 ml**
N total	**10 mg/l**
Total Suspended Solids	**Not to exceed 20 mg/l**

7 **That this Consent to Establish is being issued for establishment of Sewage Treatment Plant (STP) of capacity 6.34 MLD at within existing STP campus, on Udaipur Road, Janawari, Banswara, Tehsil: Banswara, District: Banswara**

Page 2 of 5

Validity unknown
Digitally signed by Sharad Saksena
Date: 2022.12.01 14:32:55 IST
Reason: SelfAttested
Location:

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thikariya, Banswara

Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7358(1)/2022-2023/485-486

Order No : 2022-2023/Banswara/6916 **Dispatch Date:** Dec 1 2022 2:32PM

Unit Id : 113267

8 That no treated/untreated effluent shall be discharged into any other water body and entire treated sewage shall be utilized in plantation/horticulture/other gainful purposes.

9 That the sludge will be properly digested, de-watered and used as manure or disposed in a scientific manner.

10 That sewage network alongwith house connections will be completed simultaneously with the commissioning of the STP.

11 That above stated effluent standards are subject to the Hon'ble NGT order dated 30/4/2019 in matter of O.A. no 1069/2018 Nitin Shankar Deshpande Vs Union of India and Ors.

12 That efforts should be made to reuse the treated sewage to the maximum possible extent and minimize its discharge. A network of pipelines should be laid from the treated sewage collection tank to fields for utilization.

13 That Online Continuous Effluent Monitoring System (OCEMS) for parameters namely pH, TSS, COD, BOD and flow meter shall be installed and monitoring data shall be connected with the servers of State Board and Central Pollution Control Board(CPCB).

14 That guidelines prescribed by CPCB for OCEMS for effluents and Standard Operating Procedure (SOP) for Verification of Installation and Calibration of UV-Vis Dual Beam Scanning & Multipoint calibration mechanism technology based OCEMS(Effluent) used in STPs shall be followed.

15 That adequate measures shall be taken to avoid foul odour during treatment and disposal of sewage and sludge.

16 That the unit shall undertake spray of insecticides from time to time to control fly/mosquito growth in the area.

17 That the unit shall undertake plantation in two rows of suitable species all along the periphery of the site of the STP to control foul smell.

18 That this Consent to Establish shall not be valid for establishment of any air polluting machinery e.g., DG set etc. Proponent shall obtain separate Consent to Establish for establishment of air polluting machinery e.g., DG set etc. under Air Act,1981.

19 That the grant of consent shall not absolve the project proponent from making compliance of other statutory obligations prescribed under any other law or directions of courts or any other legal instrument for the time being in force.

20 That this consent is issued on the basis of documents submitted by the applicant, if any discrepancies is found in the document/facts submitted by the unit then the consent shall be treated as revoked without any further notice and the unit shall be liable for action in accordance with provisions of law.

Page 3 of 5

Validity unknown
Digitally signed by Shirad Saksena
Date: 2022.12.01 14:32:55 IST
Reason: SelfAttested
Location:

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thikariya, Banswara

Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7358(1)/2022-2023/485-486

Order No : 2022-2023/Banswara/6916 **Dispatch Date:** Dec 1 2022 2:32PM

Unit Id : 113267

21 That, notwithstanding anything provided hereinabove, the State Board shall have the power and reserves its right, as contained **Section 27(2) of the Water Act** to review anyone or all of the conditions imposed here in above and to make such variation as it deems fit for the purpose of compliance of the **Water Act**.

22 That the grant of this **Consent to Establish** is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

23 That the grant of this **Consent to Establish** shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.

This **Consent to Establish** shall also be subject, besides the aforesaid specific conditions, to the general conditions given in the enclosed Annexure. The project proponent will comply with the provisions of the **Water Act** and to such other conditions as may, from time to time, be specified by the State Board under the provisions of the aforesaid Act(s). Please note that, non compliance of any of the above stated conditions would tantamount to revocation of **Consent to Establish** and project proponent / occupier shall be liable for legal action under the relevant provisions of the said Act(s).

Yours sincerely,

Regional Officer[Banswara]

(A): **Copy to:-**

1 Master File.

Validity unknown
Digitally signed by Shirad Saksena
Date: 2022.12.01 14:32:55 IST
Reason: SelfAttested
Location:

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thikariya, Banswara

Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7358(1)/2022-2023/485-486

Order No : 2022-2023/Banswara/6916 **Dispatch Date:** Dec 1 2022 2:32PM

Unit Id : 113267

Regional Officer[Banswara]

Page 5 of 5

Validity unknown
Digitally signed by Shajad Saksena
Date: 2022.12.01 14:32:55 IST
Reason: SelfAttested
Location:

Consent to Establish (CTE) for 4.5 MLD WTP (Upgradation work), Banswara

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thik Banswara

Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7365(1)/2022-2023/553-554

Order No : 2022-2023/Banswara/6937 **Dispatch Date:** Feb 13 2023 11:02AM

Unit Id : 123412

M/s Public Health Engineering Department Banswara

PHED AEN Campus, Near Old Bus Stand , Banswara
Tehsil:Banswara
District:Banswara

Sub: **Consent to Establish** under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974.

Ref: Your application(s) for Consent to Establish dated 09/12/2022 and subsequent correspondence.

Sir,

Consent to Establish under the provisions of Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter to be referred as the Water Act) as amended to date and rules & the orders issued thereunder ,**is hereby granted** for your **Refurbishment of Existing 4.5 MLD WTP plant** situated / proposed at **Existing WTP at Kagdi Pick up weir Dam Banswara Tehsil:Banswara District:Banswara** , Rajasthan under the provisions of the said Act(s). This consent is granted on the basis of examination of the information furnished by you in consent application(s) and the documents submitted therewith, subject to the following conditions:-

1 That this Consent to Establish is valid for a period from **09/12/2022** to **30/11/2027 or date of commencement of production / commissioning of the project or activities whichever is earlier .**

2 That this Consent is granted for manufacturing / producing following products / by products or carrying out the following activities or operation/processes or providing following services with capacities given below:

Particular	Type	Quantity / Capacity
Water Treatment Plant	Operation	4.50 MILLION LITRES/ DAY

3 That in case of any increase in capacity or addition / modification / alteration or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish.

4 That the control equipment as proposed by the applicant shall be installed before trial operation is started for which prior consent to operate under the provision of the **Water Act** shall be obtained. This consent to establish shall not be treated as consent to operate.

Page 1 of 5

Signature Not Verified
Digitally signed by Sharad Saksena
Date: 2023.02.13 11:02:18 IST
Reason: SelfAttested
Location:

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thikariya, Banswara

Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7365(1)/2022-2023/553-554

Order No : 2022-2023/Banswara/6937 **Dispatch Date:** Feb 13 2023 11:02AM

Unit Id : 123412

5 a. That this Consent to Establish is valid for establishment of Water Treatment Plant of capacity 4.5 MLD for an investment of Rs. 511.00 Lacs under 'Orange' category. Any change in production & its capacity unit has to seek prior Consent to Establish from the State Board.

b. That the provisions of EIA notification 14/09/2006 by MoEF shall be strictly followed and the unit shall obtain Environmental Clearance under 8(a) of the aforesaid notification if required and the sole responsibility of the same shall lie on the project proponent.

c. That this consent to Establish is issued to the unit on the basis of documents submitted by the applicant, if any discrepancy is found in the document/facts submitted by the unit then the applicant shall be liable for legal action in accordance with provisions of law.

d. That no industrial trade effluent i.e. wastewater from water re-circulation system, shall be discharged inside/outside the premises. The entire process water shall be re-circulated with the processes through proposed settling tanks.

e. That the back-wash water shall be treated through adequately design treatment system and should be completely recycled into the process thus maintaining zero discharge inside and outside the premises.

f. That the domestic effluent shall be disposed off in soak pits through properly designed septic tanks.

g. That no source of air emission shall be permitted under this consent, unit shall apply for separate consent to establish under the provisions of Air Act-1981 if there is proposal for any source of air emission.

h. All the conditions and instructions as provided in the General conditions for Consent to Establish under Water (Prevention & Control of Pollution) Act -1974 shall be complied with strictly.

Signature Not Verified
Digitally signed by Sharad Saksena
Date: 2023.02.13 11:02:18 IST
Reason: SelfAttested
Location:

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thikariya, Banswara

Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7365(1)/2022-2023/553-554

Order No : 2022-2023/Banswara/6937 **Dispatch Date:** Feb 13 2023 11:02AM

Unit Id : 123412

6 **a. That rain water harvesting system shall be provided to harness rain water for domestic purposes & that the industry shall not dig new well / tube well without prior permission from the competent authority.**

b. That the industry shall ensure that noise from the unit does not exceed the prescribed noise standards for industrial area i.e. 75 dB(A) Leq during day time and 70 dB(A) Leq during night time to meet the prescribed ambient noise standards. Day time is reckoned in between 6 A.M. and 9 P.M. and nighttime is reckoned between 9 P.M. to 6 A.M.

c. That the unit shall maintain plantation at least in the 33% of total area within the unit premises.

d. That the consent is valid subject to fulfilment of all the other statutory requirements in other Laws/Acts/Rules as applicable.

e. That this consent is not an evidence for ascertaining the title of land. That this consent is only for environment purpose not be liable for any other purpose.

f. That this consent is subject to any order or direction from any Court of the competent jurisdiction.

g. That the unit shall not dispose of waste materials outside the premises to avoid any possible nuisance to nearby inhabitants. Such waste material shall be collected at one place and shall be disposed-off in safe manner.

h. That any incorrect information submitted in the consent application form or declaration shall make the industry liable for legal action under section 42 of the water and section 38 of the Air Act.

i. That emission/effluents found to be discharged in excess of the standards prescribed shall be punishable under section 37 of the Air Act and under section 43 of the water Act. 14 That noise level.

j. That the unit shall not carry out any modification/change in process or manufacture/produce any other products/by products which require environment clearance as per the provisions of Environment Impact Assessment Notification dated 14.09.2006 issued by Ministry of Environment & Forests, Government of India.

k. That unit must submit the Public Liability Insurance for chlorine store room & usage and must ensure safety measure for chlorine room (water spray, alarm etc).

l. That the mode of disposal of waste water shall be as under:- * The backwash water of filters shall be treated through a treatment system before disposal and the sludge generated from the same shall be disposed in eco-friendly manner.

Page 3 of 5

Signature Not Verified
Digitally signed by Sharad Saksena
Date: 2023.02.13 11:02:18 IST
Reason: SelfAttested
Location:

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thikariya, Banswara

Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7365(1)/2022-2023/553-554

Order No : 2022-2023/Banswara/6937 **Dispatch Date:** Feb 13 2023 11:02AM

Unit Id : 123412

7 That, notwithstanding anything provided hereinabove, the State Board shall have the power and reserves its right, as contained **Section 27(2) of the Water Act** to review anyone or all of the conditions imposed here in above and to make such variation as it deems fit for the purpose of compliance of the **Water Act**.

8 That the grant of this **Consent to Establish** is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

9 That the grant of this **Consent to Establish** shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.

This **Consent to Establish** shall also be subject, besides the aforesaid specific conditions, to the general conditions given in the enclosed Annexure. The project proponent will comply with the provisions of the **Water Act** and to such other conditions as may, from time to time, be specified by the State Board under the provisions of the aforesaid Act(s). Please note that, non compliance of any of the above stated conditions would tantamount to revocation of **Consent to Establish** and project proponent / occupier shall be liable for legal action under the relevant provisions of the said Act(s).

Yours sincerely,

Regional Officer[Banswara]

(A): **Copy to:-**

1 Master File.

Signature Not Verified
Digitally signed by Sharad Saksena
Date: 2023.02.13 11:02:18 IST
Reason: SelfAttested
Location:

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thikariya, Banswara

Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7365(1)/2022-2023/553-554

Order No : 2022-2023/Banswara/6937 **Dispatch Date:** Feb 13 2023 11:02AM

Unit Id : 123412

Regional Officer[Banswara]

Page 5 of 5

Signature Not Verified
Digitally signed by Sharad Saksena
Date: 2023.02.13 11:02:18 IST
Reason: SelfAttested
Location:

Consent to Establish (CTE) for 10.4 MLD WTP (Upgradation work), Banswara

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thik Banswara

Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7364(1)/2022-2023/555-556

Order No : 2022-2023/Banswara/6938 **Dispatch Date:** Feb 13 2023 11:02AM

Unit Id : 123412

M/s Public Health Engineering Department Banswara

PHED AEN Campus, Near Old Bus Stand , Banswara
Tehsil:Banswara
District:Banswara

Sub: **Consent to Establish** under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974.

Ref: Your application(s) for Consent to Establish dated 19/11/2022 and subsequent correspondence.

Sir,

Consent to Establish under the provisions of Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 (hereinafter to be referred as the Water Act) as amended to date and rules & the orders issued thereunder ,**is hereby granted** for your **Water Treatment Plant plant** situated / proposed at **PHED AEN Campus, Near Old Bus Stand Banswara Tehsil:Banswara District:Banswara** , Rajasthan under the provisions of the said Act(s). This consent is granted on the basis of examination of the information furnished by you in consent application(s) and the documents submitted therewith, subject to the following conditions:-

1 That this Consent to Establish is valid for a period from **17/11/2022** to **31/10/2027 or date of commencement of production / commissioning of the project or activities whichever is earlier .**

2 That this Consent is granted for manufacturing / producing following products / by products or carrying out the following activities or operation/processes or providing following services with capacities given below:

Particular	Type	Quantity / Capacity
Water Treatment Plant	Operation	10.40 MILLION LITRES/ DAY

3 That in case of any increase in capacity or addition / modification / alteration or change in product mix or process or raw material or fuel, the project proponent is required to obtain fresh consent to establish.

4 That the control equipment as proposed by the applicant shall be installed before trial operation is started for which prior consent to operate under the provision of the **Water Act** shall be obtained. This consent to establish shall not be treated as consent to operate.

Page 1 of 5

Signature Not Verified
Digitally signed by Sharad Saksena
Date: 2023.02.13 11:02:56 IST
Reason: SelfAttested
Location:

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thikariya, Banswara

Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7364(1)/2022-2023/555-556

Order No : 2022-2023/Banswara/6938 **Dispatch Date:** Feb 13 2023 11:02AM

Unit Id : 123412

5 a. That this Consent to Establish is valid for establishment of Water Treatment Plant of capacity 10.4 MLD for an investment of Rs. 1181.00 Lacs under 'Orange' category. Any change in production & its capacity unit has to seek prior Consent to Establish from the State Board.

b. That the provisions of EIA notification 14/09/2006 by MoEF shall be strictly followed and the unit shall obtain Environmental Clearance under 8(a) of the aforesaid notification if required and the sole responsibility of the same shall lie on the project proponent.

c. That this consent to Establish is issued to the unit on the basis of documents submitted by the applicant, if any discrepancy is found in the document/facts submitted by the unit then the applicant shall be liable for legal action in accordance with provisions of law.

d. That no industrial trade effluent i.e. wastewater from water re-circulation system, shall be discharged inside/outside the premises. The entire process water shall be re-circulated with the processes through proposed settling tanks.

e. That the back-wash water shall be treated through adequately design treatment system and should be completely recycled into the process thus maintaining zero discharge inside and outside the premises.

f. That the domestic effluent shall be disposed off in soak pits through properly designed septic tanks.

g. That no source of air emission shall be permitted under this consent, unit shall apply for separate consent to establish under the provisions of Air Act-1981 if there is proposal for any source of air emission.

h. All the conditions and instructions as provided in the General conditions for Consent to Establish under Water (Prevention & Control of Pollution) Act -1974 shall be complied with strictly.

Page 2 of 5

Signature Not Verified
Digitally signed by Sharad Saksena
Date: 2023.02.13 11:02:56 IST
Reason: SelfAttested
Location:

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thikariya, Banswara

Phone: 9414164925

Registered

File No : F(Tech)/Banswara(Banswara)/7364(1)/2022-2023/555-556

Order No : 2022-2023/Banswara/6938 **Dispatch Date:** Feb 13 2023 11:02AM

Unit Id : 123412

6 a. That rain water harvesting system shall be provided to harness rain water for domestic purposes & that the industry shall not dig new well / tube well without prior permission from the competent authority.

b. That the industry shall ensure that noise from the unit does not exceed the prescribed noise standards for industrial area i.e. 75 dB(A) Leq during day time and 70 dB(A) Leq during night time to meet the prescribed ambient noise standards. Day time is reckoned in between 6 A.M. and 9 P.M. and nighttime is reckoned between 9 P.M. to 6 A.M.

c. That the unit shall maintain plantation at least in the 33% of total area within the unit premises.

d. That the consent is valid subject to fulfilment of all the other statutory requirements in other Laws/Acts/Rules as applicable.

e. That this consent is not an evidence for ascertaining the title of land. That this consent is only for environment purpose not be liable for any other purpose.

f. That this consent is subject to any order or direction from any Court of the competent jurisdiction.

g. That the unit shall not dispose of waste materials outside the premises to avoid any possible nuisance to nearby inhabitants. Such waste material shall be collected at one place and shall be disposed-off in safe manner.

h. That any incorrect information submitted in the consent application form or declaration shall make the industry liable for legal action under section 42 of the water and section 38 of the Air Act.

i. That emission/effluents found to be discharged in excess of the standards prescribed shall be punishable under section 37 of the Air Act and under section 43 of the water Act. 14 That noise level.

j. That the unit shall not carry out any modification/change in process or manufacture/produce any other products/by products which require environment clearance as per the provisions of Environment Impact Assessment Notification dated 14.09.2006 issued by Ministry of Environment & Forests, Government of India.

k. That unit must submit the Public Liability Insurance for chlorine store room & usage and must ensure safety measure for chlorine room (water spray, alarm etc).

l. That the mode of disposal of waste water shall be as under:- * The backwash water of filters shall be treated through a treatment system before disposal and the sludge generated from the same shall be disposed in eco-friendly manner.

Page 3 of 5

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Date: 2023.02.13 11:02:56 IST
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Location:

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thikariya, Banswara

Phone: 9414164925

Registered

File No : **F(Tech)/Banswara(Banswara)/7364(1)/2022-2023/555-556**

Order No : **2022-2023/Banswara/6938** **Dispatch Date:** **Feb 13 2023 11:02AM**

Unit Id : 123412

7 That, notwithstanding anything provided hereinabove, the State Board shall have the power and reserves its right, as contained **Section 27(2) of the Water Act** to review anyone or all of the conditions imposed here in above and to make such variation as it deems fit for the purpose of compliance of the **Water Act**.

8 That the grant of this **Consent to Establish** is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the industry/ unit/ project proponent.

9 That the grant of this **Consent to Establish** shall not, in any way, adversely affect or jeopardize the legal proceedings, if any, instituted in the past or that could be instituted against you by the State Board for violation of the provisions of the Act or the Rules made thereunder.

This **Consent to Establish** shall also be subject, besides the aforesaid specific conditions, to the general conditions given in the enclosed Annexure. The project proponent will comply with the provisions of the **Water Act** and to such other conditions as may, from time to time, be specified by the State Board under the provisions of the aforesaid Act(s). Please note that, non compliance of any of the above stated conditions would tantamount to revocation of **Consent to Establish** and project proponent / occupier shall be liable for legal action under the relevant provisions of the said Act(s).

Yours sincerely,

Regional Officer[Banswara]

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1 Master File.

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Digitally signed by Sharad Saksena
Date: 2023.02.13 11:02:56 IST
Reason: SelfAttested
Location:

Regional Office Banswara

Rajasthan State Pollution Control Board

Choudhary Campus, Near Durga Petrol Pump, Dahod Road, Thikariya, Banswara

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File No : F(Tech)/Banswara(Banswara)/7364(1)/2022-2023/555-556

Order No : 2022-2023/Banswara/6938 **Dispatch Date:** Feb 13 2023 11:02AM

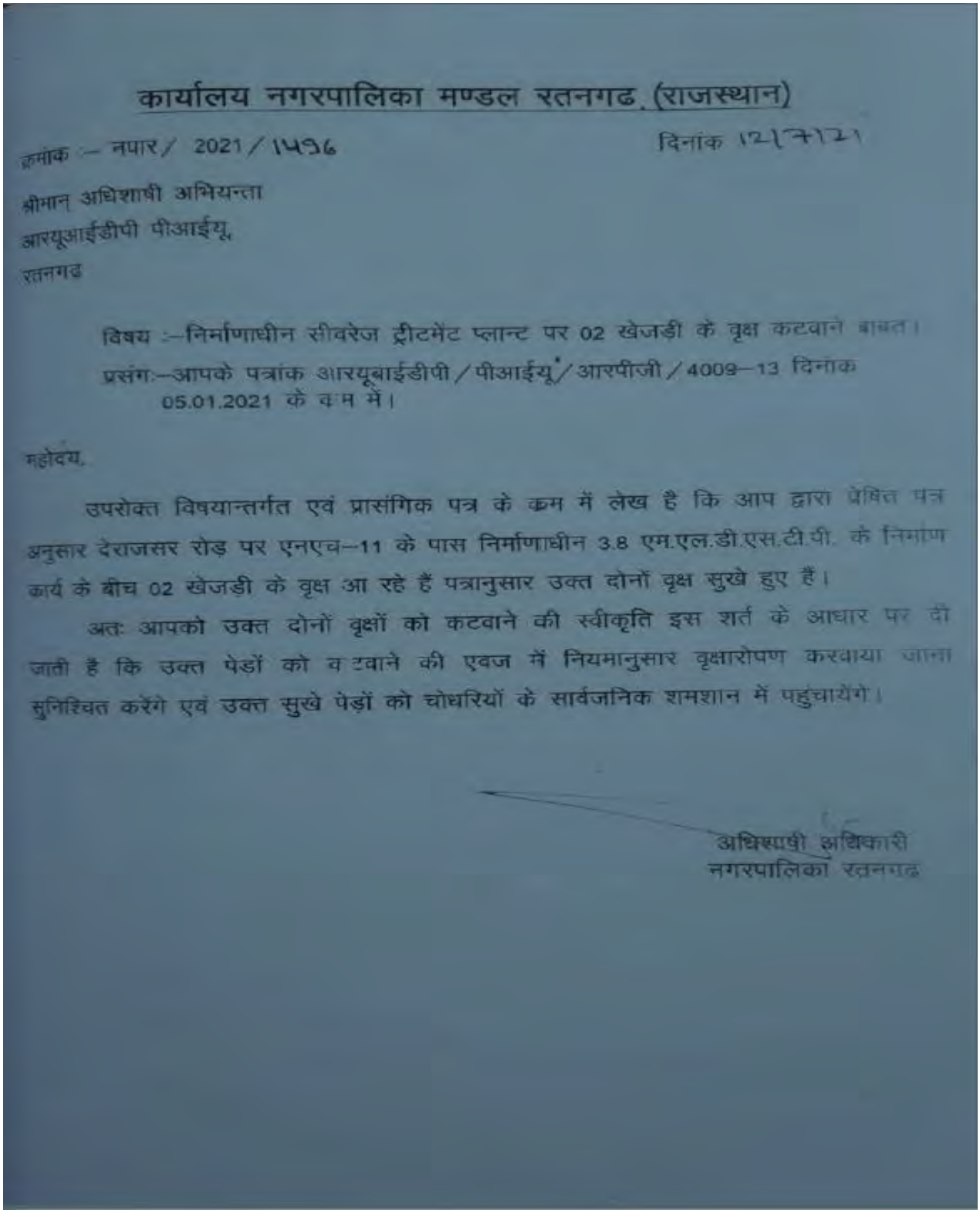
Unit Id : 123412

Regional Officer[Banswara]

Page 5 of 5

Signature Not Verified
Digitally signed by Sharad Saksena
Date: 2023.02.13 11:02:56 IST
Reason: SelfAttested
Location:

Tree Cutting Permission Obtained at Ratangarh



कार्यालय नगरपालिका मण्डल रतनगढ़ (राजस्थान)

क्रमांक :– नपार/ 2021/ 1496 दिनांक 12/7/21

श्रीमान् अधिशाषी अभियन्ता
आरयूआईडीपी पीआईयू,
रतनगढ

विषय :–निर्माणाधीन सीवरेज ट्रीटमेंट प्लान्ट पर 02 खेजड़ी के वृक्ष कटवाने बाबत।

प्रसंग:–आपके पत्रांक आरयूबाईडीपी/पीआईयू/आरपीजी/4009–13 दिनांक 05.01.2021 के क्रम में।

महोदय,

उपरोक्त विषयान्तर्गत एवं प्रासंगिक पत्र के क्रम में लेख है कि आप द्वारा प्रेषित पत्र अनुसार देराजसर रोड़ पर एनएच–11 के पास निर्माणाधीन 3.8 एम.एल.डी.एस.टी.पी. के निर्माण कार्य के बीच 02 खेजड़ी के वृक्ष आ रहे हैं पत्रानुसार उक्त दोनों वृक्ष सुखे हुए हैं।

अतः आपको उक्त दोनों वृक्षों को कटवाने की स्वीकृति इस शर्त के आधार पर दी जाती है कि उक्त पेड़ों को कटवाने की एवज में नियमानुसार वृक्षारोपण करवाया जाना सुनिश्चित करेंगे एवं उक्त सुखे पेड़ों को चोधरियों के सार्वजनिक शमशान में पहुंचायेंगे।

अधिशाषी अधिकारी
नगरपालिका रतनगढ

Tree Cutting Permission Obtained at Sirohi

राजस्थान–सरकार

कार्यालय तहसीलदार सिरोही(राजस्थान)

क्रमांक / राजस्व / 2022 / दिनांक : 16 / 03 / 2022

–:: आदेश ::–

अधीक्षण अभियन्ता, पीआईयू,–सिरोही , रूडिफ फैज–चतुर्थ, सिरोही ने जरिये पत्र संख्या 3963 दिनांक 22.02.2022 एवं अधिशाषी अभियन्ता,जन स्वास्थ्य अभियांत्रिकी विभाग, सिरोही के पत्र संख्या 5115 दिनांक 22.02.2022 से निवेदन किया है कि ग्राम–सिरोही में तीन वत्ती सीडब्ल्यूआर और पीएच, तीन वत्ती परिसर मे निष्पादन कार्य शुरू किया है । इस संबंध में सीडब्ल्यूआर और पीएच के निर्माण में वाधित होने से 9 वृक्ष काटने की अनुमति चाही है । अतः निर्माण कार्य करने हेतु 9 पेड हटाने हेतु स्वीकृति प्रदान करावें ।

जिसकी जांच पटवारी हल्का, सिरोही से करवाई गई। पटवारी हल्का,सिरोही की रिपोर्ट? अनुसार PIU Sirohi RUIDP Phase-IV के द्वारा CWR&PH कार्य हेतु PWD ऑफिस के अन्दर निर्माण किये जाने के दौरान कार्य में वाधित नौ वृक्षों को काटने की अनुमति चाही है । मौका निरीक्षण करने पर पाया गया कि उनके द्वारा कटाई हेतु प्रस्तावित नौ पेडो को निर्माण हेतु राजकीय प्रयोजनार्थ काटा जाना है । जिसकी सूची निम्नानुसार है –

क्र.सं.	पेड का प्रकार	परिधि का व्यास
1	अर्जुन	1650 MM
2	अशोक	550 MM
3	नीम	1550 MM
4	बबूल	1250 MM
5	अशोक	300 MM
6	करजी	550 MM
7	करजी	550 MM
8	अशोक	700 MM
9	नीम	800 MM

उपरोक्त विवरण के अनुसार अर्जुन का एक अशोक के तीन, बबूल का एक , करजी के दो व नीम के दो वृक्षों को वांछित राजकार्यों की पूर्ति हेतु काटने की अनुमति दिया जाना आवश्यक है ।

अतः पटवारी हल्का कि रिपोर्ट अनुसार उक्त पेडो को हटाने हेतु एवं निलाम करने की स्वीकृति इस शर्त पर दी जाती है कि एक पेड के स्थान पर चार नये पेड लगाकर भू.अ.निरीक्षक से तस्दीक करावें। यह स्वीकृति पत्र प्राप्ति के चार सप्ताह तक वैध मानी जावेगी। यदि किसी के द्वारा कोई आपत्ति की गई तो स्वीकृति निरस्त मानी जायेगी।

तहसीलदार, सिरोही

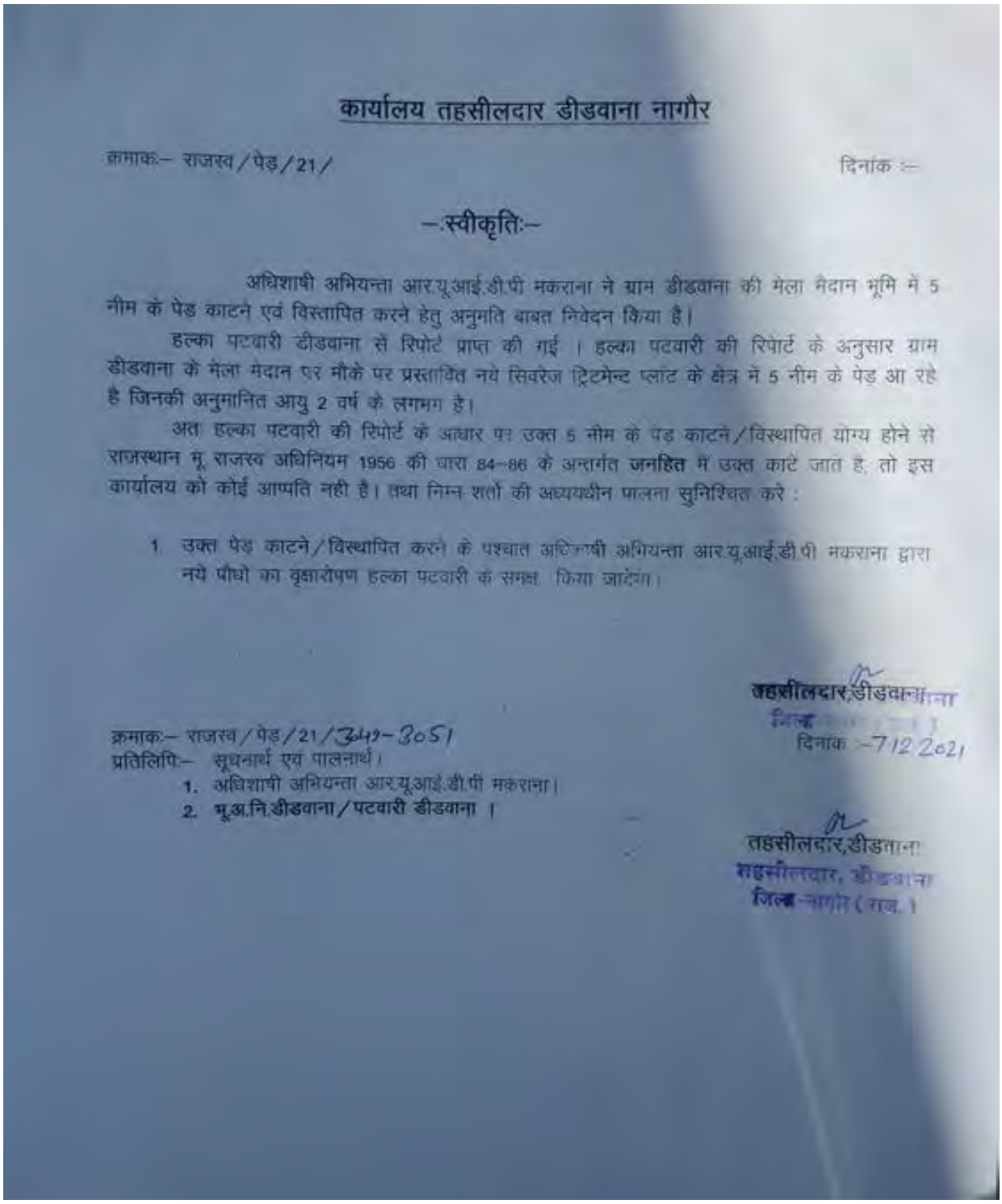
क्रमांक / राजस्व / 2022 / 348 दिनांक : 16 / 03 / 2022

प्रतिलिपि निम्नाकित को सूचनार्थ एवं पालनार्थ :–

1. भू.अ.निरीक्षक,सिरोही को भेजकर लेख है कि उक्त पेड की निलामी कर निलामी फर्द इस कार्यालय को प्रस्तुत करे ताकि निलामी स्वीकृति आदेश जारी किया जा सके।
2. अधीक्षण अभियन्ता, पीआईयू,–सिरोही , रूडिफ फैज–चतुर्थ, सिरोही को उनके पत्र संख्या 3963 दिनांक 22.02.2022 एवं अधिशाषी अभियन्ता,जन स्वास्थ्य अभियांत्रिकी विभाग,सिरोही को उनके पत्र संख्या 5115 दिनांक 22.02.2022 के क्रम में ।
3. आयुक्त,नगरपरिषद,सिरोही
4. पटवारी हल्का, सिरोही

तहसीलदार, सिरोही

Tree Cutting Permission Obtained at Didwana



कार्यालय तहसीलदार डीडवाना नागौर

क्रमांक:– राजस्व/पेड़/21/ दिनांक :–

–:स्वीकृति:–

अधिशाषी अभियन्ता आर.यू.आई.डी.पी मकराना ने ग्राम डीडवाना की मेला मैदान भूमि में 5 नीम के पेड काटने एवं विस्तापित करने हेतु अनुमति बाबत निवेदन किया है।

हल्का पटवारी डीडवाना से रिपोर्ट प्राप्त की गई । हल्का पटवारी की रिपोर्ट के अनुसार ग्राम डीडवाना के मेला मैदान एवं मौके पर प्रस्तावित नये सिवरेज ट्रिटमेन्ट प्लांट के क्षेत्र में 5 नीम के पेड़ आ रहे है जिनकी अनुमानित आयु 2 वर्ष के लगभग है।

अत: हल्का पटवारी की रिपोर्ट के आधार पर उक्त 5 नीम के पेड काटने/विस्थापित योग्य होने से राजस्थान भू राजस्व अधिनियम 1956 की धारा 84–86 के अन्तर्गत **जनहित** में उक्त काटे जाते है, तो इस कार्यालय को कोई आपत्ति नही है। तथा निम्न शर्तो की अध्यधीन पालना सुनिश्चित करे :

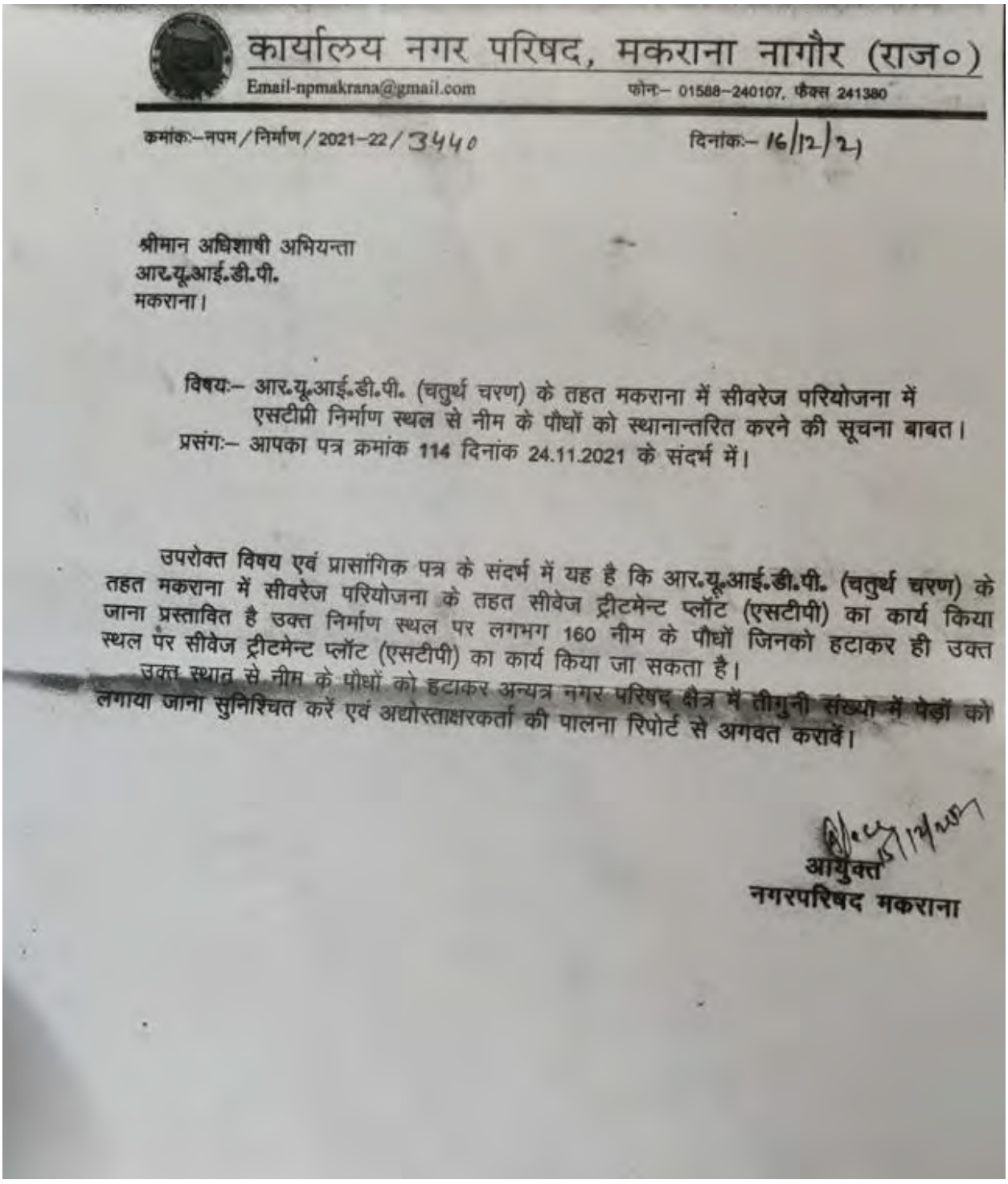
1. उक्त पेड़ काटने/विस्थापित करने के पश्चात अधिशाषी अभियन्ता आर.यू.आई.डी.पी मकराना द्वारा नये पौधो का वृक्षारोपण हल्का पटवारी के समक्ष किया जावेगा।

तहसीलदार,डीडवाना
जिला
दिनांक :–7/12/2021

क्रमांक:– राजस्व/पेड़/21/3449–3051
प्रतिलिपि– सूचनार्थ एवं पालनार्थ।
1. अधिशाषी अभियन्ता आर.यू.आई.डी.पी मकराना।
2. भू.अ.नि.डीडवाना/पटवारी डीडवाना ।

तहसीलदार,डीडवाना
सहसीलदार, डीडवाना
जिला–नागौर (राज.)

Tree Cutting Permission Obtained at Makrana



कार्यालय नगर परिषद, मकराना नागौर (राज०)

Email-npmakrana@gmail.com फोन:- 01588-240107, फैक्स 241380

क्रमांक:-नपम/निर्माण/2021-22/3440 दिनांक:- 16/12/21

श्रीमान अधिशाषी अभियन्ता
आर.यू.आई.डी.पी.
मकराना।

विषय:- आर.यू.आई.डी.पी. (चतुर्थ चरण) के तहत मकराना में सीवरेज परियोजना में एसटीपी निर्माण स्थल से नीम के पौधों को स्थानान्तरित करने की सूचना बाबत।
प्रसंग:- आपका पत्र क्रमांक 114 दिनांक 24.11.2021 के संदर्भ में।

उपरोक्त विषय एवं प्रासांगिक पत्र के संदर्भ में यह है कि आर.यू.आई.डी.पी. (चतुर्थ चरण) के तहत मकराना में सीवरेज परियोजना के तहत सीवेज ट्रीटमेन्ट प्लॉट (एसटीपी) का कार्य किया जाना प्रस्तावित है उक्त निर्माण स्थल पर लगभग 160 नीम के पौधों जिनको हटाकर ही उक्त स्थल पर सीवेज ट्रीटमेन्ट प्लॉट (एसटीपी) का कार्य किया जा सकता है।

उक्त स्थान से नीम के पौधों को हटाकर अन्यत्र नगर परिषद क्षेत्र में तीगुनी संख्या में पेड़ों को लगाया जाना सुनिश्चित करें एवं अधोस्ताक्षरकर्ता की पालना रिपोर्ट से अगवत करावें।

आयुक्त
नगरपरिषद मकराना

APPENDIX 4: ENVIRONMENTAL SITE INSPECTION REPORT
Report 01

PROJECT NAME: Rajasthan Secondary Towns Development Sector Project (RSTDSP) **Sub-project Name –** Sewer Network and Water Supply Connections	**CONTRACT NUMBER: RSTDIP/KTR/03**
DATE: 17/11/2022	**SECTOR: Sewage Network and Water Network**
LOCATION (Name of Sites Visited): Khetri Town	**Contractor: M/s Lahoty – LNA (JV)**
PROJECT ACTIVITY: Wall Putty/Boundary Wall Stone Masonry/Flooring Work/Excavation/Door Window Framing/Road Restoration works were in progress.	**Project Activity Stage- Construction Stage** **Site visit has done by-** Mr. Vardan Srivastava (Environmental Safeguard Professional), CMSC-01 & Mr. Mani Kumar; Safeguard Support (Environment & Safety), CMSC-01

Monitoring Items	**Compliance**			
Compliance marked as Yes/No/Not applicable (NA)/Partially Implemented (PI)	**YES**	**NO**	**NA**	**PI**
EHS supervisor appointed by contractor and available on site	✓			
Construction site management plan (spoils, safety, schedule, equipment etc.,) prepared	✓			
Traffic management plan prepared	✓			
Dust is under control	✓			
Excavated soil properly placed within minimum space	✓			
The construction area is confined; no traffic/pedestrian entry was observed	✓			
Surplus soil/debris/waste is disposed of without delay	✓			
Construction material (sand/gravel/aggregate) brought to the site as & when required only	✓			
Tarpaulins used to cover sand & other loose material when transported by vehicles		✓		
After unloading, wheels & undercarriage of vehicles cleaned prior to leaving the site		✓		
No chance finds encountered during excavation	✓			
Work is planned in consultation with traffic police	✓			
Work is not being conducted during heavy traffic	✓			
Work at a stretch is completed within a day (excavation, pipe laying & backfilling)	✓			
Pipe trenches are not kept open unduly	✓			
Road is not completely closed; work is conducted on edge; at least one line is kept open		✓		
Road is closed; alternative route provided & public informed, information board provided	✓			
Pedestrian access to houses is not blocked due to pipe laying	✓			
Spaces left in between trenches for access	✓			
Wooden planks/metal sheets provided across trench for pedestrian	✓			

Monitoring Items	Compliance			
Compliance marked as Yes/No/Not applicable (NA)/Partially Implemented (PI)	**YES**	**NO**	**NA**	**PI**
No public/unauthorized entry observed in work site	✓			
Children safety measures (barricades, security) in place at works in residential areas	✓			
Prior public information provided about the work, schedule and disturbances	✓			
Caution/warning board provided on site	✓			
Guards with red flag provided during work at busy roads	✓			
Workers using appropriate PPE (boots, gloves, helmets, ear muffs etc.)				✓
Workers conducting or near heavy noise work is provided with ear muffs				✓
Contractor is following standard & safe construction practices				✓
Deep excavation is conducted with land slip/protection measures	✓			
First aid facilities are available on site and workers informed	✓			
Drinking water provided at the site				✓
Toilet facility provided at the site				✓
A separate toilet facility is provided for women workers				✓
Workers camps are maintained cleanly	✓			
Adequate toilet & bath facilities provided	✓			
The contractor employed local workers as far as possible	✓			
Worker's camp set up with the permission of PIU	✓			
Adequate housing provided	✓			
Sufficient water provided for drinking/washing/bath	✓			
No noisy work is conducted in the nights	✓			
Local people informed of noisy work	✓			
No blasting activity conducted		✓		
Pneumatic drills or other equipment creating vibration is not used near old/risky buildings		✓		

Summary of safeguard compliance of contractor- Contractor is taking preventive measures during the construction work but need more attention towards the site safety and environmental related issues

Overall performance of contractor- Partially Satisfactory

Report 02

PROJECT NAME: Rajasthan Secondary Towns Development Sector Project (RSTDSP) **Sub-project Name –** Water Supply and Sewer Network with House Connections	**CONTRACT NUMBER:** RSTDIP/KMN/02
DATE: 06/06/2022	**SECTOR:** Water Supply and Sewage Network
LOCATION (Name of Sites Visited): Kuchaman Town	**Contractor:** M/s L&T
PROJECT ACTIVITY: Shuttering and Rebar binding work at STP area/Raft rebar binding work at CWR area	**Project Activity Stage-** Construction Stage **Site visit has done by-** Mr. Vardan Srivastava, Environmental Safeguard Professional, CMSC-01 & Mr. Jitendra Sharma; Safeguard Support (Environment & Social), CMSC-01

Monitoring Items	**Compliance**			
Compliance marked as Yes/No/Not applicable (NA)/Partially Implemented (PI)	**YES**	**NO**	**NA**	**PI**
EHS supervisor appointed by contractor and available on site	✓			
Construction site management plan (spoils, safety, schedule, equipment etc.,) prepared	✓			
Traffic management plan prepared	✓			
Dust is under control	✓			
Excavated soil properly placed within minimum space	✓			
The construction area is confined; no traffic/pedestrian entry was observed	✓			
Surplus soil/debris/waste is disposed of without delay	✓			
Construction material (sand/gravel/aggregate) brought to the site as & when required only		✓		
Tarpaulins used to cover sand & other loose material when transported by vehicles		✓		
After unloading , wheels & undercarriage of vehicles cleaned prior to leaving the site		✓		
No chance finds encountered during excavation	✓			
Work is planned in consultation with traffic police	✓			
Work is not being conducted during heavy traffic	✓			
Work at a stretch is completed within a day (excavation, pipe laying & backfilling)	✓			
Pipe trenches are not kept open unduly	✓			
Road is not completely closed; work is conducted on edge; at least one line is kept open	✓			
Road is closed; alternative route provided & public informed, information board provided	✓			
Pedestrian access to houses is not blocked due to pipe laying	✓			
Spaces left in between trenches for access	✓			
Wooden planks/metal sheets provided across trench for pedestrian		✓		
No public/unauthorized entry observed in work site	✓			
Children safety measures (barricades, security) in place at works in residential areas	✓			

Monitoring Items	Compliance			
Prior public information provided about the work, schedule and disturbances	✓			
Caution/warning board provided on site	✓			
Guards with red flag provided during work at busy roads	✓			
Workers using appropriate PPE (boots, gloves, helmets, ear muffs etc.)	✓			
Workers conducting or near heavy noise work is provided with ear muffs			✓	
Contractor is following standard & safe construction practices	✓			
Deep excavation is conducted with land slip/protection measures	✓			
First aid facilities are available on site and workers informed	✓			
Drinking water provided at the site	✓			
Toilet facility provided at the site	✓			
A separate toilet facility is provided for women workers	✓			
Workers camps are maintained cleanly	✓			
Adequate toilet & bath facilities provided	✓			
The contractor employed local workers as far as possible	✓			
Workers camp set up with the permission of PIU	✓			
Adequate housing provided	✓			
Sufficient water provided for drinking/washing/bath	✓			
No noisy work is conducted in the nights	✓			
Local people informed of noisy work	✓			
No blasting activity conducted			✓	
Pneumatic drills or other equipment creating vibration is not used near old/risky buildings			✓	

Summary of safeguard compliance of contractor- Contractor is taking preventive measures during the construction work but need more attention towards the site safety and environmental related issues

Overall performance of contractor- Satisfactory

Report 3

PROJECT NAME: Rajasthan Secondary Towns Development Sector Project (RSTDSP) **Sub-project Name –** Water Supply and Sewerage Project	**CONTRACT NUMBER:** RSTDIP/MDW/03
DATE: 13/12/2022	**SECTOR:** Water and Sewage
LOCATION (Name of Sites Visited): Mandawa Town	**Contractor:** M/s LNA-R&B (JV)
PROJECT ACTIVITY: SBR Basin Shuttering, Slab Shuttering, De-shuttering, Wall Brick Masonry, Boundary Wall Brick Work, HDPE/ DI Pipe laying, Road Restoration work, Manhole/ PCC Construction.	**Project Activity Stage-** Construction Stage **Site visit has done by-** Mr. Vardan Srivastava (Environmental Safeguard Professional), CMSC-01 & Mr. Mani Kumar; Safeguard Support (Environment & Safety), CMSC-01

Monitoring Items	**Compliance**			
Compliance marked as Yes/No/Not applicable(NA)/Partially Implemented(PI)	**YES**	**NO**	**NA**	**PI**
EHS supervisor appointed by contractor and available on site	✓			
Construction site management plan (spoils, safety, schedule, equipment etc.,) prepared	✓			
Traffic management plan prepared	✓			
Dust is under control	✓			
Excavated soil properly placed within minimum space	✓			
The construction area is confined; no traffic/pedestrian entry was observed		✓		
Surplus soil/debris/waste is disposed of without delay	✓			
Construction material (sand/gravel/aggregate) brought to the site as & when required only	✓			
Tarpaulins used to cover sand & other loose material when transported by vehicles		✓		
After unloading , wheels & undercarriage of vehicles cleaned prior to leaving		✓		
No chance finds encountered during excavation	✓			
Work is planned in consultation with traffic police	✓			
Work is not being conducted during heavy traffic	✓			
Work at a stretch is completed within a day (excavation, pipe laying & backfilling)	✓			
Pipe trenches are not kept open unduly	✓			
Road is not completely closed; work is conducted on edge; at least one line is kept open	✓			
Road is closed; alternative route provided & public informed, information board provided	✓			
Pedestrian access to houses is not blocked due to pipe laying	✓			
Spaces left in between trenches for access	✓			
Wooden planks/metal sheets provided across trench for pedestrian	✓			
No public/unauthorized entry observed in work site	✓			
Children safety measures (barricades, security) in place at works in residential areas	✓			
Prior public information provided about the work, schedule and disturbances	✓			
Caution/warning board provided on site	✓			
Guards with red flag provided during work at busy roads	✓			
Workers using appropriate PPE (boots, gloves, helmets, ear muffs etc.)	✓			

Monitoring Items	Compliance			
Workers conducting or near heavy noise work is provided with ear muffs				✓
Contractor is following standard & safe construction practices				✓
Deep excavation is conducted with land slip/protection measures				✓
First aid facilities are available on site and workers informed	✓			
Drinking water provided at the site	✓			
Toilet facility provided at the site				✓
A separate toilet facility is provided for women workers				✓
Workers camps are maintained cleanly	✓			
Adequate toilet & bath facilities provided				✓
The contractor employed local workers as far as possible	✓			
Workers camp set up with the permission of PIU	✓			
Adequate housing provided	✓			
Sufficient water provided for drinking/washing/bath	✓			
No noisy work is conducted in the nights	✓			
Local people informed of noisy work	✓			
No blasting activity conducted		✓		
Pneumatic drills or other equipment creating vibration is not used near old/risky buildings		✓		

Summary of safeguard compliance of contractor- Contractor is taking preventive measures during the construction work but need more attention towards the site safety and environmental related issues

Overall performance of contractor- Parcially Satisfactory

Report: 04

PROJECT NAME: Rajasthan Secondary Towns Development Sector Project (RSTDSP) **Sub-project Name –** Sewer Network and House Connections	**CONTRACT NUMBER:** RSTDIP/LDN/01
DATE: 21/12/2022	**SECTOR:** Sewage Network
LOCATION (Name of Sites Visited): Ladnu Town	**Contractor:** M/s L&T
PROJECT ACTIVITY: Shuttering/Casting work /Bar Binding/DWC Pipe laying work in progress; CC Road work in progress; Painting work and Carpentry work.	**Project Activity Stage-** Construction Stage **Site visit has done by-** Mr. Vardan Srivastava (Environmental Safeguard Professional), CMSC-01 & Mr. Mani Kumar; Safeguard Support (Environment & Safety), CMSC-01

Monitoring Items	**Compliance**			
Compliance marked as Yes/No/Not applicable (NA)/Partially Implemented (PI)	**YES**	**NO**	**NA**	**PI**
EHS supervisor appointed by contractor and available on site	✓			
Construction site management plan (spoils, safety, schedule, equipment etc.,) prepared	✓			
Traffic management plan prepared	✓			
Dust is under control	✓			
Excavated soil properly placed within minimum space	✓			
The construction area is confined; no traffic/pedestrian entry was observed	✓			
Surplus soil/debris/waste is disposed of without delay	✓			
Construction material (sand/gravel/aggregate) brought to the site as & when required only	✓			
Tarpaulins used to cover sand & other loose material when transported by vehicles	✓			
After unloading, wheels & undercarriage of vehicles cleaned prior to leaving the site	✓			
No chance finds encountered during excavation	✓			
Work is planned in consultation with traffic police	✓			
Work is not being conducted during heavy traffic	✓			
Work at a stretch is completed within a day (excavation, pipe laying & backfilling)	✓			
Pipe trenches are not kept open unduly	✓			
Road is not completely closed; work is conducted on edge; at least one line is kept open	✓			
Road is closed; alternative route provided & public informed, information board provided	✓			
Pedestrian access to houses is not blocked due to pipe laying	✓			
Spaces left in between trenches for access	✓			
Wooden planks/metal sheets provided across trench for pedestrian		✓		
No public/unauthorized entry observed in work site	✓			
Children safety measures (barricades, security) in place at works in residential areas	✓			
Prior public information provided about the work, schedule and disturbances	✓			
Caution/warning board provided on site	✓			
Guards with red flag provided during work at busy roads	✓			

Monitoring Items	Compliance			
Workers using appropriate PPE (boots, gloves, helmets, ear muffs etc.)	✓			
Workers conducting or near heavy noise work is provided with ear muffs			✓	
Contractor is following standard & safe construction practices	✓			
Deep excavation is conducted with land slip/protection measures	✓			
First aid facilities are available on site and workers informed	✓			
Drinking water provided at the site	✓			
Toilet facility provided at the site	✓			
A separate toilet facility is provided for women workers	✓			
Workers camps are maintained cleanly	✓			
Adequate toilet & bath facilities provided	✓			
The contractor employed local workers as far as possible	✓			
Worker's camp set up with the permission of PIU	✓			
Adequate housing provided	✓			
Sufficient water provided for drinking/washing/bath	✓			
No noisy work is conducted in the nights	✓			
Local people informed of noisy work	✓			
No blasting activity conducted			✓	
Pneumatic drills or other equipment creating vibration is not used near old/risky buildings			✓	

Summary of safeguard compliance of contractor- Contractor is taking preventive measures during the construction work but need more attention towards the site safety and environmental related issues

Overall performance of contractor- Satisfactory

Report 05

PROJECT NAME: Rajasthan Secondary Towns Development Sector Project (RSTDSP) **Sub-Project Name –** Sewer Network Connections	**CONTRACT NUMBER:** RSTDIP/MKN/01
DATE: 27/12/2022	**SECTOR:** Sewage Network
LOCATION (Name of Sites Visited): Makrana Town	**Contractor:** M/s L&T
PROJECT ACTIVITY: SBR wall de-shuttering, steel cutting and steel binding, Rebar cutting & Rebar binding of staging work of SPS.	**Project Activity Stage-** Construction Stage **Site visit has done by-** Mr. Vardan Srivastava (Environmental Safeguard Professional), CMSC-01 & Mr. Mani Kumar; Safeguard Support (Environment & Safety), CMSC-01

Monitoring Items	**Compliance**			
Compliance marked as Yes/No/Not applicable(NA)/Partially Implemented(PI)	**YES**	**NO**	**NA**	**PI**
EHS supervisor appointed by contractor and available on site	✓			
Construction site management plan (spoils, safety, schedule, equipment etc.,) prepared	✓			
Traffic management plan prepared	✓			
Dust is under control		✓		
Excavated soil properly placed within minimum space	✓			
The construction area is confined; no traffic/pedestrian entry was observed	✓			
Surplus soil/debris/waste is disposed of without delay	✓			
Construction material (sand/gravel/aggregate) brought to the site as & when required only	✓			
Tarpaulins used to cover sand & other loose material when transported by vehicles		✓		
After unloading , wheels & undercarriage of vehicles cleaned prior to leaving the site		✓		
No chance finds encountered during excavation	✓			
Work is planned in consultation with traffic police	✓			
Work is not being conducted during heavy traffic	✓			
Work at a stretch is completed within a day (excavation, pipe laying & backfilling)	✓			
Pipe trenches are not kept open unduly	✓			
Road is not completely closed; work is conducted on edge; at least one line is kept open	✓			
Road is closed; alternative route provided & public informed, information board provided	✓			
Pedestrian access to houses is not blocked due to pipe laying	✓			
Spaces left in between trenches for access	✓			
Wooden planks/metal sheets provided across trench for pedestrian	✓			
No public/unauthorized entry observed in work site	✓			
Children safety measures (barricades, security) in place at works in residential areas	✓			
Prior public information provided about the work, schedule and disturbances	✓			
Caution/warning board provided on site	✓			
Guards with red flag provided during work at busy roads	✓			
Workers using appropriate PPE (boots, gloves, helmets, ear muffs etc.)	✓			
Workers conducting or near heavy noise work is provided with ear muffs			✓	
Contractor is following standard & safe construction practices	✓			

Deep excavation is conducted with land slip/protection measures	✓			
First aid facilities are available on site and workers informed	✓			
Drinking water provided at the site	✓			
Toilet facility provided at the site	✓			
A separate toilet facility is provided for women workers	✓			
Workers camps are maintained cleanly	✓			
Adequate toilet & bath facilities provided	✓			
The contractor employed local workers as far as possible	✓			
Workers camp set up with the permission of PIU	✓			
Adequate housing provided	✓			
Sufficient water provided for drinking/washing/bath	✓			
No noisy work is conducted in the nights	✓			
Local people informed of noisy work	✓			
No blasting activity conducted			✓	
Pneumatic drills or other equipment creating vibration is not used near old/risky buildings			✓	

Summary of safeguard compliance of contractor- Contractor is taking preventive measures during the construction work but need more attention towards the site safety and environmental related issues

Overall performance of contractor- Satisfactory

Report 06

PROJECT NAME: Rajasthan Secondary Towns Development Sector Project (RSTDSP) **Sub-project Name –** Water Supply and Sewer Network with House Connections	**CONTRACT NUMBER:** RSTDIP/KMN/02
DATE: 16/02/2023	**SECTOR:** Water Supply and Sewage Network
LOCATION (Name of Sites Visited): Kuchaman Town	**Contractor:** M/s L&T
PROJECT ACTIVITY: Concrete Casting/Shuttering/Deshuttering/Reinforcement cutting & Rebar binding work at STP area/Raft rebar binding work at STP/CWR/SPS areas	**Project Activity Stage-** Construction Stage **Site visit has done by-** Mr. Vardan Srivastava, Environmental Safeguard Professional & Mr. Mani Kumar; Safeguard Support (Environment & Safety), CMSC-01.Jaipur

Monitoring Items	**Compliance**			
Compliance marked as Yes/No/Not applicable (NA)/Partially Implemented (PI)	**YES**	**NO**	**NA**	**PI**
EHS supervisor appointed by contractor and available on site	✓			
Construction site management plan (spoils, safety, schedule, equipment etc.,) prepared	✓			
Traffic management plan prepared	✓			
Dust is under control	✓			
Excavated soil properly placed within minimum space	✓			
The construction area is confined; no traffic/pedestrian entry was observed	✓			
Surplus soil/debris/waste is disposed of without delay	✓			
Construction material (sand/gravel/aggregate) brought to the site as & when		✓		

Monitoring Items	Compliance			
Tarpaulins used to cover sand & other loose material when transported by vehicles		✓		
After unloading , wheels & undercarriage of vehicles cleaned prior to leaving the site		✓		
No chance finds encountered during excavation	✓			
Work is planned in consultation with traffic police	✓			
Work is not being conducted during heavy traffic	✓			
Work at a stretch is completed within a day (excavation, pipe laying & backfilling)	✓			
Pipe trenches are not kept open unduly	✓			
Road is not completely closed; work is conducted on edge; at least one line is kept open	✓			
Road is closed; alternative route provided & public informed, information board provided	✓			
Pedestrian access to houses is not blocked due to pipe laying	✓			
Spaces left in between trenches for access	✓			
Wooden planks/metal sheets provided across trench for pedestrian		✓		
No public/unauthorized entry observed in work site	✓			
Children safety measures (barricades, security) in place at works in residential areas	✓			
Prior public information provided about the work, schedule and disturbances	✓			
Caution/warning board provided on site	✓			
Guards with red flag provided during work at busy roads	✓			
Workers using appropriate PPE (boots, gloves, helmets, ear muffs etc.)	✓			
Workers conducting or near heavy noise work is provided with ear muffs			✓	
Contractor is following standard & safe construction practices	✓			
Deep excavation is conducted with land slip/protection measures	✓			
First aid facilities are available on site and workers informed	✓			
Drinking water provided at the site	✓			
Toilet facility provided at the site	✓			
A separate toilet facility is provided for women workers	✓			
Workers camps are maintained cleanly	✓			
Adequate toilet & bath facilities provided	✓			
The contractor employed local workers as far as possible	✓			
Workers camp set up with the permission of PIU	✓			
Adequate housing provided	✓			
Sufficient water provided for drinking/washing/bath	✓			
No noisy work is conducted in the nights	✓			
Local people informed of noisy work	✓			
No blasting activity conducted		✓		
Pneumatic drills or other equipment creating vibration is not used near old/risky buildings		✓		

Summary of safeguard compliance of contractor- Contractor is taking preventive measures during the construction work but need more attention towards the site safety and environmental related issues

Overall performance of contractor- Satisfactory

Report 07

PROJECT NAME: Rajasthan Secondary Towns Development Sector Project (RSTDSP) **Sub-project Name –** Sewer Network and House Connections	**CONTRACT NUMBER:** RSTDIP/LDN/01
DATE: 02/03/2023	**SECTOR:** Sewage Network
LOCATION (Name of Sites Visited): Ladnu Town	**Contractor:** M/s L&T
PROJECT ACTIVITY: Shuttering/Casting work /Bar Binding/DWC Pipe laying work in progress; CC Road work in progress;	**Project Activity Stage-** Construction Stage **Site visit has done by-** Mr. Vardan Srivastava (Environmental Safeguard Professional), CMSC-01

Monitoring Items	**Compliance**			
Compliance marked as Yes/No/Not applicable (NA)/Partially Implemented (PI)	**YES**	**NO**	**NA**	**PI**
EHS supervisor appointed by contractor and available on site	✓			
Construction site management plan (spoils, safety, schedule, equipment etc.,) prepared	✓			
Traffic management plan prepared	✓			
Dust is under control	✓			
Excavated soil properly placed within minimum space	✓			
The construction area is confined; no traffic/pedestrian entry was observed	✓			
Surplus soil/debris/waste is disposed of without delay	✓			
Construction material (sand/gravel/aggregate) brought to the site as & when required only	✓			
Tarpaulins used to cover sand & other loose material when transported by vehicles	✓			
After unloading, wheels & undercarriage of vehicles cleaned prior to leaving the site	✓			
No chance finds encountered during excavation	✓			
Work is planned in consultation with traffic police	✓			
Work is not being conducted during heavy traffic	✓			
Work at a stretch is completed within a day (excavation, pipe laying & backfilling)	✓			
Pipe trenches are not kept open unduly	✓			
Road is not completely closed; work is conducted on edge; at least one line is kept open	✓			
Road is closed; alternative route provided & public informed, information board provided	✓			
Pedestrian access to houses is not blocked due to pipe laying	✓			
Spaces left in between trenches for access	✓			
Wooden planks/metal sheets provided across trench for pedestrian		✓		
No public/unauthorized entry observed in work site	✓			
Children safety measures (barricades, security) in place at works in residential areas	✓			
Prior public information provided about the work, schedule and disturbances	✓			
Caution/warning board provided on site	✓			
Guards with red flag provided during work at busy roads	✓			
Workers using appropriate PPE (boots, gloves, helmets, ear muffs etc.)	✓			

Monitoring Items	Compliance			
Workers conducting or near heavy noise work is provided with ear muffs			✓	
Contractor is following standard & safe construction practices	✓			
Deep excavation is conducted with land slip/protection measures	✓			
First aid facilities are available on site and workers informed	✓			
Drinking water provided at the site	✓			
Toilet facility provided at the site	✓			
A separate toilet facility is provided for women workers	✓			
Workers camps are maintained cleanly	✓			
Adequate toilet & bath facilities provided	✓			
The contractor employed local workers as far as possible	✓			
Worker's camp set up with the permission of PIU	✓			
Adequate housing provided	✓			
Sufficient water provided for drinking/washing/bath	✓			
No noisy work is conducted in the nights	✓			
Local people informed of noisy work	✓			
No blasting activity conducted			✓	
Pneumatic drills or other equipment creating vibration is not used near old/risky buildings			✓	

Summary of safeguard compliance of contractor- Contractor is taking preventive measures during the construction work but need more attention towards the site safety and environmental related issues

Overall performance of contractor- Satisfactory

Report 08				
PROJECT NAME: Rajasthan Secondary Towns Development Sector Project (RSTDSP) **Sub-Project Name –** Sewer Network Connections	**CONTRACT NUMBER:** RSTDIP/MKN/01			
DATE: 13/03/2023	**SECTOR:** Sewage Network			
LOCATION (Name of Sites Visited): Makrana Town	**Contractor:** M/s L&T			
PROJECT ACTIVITY: Shuttering/ De-shuttering, Bar Binding, Slab Casting.	**Project Activity Stage-** Construction Stage **Site visit has done by-** Mr. Vardan Srivastava (Environmental Safeguard Professional), CMSC-01 & Mr. Mani Kumar; Safeguard Support (Environment & Safety), CMSC-01			
Monitoring Items	**Compliance**			
Compliance marked as Yes/No/Not applicable (NA)/Partially Implemented(PI)	**YES**	**NO**	**NA**	**PI**
EHS supervisor appointed by contractor and available on site	✓			
Construction site management plan (spoils, safety, schedule, equipment etc.,) prepared	✓			
Traffic management plan prepared	✓			
Dust is under control		✓		
Excavated soil properly placed within minimum space	✓			
The construction area is confined; no traffic/pedestrian entry was observed	✓			
Surplus soil/debris/waste is disposed of without delay	✓			
Construction material (sand/gravel/aggregate) brought to the site as & when required only	✓			
Tarpaulins used to cover sand & other loose material when transported by vehicles		✓		
After unloading , wheels & undercarriage of vehicles cleaned prior to leaving the site		✓		
No chance finds encountered during excavation	✓			
Work is planned in consultation with traffic police	✓			
Work is not being conducted during heavy traffic	✓			
Work at a stretch is completed within a day (excavation, pipe laying & backfilling)	✓			
Pipe trenches are not kept open unduly	✓			
Road is not completely closed; work is conducted on edge; at least one line is kept open	✓			
Road is closed; alternative route provided & public informed, information board provided	✓			
Pedestrian access to houses is not blocked due to pipe laying	✓			
Spaces left in between trenches for access	✓			
Wooden planks/metal sheets provided across trench for pedestrian	✓			
No public/unauthorized entry observed in work site	✓			
Children safety measures (barricades, security) in place at works in residential areas	✓			
Prior public information provided about the work, schedule and disturbances	✓			
Caution/warning board provided on site	✓			
Guards with red flag provided during work at busy roads	✓			
Workers using appropriate PPE (boots, gloves, helmets, ear muffs etc.)	✓			
Workers conducting or near heavy noise work is provided with ear muffs			✓	

Contractor is following standard & safe construction practices	✓			
Deep excavation is conducted with land slip/protection measures	✓			
First aid facilities are available on site and workers informed	✓			
Drinking water provided at the site	✓			
Toilet facility provided at the site	✓			
A separate toilet facility is provided for women workers	✓			
Workers camps are maintained cleanly	✓			
Adequate toilet & bath facilities provided	✓			
The contractor employed local workers as far as possible	✓			
Workers camp set up with the permission of PIU	✓			
Adequate housing provided	✓			
Sufficient water provided for drinking/washing/bath	✓			
No noisy work is conducted in the nights	✓			
Local people informed of noisy work	✓			
No blasting activity conducted			✓	
Pneumatic drills or other equipment creating vibration is not used near old/risky buildings			✓	

Summary of safeguard compliance of contractor- Contractor is taking preventive measures during the construction work but need more attention towards the site safety and environmental related issues

Overall performance of contractor- Satisfactory

APPENDIX-5: COMPLIANCES OF ENVIRONMENTAL SELECTION CRITERIA

Components	Criteria	Design Considerations (if criterion is not met)	Compliance Status
All subprojects			
	Subproject will avoid potentially significant adverse impacts that are diverse, irreversible or unprecedented (ADB SPS Category A for environment).		Complied- All projects are under category B as per ADB SPS, no significant impact is envisaged from any sub project
	Comply with all requirements of ADB SPS 2009 and follow procedures set in this EARF.		Complied- EARF and ADB SPS is being complied in all sub projects
	Comply with relevant national, and local laws, rules and regulations regarding EIA, environmental protection, pollution prevention (water, air, noise, solid waste, etc.), wildlife protection, core labor standards, physical cultural resources, health and safety, and other laws in specific sectors as indicated below		Complied- Compliance of all relevant national and state laws, rules and regulations are being done in all sub projects
	Reflect inputs from public consultations	Refer to ADB SPS requirements on meaningful consultations[16]	Complied- Consultations are being done in all stages of project
Location	Avoid involuntary resettlement by prioritizing rehabilitation over new construction using vacant government land where possible, and taking all possible measures in design and selection of site or alignment to avoid resettlement impacts	If cannot be avoided, prepare Resettlement Plan.	Complied- Only temporary impacts on livelihood is anticipated in sub projects for which Resettlement Plan is prepared
	Avoid or minimize the cutting of trees	If tree is to be cut, consider plantations in the ration of at least 1:3	Being Complied- Tree cutting permission is being taken, where tree cutting is required, compensatory

[16] Per ADB SPS, meaningful consultation is defined as "a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues"

			plantations will be done in the ratio of at least 1:3
Biodiversity	Avoid locating subprojects in critical habitats, such as, but not limited to, wildlife/bird sanctuaries, national parks, tiger reserves, elephant reserves, conservation reserves or core zone of biosphere reserves. It provides preliminary analysis using the International Biodiversity Assessment Tool (IBAT) key biodiversity areas, protected areas, IUCN red list species and likelihood of critical habitats per town. Should not directly affect environmentally protected areas, core zones of biosphere reserves and highly valued habitat	If criterion is not met, this is potential for Category A therefore alternate location should be considered. A Biodiversity Expert shall assess and confirm critical habitat qualification. It provides a Biodiversity Assessment Report prepared for a sample subproject (Abu Road water and sewerage subproject).	Complied- There are no ecological sensitive areas within the areas of project impact
	If work is proposed with the aim of improving the conservation or management of designated subproject sites (e.g. improved drainage), this must only be undertaken: (i) after a comprehensive study and development of management plans and criteria; and (ii) with the direct involvement and approval of national and local bodies responsible for the subproject site.		Not applicable
Physical Cultural Resources	Should not result in the destruction/damage of or encroachment onto physical cultural resources (PCR)[17] such as archaeological monuments; heritage sites and movable or immovable objects, sites, structures, group of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance.	If town has potential PCR, conduct Heritage Impact Assessment (HIA). For legally protected PCRs: (i) if location is within 300 m of notified PCRs such as protected monuments/sites and there is no alternative, permissions from the ASI or State Department of Archaeology shall to be obtained prior to finalization	Being Complied—There are no any listed archaeological monuments within the impact area of any sub project. Heritage Impact Assessment is done

[17] Physical cultural resources as defined as “movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings and may be above or below ground or under water. Their cultural interest may be at the local, provincial, national, or international level.”

		of detailed engineering design.	
Existing Facilities to be rehabilitated or expanded	Conduct environmental audit of existing facilities[18]per ADB SPS	For non-compliances identified in the environmental audit, provide corrective action for each area of concern including cost and schedule to be included in the subproject EMP.	Complied- Environmental audit of existing facilities has been done, where rehabilitation or upgradations works are proposed
Associated Facilities[19]	Analyze environmental impacts and risks to be included in the IEE		Complied- environmental impact assessment of associated facilities done
Asbestos-containing materials (ACM) including, but not limited to, pipes, roofing, ceilings, insulation materials, excess pipes stored in PHED campuses, walls, etc.	Avoid handling or removing any ACM. Ensure asbestos concrete (AC) pipes facilities containing asbestos will not be disturbed and left in-situ. Appendix 6 provides asbestos management plan. RUDSICO shall include AMP in all contracts.	If ACM is suspected, asbestos verification by Asbestos Management Expert is required. Prepare site-specific asbestos management plan (AMP) prepared. Appendix 6 provides a AMP prepared for a sample subproject (Sardarshahar water and sewerage subproject).	Being Complied-AC pipes are not being used in the project and ACM management plan is prepared in all sub projects where there is possibility of encountering ACM
	When designing subproject infrastructure that involves excavation in urban areas the relevant authorities must be consulted to ascertain the location of any ACM prior to any subproject activity. Locations of new infrastructure must then be designed to avoid excavating or disturbing any ACM.		Being Complied- AC pipes in existing water supply networks are being ascertain after consultation from the PHED and existing AC pipes will remain in-situ and will not be removed from earth
Right-of-way	Locate water supply pipelines within the right of way (ROW) of other linear structures (roads, irrigation canals) as	If criterion is not met, prepare Resettlement Plan	Complied- water supply and waste water pipes are

[18] ADB SPS Appendix 4 para 12 on Existing Facilities

[19] ADB SPS Appendix 1 para 6 defines associated facilities as “not funded as part of the project (funding may be provided separately by the borrower/client or by third parties), and whose viability and existence depend exclusively on the project and whose goods or services are essential for successful operation of the project”

	far as possible, to reduce new land acquisition.	according to Resettlement Framework	planned in ROW only, no private land acquisition will be done for pipe laying works
	Ensure that pipelines ROW do not require land acquisition from individual farmers that is a significant proportion of their total land holding (>10%).	If criterion is not met, prepare Resettlement Plan according to Resettlement Framework	
Water Supply			
Sustainability	Utilize water sources at sustainable levels of abstraction only (i.e. without significant reductions in the quantity or quality of the source overall)	Water source sustainability or the concurrence from PHED should be provided in the subproject's IEE. Submit groundwater sustainability report and obtain permission from the Central Groundwater Board or the State Groundwater Board.	Complied- Ground water sustainability reports are obtained from ground water department, where ground water is being used as source
Quality (raw water, treated water)	Ensure that water supply to consumers comply with the national drinking water standards at all times and confirm this by regular monitoring at WTPs and in domestic premises.		Being Complied- WTPs are designed as per applicable standards for drinking waters and regular monitoring shall be done during operation
	Avoid using water sources that may be polluted by upstream users	Baseline raw water quality to be included in the IEE.	Complied- Raw water is being drawn where no pollution from upstream users
	Avoid water-use conflicts by not abstracting water that is used for other purposes (e.g. irrigation)	If there are other users, permits or clearance for the allocation should be provided in the IEE.	Complied
Location	As for as possible locate all new facilities – Water Treatment Plants (WTP), Tube Wells (TW), etc. away from houses, shops or any other premises used by people, thus establishing a buffer to reduce the effects of noise, dust and the visual appearance of the site.		Complied- all new facilities are away from houses, shops or other premises as far as possible
	Locate WTP at sites where there is no risk of flooding or other hazards that might impair functioning of the WTP or present a risk of damage to the WTP or the surrounding area		Complied- WTP sites are not having hazards of flooding
Design	Ensure that the water supply system improvements are combined with improvements in sewerage to deal with the increased discharge of domestic wastewater.		Complied- water supply and sewerage system are synchronized
Sewage System			
Location	Previous projects considered 500m as distance consideration from nearest habitation. This has been reduced to 100m considering facilities will be	In case of non-availability of suitable sites due to land and technical design constraints in already	Complied- STPs are at least 100 meters away from habitations, SBR

	located in developed areas and technology to be used. RSTDSP considered using Sequencing Batch Reactor (SBR) technology in STPs, which is proven to cause minimal odor as compared to other treatment technologies such as Waste Stabilization Pond or Activated Sludge Process. As far as possible, new Sewage Treatment Plants (STP) should be preferably 100m away from any inhabited areas, in locations where no urban expansion is expected in the next 20 years, thus establishing a buffer to reduce effects of odor, visual appearance or other nuisance of the site (this may be reviewed depending on the technology adopted for the treatment of effluent).	developed areas, where 100 m buffer is not available, following procedures shall be adopted and documented in order to finalize sites for implementation of project: (i) conduct alternate site analysis, justify the selected site; (ii) develop odor mitigation measures to prevent and control odor/air emissions – design measures, and operational practices that are feasible and practical in local conditions and include in IEE; (iii) develop layout plan with maximum buffer to nearby houses; (iv) provide a peripheral green buffer (at least three rows of trees within the STP compound); and (v) public information – consult local community, inform about the need, process adopted to select sites, its suitability, and measures adopted for odor prevention and control	technology is adopted in all STPs, dense plantation is taken in to consideration in the periphery of all STPs to reduce foul smell
	As far as possible Sewage Pumping Stations (SPS) and wet wells should be located preferably 50m from any inhabited areas and from sites such as hospitals, schools, temples, etc. to minimize nuisance impacts from odor, rodents, etc.	In case of non-availability of suitable sites due to land and technical design constraints in already developed areas, where 50 m buffer is not available, following procedures shall be adopted and documented in order to finalize sites for implementation of project: (i) conduct alternate site analysis, justify the selected site; (ii) develop odor mitigation measures to prevent and control odor/air emissions – design measures, and operational practices that are feasible and practical in local conditions and include in IEE; (iii) develop layout plan with maximum buffer to nearby houses; (iv) provide a peripheral green	Complied- SPS and well wells are designed at least 50 mts away from habitations and sensitive receptors

		buffer (at least three rows of trees within the pumping station compound); and (v) public information – consult local community, inform about the need, process adopted to select sites, its suitability, and measures adopted for odor prevention and control	
	Locate STP at sites where there is no risk of flooding or other hazards that might impair function of the STP or present a risk of damage to the STP or the surrounding area		Complied- selected STP sites are having no risk of flooding
Quality	Ensure that sewage is treated at all times to national waste water discharge standards and confirm this by regular monitoring of effluent from the STP.		Being Complied- all STPs are designed on latest parameters set by Government, provision of regular monitoring of treated effluent is taken in all projects
Treated water	Ensure that no wastewater is discharged into a water course in which it could be a hazard to downstream users (e.g. a waterway that is used as a source of water for domestic or municipal supply)	Reuse of treated effluent and sludge for beneficial uses will be encouraged in the project. During final design options and method of reuse will be developed and updated in IEE.	Will be Complied- Reuse of treated effluent from STP in beneficial purposes is taken in project designs
Sludge	Include measures to ensure the safe disposal of sewage sludge and if possible, to promote its safe and beneficial use as an agricultural fertilizer		Will be complied- reuse of treated sludge from STPs for beneficial purposes is considered in the project
Right-of-way for sewer network	Locate sewage pipelines within the right of way (ROW) of other linear structures (e.g. roads) wherever feasible, to reduce new land acquisition.	If criterion is not met, prepare Resettlement Plan according to Resettlement Framework	Complied- pipe lines are designed within ROW only, no land acquisition is required for pipe laying in any sub project
	Ensure that routes of sewage mains do not require land acquisition from individual farmers that is a significant proportion of their total land holding (10%)	If criterion is not met, prepare Resettlement Plan according to Resettlement Framework	

Appendix 6. Updated Asbestos Containing Material (ACM) Management Plan

A. Background of Asbestos

1. Asbestos is a collective name given to a group of minerals that occur naturally as fiber bundles and possess high tensile strength, flexibility, heat resistance, non-biodegradability with chemical and physical durability. Asbestos is hydrated silicates with complex crystal structures. It is found in two configurations: chrysotile (derived from serpentine minerals) and amphibole is a naturally occurring mineral with long thin fibers. Asbestos includes the mineral fibers chrysotile, amosite, crocidolite, tremolite, anthophyllite, actinolite and any of these materials that have been chemically treated or altered. The most abundant asbestos used in the world is chrysotile. The use of ACM propagated due to its economic viability.

2. Asbestos has been used in products, such as insulation for pipes (steam lines for example), floor tiles, building materials, and in vehicle brakes and clutches. Heavy exposures tend to occur in the construction industry and in ship repair, particularly during the removal of asbestos materials due to renovation, repairs, or demolition. Workers are also likely to be exposed during the manufacture of asbestos products (such as textiles, friction products, insulation, and other building materials) and during automotive brake and clutch repair work. In the construction industry, asbestos is found in installed products such as sprayed-on fireproofing, pipe insulation, floor tiles, cement pipe and sheet, roofing felts and shingles, ceiling tiles, fire-resistant drywall, drywall joint compounds, and acoustical products. Because very few asbestos containing products are being installed today, most worker exposures occur during the removal of asbestos and the renovation and maintenance of buildings and structures containing asbestos.

3. **Health Hazards of Asbestos**. Asbestos is well recognized as a health hazard and its use is now highly regulated by both OSHA and EPA. Asbestos fibers associated with these health risks are too small to be seen with the naked eye. Breathing asbestos fibers can cause a buildup of scar-like tissue in the lungs called asbestosis and result in loss of lung function that often progresses to disability and death. Asbestos also causes cancer of the lung and other diseases such as mesothelioma of the pleura which is a fatal malignant tumor of the membrane lining the cavity of the lung or stomach. Epidemiologic evidence has increasingly shown that all asbestos fiber types, including the most commonly used form of asbestos, chrysotile, causes mesothelioma in humans.

4. Asbestos fibers enter the body when a person inhales or ingests airborne particles that become embedded in the tissues of the respiratory or digestive systems. Exposure to asbestos can cause disabling or fatal diseases such as asbestosis, an emphysema-like condition; lung cancer; mesothelioma, a cancerous tumor that spreads rapidly in the cells of membranes covering the lungs and body organs; and gastrointestinal cancer. The symptoms of these diseases generally do not appear for 20 or more years after initial exposure.

5. Worker exposure to asbestos hazards are addressed in specific OSHA standards for the construction industry, general industry and shipyard employment sectors. These standards reduce the risk to workers by requiring that employers provide personal exposure monitoring to assess the risk and hazard awareness training for operations where there is any potential exposure to asbestos. Airborne levels of asbestos are never to exceed legal worker exposure limits. There is no "safe" level of asbestos exposure for any type of asbestos fiber. Asbestos exposures as short in duration as a few days have caused mesothelioma in humans. Every occupational exposure to asbestos can cause injury of disease; every occupational exposure

to asbestos contributes to the risk of getting an asbestos related disease. Permissible Exposure Limit (PEL) for asbestos is 0.1 fibers per cubic centimeter of air as an eight hour time weighted average (TWA), with an excursion limit (EL) of 1.0 asbestos fiber per cubic centimeter over a 30 minutes period.

6. Where there is exposure, employers are required to further protect workers by establishing regulated areas, controlling certain work practices and instituting engineering controls to reduce the airborne levels. The employer is required to ensure exposure is reduced by using administrative controls and provide for the wearing of personal protective equipment. Medical monitoring of workers is also required when legal limits and exposure times are exceeded.

B. Purpose of ACM Management Plan

7. The purpose of this Asbestos Management Plan (AMP) is to identify, use appropriate methodology and scientifically handling /disposal of the Asbestos Containing Materials (ACM) in order to comply with the applicable National legislation and International standards in sync with norms of ADB's SPS 2009. ADB has mandated as per prohibit the investment activities list - production of, trade in, or use of un-bonded asbestos fibers is deliberated. As per SPS 2009 Safeguard Requirement 1, it is emphasized "that the borrower/ client will provide workers with a safe and healthy working environment" in the work areas with accounted risks inherent to the work zone and defined safety instructions and standard operating procedures identifying roles and responsibilities.

C. Regulatory Frameworks for Asbestos Containing Materials

8. In India, there are several legislations that regulate the use and handling of asbestos as applicable, namely:

    - The Supreme Court of India – Banned ACM use in January 21, 2011.
    - National Green Tribunal - In pursuant to the above order, in 2015, NGT issued an order- "that there is no asbestos mining presently operational anywhere in the country and the operations of the mines of associated minerals with asbestos has also been halted."
    - Environmental (Protection) Act (1986) - Environmental monitoring.

9. Different standards applicable to the project is given in **Table-1** below-

Table.1: REGULATORY FRAMEWORK, STANDARDS AND PROTOCOL

Government of India Laws, Regulations and standards on Asbestos Applicable to the projects	**Requirements for the project**
IS 11768: 1986/ 2005: Recommendations for disposal of asbestos waste material	The standard emphasis that every employer who undertakes work which is liable to generates asbestos containing waste, shall undertake adequate steps to prevent and /or reduce the generation of airborne dust during handling, storing, transportation and final disposal of final disposal of asbestos and asbestos containing products. • The crux is waste avoidance: the practice inculcated should focus on the minimal waste generation. • Waste Collection: In the project circumstance, the waste

	is referred to the damaged powered asbestos which will be collected in the Permissible plastic bags to be disposed off to the nearest TSDF facilities.
IS 12081: Pictorial Warning to be implemented on equipment containing Asbestos Contaminated Products.	The objective of the caution is to make the person handling to take all pre-cautionary measures and make them aware of all the possible risk.  
IS 11451: Safety and Health Requirements related to Occupational Exposure to Asbestos contaminated Products.	In the project the norms pertaining to limiting number of hours working with ACM will be 8.0 hrs/48 hrs a week and the medical examination has to be periodic, the environmental monitoring has to be done as per the protocol. The safety at work place shall be enforced.
IS 11768: Waste Disposal Procedure for Asbestos Containing Products.	The protocol pertaining to disposal of the waste is emphasized, the collection of ACM powered will be in permissible plastic bags, which will be twisted tight at the neck so that the wear and tear due to abrasion will be minimum and the transportation of the asbestos waste has to be done by the authorized vendor to the approved landfill site that in the project case id TSDF.
Sampling of asbestos fiber (as per BIS-11450) has to be done regularly using personal sampler and determined using phase contrast microscope.	The sampling and analysis protocol is emphasized. Details are given as above.

D. Inventory of ACMs in Sardarshahar

10. Site visit of Sardarshahar town was conducted on 20.12.2022 along with SCE of CMSC-II Supt. Engineers, Contractor (L&T) safety staff. During visit no asbestos containing materials were present/ found throughout all sites. Photographs of site visit at different work sites/ subproject component is given and enclosed as **Annexure-3**.

11. Further; for the assessment of presence of AC pipes in existing water supply networks, Office of the PIU was requested to provide information for the same from PHED vide letter no. RUIDP/PIU/SRD/929-936 dated 23.12.2021 & RUIDP/PIU/SRD/1350 dated 11.07.2022, respectively. Details of existing AC pressure pipeline has been provided by Executive Engineer, Public Health Engineering Department (PHED), Sardarshahar, District-Churu, Rajasthan informed vide their letter no. 2356 dated 12.01.2023 that total 10 kms AC pipes are present/ operational of different diameters (ranging from 80-125mm dia.) in the existing water supply system in the town as per record (refer **Annexure-2**). Therefore this 10 km AC pipe line is the only matter of concern for Sardarshahar, which need ACM management plan.

E. Provisions in the RSTDSP Project Regarding ACMs

12. Under RSTDSP projects, improvement in water supply system has been planned in the entire municipal areas of town. There is provision of replacement of entire AC pipes (irrespective of size, condition, diameter and age) and lay pipeline of HDPE/PVC/ uPVC as per contract specifications. Now, as the production and use of AC pipes is banned Pan-India, old/used AC pipes are of no use, therefore it is general practice that old AC pipes are not removed from the existing underground position and left in-situ and new proposed pipes are laid parallel to old AC pipes. Nevertheless, there are possibilities (like where there is not sufficient space to lay new pipes parallel to existing old AC pipes *e.g*. in narrow lanes and old city areas); that existing AC pipes are needed to be removed from their existing underground position to lay new pipe lines. In all such cases (though exceptional) mitigation measures will be required for handling, storage and disposal of ACMs in a safe manner to avoid health hazards to workers and nearby habitants. Following mitigation measures are suggested for the same.

F. ACM Removal procedures

13. ACM removal has to be checked in sync with the design and emphasis has to be laid to avoid the removal of ACM, in case it is unavoidable, then all the requisite safety measures are to be adopted as given below:

- Inform the Asbestos Expert/ HSE Expert prior to removal.
- Isolate the area with access to only trained staff/ employees under supervision of Asbestos/ HSE Expert.
- Exhibit all warnings
- Undertaken Asbestos fiber Monitoring
- The trained Employees have to be deputed for removal of ACM.
- The removal ACM material has to be check with the status and extent of damage.
- Efforts should be made to remove the ACM as minimal as possible.
- The ACM removal has to be manual; it should neither be cut nor drilled.
- All removal operation should be undertaken with ACM in wet condition.
- The removed ACM will then be labeled and placed on permissible plastic sheet. It should not be put on ground directly.
- The dimension of plastic sheet should be larger than the ACM placed.
- If the ACM pipe is not damaged as about 4.0ft and above, the ACM will be subjected for in-situ disposal.
- If the ACM is damaged and broken then it has to be packed in permissible plastic bags and disposed off to TSDF.
- Prior to disposal it can be stored in isolated room-showing board of–Hazardous waste

Environmental Monitoring Report

Project Number: 42267-031
Semestral Report: October 2022 – March 2023
September 2023

India: Rajasthan Secondary Towns Development Sector Project

Part 3 of 5: Appendix 6 (continued) and Appendices 7 - 8

Prepared by Rajasthan Urban Drinking Water Sewerage and Infrastructure Corporation Limited, Government of Rajasthan for the Asian Development Bank.

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storage room.

- The hazardous waste to be disposed off to TSDF should not be stored over 90 days after the removal date of ACM at site.
- All the safety procedures and safety gears should be worn by all the employees engaged in the ACM Removal operation.
- The Asbestos fiber monitoring, soil monitoring has to be undertaken during the operation as well.
- The process of removal of ACM will be completed after the removed ACM and its suitably disposed off either in-situ or to the isolated room prior to disposal at TSDF.
- Post ACM Removal asbestos fiber monitoring has to be undertaken to ensure the work zone is safe to resume further operations.

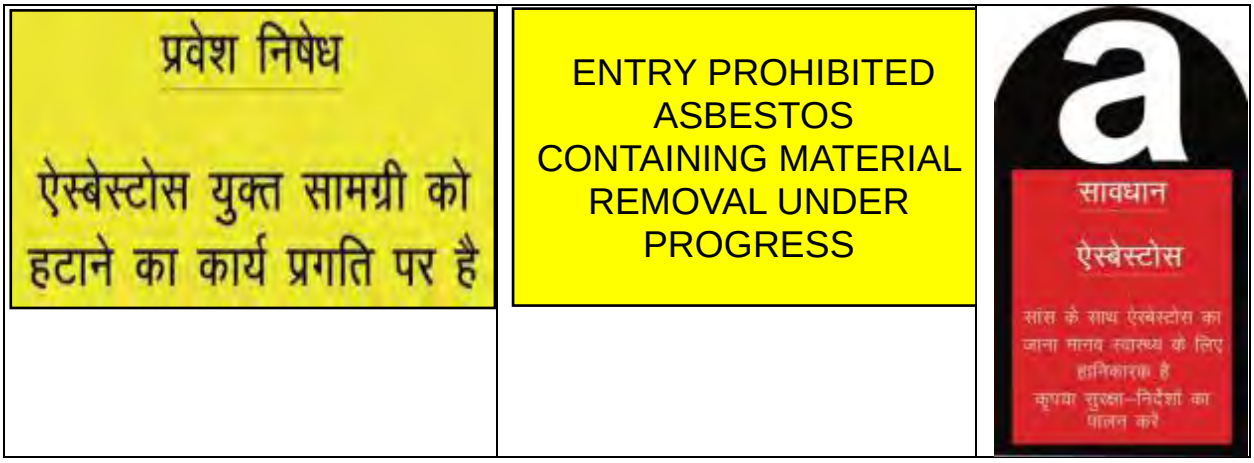


Figure 1: Asbestos warning signage during removal of ACM from site

G. Safe Practices in Handling ACM

14. Proper handling and PPE:

- Cover up and wear PPE (Personal Protection Equipment) including respirator or dust mask.
- Make sure the mask has two straps to hold it firmly in place. Don't use masks that only have one.
- Also wear a Hard hat, gloves, disposable coveralls with a hood, and safety glasses or goggles to protect eyes
- Do not eat, drink or smoke in the work area as you may inhale or eat dust. Wash your hands and face with soap and water before meal breaks and when finished work for the day.
- Do not use power tools Asbestos fibers can be released if power tools are used for anything other than the removal of screws.
- Do not water blast or scrub with a stiff broom or brush. It is illegal to water blast asbestos cement sheets. If the material has been accidentally water blasted or has suddenly deteriorated in some way, you should call a licensed asbestos removal DBO Operator
- Wet gently with water when removing asbestos cement pipes, use a pump spray to lightly dampen the pipes and keep the dust down. Remember: Not to water blast asbestos cement materials.
- Avoid drilling and cutting into asbestos products.
- Do not drill holes through and never cut instead remove the entire product and replace it

with a non-asbestos product.

- Don’t drop fiber pipes remove them carefully, Lower them to the ground, don’t drop them, to minimize breakage.
- Lay plastic sheeting under the work area to prevent any dust contaminating the ground. Use 200 micron thick plastic sheeting or bags or as permissible these must not be made from recycled materials or re-used for any other purpose.
- The work area has to be barricaded and there should be no un-authorized person allowed. Only Trained ACM expert should be allowed to handle the ACM along with EHS Expert.
- Close windows and doors and seal vents to stop dust getting into the house; ask neighbors' to do the same.
- Seal off other places where dust can get in.
- Remove soft furnishings like rugs, clothes, jute bags from the work area, and seal anything with plastics if it cannot be moved.
- All the AC broken pipes have to collected and stacked properly with 200 micron plastic wrapping with winning signage.
- Do not leave plastic sheet lying about where they may be further broken or crushed by people or traffic.
- Remove all ACM by the trained handler.
- Since we are amidst of dry climatic conditions due care must be taken to see that no waste broken pipes or fittings are left loose and outside the confined area and may be dampened as required.
- Mark and add signage.
- Due care has to be taken to collect the dampened waste in a permissible standard bags with proper warning signage's.

H. Storage of ACM Pipes

15. The removed undamaged ACM pipes have to be stacked properly as shown below to avoid any rolling of the pipes and eventual damage. The existing ACM Pipe stacking has to be re-handled to stack the ACM pipes properly. If the removed ACM Pipes is less than the full length of the ACM pipes, then separate stack of the same should be done with proper pre-caution and safety measures and gears (refer **Figure 2**).

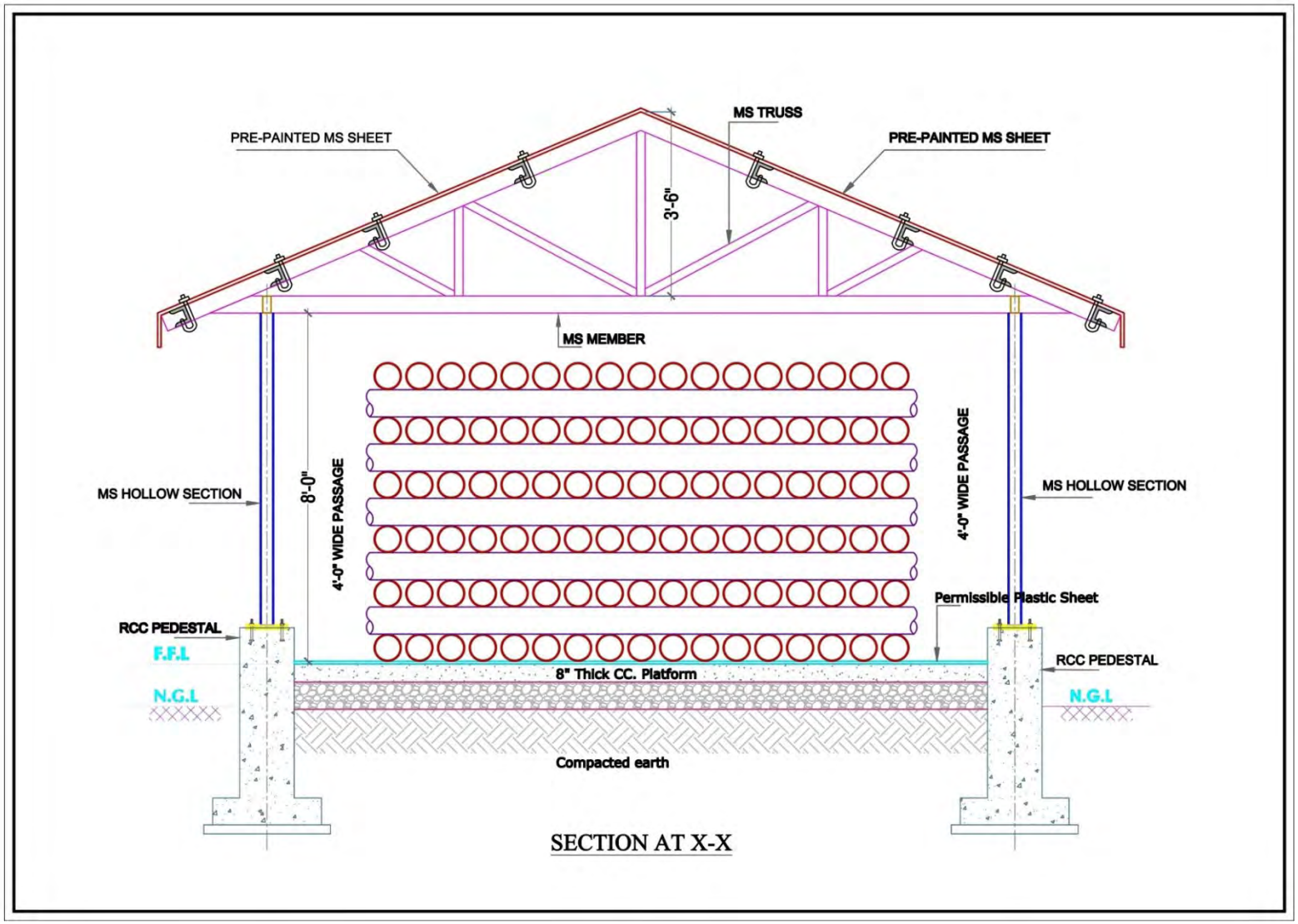


Figure 2: Schematic diagram showing ACM Pipes stacking

16. The ACM stack has to be enveloped with proper fencing showing internal movement of person with 4.0ft corridor all around the stack. The storage area will have display of all requisite warning and access control of the authorized person's entry and exit (refer **Figures 3 & 4**).

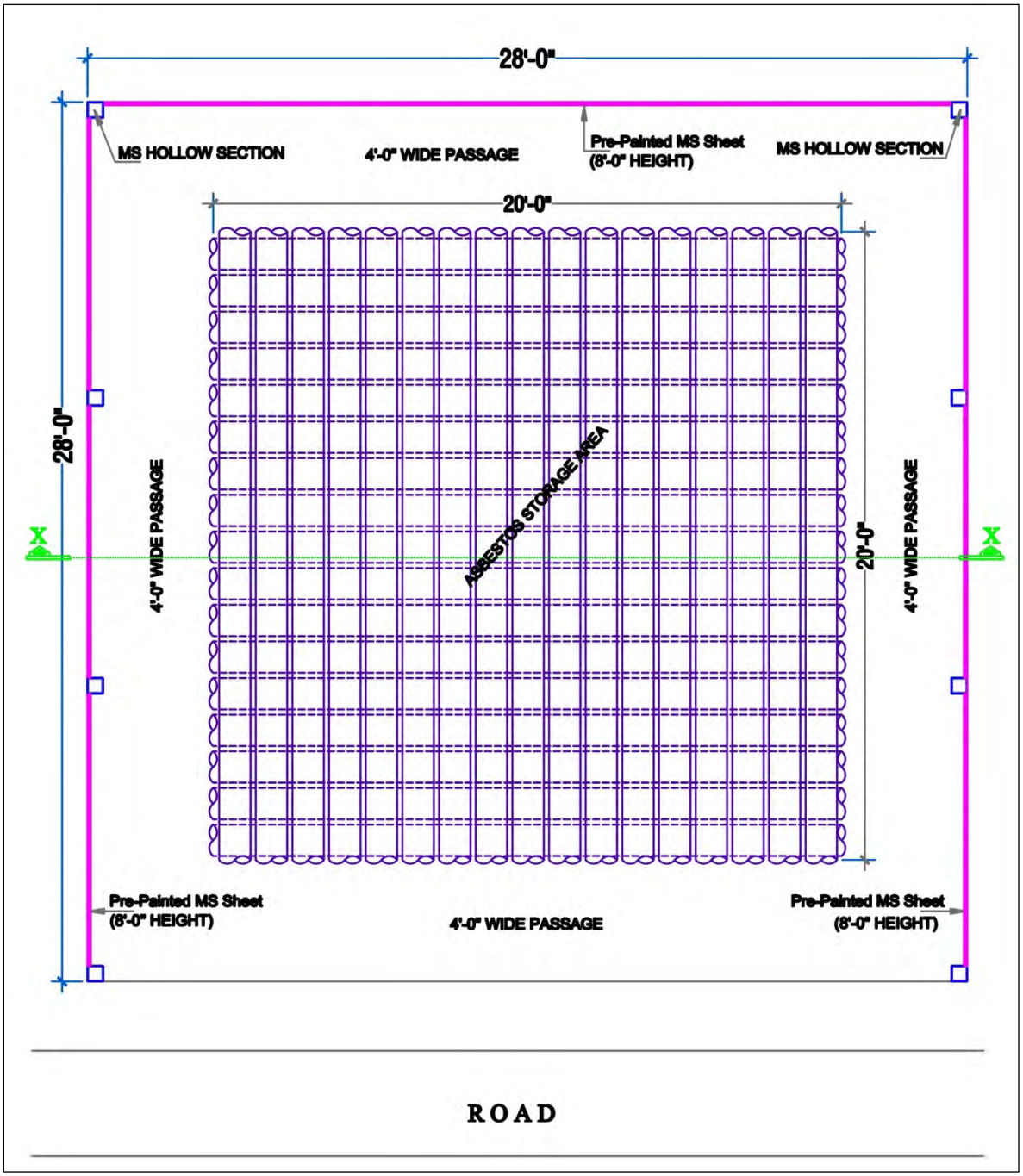


Figure 3: Schematic diagram showing ACM Pipes storage area



Figure 4: ACM: In-situ storage warning

I. Disposal of ACMs

17. The wastages packed have to be disposed off to Treatment, Storage or Disposal Facility (TSDF). Label/ display for TSDF disposal bags has to have clear display of the content in both English and local language as displayed under:

    a. Waste Type:
    b. Date of packing:
    c. Qty/ Numbers:
    d. Packed by:
    e. Warning Signage:
    f. Disposal

18. It will be responsibility of DBO contractor and PIU to send the ACMs to authorized agency for final disposal of ACMs. List of approved Treatment, Storage and Disposal Facilities (TSDF), who deal with ACMs in Rajasthan is given below-

Table 2: LIST OF APPROVED TSDF OPERATORS IN RAJASTHAN

S.No	Operator	Address	Remark
1.	Rajasthan Waste Management Project (M/s. Ramky Enviro Engineers Ltd)	Survey 1018/13, Vill-Gudli, Tehsil-Mavli, Zinc Choraha to Debari Railway Station Road, Dist, Udaipur (Rajasthan).	This TSDF is for all kind of hazardous waste as listed in the hazardous waste (Management & Handling) Rules.
2.	Ramky Enviro Engineers Ltd, Balotra	Ramky BWMP Rd, Rajasthan 344032.	This TSDF is for all kind of hazardous waste as listed in the hazardous waste (Management & Handling) Rules
3.	Continental Petroleum Ltd	Behror, Distt- Alwar	Only for Incineration

:

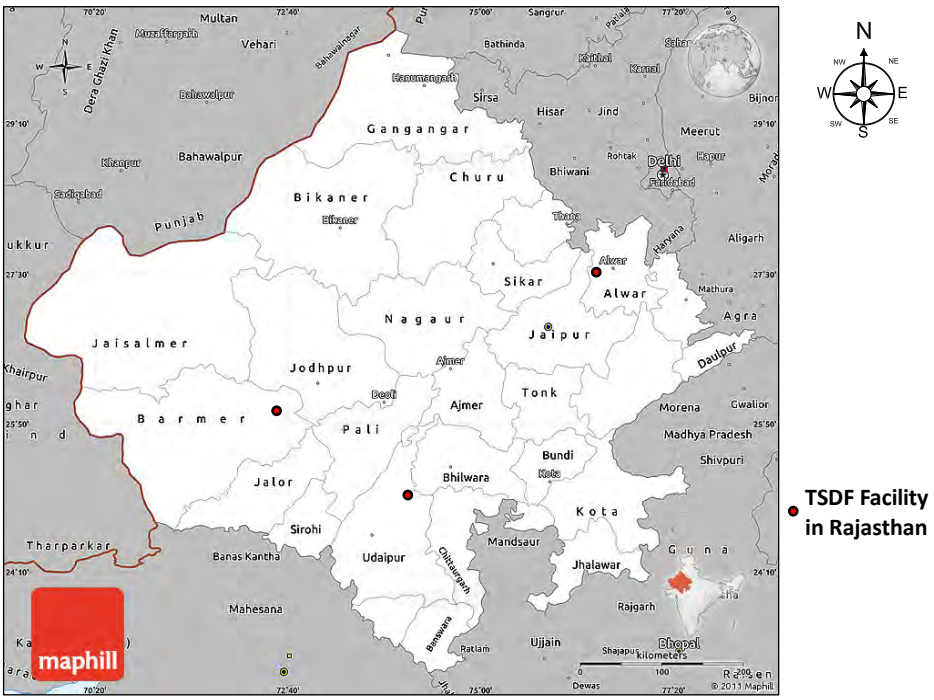


Figure 5: Map of the locations of approved TSDF in Rajasthan.

19. All the records in the pre-determined format are to be maintained and the disposal as stated in the applicable National legislation is to be followed. Any innovative use of the discarded ACM with the permissible law frame must be approved by respective Regulators prior to practice.

J. Standard Operating Procedures (SOPs) for Handling, Transportation and Disposal of ACMs

20. Two Standard Operating Procedures (SOPs) are prepared for safe handling, transportation and disposal of ACMs. These SOPs are to be followed by DBO contractor if ACMs is encountered at any site.

21. **Standard Operating Procedure-01-** are as follows-

a. Objectives – to keep the work zone safe and secured.
b. Requirements–identify all the requirements needed for handling AC in the specific site and project
c. Conduct and ensure awareness and vocational training to ACM handlers
d. Conduct a comprehensive identification and risk assessment of ACMs
e. Apply restriction/ re-handling of ACM on ground-use of PPE. Ensure that workers handling ACM have the right PPEs as follows:
    - Hard helmet
    - Overall suit
    - Gloves
    - Mask to be strapped tight
    - Safety goggles
    - Safety shoes
    - Ear plugs

f. Avoid underground encountering of ACM
    - Ensure that an authorized person (HSE) is supervising the work
    - Barricade the area with signage
    - Damp ACM
    - Use safety gears
    - Dismantle ACM to be labeled, kept on plastic grounding and packed in permissible bags
    - Label the bags properly
    - Ensure shipping to proper disposal sites

g. Site selection – the disposal site should be ready to handle ACM and protect the nearby people as well. The site selection criteria are as follows:
    - Away from habitation
    - Avoid low lying areas
    - Away from water storage
    - To be enveloped with minimum of 8-feet height enclosure
    - Avoid high vertical stacks
    - Access controlled
    - Proper signage enclosure

h. Proper re-handling of ACM, labeling and packing

i. Control access and ensure proper monitoring of records, specifically:
    i. Environment
    ii. Health
    iii. Reporting to regulators

j. Dispose the ACM through qualified DBO Operators up to the Total Sanitary Disposal Facility (TSDF)

22. Outline of SOP-1 is given in below Figure-

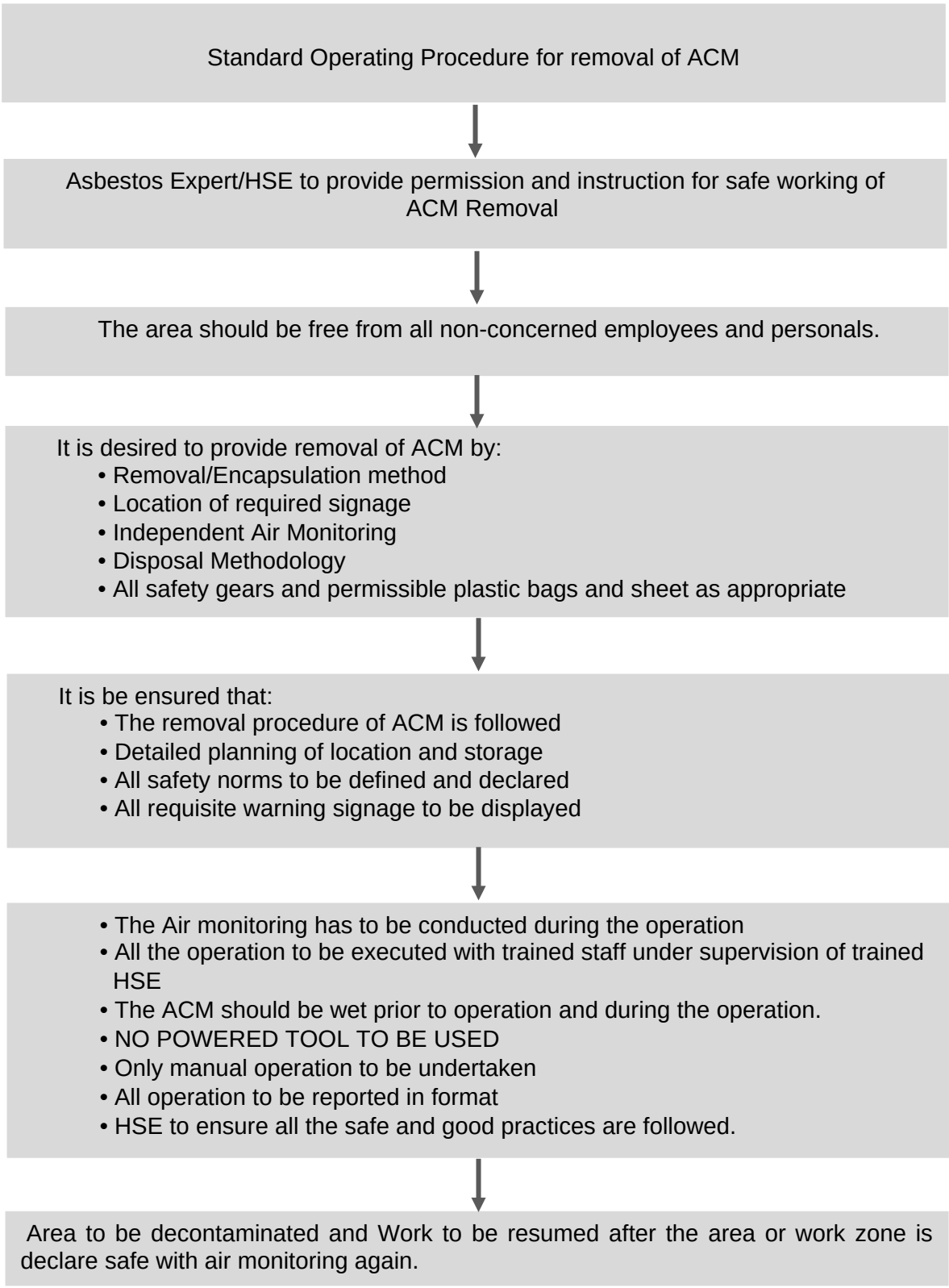


Figure 6 -Standard Operating Procedure Flow Sheet

23. **Standard Operating Procedure-02-** SOP-2 is formulated for Asbestos Fiber Monitoring, Analysis and Identification. SOP-2 is described as follows -

24. **Principle**- The collection of environmental samples including air must follow an appropriate sampling procedure. A review of method for sampling of asbestos fibers has been published (IPCS, 1986). The most commonly used analytical method involves phase contrast optical microscopy (PCOM) in the work place and transmission electron microscopy (TEM) in the general environment. The phase contrast optical microscopy (POCM) is universally recommended for asbestos analysis (Eache and Groff, 1997; Dion and Perrault, 1994) including Bureau of Indian Standard. POCM coupled with polarized light is largely used for asbestos analysis in solid samples (USEPA, 1993). The fiber monitoring has to be done by any NABL/ MOEF&CC accredited laboratory either in-house or by third party.

25. **Monitoring of Asbestos Fiber in Air-** A general survey of inside and outside the storage sites of the work zone has to be conducted to choose the sampling sites. Sampling is to be carried out at visually selected locations appeared more prone to emission or possibility of release of asbestos fiber. The sample collected by drawing a measured quantity of air through cellulose ester a membrane filter by a battery operated sampling pump that was fully charged to operate continuously over the chosen sampling time. The exposed filters will then be placed into plastic petri dishes and transferred carefully to the laboratory.

    The predominant average hourly wind direction in Sardarshahar varies throughout the year. The wind is most often from the south west. Predominant wind blows from south west to north east direction.

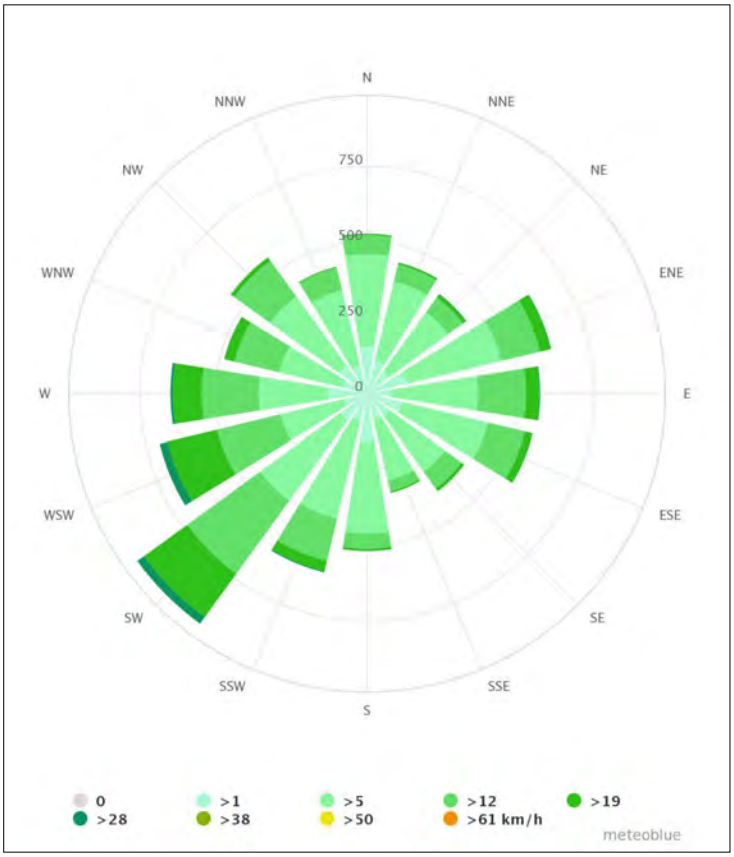


Figure 7: Predominant Wind Direction in Sardarshahar, District-Churu, Rajasthan

26. Two types of samples are to be taken, one within the workers breathing zone that is 300mm radius extending in front of the face, and measured from the midpoint of a line bisecting the ears called personal samples. The samples taken at a fixed location mostly near to the source point called area or static samples. Personal sampler model “XX 5700000” and low volume vacuum/pressure pump model “XX5622050” attached with monitor or cowl model “MAWP025AC” of Millipore Corporation, USA are to be used for the collection of personal and area samples, respectively. The flow rate of pump is to be adjusted to 1litre per minute. The flow rate checked before and after in each monitoring, those samples showing the difference by >10 percent from the initial flow rate are to be rejected. In both the samples filter holder (Cowl) always pointed downward position to avoid the deposition of heavy particles. An ester cellulose membrane filters “AAWP02500” having 0.8 µm-1.2 µm pore size diameter are to be used throughout the sampling for asbestos counts at work environment.

27. **Mounting Procedure -** Complete filter is to be placed on clean microscopic slide, dust side up at room temperature. Electrostatic force keeps the filter usually on the slide. Filters are to be exposed to acetone fumes and triacetin (Glycerol triacetate, Sigma). In this procedure a small quantity of acetone in round bottom flask (500-1000ml) heated at the boiling point underwater bath, the vapors condensed in a simple condensing column. When the sufficient fumes of acetone become ready then pass it throughout on the filter for 3-5 seconds at a distance of 15-25mm. put the 1-3 drops of Glycerol Triacetate (Triacetin) on the acetone-cleared filter. Place a cover slip on cleared filter by avoiding the air bubbles. Heat the cleared filter at 50°c for 15 minutes and leave it at room temperature for 24 hours under the action of triacetin to clear entire filter. Alternatively, membrane filter can also be made transparent with immersion oil (Leica Microsystems Wetzlar GmbH, Wetzlar). Using a phase contrast microscope with polarized light, Laborlux S (of M/s Leica, Germany) and then counting has to be done at magnification 400X-500x.

    $C = A/a \times N/n \times 1/r \times 1/t$

    Where:
    C= concentration in fibers per cubic centimeter rounded to first place of decimal,
    N = total no. of fiber counted,
    n = number of graticule areas observed,
    A= effective filter area in mm^2
    a= graticule counting area in mm^2,
    r= flow rate of air through filter in cm^3/min., and
    t= single sample duration in minutes

28. To rule out the probability of the air borne asbestos in the existing scenario at the said site as well as other similar sites at the different work zones, it is necessary to have the asbestos fiber monitoring and sampling counts to be recorded at regular intervals. The environmental air sampling stations will have to be minimum three at 120 degree angle, within 1000-500m from the ACM. The sampling frequency has to be in all three stages-Pre-Construction, Construction and Post Construction, while the personal sampling has to be done as stated above.

29. Bureau of Indian Standards (BIS) Guidelines for Safe Use of Products containing Asbestos states that “Asbestos cement products (such as AC pipes) generally contain about 10-15% Asbestos fibers in a cement matrix that comprises the rest of the materials and are termed as locked in asbestos products as these products have the asbestos fibers bound in cement. The possibilities of air borne asbestos fiber will be in case of mishandling of encountered pipes

with unsafe practice. During storing and installation; recommended work practices shall be followed to avoid harmful exposure". According to Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016, any waste with asbestos concentration limit of 10,000 mg/kg (*i.e.* 1%), however this will apply only if the asbestos containing substances are in a friable, powdered or finely divided state. Under the Basel Convention[20], asbestos or asbestos waste in the form of dust and fibers is classified as hazardous waste.

K. Roles and Responsibilities with Estimated Cost for ACM Management

30. This contract under RSTDSP is Design, Build and Operate (DBO); therefore primary responsibility of ACM management is of DBO contractor. RUDSICO-EAP (formerly known as RUIDP); being principal employer has to ensure that ACM Management Plan is being implemented as per applicable rules and regulations. Roles and responsibilities of different entities and estimated cost of implementation of ACM Management Plan is given in below table-

Table 3: Roles and Responsibilities and Cost Estimates

PRE-CONSTRUCTION				
Activities	**Responsibilities**	**Associated Documents**	**Estimated Cost**	**Remark**
Design to encounter minimal ACM, and then Identification & Inventorization ACM - AC pipes & fittings	**RUDSICO-EAP & DBO CONTRACTOR**	Form-I (refer Annexure-1)	Rs.100/km	The onus of the minimal encounter of ACM is vested upon the RUDSICO-EAP and inventory will be with the DBO Operator and has to be annually verified by RUDSICO-EAP.
Define & confine ACM storage area-in-situ			Rs.65/Sq.m	The storage area made available will be confined and fenced.
Warning signage near the ACM work site, storage and on AC pipes in local language****			Rs.500/label	The signage labels can be printed, sticker pamphlets or painted.
Training of personals handling the AC pipes and fittings	**DBO CONTRACTOR**	Form-II (refer Annexure-1)	Rs.1000/Person	All requisite safety gears should be made available at all sites.

[20] Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal, adopted in 1989

Use of safety Gears			Rs.6000/Person	All the safety gears should be silicon based and suitable for Asbestos protection.
Briefing of Emergency Response Plan			Rs.500/Person	All the risk zones with respect to white card has to be briefed.
Confined storage with access control plan			Rs.5000/site	Inward and outward movement of authorized person must be allowed and has to be guarded or should be under key control.
Pre-history medical records of the ACM handling team			Rs.3000/ Person	All requisite medical test, Respiratory test, lungs/ Chest X-ray/CT Scan, Blood Test, Lower Abdomen examination etc.
CONSTRUCTION PHASE				
Monthly Inspection & Annual Environmental Monitoring.	**DBO CONTRACTOR**	Form-III (refer Annexure-1)	Rs.40,000/ sample	The sampling zone should be 500m from the storage site and personal sampling has to be as per SOP-2.
Reporting in SEMR	**RUDSICO-EAP/ DBO CONTRACTOR**	None	Nil	As per ADB Format
Collection of Health records in compliance to the local laws	**DBO CONTRACTOR/ RUDSICO-EAP/ PHED/ LSG**	Form-IV (refer Annexure-1)	Nil	For regular evaluation & identification of any abnormality.
Ensure adoption of all standard operating procedure		SOP-1 & 2	Nil	As revision desired on basis of Site specific information may be upgraded in the SOP-1 & 2 if required
Collection, Segregation, Reception and Disposal as per National norms of ACM		Form-V (refer Annexure-1)	Nil	Standard Regulatory format has to be filled and disposed off within 90 days.
Use of safety gears prior to handling of ACM based on White Card.		White Card-Page-11	Nil	Periodic training can be site specific
Disposal of ACM to the indentified TSDF Facility to be done as per procedure within or prior to 90 days		SOP-2	1500/ton of waste plus freight as per actual.	Within 90 days from the generation of waste, in case of existing waste it has to be disposed off within 90 days from the Project Start.

To inform and fill the returns in the prescribed manifest as per HWMR.		Form-V (Form-10 of the Rule HWMR- refer Annexure-1)	Nil	90 days from the start of work
To facilitated a restricted confined storage space with access control with proper inventorization.		Form-II (refer Annexure-1)	Nil	Site Specific
In-situ storage of ACM.	**DBO CONTRACTOR**	Form-VI (refer Annexure-1)		The storage of existing and encountered ACM pipes (more than 4.0ft) will be stacked end to end at 90 deg. With vertical stacks, 8 inches above the ground, covered with permissible plastic sheet. The campus custodian – *viz.* PHED etc. should also be informed about the In-situ storage of ACM and its impact.
ACM removal	**DBO CONTRACTOR**	--	--	Follow ACM Removal
Record maintenance of ACM in-situ and disposed off to TSDF	**DBO CONTRACTOR**	Form-I & Form-IV (refer Annexure-1)	Nil	The copies of inventory generated and collected will have to be shared with Land Custodian (LC), RUDSICO-EAP and DBO Operator. To distinguish the forms they can be numbered. FORM-I (LC), Form-IV (LC)
Transits ACM storage of waste to be disposed off to TSDF	**DBO Contractor**	Form-IV (refer Annexure-1)	50,000/ room	An isolated storage room should be constructed with 10x10 with height of 3.5 ft roofed properly for transit disposal of ACM to TSDF. **DISPOSABLE ASBESTOS WASTE STORAGE ROOM HAZARDOUS WASTE CATEGORY-15.2** (As per Hazardous waste management & Handling Rules 2015).
POST CONSTRUCTION PHASE				

Compliance of AAQM, Asbestos Fiber monitoring and Soil Quality monitoring and Periodic Work zone monitoring (Asbestos fiber count) records to be maintained	**DBO Contractor**	SOP-2	Rs.40,000/ sample	The Asbestos Fiber count monitoring has to be conducted prior to ACM handling operation and after ACM Handling operation by an Accredited Laboratory. List of accredited laboratory will be available at Rajasthan State Pollution Control Board website- rspcb.nic.in
Health records & Periodic Medical Checkup of the personals handling ACM to be maintained.	PHED/ LSG/ DBO CONTRACTOR	Form-II (refer Annexure-1)	Rs.3000/ Person	All the concerned employees deputed to handle or deal with ACM has to have Pre medical history and periodic medical examination done

L. Emergency Response Plan (ERP) & Chance Find Protocol

31. The emergency procedures should include managing an uncontrolled release of asbestos materials into the workplace. The onus of the same shall be ensured with immediate action of the field staff-DBO Operator/ HSE Staff. Steps should be taken to:

- Warn anybody who may be affected.
- Exclude from the area anyone not needed to deal with the release.
- Identify the cause of the uncontrolled release.
- Regain adequate control as soon as possible.
- Make sure anyone in the work area affected, who is not wearing personal protective equipments (PPEs), including respiratory protective equipment (RPE), leaves the affected area immediately.
- Minimize the spread of asbestos by ensuring they are suitably decontaminated.
- Clean up dust and debris.
- Decontaminate anyone who is contaminated with dust and debris.
- Ensure rags, clothing or PPE is decontaminated or disposed of as contaminated waste.
- Consider alone and/or remote workers to ensure they can alert someone if necessary.

Check what you're working on before you start:

- Avoid using a sweeping brush as this can spread asbestos.
- Make sure no unauthorized personnel enter the area.
- The clean-up of any accidental release of higher risk materials, *e.g.* asbestos cuttings, powered asbestos that may release the asbestos fibers, to be done by authorized person

32. Flow chart of ERP is shown in below Figure 8 -

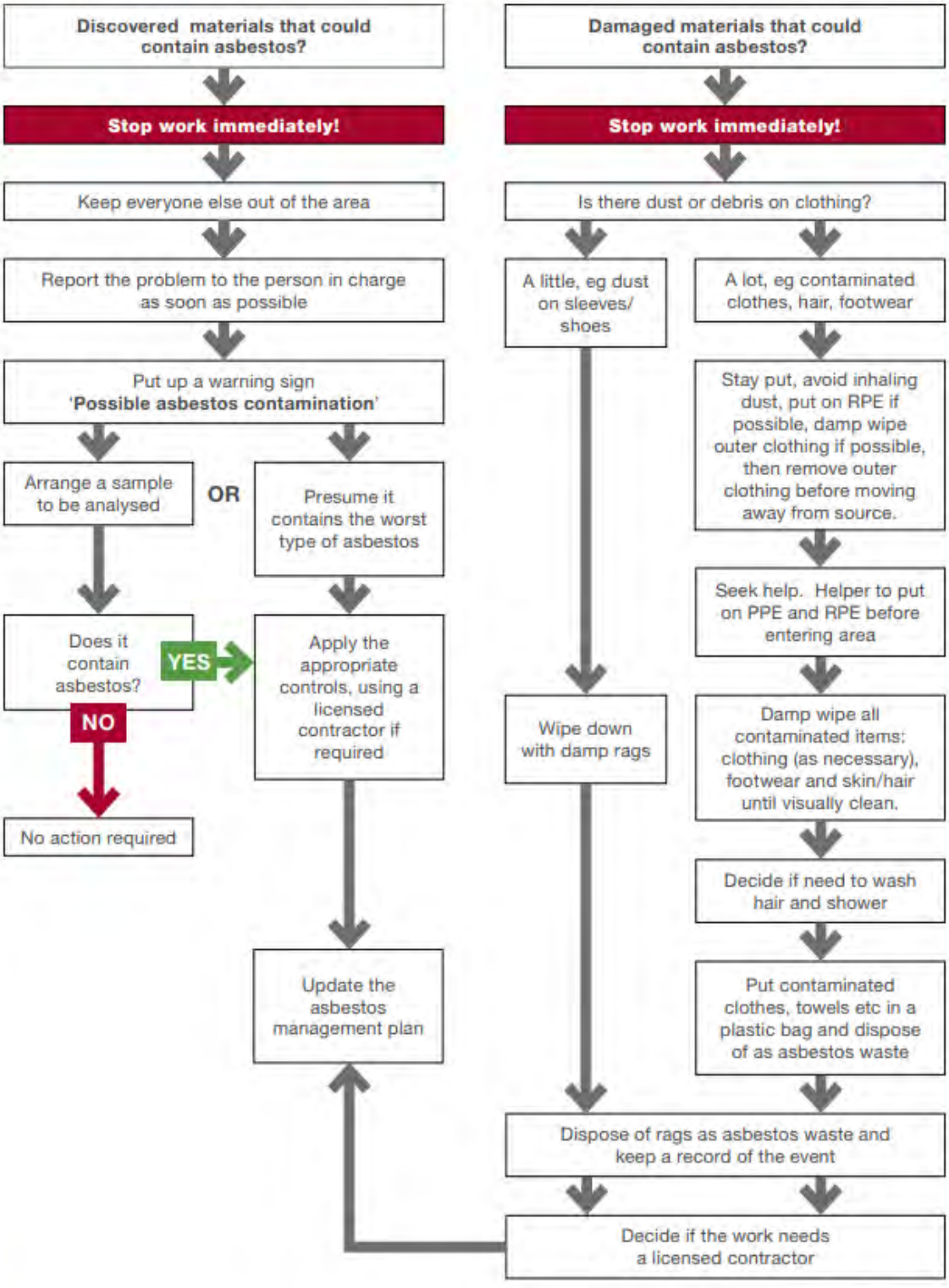


Figure 8: Flow chart of ERP

33. The format of Inventorization & records at all locations must be maintained irrespective of generation of ACM waste. The format of documentation must be uniform in order to track and trace the details as desired.

Summary of Asbestos Management Plan

Field	Anticipated Impact	Mitigation Measures	Responsible for Implementation/ Monitoring	Remark
Clearing, transfer and disposal of ACM pipes	Possibilities of air borne asbestos if handled unsafely, cut, drilled or broken into pieces that may cause: ❑ Inflammation of the lungs ❑ Mesothelioma ❑ Peritoneal mesothelioma ❑ Pleural plaques ❑ Asbestosis ❑ Bronchogenic Carcinoma ❑ Second hand-exposure	Implement the AMP strictly that includes identification of hazards, the use of proper safety gear and disposal methods.	DBO Contractor /RUDSICO-EAP	There has to be a suitable call to be taken for in-situ disposal if the removed ACM pipes are not damaged, full length or 4.0ft length not damaged.
Work in narrow streets	Possibilities of air borne asbestos if handled unsafely cut, drilled or broken into pieces that may cause: ❑ Inflammation of the lungs ❑ Mesothelioma ❑ Peritoneal mesothelioma ❑ Pleural plaques ❑ Asbestosis ❑ Bronchogenic Carcinoma ❑ Second hand-exposure	Conduct awareness program on safety during the construction work. Undertake the construction work stretch-wise; excavation, pipe laying and trench refilling should be completed on the same day. Provide barricades, and deploy security personnel to ensure safe movement of people and also to prevent unnecessary entry and to avoid accidental fall into open trenches. Identify risk of intervention with existing AC pipes. If there is significant risk, implement the AMP strictly that includes identification of hazards, the use of proper safety gear and disposal methods.	DBO Contractor/ RUDSICO-EAP	All provision of safe working with proper signage has to be undertaken prior to work initiation, during the work and after the work.

Field	Anticipated Impact	Mitigation Measures	Responsible for Implementation/ Monitoring	Remark
Interventions in existing AC pipelines	Possibilities of air borne asbestos if handled unsafely cut, drilled or broken into pieces that may cause: ❑ Inflammation of the lungs ❑ Mesothelioma ❑ Peritoneal mesothelioma ❑ Pleural plaques ❑ Asbestosis ❑ Bronchogenic Carcinoma Second hand-exposure	Appropriate actions as defined in the Asbestos Management Plan will have to be adhered to	DBO Contractor/ RUDSICO-EAP	Measure to avoid the encounter & removal has to be prioritized and if the same is not avoided then the measures stated have to be strictly followed.
Documentation /record	Unmonitored ACM might be handled incorrectly and can cause release of airborne asbestos	To be formatted and kept as mentioned in the Asbestos Management Plan	DBO Contractor/ RUDSICO-EAP	To be kept intact for easy tracking and reference in legible format. The same can be kept in soft format as well.

****

Annexure 1: Formats of ACM Management

FORM I – ASBETOS INVENTORY, INSPECTION AND ACTION FORM

Format: RUDSICO-EAP/ IIA/ LOCATION/ NAME OF DBO CONTRACTOR/ HSE 002/ YEAR		
Location:		
Site co-ordinates:		
Elevation:	**Team:**	
Date of visit	**Sign:**	
Present Status		Indicate if installed, operational, in storage, etc.
Original age		Months or years since installation
Diameter		mm or inches
Length		meters
Volume		
Total packet		
Packing date		
Disposal date		
Existing Site (Photo or illustrations):		
Illustration/ Design of Activities On-site with respect to existing asbestos (include details such as size of new pipes, distance from existing AC pipes, other notable observations)		
DBO Contractor Handling Asbestos:		
Number of persons handling waste		
Medical Records		
Safety Gears		
Vocational Training Last Conducted: Number of attendees: Conducted by Schedule:		
Required Actions:		
Remarks		
Conclusion/ Remark **HSE Signatory**		

FORM-II – MATRIX FOR TRAINING & RECORDS

Format: RUDSICO-EAP/ INSP. MATRIX/ LOCATION/ NAME OF DBO CONTRECTOR/ HSE 001/ YEAR				
S. No.	**Aspects of ACM**		**Check points**	**Remarks**
Training Schedule:				
Trainer Details:				
Date/Location of Training:				
Number of attendees:				
Training Schedule, Training Materials & Attendance Sheet, Feedback of Trainees.				
Understanding of:				
A.	**DOCUMENTS AND RECORDS**			
1.	Site Inventory			
2.	List of ACM storage and installation points			
3.	Structure of ACM management committee			
B.	**INVENTORY**			
1.	Inventorization of ACM			
	Number of ACM/ pipes			
	Dimensions of ACM/ pipes			
	Total volume of ACM/ pipes			
2.	Storage facility/ installation location:			
A.	In-use	Location		
		Condition	Intact/ damaged	
		Purpose		
		Accessibility by the workers		
		Evidence of physical damage and approximate size (length, width, volume) without coming into contact with The damaged ACM		
		Impacts on the environment (Based on Asbestos fiber Monitoring)		
3.	**LABELING AND SIGNAGE**			
	Notification to workplace safety and health			
	Working instruction			
	The risks associated with exposure to asbestos fibers			
	Cautionary statement to not disturb materials containing asbestos			
4.	**PERSONAL PROTECTIVE EQUIPMENT (PEP)**			
	Record of pep			
	Mask			
	Eye glasses			
	Gloves			
	Ear muffs			
	Others			
	Training			
	On occupational risks of asbestos to the workers		Date: Time: In-house/ external: Faculty: No of workers attended:	
	Training for maintenance, repair and renovation		Date: Time: In-house/ external: Faculty:	

		No of workers attended:
	Training for workers working with asbestos	Date: Time: In-house/ external: Faculty: No of workers attended:
	Periodic air quality monitoring records	• Within the permissible limits • Not within the permissible limits (specify the reason)
	Workers medical check-up records	Date: In-house/ external: Performed by: Remarks: No of workers attended:
Conclusion/ Remark **HSE Signatory**		

The all the data required in Form-II will be filled by the DBO Operator (HSE-Officer), the records of this document has to be maintained for a pre-decided life. Details of training imparted have to be file with appropriate evidence like photographs, feedback form**,** videos etc. There has to be a proper documentation of the records kept with highest level of transparence to retrieve, trace and track the records as necessary. The records maintained by the DBO Operator, has to be audited regularly by the ACM-Expert.

Form-I has to be accompanied with Form-II. Defined period of Air Quality monitoring and health will have to be minimum twice a year. Where ever the fiber counts are found/ recorded beyond the permissible norms, corrective action, like:

- ❑ Cordon off the area of ACM
- ❑ HSE team with trained experts to be deputed for the task
- ❑ Moisten the ACM prior to handling
- ❑ Storage area of the ACM stacks to be covered
- ❑ The damaged/deteriorated ACM to be re-handled in presence of Asbestos Expert/ HSE (Trained) with all defined norms and safety gears.
- ❑ Disposal of damaged/deteriorated ACM to be done as per the Norms.
- ❑ Records of disposal to be maintained.
- ❑ Keep all requisite evidence in form of documentation, geo-tagged photographs etc.
- ❑ Frequency of health monitoring at such locations to be increased.

Form-III- AIR QUALITY MONITORING AND RESULTS

Format: RUDSICO-EAP/AQMR/ LOCATION/NAME OF DBO CONTRACTOR/HSE 003/YEAR			
Vendor details **Approvals**			
S.No.	**Location**	**Agency**	**Results & Permissible Norms**
Conclusion/ Remark **HSE Signatory**			

FORM-IV-MEDICAL HISTORY

Format: RUDSICO-EAP/MH/ LOCATION/NAME OF DBO CONTRACTOR/HSE 004/YEAR							
Employee code:							
Employer Details:							
PPE Used:							
Insurance/ESI							
S.No	**Name**	**Age/ Sex/ DBO**	**Address/ Contact details:**	**Period of Employment/ Job Title**	**Pre-History**	**Doctor's comments**	**HSE Remarks**
					Height **Weight/ BMI** **Blood group** **X-Ray** **CT Scan** **others** **Smoker:** **Tobacco:** **Alcohol Consumption:** **Family History:** **Medication if any:** **Eye sight:** **Hearing:** **Others:**		

FORM -V

[FORM-10- as per rule 19 (1) of Hazardous waste Handling & Management Rules-2016]

MANIFEST FOR HAZARDOUS AND OTHER WASTE

1.	Sender's name and mailing address (including Phone No. and e-mail)		
2.	Sender's authorization No.	•	
3.	Manifest Document No.	•	
4.	Transporter's name and address: (including Phone No. and e-mail)		
5.	Type of vehicle	•	(Truck/ Tanker/ Special Vehicle)
6.	Transporter's registration No.	•	
7.	Vehicle registration No.	•	
8.	Receiver's name and mailing address (including Phone No. and :	(e-mail)	
9.	Receiver's Authorization	No.	
10.	Waste description	•	
11.	Total quantity No. of Containers	•	……..m^3 or MT ……..Nos.
12.	Physical form		(Solid/ Semi-Solid/ Sludge/ Oily/ Tarry/ Slurry/ Liquid)
13.	Special handling instructions and additional information		
14.	Sender's Certificate		I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are categorised, packed, marked, and labeled, and are in all respects in proper conditions for transport by road according to applicable National Government regulations.
	Name and stamp: Signature:	Month	Day Year
15.	Transporter acknowledgement of receipt of Wastes		
	Name and stamp: Signature:	Month	Day Year
16.	Receiver's certification for receipt of hazardous and other waste		
	Name and stamp: Signature:	Month	Day Year

FORM –VI: IN-SITU STORAGE OF ACM

S.No	Activity	Number of Stacks	Area occupied	Details of ACM Pipes		Day/ month/ year of storage
Site History						
For existing Stacks, details of re-handling of pipes in number or volume to be mentioned under supervision of Authorized Experts.						
Details of Location of re-handled ACM storage, new area should be • Minimum 10-15 ft away from campus habitation. • 250m away from the water sources. • 500-800m away from Children play area. • The area should be isolated and covered from all the sides with restricted Access for Authorized Experts Only. • Register to be maintained for Entry & Exit of personals. • Register to be maintained for Entry & Exit of ACM • Labels to be displayed in legible format • Specific training of ACM to be inducted in the ACM storage area for residing population in the campus.						
Details of transit storage of ACM to be maintained as per norms in an isolated storage room full covered						

Annexure 2: Details of AC pipes in Existing Water Supply Networks in Sardarshahar

कार्यालय अधिशाषी अभियन्ता (परियोजना)जन स्वा. अभि. विभाग
नगर खण्ड सरदारशहर

क्रमांकः 2356 दिनांकः –12/01/2023

श्रीमान अधिशाषी अभियन्ता,
आरयूआईडीपी सरदारशहर।

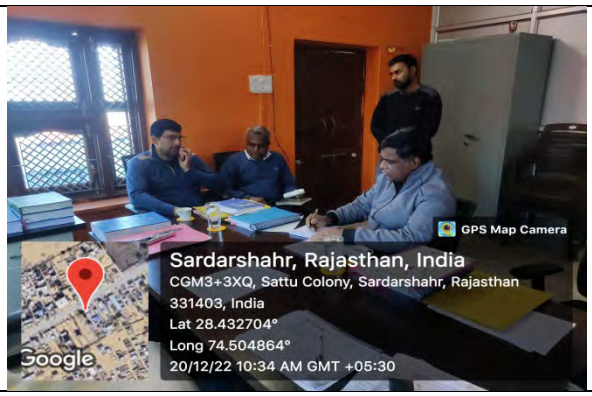
विषयः– शहरी जल योजना सरदारशहर पर ए.सी. प्रेशर पाईप लाईन का विवरण।
सदर्भः– आरयूआईडीपी के पत्रांक 1350–58 दिनांक 11.07.2022 के कम में।

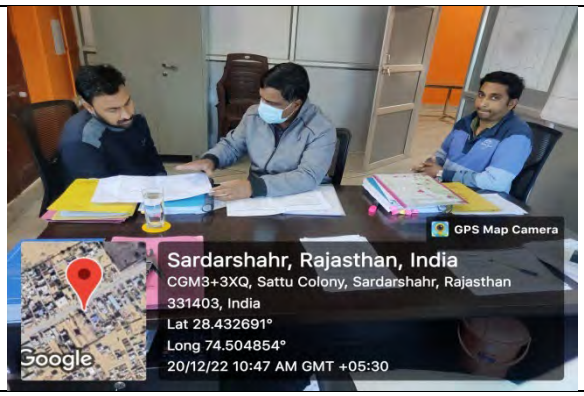
उपरोक्त विषयान्तर्गत निवेदन है कि आप द्वारा चाही गई सुचना इस कार्यालय में उपलब्ध रिकार्ड अनुसार निम्नानुसार हैः–

SR.No.	Pipe Material	Pipe Dia (MM)	Length
1	AC	80	3.75 Km
2		100	4.25 Km
3		125	2.0 Km
4		150	—
5		200	—

अधिशाषी अभियन्ता
जन. स्वा0 अभि0 विभाग,
खण्ड सरदारशहर।

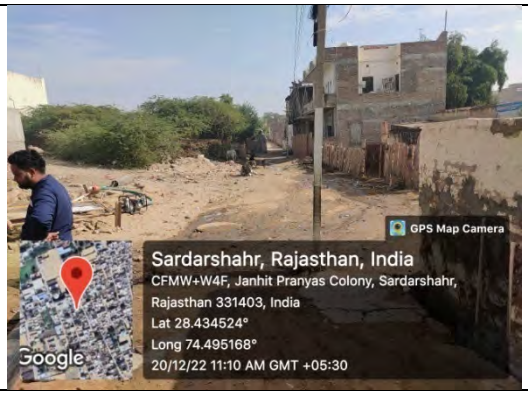
Annexure 3: Site Visit Photographs of Sardarshahar Town





Visit at PIU Office RUIDP, Sardarshahar and meet with A.En, Sr.Construction Engineer (SCE) of CMSC-II, Staff L&T & brief about visit and need of AMP





Rehab of OHSR near Surya Mandir





Rehab of OHSR at Ram Nagar





STP 2.3 MLD South Campus





Meeting with PHED Executive.Engineer along with A.En. RUIDP-PIU and Env.Support Staff of CMSC-II regarding hazards of Asbestos Containing Materials (ACMs) & Its effective management

Conclusion:

Visited the Sardarshahar town dated on 20/12/2022 and meet with the Official of PIU, Assistant Engineer-RUIDP-PIU along with SCE CMSC-II. Detail discussion with Assistant Engineer and SCE of CMSC-II regarding Asbestos Management Plan and purpose of visit. During discussion detail deliberation such as issues of Asbestos pipes occurring during excavation of WS in Sardarshahar Town.

As per discussion with SCE & Supt. Engineer CMSC-II, existing WS line laid at the depth of 0.7m to 1.0m at many places. New line of WS is being laid at the depth of approx.1.0m to 1.4m. New line is being laid in opposite direction of existing line where space is available. It may vary place to place, location of pipeline in reference to sides of road. Moreover sometimes in narrow street new line is being laid along the existing WS line at approx. 1.5ft to 2.0ft distance. So there is lesser chance to encountered AC pipes during excavation. However cannot deny the possibility to encounter AC pipes in broken stage sometimes during crossing the line but there will be low risk. In case of occur; all the procedure will be follows as per AMP. All existing line of water supply will not be disturbed and will left in the ground in their original condition.

During discussion with A.En.-RUIDP-PIU and SCE of CMSC-II, detail deliberation such as issues of Asbestos pipes if occur during excavation of WS works in Sardarshahar Town. In the event of encounter of any Asbestos Containing Materials (ACMs) during project activity, SOPs shall be followed till the final disposal at nearest TSDF site as given in Asbestos Management Plan.

Pre-dominant wind direction needs to be considered in planning of storage of ACM at designated place if occurred in near future. No habitation should be located near in downwind direction of ACM storage or its immediate vicinity.

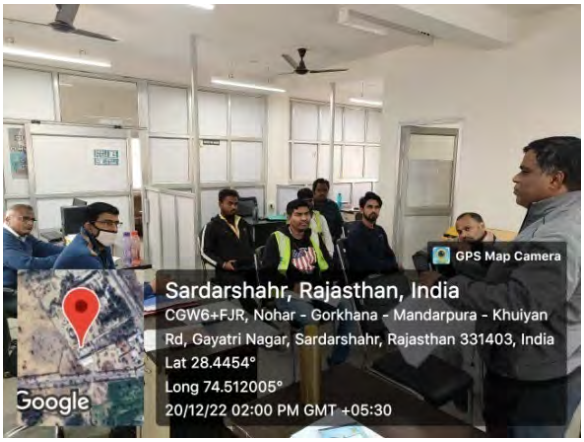
During discussion with SCE-CMSC-II, works of laying of WS distribution network (approx.65%) have laid in different zones in Sardarshahar Town. During visit of subproject components such as 1 nos of CWR 2400KL capacity under construction at PHED Ex.En. Campus, Pump House, CRMC-1, 1 MCC and 1 CCC. CRMC-2 is under construction at A.En. PHED Campus.

During site visit found that no asbestos containing materials (ACMs) were present/ encountered at different sites in Sardarshahar Town except existing storage of rejected AC pipes of PHED in their premises. In case of any occurrence of ACM's during excavation near future, different sites such as CRMC/MCC/CCC, CWR, STP & WS distribution network areas have visited but adequate space is available at PHED Campus. However in view of space there is no issue to temporary stack of ACM's at PHED Campus, as no habitation/school/temple is exist near/in vicinity of the site except old CWR. Near CWR site at PHED campus have sufficient space to temporary store the ACM if occurred in near future and quite remote from habitation, any water body or sensitive receptors.

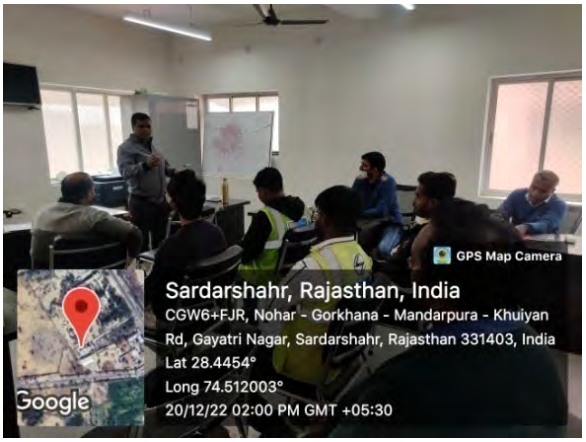
In line of better management of ACM's if occurred during works, a training cum orientation programme was also conducted dated on 20th December 2022 in due consent with Assistant Engineer of RUIDP-PIU along with CMSC-II Staff and Contractor (L&T) safety personnel etc. During training, welcomed all the concerned person and brief about the Asbestos Management Plan and their needs while executing the works. From PMCBC, Asbestos Expert brief about the need and management of ACM's during works also discuss the ACMs removal, handling, temporary stacking and disposal procedure as given in Asbestos Management Plan (AMP). During removal all the rules and regulation will need to be strictly adhered as per Asbestos Management Plan (AMP).

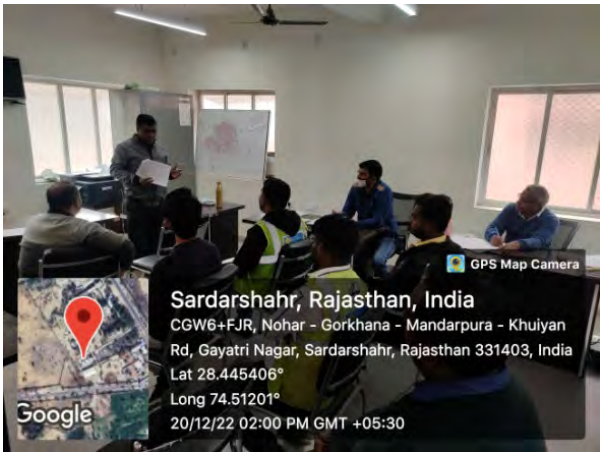
Photographs of training/ orientation programme conducted as follows:











Photographs during Training/ Orientation on Asbestos Management at PHED Ex.En. Campus, Sardarshahar

Attendance Sheet

TRAINING ON ASBESTOS MANAGEMENT

Project Town: Sardarshahar, District - Churu, Raj.

Venue: PHED Campus, Sardarshahar

Date: 20/12/2022

S.No.	Name of Person	Gender	Designation	Contact No.	Signature
(1)	Dinesh Kumar	M	Asst. Engg.	8949425829	
(2)	Pankajrao B. Pati	M	SCE CMSCU	9860117885	
(3)	AFZAL ANSARI	M	Env. safeguard Support	8299562677	
(4)	Rakesh Ku Sahu	M	Asst Mgr-EHS (L&T)	9439466674	
(5)	Surendra Kumar	M	Planning Engineer (L&T)	7355120119	
(6)	Amit Kumar	M	A.C.M (L&T)	7073230777	
(7)	Niloy Chowdhury	M	Execution Engineer (L&T)	9051619798	
(8)	Monish Ghosh	M	Safety Supervisor (L&T)	7014536714	
(9)	Mohd. Tarzayed	M	Safety Steward (L&T)	7860639843	

20/12/2022

Asbestos Expert

PM CBC

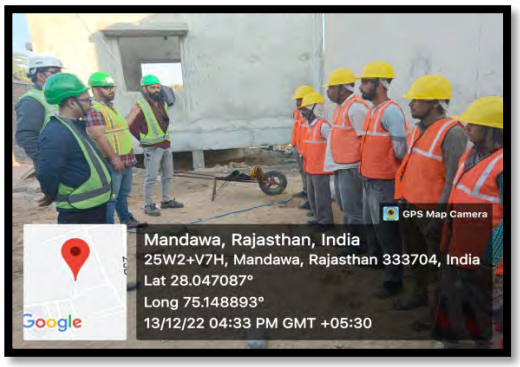
Appendix-7: Photographs & Attendance sheets of Sageguard Orientations & Trainings (During October 2022 to March 2023) (by Environmental Safeguard Professionals of CMSC I & II)

Photos of Safeguard Orientation at Mandawa Town on dated 13.12.2022









Safety Training of Site Staff at SPS Area, Mandawa

Photos of Safeguard Orientation at Ladnu Town on dated 21.12.2022





Safety Training on Electrical Safety to Contractor Site Staff at STP (5.5 MLD)





Safety Training on Fire Extinguisher to Contractor Site Staff at STP (5.5 MLD)





Safety Training on Vibrator Hand Tools to Contractor Site Staff at Teli Road; CC Work

Photos of Safeguard Orientation at Makrana Town on dated 27.12.2022





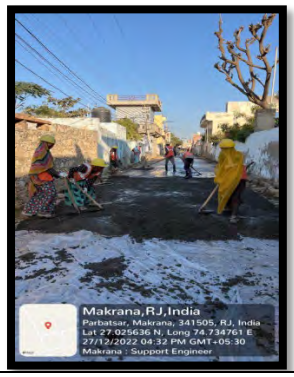
Safety Training of Contractor Site Staff at SPS (2.1 MLD), Makrana



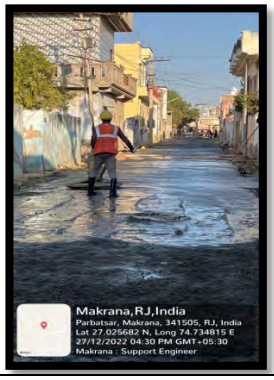












Safety Training of Contractor Site Staff at Road Restoration Site, Om Colony, Zone 3, Makrana

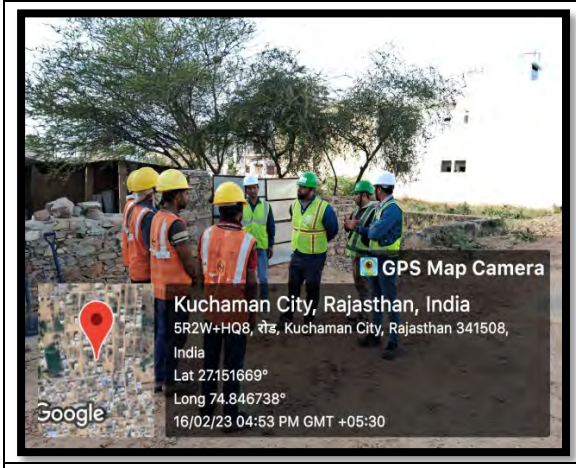
Photos of Safeguard Orientation at Pratapgarh town on dated 12.01.2023





Photos of Training Orientation at Community Hall, Pratapgarh

Photos of Safeguard Orientation at Kuchaman town on dated 16.02.2023

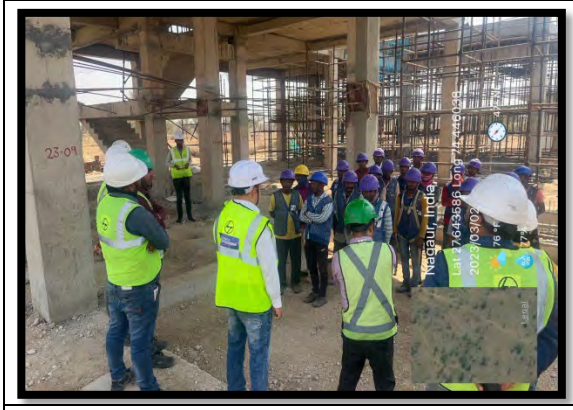








Photos of Safeguard Orientation at Ladnu town on dated 02.03.2023






Safety Training on Work at Height (W@H) for Contractor Site Staff at STP (5.5 MLD)

Photos of Safeguard Orientation at Didwana-Makrana towns on dated 13.03.2023






Safety Training on Work at Height (W@H) for Contractor Site Staff at STP (3MLD) ; Didwana




Safety Training on Work at Height (W@H) for Contractor Site Staff at STP (7.7MLD); Makrana

Attendance Sheet of Safeguard Orientation at Mandawa on dated 13.12.2022

RUIDP
A Unit of RUDSICO

Construction Management & Supervision Consultancy-01
Attendance Sheet

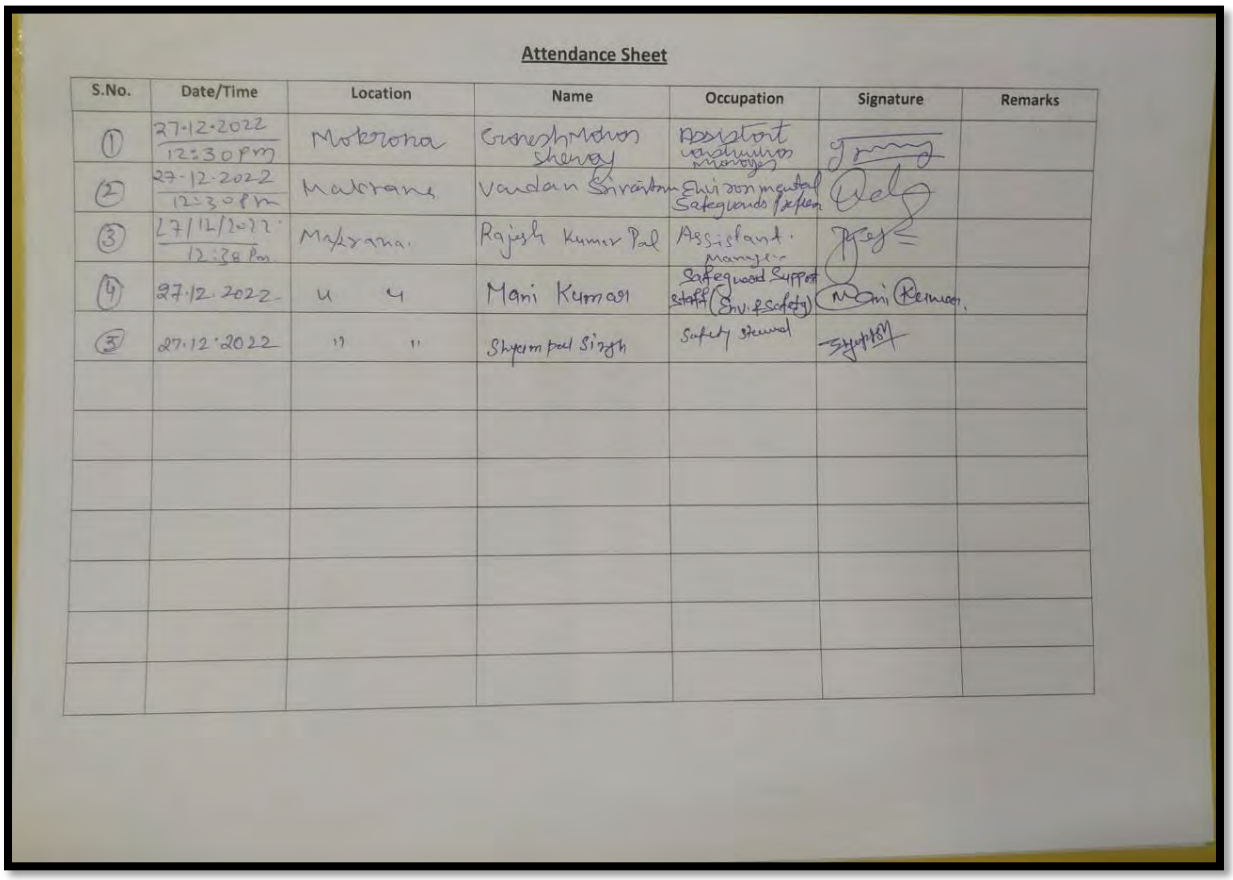
Project town: - Mandawa Venue: - PIU office Date: - 13./12.../2022 Time: - 3:30 P.M.

Issues: - 1. Site Safety Observation 2. Waste Water Reuse Plan.
3. Environment, Health & Safety Legal & Contractual Document's Pendency
5. Labour Welfare facilities 6. Worker Site Safety training.

S.N.	Name	Designation	Contact No.	Signature
1	Sanju Poonia	S.E.N	7726032018	
2	Vijay Pal	ACM	9799363291	Vijay
	K. Bhujangad	PO	8005736537	K.B
4	Vandan Srivastava	Environmental Safeguard Person	9410085879	
5	Yogesh Kr. Atreya	Social safegu	9460126777	
6	Manoj Kumar Joya	Safety Engg.	9785868515	
7	Mani Kumar	Environment & Safety (Safeguard	8360043214	Mani Kumar.
8	Yamil Parashar	Support Engineer	8949200173	
9	Deepak kr. Ganchha	Support Engineer	9784581879	
10	Anil Kumar	ASDMS	9468684024	
11				
12				
13				
14				
15				

CS Scanned with CamScanner

Attendance Sheet Safeguard Orientation at Makrana 27.12.2022



Attendance Sheet

S.No.	Date/Time	Location	Name	Occupation	Signature	Remarks
1	27.12.2022 12:30 PM	Mokrana	Ganesh Mohan Sharma	Assistant manager		
2	27.12.2022 12:30 PM	Makrana	Vandan Srivastava	Environmental Safeguards Expert		
3	27/12/2022 12:38 Pm	Makrana.	Rajesh Kumar Pal	Assistant. manager		
4	27.12.2022	" "	Mani Kumari	Safeguard Support staff (Env. & Safety)	Mani Kumari.	
5	27.12.2022	" "	Shyampal Singh	Safety steward		

Attendance Sheet Safeguard Orientation at Pratapgarh Town on dated 12.01.2023

RAJASTHAN SECONDARY TOWNS DEVELOPMENT SECTOR PROJECT (RSTDSP)
(RUIDP- PHASE IV)
Orientation Workshop for Councillors and Officers of ULB, Pratapgarh

Venue: Community Hall, Housing Board, Pratapgarh **Date: 12th Jan, 2023**

ATTENDANCE SHEET

S.N क्र.सं.	Name of the Participant सहभागी का नाम	Designation/Town पद/ नगर	Male/ Female पु./ म.	Mobile Number मोबाइल नं.	Signature हस्ताक्षर
1	[illegible]	[illegible]	M	7733050033	[illegible]
2	[illegible]	[illegible]	M	9891636867	[illegible]
3	Ashish Atri	[illegible] Mehwa 33	M		[illegible]
4	[illegible]	[illegible]	M	9785472918	[illegible]
5	Rakesh Nath Tiwary	TE, CAPP	M	7089877105	[illegible]
6	Anil Kumar Singh	DTL, CAPP	M	9414057533	[illegible]
7	Babu Lal Sharma	TL, CAPP	M	9414251889	[illegible]
8	Sajid Shaeen	SDE, CAPP	M	9413995742	[illegible]
9	PARMAR Dinesh	AEM CMSC II	M	7014980191	[illegible]
10	RAJEEV SHARMA Class Professional CMSC-II	Class Professional CMSC-II	M	9316103101	[illegible]
11	Aditi Tiwari (Environment & Safety) CMSC-II	Environment & Safety CMSC-II	F	9165746877	[illegible]
12	Sapana Gurav	Social Safe guard CMSC II	F	7568171979	[illegible]
13	Dharmendra Singh	KIPL	M	7976074981	[illegible]
14	Lalit Trivedi	KIPL	M	9929209118	[illegible]
15	Vena Reddy	KIPL	M	9490584406	[illegible]
16	Ashutosh Kumar	Safety Engineer	M	9648788628	[illegible]
17	Jatin D Saini	Engineer	M	9724752092	[illegible]
18	D.I.P Dewasi	Parshad Patel	M 14	9414735528	[illegible]

S.N क्र.सं.	Name of the Participant सहभागी का नाम	Designation/Town पद/ नगर	Male/ Female पु./ म.	Mobile Number मोबाइल नं.	Signature हस्ताक्षर
19	[illegible]	जिला सचिव सेवा दल	पुरुष	9829855727	[illegible]
20	Manish Sharma	Site engg.	Male	9664187659	Manish
21	S.K. Sharma	AEN RUIDP	-do-	9460202929	[illegible]
22	MADAN LOHAR	J.En RUIDP	-do-	8233244785	[illegible]
23	Jr. Mahaveer P. Saini	Envi. Safeguard Engg.-II Jodhpur	M	9509557241	[illegible]
24	Nihal Singh	Site-Engg	M	7691009784	[illegible]
25	Pratik	पार्षद - 35	M	7727038049	
26	[illegible]	सुपरवाईजर	M	9636567113	[illegible]
27	गोपीकिशन लाल शर्मा	पार्षद 03	M	8560062[illegible]	[illegible]
28	रमिला शर्मी	पार्षद महिला सुरंगल अध्यक्ष	F	9414928640	रमीला
29	शान्तिदास	आर्किटेक्ट	M	8290928118	शान्ती दास
30	धर्मदास	जन-प्रतिनिधि	M	9166154772	धर्मदास
31	राजूदास	जन प्रतिनिधि	M	9568753413	राजूदास
32	Yogen Choudhary	Supp-er.	M	8386[illegible]257	[illegible]
33	Motiram Meghwanshi	Supp-er	M.	9667344170	Motiram
34	[illegible]	पार्षद 27	M.	9166478[illegible]	[illegible]
35	Ramsingh Chouhan	AEn PHED	M.	8432265907	[illegible]
36	Rani choubisa	Jen Phed	M	8290109217	Rani
37	[illegible]	कार्यकर्ता	M	9660074462	[illegible]
38	[illegible]	कार्यकर्ता	M	7976087849	[illegible]
39	[illegible]	पार्षद 21	F	9887776881	[illegible]
40	[illegible]	पार्षद प्रतिनिधि 21	M	9887776881	[illegible]

S.N क्र.सं.	Name of the Participant सहभागी का नाम	Designation/Town पद/ नगर	Male/ Female पु./ म.	Mobile Number मोबाइल नं.	Signature हस्ताक्षर
41	मनीश जी गुर्जर	पार्षद वार्ड. 02	M	9799831907	
42	शाकिर जी	वार्ड - 34	M	8003483531	
43	सुशील गुप्ते	वार्ड. 07	M	9511584402	सुशील गुप्ते
44	मोहम्मद इकबाल	वार्ड नं. 40 पार्षद प्रतिनिधि	M	9414452046	
45	मनोहर	पार्षद 32	M	8766193811	मनोहर
46	प्रतीक खोखरिवाल	पार्षद 06	M	8619229261	
47	गोविन्द सैनी	वार्ड - 12	M	9785017	
48	सोना जैन	पार्षद 36	F	9694618982	सोना जैन
49	अनिल तर्पण	पार्षद प्रतिनिधि 36	M	9694183962	Anil
50	पद्मा गायत्री	मनोनित पार्षद	M		
51	उमेश नाम	प्रतिनिधि	M	7424913411	उमेश नाम
52	दीपक डोसी	पार्षद 15	M	9414418789	
53	मुकेश सारडा सरपंच	पार्षद वार्ड नं 05	M	9145809753	मुकेश सारडा सरपंच
54	~~सोम~~ सुनील	CMSC staff	M	9672424990	
55	कला देवी मोसा	पार्षद	F	9549611150	
56	सावित्री सैनी	पार्षद 13	F		सावित्री सैनी
57	पद्मा कुंवर	पार्षद 40	F		पद्मा कुंवर
58	जयश्री मीणा	पार्षद 8	F		जयश्री मीणा
59	रामजी	जयपुर IIT L.I.T	M	9664233458	
60	हेमन्त मीना	पार्षद वार्ड क्र. 26	M	8003119152	Hemant.
61	विकास शर्मा	पार्षद प्रतिनिधि	M	9772108195	
62	हेमा डागर मनोनीत	पार्षद (S)	F	8890877114	हेमा

S.N क्र.सं.	Name of the Participant सहभागी का नाम	Designation/Town पद/ नगर	Male/ Female पु./ म.	Mobile Number मोबाइल नं.	Signature हस्ताक्षर
63	ओंकारलाल	पार्षद प्रतिनिधि	(S)	8890879114	ओंकारलाल
64	ललित सिंह	CDPO सुजानगढ़	M	9571737475	
65	Tuibek Roy Surjo	Supervisor	WCD	8118809932	Tuibek
66	Naveen kumar Jain	IT W.E.	wed	9829905575	
67	अनिल मेहरा	वे.वर्क्स.W.E	WE	9413117911	
68	अब्दुल खुर्शिद	जनप्रतिनिधि	W	8619342466	
69	[illegible]	जनप्रतिनिधि	M	9929998527	
70	रतन लाल मेघवाल	जनप्रतिनिधि	M	9571085563	
71	Suresh Kr. Meghwal	नगरपरिषद DMM	M	7742764444	
72	Kishan Lal Bajpai	नगरपरिषद DMM	M	9829882263	
73	शरद शर्मा	पार्षद	M	7771037276	
74	प्रमोद सेहरिया	[illegible]	M	9414859255	
75	मनोज कुमार जाट	CAPP - RUIDP Asst cum Jr	M	9667874728	
76	अंजली गंगवाल	SOT	F	6377234307	
77	[illegible]	SOT	F	7891202941	
78	नेहा गंगवाल	SOT	F	9024006928	
79	सौरभ तेजस्वी	SOT	M	7726901814	
80	भोमाराम	जनप्रतिनिधि	M	9950433975	
81	[illegible]	जनप्रतिनिधि	M	9[illegible]	
82	हनुमान सिंह	जनप्रतिनिधि	M	9351256712	
83	[illegible]	जनप्रतिनिधि	M	9351538084	
84	[illegible]	जनप्रतिनिधि	M	7568[illegible]429	

APPENDIX-8: EHS ACTIVITIES BY DIFFERENT CONTRACTORS DURING REPORTING PERIOD (October 2022 to amrch 2023)

EHS Activities at Didwana Town during October 2022 to March 2023





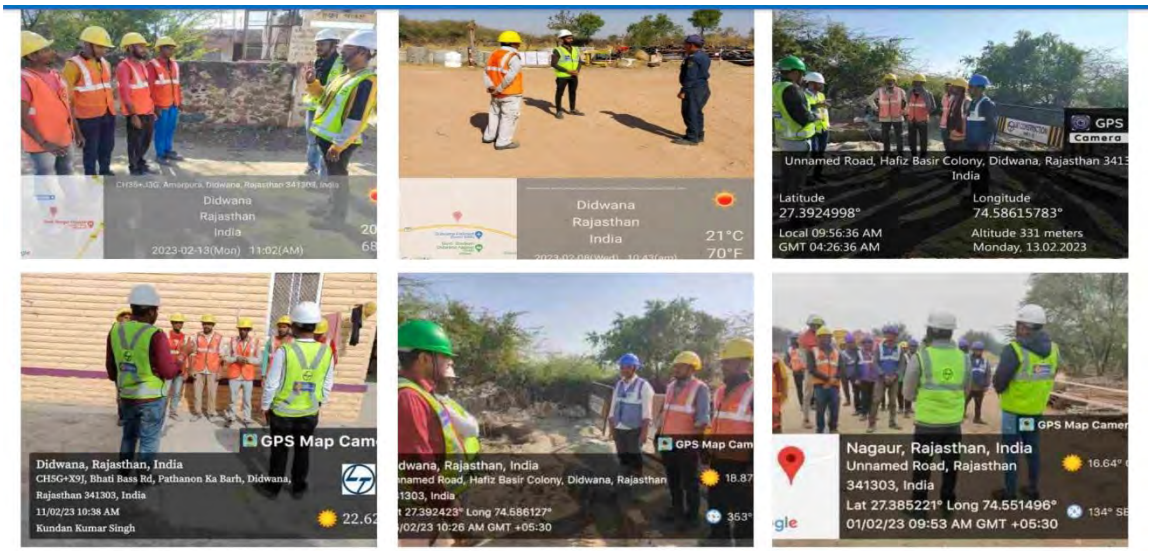




Good Practise – Display of Safety Signage Boards



Photos of Environmental Monitoring



PEP Talk (Didwana)



Good Practise – Safety Net



Good Practise – Electrical Safety



Good Practise - Housekeeping



Good Practise - Barricading

EHS Activities at Makrana Town during October 2022 to March 2023



EHS Alert Training to workers at Site



Electrical Safety Training to workers at Site



COVID Sanitization and Disinfection Activity at Site



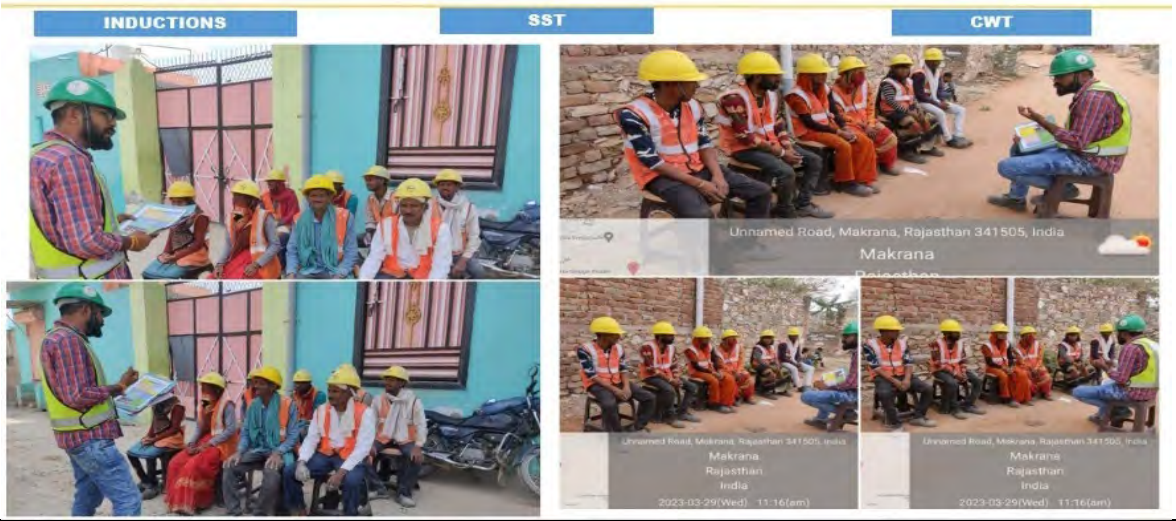
Environment Monitoring at Site



Work at Height Safety training to workers at Site



Firefighting Training to workers at Site



Induction, Site Specific & CWT training to Workers at Site



Mockdrill training to workers at Site



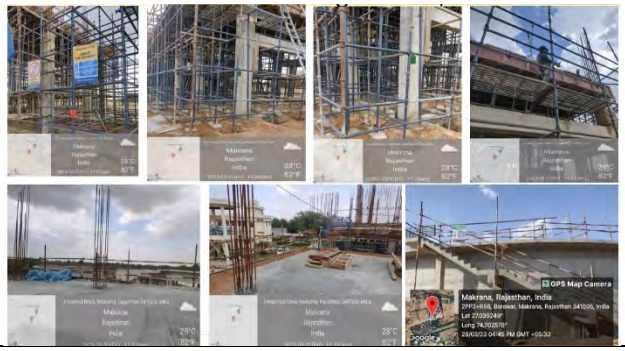
PEP talk Training to workers at Site



Good Practise: Hard Barricading at work Site



Good Practise: Hard Barricading at work Site



Good Practise: Safety to work at Height



Good Practise – Parallel Handrails



Good Practise: Blood Donation camp at Site



Good Practise: Camp for TT vaccination to workers at Site

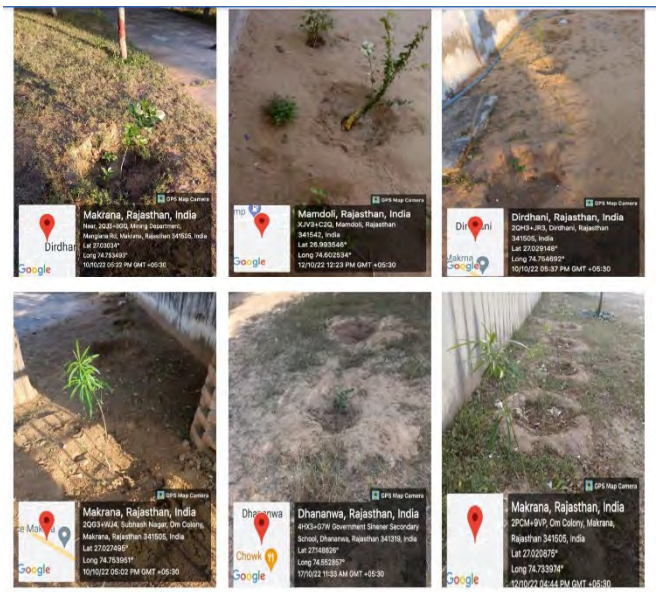


सीवरेज कनेक्शन को लेकर निकाली जागरूकता रैली

मकराना. रैली को हरी झंडी दिखाकर रवाना करते हुए।

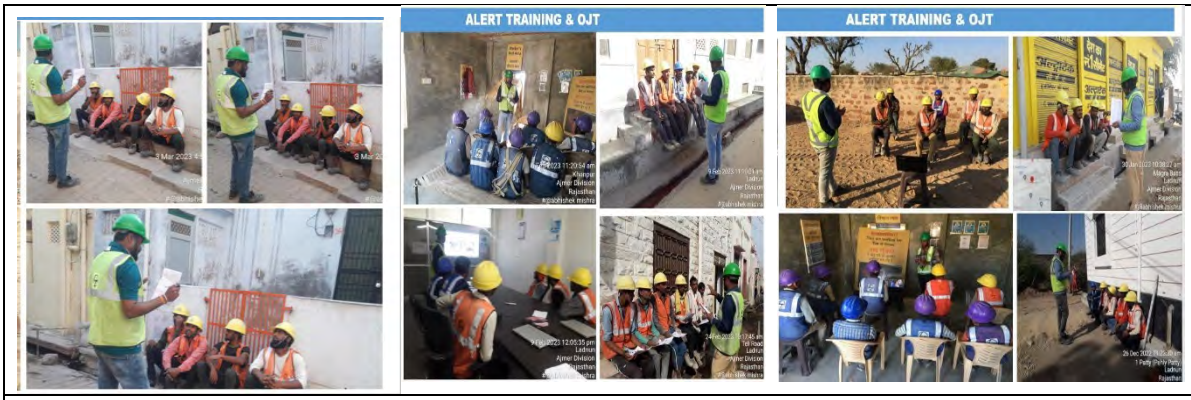
मकराना @ पत्रिका. राजस्थान नगरीय आधारभूत विकास परियोजना के सामुदायिक जागरूकता एवं जन सहभागिता कार्यक्रम के तहत गुरुवार को जागरूकता रैली निकाली गई। रैली को अधिशासी अभियंता दीपक मांडन व प्रधानाचार्य नीरू राठौड़ ने हरी झंडी दिखाकर रवाना किया, जो हॉस्पिटल रोड से रवाना होकर विभिन्न मार्गों से होते हुए वापस राजकीय विद्यालय पहुंची। दीपक मांडन ने बताया कि साफ-सफाई हमारे जीवन का एक महत्वपूर्ण पहलू है। यह हमारे जीवन की प्राथमिकता भी है। उन्होंने बताया कि साफ-सफाई से जीवन में आने वाली कई परेशानियों से मुक्ति पाई जब सकती है। सभी शहरवासी सीवर कनेक्शन करवा कर शहर को स्वच्छ बनाने में अपनी भूमिका सुनिश्चित करनी चाहिए। कार्यक्रम में कनिष्ठ अभियंता श्रीकांत यादव, राहुल चौधरी, बीएल गोठवाल, सूरज सिंह, भागीरथ सोनी, रविंद्र रावत, चेनाराम जाट आदि ने भी सहयोग किया।

Good Practise: Newspaper clipping of awareness to sewerage work

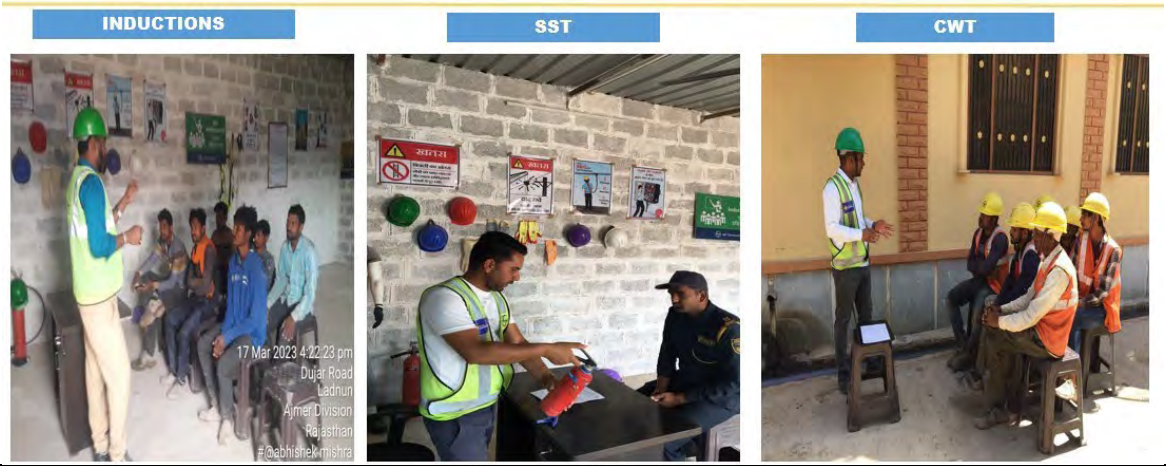


Good Practise: Tree Plantation

EHS Activities at Ladnu Town during October 2022 to March 2023



EHS Alert Safety Training to workers at Site (Ladnu)



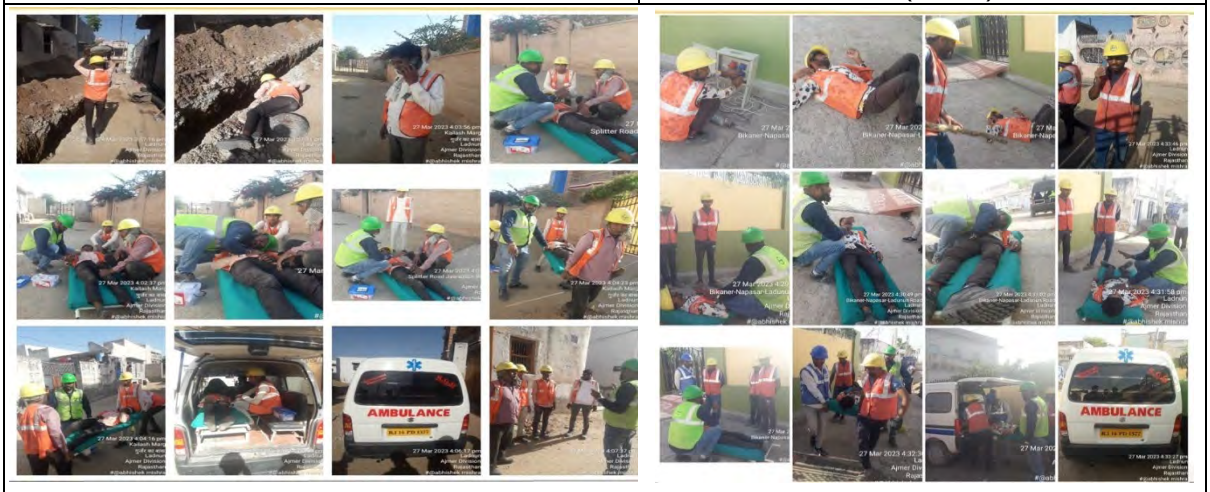
Induction training to workers at Site (Ladnu)	Site Specific Training (SST) to workers at Site (Ladnu)	Contractor Workmen training to workers at Site (Ladnu)



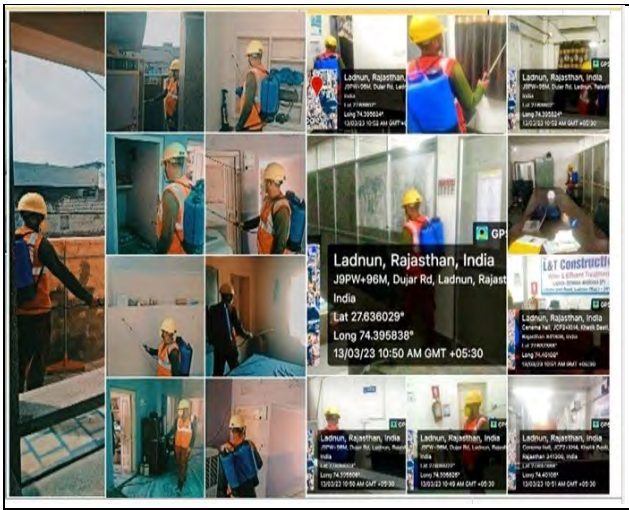
Electrical Safety Training to workers at Site	PEP talk Training to workers at Site (Ladnu)



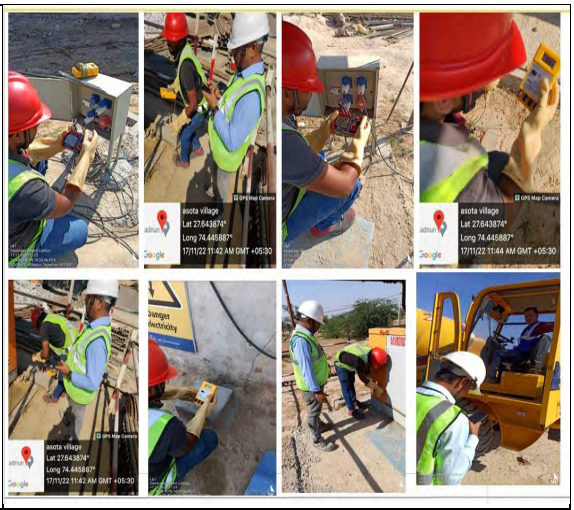
Firefighting Training to workers at Site (Ladnu)	Work at Height Safety Training to workers at Site (Ladnu)



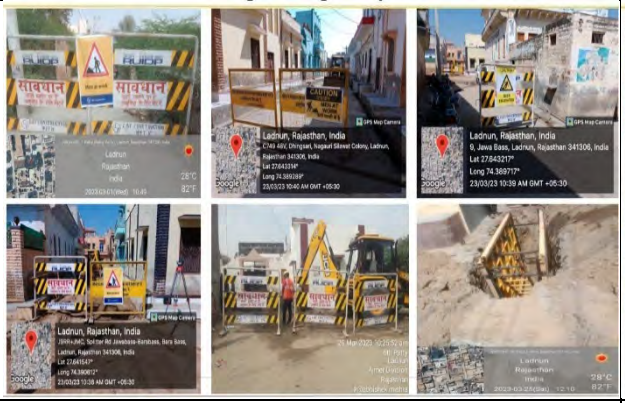
Mockdrill Training on Slip Trial falls to workers at Site	Mockdrill Training on Electrocution falls to workers at Site



Good Practise: COVID Sanitizing activity at Site



Good Practise: Electrical Safety at work Site



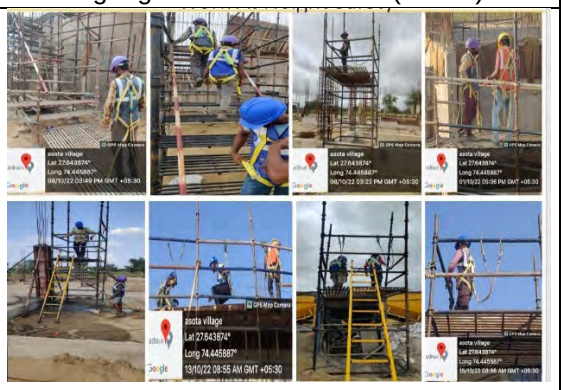
Good Practise: Hard Barricading with Shoring Box at work site (Ladnu)



Good Practise: Hard Barricading with Signage board at work site (Ladnu)



Good Practise: Housekeeping Campaign at work site (Ladnu)



Good Practise: Work at Height with Safety at work site (Ladnu)



Good Practise: Material Storage & Handling Safety at work site (Ladnu)



Good Practise: Tree Plantation at Site (Ladnu)

EHS Activities at Kuchaman Town during October 2022 to March 2023



Alert Training to workers at Site



PEP talk Training to workers at Site

Environmental Monitoring Report

Project Number: 42267-031
Semestral Report: October 2022 – March 2023
September 2023

India: Rajasthan Secondary Towns Development Sector Project

Part 4 of 5: Appendix 8(continued) and Appendices 9 - 10

Prepared by Rajasthan Urban Drinking Water Sewerage and Infrastructure Corporation Limited, Government of Rajasthan for the Asian Development Bank.

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Asian Development Bank



Contractor Workmen training (CWT) to workers on Excavation & Electrical Safety



Site Specific Training to workers at Site



Mockdrill training on Elecrocution to workers ite



Electrical Safety Training to workers at Site



Good Practise: Medical Checkup of workers at Site



Good Practise: Tetanus Vaccination Camp for workers at Site

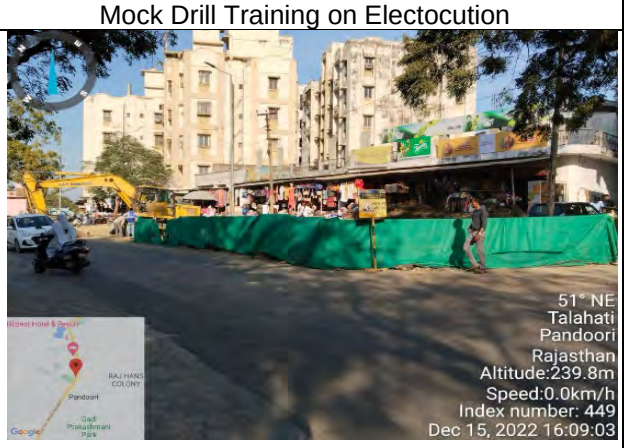
EHS Activities at Khetri Town during October 2022 to March 2023

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td colspan="2">Excavation and Safety Training to workers at Site</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>First Aid and CPR training to workers at site</td><td>Traning to workers on Material handling and Safety at work site</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Thermal Screening of workers at Site</td><td>Hand Sanitizing activity of workers at Site</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>COVID Awareness Training to workers at Site</td><td>HIV-AIDS Awareness training to workers at site</td></tr>
</table>

EHS Activities at Mandawa Town during October 2022 to March 2023

<table>
<tr><td>  </td><td> 
</td></tr>
<tr><td>Electrical safety training</td><td>Work at height safety training</td></tr>
<tr><td>  </td><td> 
</td></tr>
<tr><td>Manual Material handling Training at site</td><td>Electrical Safety Training</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Thermal Screening and Hand Sanitization activity at site On Daily Basis</td><td>HIV/AIDS Awareness Program</td></tr>
</table>

EHS Activities at Abu Road Town during October 2022 to March 2023

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>Photos of Contractor Workmen Training (CWT)</td><td>Mock Drill Training on Electocution</td></tr>
<tr><td> 
</td><td> 
</td></tr>
<tr><td>Good Practice: Barricading</td><td>Good Practice Excavation & trenching</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Good Practise: Electrical Safety at Site</td><td>Good Practise Material handling at site</td></tr>
</table>



EMERGENCY CONTACT NUMBERS		
Designation	Name	Contact
Project Manager	Mr. Pankaj Biswas	7381072389
EHS Officer	Mr. Monuj Saikia	8696759991
Accounts/ Admin	Mr. Milan Parmar	9712193844
Industrial Relation	Mr. Vedang Bhatt	7990959982
Ambulance	Project Ambulance	7627011994
First Aider	Mr. Bhanwar	7014734479
Hospital	Global Hospital	8107778923
Police		100
Fire Service		101



Good Practice - Fire extinguisher, Display of Emergency No. & Posters & Sign Board



Photos of Tree Plantation at worksite



Disinfection activity at worksite



First Aid Training to workers at site



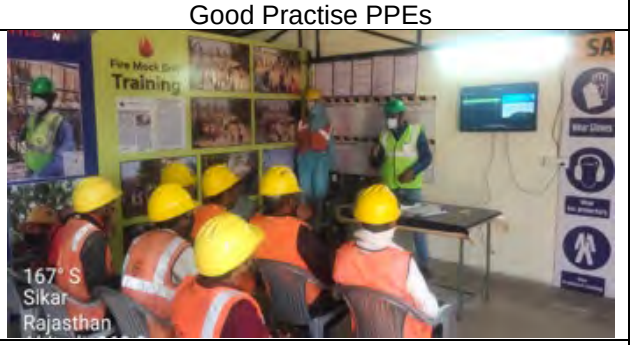
Induction training to workers at site

EHS Activities at Sirohi Town during October 2022 to March 2023

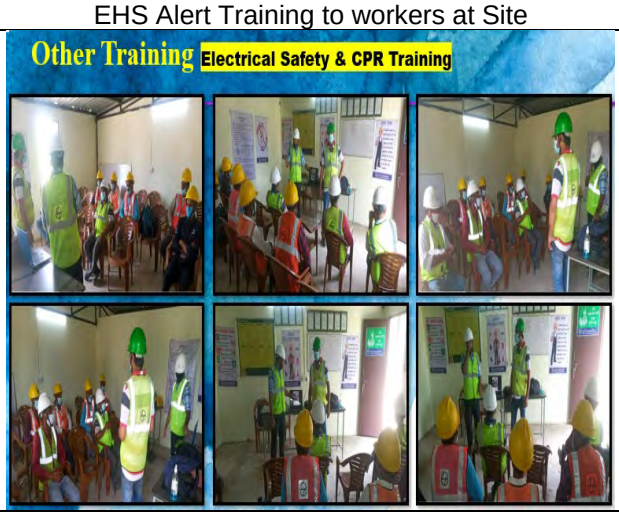
<table>
<tr><td> 
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<tr><td>Photos of Contractor Workmen Training (CWT)</td><td>Site Specific training (SST) to workers at site</td></tr>
<tr><td> 
</td><td>  </td></tr>
<tr><td>Medical Health Checkup to workers at site</td><td>Site Specific Training to workers at site</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Good Practise House Keeping</td><td>Good Practise PPEs</td></tr>
<tr><td>  </td><td> 
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<tr><td>Good Practose - Fire extinguisher at Guest House</td><td>Good Practise Emergency No. Display</td></tr>
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Good Practise Barricading	Good Practise Barricading
	
Good Practise Excavation & trenching	Good Practise Material handling & safety at site

EHS Activities at Fatehpur Town during October 2022 to March 2023

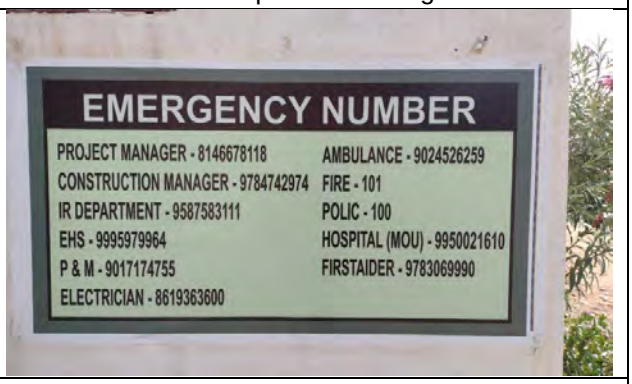
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<tr><td>Medical Health Checkup</td><td>Site Specific Training to workers</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Good Practise House Keeping</td><td>Good Practise PPEs</td></tr>
<tr><td>  </td><td> 
</td></tr>
<tr><td>Elecrical Safety Training</td><td>Induction training</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Others Training (OT)</td><td>EHS Induction & COVID Precaution Training</td></tr>
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EHS Activities at Laxmangarh Town Town during October 2022 to March 2023

<table>
<tr><td> 
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<tr><td>Contractor Workmen Training (CWT) & Site Specific Training (SST) to workers at Site</td><td>Mock Drill Training to workers at Site</td></tr>
<tr><td> 
</td><td>  </td></tr>
<tr><td>EHS Alert Training to workers at Site</td><td>PEP talk to workers at Site</td></tr>
<tr><td> 
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<tr><td>Other Trainings (Electrical Safety & CPR Training)</td><td>Good Practise: Electrical Safety</td></tr>
</table>

	
Good Practise Barricading	Good Practise Excavation & trenching
	
EHS Induction & COVID Precaution Training	Alert Training
	
First Aid Training	HIV/AIDS Awareness camp

EHS Activities at Ratangarh Town Town during October 2022 to March 2023

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>Medical Health Checkup</td><td>Site Specific Training</td></tr>
<tr><td>  </td><td> 
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<tr><td>Good Practose - Fire extinguisher at Guest House</td><td>Good Practise Emergency No. Display</td></tr>
<tr><td> 
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<tr><td>Good Practise - Posters & Sign Board</td><td>Good Practise House Keeping</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>PEP talk</td><td>Alert Training</td></tr>
</table>

	
Training on Road safety	Contractor Workmen training (CWT)

EHS Activities at Sardarshahar Town Town during October 2022 to March 2023

	
Contractor Workmen Training (CWT)	Mock Drill Training
	
Medical Health Checkup	Site Specific Training
	
Training on Work at Height safety	Good Practise: Barricading, Excavation & trenching



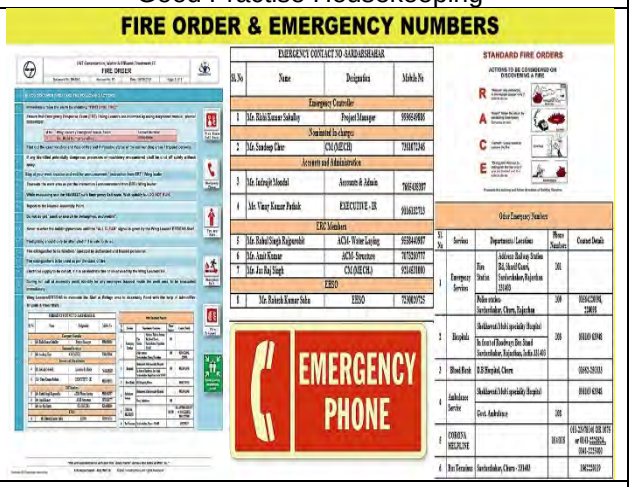
Good Practise Electrical



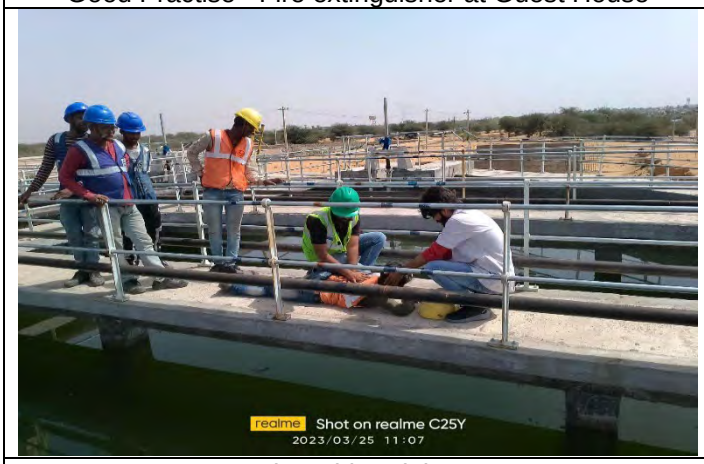
Good Practise Housekeeping



Good Practise - Fire extinguisher at Guest House



Good Practise Emergency No. Display



First Aid Training



Induction training



Elecrical Safety Training



Others Training (OT)

	
Face Mask Distribution	EHS Induction & COVID Precaution Training

EHS Activities at Pratapgarh Town Town during October 2022 to March 2023

	
Contractor Workmen Training (CWT)	Medical Health Checkup
	
Good Practise Barricading	LLA (Life after accident) training

	
Good Practise PPEs	Good Practise Electrical Safety
	
Good Practose - Fire extinguisher at STP	Good Practise Emergency No. Display

EHS Activities at Banswara Town Town during October 2022 to March 2023

	
Contractor Workmen Training (CWT)	PEP talk

	
Good Practise Barricading	Good Practise Excavation & trenching
	
Good Practise House Keeping	Good Practise PPEs

Appendix 9: SAFEGUARD TRAININGS CONDUCTED BY CONTRACTORS (October 2022 to March 2023)
Didwana Town

S.No.	Activities done	Date	Location	Trainer	No. of participants
1.	EHS Alert 1	20/10/22	Zone 05	Robin Maprani	5
2.	EHS Alert 2	01/10/22	Zone 11	Mehrudeen	7
3.	EHS Alert 3	28/10/22	Zone 06	Robin Maprani	6
4.	EHS Alert 4	03/10/22	Zone 11	Robin Maprani	8
5.	Site Specific training 1	30/10/22	Zone 05	Mehrudeen	5
6.	Site Specific training 2	02/10/22	Zone 06	Robin Maprani	8
7.	Contractor Workmen Training 1	20/10/22	Zone 05	Mehrudeen	7
8.	Contractor Workmen Training 2	11/10/22	Zone 11	Mehrudeen	6
9.	Induction Training 1	29/10/22	Zone 06	Robin Maprani	5
10.	Induction Training 2	02/10/22	Zone 11	Robin Maprani	8
11.	Induction Training 3	09/10/22	Zone 05	Mehrudeen	7
12.	Induction Training 4	16/10/22	Zone 06	Mehrudeen	6
13.	EHS Alert 1	20/11/22	Zone 05	Robin Maprani	5
14.	EHS Alert 2	01/11/22	Zone 11	Mehrudeen	7
15.	EHS Alert 3	28/11/22	Zone 06	Robin Maprani	6
16.	EHS Alert 4	03/11/22	Zone 11	Robin Maprani	8
17.	Site Specific training 1	30/11/22	Zone 05	Mehrudeen	5
18.	Site Specific training 2	02/11/22	Zone 06	Robin Maprani	8
19.	Contractor Workmen Training 1	20/11/22	Zone 05	Mehrudeen	7
20.	Contractor Workmen Training 2	11/11/22	Zone 11	Mehrudeen	6
21.	Induction Training 1	29/11/22	Zone 06	Robin Maprani	5
22.	Induction Training 2	02/11/22	Zone 11	Robin Maprani	8
23.	Induction Training 3	09/11/22	Zone 05	Mehrudeen	7
24.	Induction Training 4	16/11/22	Zone 06	Mehrudeen	6
25.	EHS Alert 1	20/12/22	Zone 05	Robin Maprani	5
26.	EHS Alert 2	01/12/22	Zone 11	Mehrudeen	7
27.	EHS Alert 3	28/12/22	Zone 06	Robin Maprani	6
28.	EHS Alert 4	03/12/22	Zone 11	Robin Maprani	8
29.	Site Specific training 1	30/12/22	Zone 05	Mehrudeen	5
30.	Site Specific training 2	02/12/22	Zone 06	Robin Maprani	8
31.	Contractor Workmen Training 1	20/12/22	Zone 05	Mehrudeen	7
32.	Contractor Workmen Training 2	11/12/22	Zone 11	Mehrudeen	6
33.	Induction Training 1	29/12/22	Zone 06	Robin Maprani	5
34.	Induction Training 2	02/12/22	Zone 11	Robin Maprani	8
35.	Induction Training 3	09/12/22	Zone 05	Mehrudeen	7
36.	Induction Training 4	16/12/22	Zone 06	Mehrudeen	6
37.	EHS Alert 1	20/01/23	Zone 05	Robin Maprani	5
38.	EHS Alert 2	01/01/23	Zone 11	Mehrudeen	7
39.	EHS Alert 3	28/01/23	Zone 06	Robin Maprani	6
40.	EHS Alert 4	03/01/23	Zone 11	Robin Maprani	8
41.	Site Specific training 1	30/01/23	Zone 05	Mehrudeen	5

42.	Site Specific training 2	02/01/23	Zone 06	Robin Maprani	8
43.	Contractor Workmen Training 1	20/01/23	Zone 05	Mehrudeen	7
44.	Contractor Workmen Training 2	11/01/23	Zone 11	Mehrudeen	6
45.	Induction Training 1	29/01/23	Zone 06	Robin Maprani	5
46.	Induction Training 2	02/01/23	Zone 11	Robin Maprani	8
47.	Induction Training 3	09/01/23	Zone 05	Mehrudeen	7
48.	Induction Training 4	16/01/23	Zone 06	Mehrudeen	6
49.	EHS Alert 1	20/02/23	Zone 05	Robin Maprani	5
50.	EHS Alert 2	01/02/23	Zone 11	Mehrudeen	7
51.	EHS Alert 3	28/02/23	Zone 06	Robin Maprani	6
52.	EHS Alert 4	03/02/23	Zone 11	Robin Maprani	8
53.	Site Specific training 1	28/02/23	Zone 05	Mehrudeen	5
54.	Site Specific training 2	02/02/23	Zone 06	Robin Maprani	8
55.	Contractor Workmen Training 1	20/02/23	Zone 05	Mehrudeen	7
56.	Contractor Workmen Training 2	11/02/23	Zone 11	Mehrudeen	6
57.	Induction Training 1	29/02/23	Zone 06	Robin Maprani	5
58.	Induction Training 2	02/02/23	Zone 11	Robin Maprani	8
59.	Induction Training 3	09/02/23	Zone 05	Mehrudeen	7
60.	Induction Training 4	16/02/23	Zone 06	Mehrudeen	6
61.	Mock Drill (Slip Trip Fall)	21.03.2023	On site	Jeevan Kumar p k , Mehruddin	10
62.	Mock Drill on Electrocution	29.03.2023	On site	Jeevan Kumar p k , Mehruddin	6
63.	Induction Training	04.03.2023 18.03.2023 24.03.2023 25.03.2023	On site	Jeevan Kumar p k , Mehruddin	24
64.	Contractors work men training	13.03.2023 27.3.2023	On site	Jeevan Kumar p k , Mehruddin	24
65.	Site specific training	3.03.2023 13.03.2023 17.03.2023 18.03.2023 27.03.2023	On site	Jeevan Kumar p k , Mehruddin	54
66.	EHS Alert training	10.03.2023 17.03.2023 20.03.2023 20.03.2023	On site	Jeevan Kumar p k , Mehruddin	33

Makrana Town

S.No.	Activities done	Date	Location	Trainer	No. of participants
1.	EHS Alert 1	11/10/22	Zone 05	Shyam Pal	8
2.	EHS Alert 2	29/10/22	Zone 06	Zakir Khan	7
3.	EHS Alert 3	02/10/22	Zone 07	Robin Maprani	6
4.	EHS Alert 4	09/10/22	Zone 04	Shyam Pal	5
5.	Site Specific training 1	16/10/22	Zone 06	Zakir Khan	5
6.	Site Specific training 2	20/10/22	Zone 05	Robin Maprani	8
7.	Contractor Workmen Training 1	01/10/22	Zone 06	Zakir Khan	7
8.	Contractor Workmen Training 2	28/10/22	Zone 05	Zakir Khan	6
9.	Induction Training 1	03/10/22	Zone 04	Shyam Pal	5
10.	Induction Training 2	10/10/22	Zone 06	Robin Maprani	8
11.	Induction Training 3	02/10/22	Zone 04	Zakir Khan	7
12.	Induction Training 4	20/10/22	Zone 06	Zakir Khan	6
13.	EHS Alert 1	11/11/22	Zone 05	Shyam Pal	8
14.	EHS Alert 2	29/11/22	Zone 06	Zakir Khan	7
15.	EHS Alert 3	02/11/22	Zone 07	Robin Maprani	6
16.	EHS Alert 4	09/11/22	Zone 04	Shyam Pal	5
17.	Site Specific training 1	16/11/22	Zone 06	Zakir Khan	5
18.	Site Specific training 2	20/11/22	Zone 05	Robin Maprani	8
19.	Contractor Workmen Training 1	01/11/22	Zone 06	Zakir Khan	7
20.	Contractor Workmen Training 2	28/11/22	Zone 05	Zakir Khan	6
21.	Induction Training 1	03/11/22	Zone 04	Shyam Pal	5
22.	Induction Training 2	10/11/22	Zone 06	Robin Maprani	8
23.	Induction Training 3	02/11/22	Zone 04	Zakir Khan	7
24.	Induction Training 4	20/11/22	Zone 06	Zakir Khan	6
25.	EHS Alert 1	11/12/22	Zone 05	Shyam Pal	8
26.	EHS Alert 2	29/12/22	Zone 06	Zakir Khan	7
27.	EHS Alert 3	02/12/22	Zone 07	Robin Maprani	6
28.	EHS Alert 4	09/12/22	Zone 04	Shyam Pal	5
29.	Site Specific training 1	16/12/22	Zone 06	Zakir Khan	5
30.	Site Specific training 2	20/12/22	Zone 05	Robin Maprani	8
31.	Contractor Workmen Training 1	01/12/22	Zone 06	Zakir Khan	7
32.	Contractor Workmen Training 2	28/12/22	Zone 05	Zakir Khan	6
33.	Induction Training 1	03/12/22	Zone 04	Shyam Pal	5
34.	Induction Training 2	10/12/22	Zone 06	Robin Maprani	8
35.	Induction Training 3	02/12/22	Zone 04	Zakir Khan	7
36.	Induction Training 4	20/12/22	Zone 06	Zakir Khan	6
37.	EHS Alert 1	11/01/23	Zone 05	Shyam Pal	8
38.	EHS Alert 2	29/01/23	Zone 06	Zakir Khan	7
39.	EHS Alert 3	02/01/23	Zone 07	Robin Maprani	6
40.	EHS Alert 4	09/01/23	Zone 04	Shyam Pal	5
41.	Site Specific training 1	16/01/23	Zone 06	Zakir Khan	5
42.	Site Specific training 2	20/01/23	Zone 05	Robin Maprani	8

43.	Contractor Workmen Training 1	01/01/23	Zone 06	Zakir Khan	7
44.	Contractor Workmen Training 2	28/01/23	Zone 05	Zakir Khan	6
45.	Induction Training 1	03/01/23	Zone 04	Shyam Pal	5
46.	Induction Training 2	10/01/23	Zone 06	Robin Maprani	8
47.	Induction Training 3	02/01/23	Zone 04	Zakir Khan	7
48.	Induction Training 4	20/01/23	Zone 06	Zakir Khan	6
49.	EHS Alert 1	11/02/23	Zone 05	Shyam Pal	8
50.	EHS Alert 2	29/02/23	Zone 06	Zakir Khan	7
51.	EHS Alert 3	02/02/23	Zone 07	Robin Maprani	6
52.	EHS Alert 4	09/02/23	Zone 04	Shyam Pal	5
53.	Site Specific training 1	16/02/23	Zone 06	Zakir Khan	5
54.	Site Specific training 2	20/02/23	Zone 05	Robin Maprani	8
55.	Contractor Workmen Training 1	01/02/23	Zone 06	Zakir Khan	7
56.	Contractor Workmen Training 2	28/02/23	Zone 05	Zakir Khan	6
57.	Induction Training 1	03/02/23	Zone 04	Shyam Pal	5
58.	Induction Training 2	10/02/23	Zone 06	Robin Maprani	8
59.	Induction Training 3	02/02/23	Zone 04	Zakir Khan	7
60.	Induction Training 4	20/02/23	Zone 06	Zakir Khan	6
61.	Mock Drill	16.03.2023	On site	Jeevan Kumar p k ,Shyampal,Adharsh	24
62.	Contractors work men training	25.03.2023 29.03.2023	On site	Jeevan Kumar p k ,Shyampal,Adharsh	14
63.	Site specific training	17.03.223 18.03.2023	On site	Jeevan Kumar p k, Shyam pal, Adharsh	49
64.	EHS Alert training	01.03.2023 02.03.2023	On site	Jeevan Kumar p k, Shyampal, Adharsh	32

Mandawa Town

S.No.	Activities done	Date	Location	Trainer	No. of participants
1.	Work at height training	05-10-2022	STP	Manoj	04
2.	Electrical Safety Training	12-10-2022	STP	Manoj	07
3.	Work at height training	06-11-2022	STP	Manoj	07
4.	Manual Material handling training	22-11-2022	SPS	Manoj	05
5.	Electrical Safety Training	22-11-2022	STP	Manoj	04
6.	Manual Material handling training	12-12-2022	STP	Manoj	06
7.	Work at height training	19-12-2022	SPS	Manoj	05
8.	Electrical Safety Training	30-12-2022	PHED Campus	Manoj	05
9.	Work at height training	11-01-2023	STP	Manoj	07
10.	Electrical work safety training	23-01-2023	SPS	Manoj	08
11.	Work at height training	10-02-2023	STP	Manoj	09
12.	Electrical work safety training	27-02-2023	PHED Campus	Manoj	12
13.	Electrical work safety training	16-03-2023	STP	Manoj	07
14.	Work at height training	31-03-2023	PHED Campus	Manoj	06

Khetri Town

S.No.	Activities done	Date	Location	Trainer	No. of participants
1.	Excavation Safety Training	07-10-2022	ZONE-04	Rajkapoor	5
2.	Excavation Safety Training	13-10-2022	ZONE-03	Rajkapoor	4
3.	Excavation Safety Training	21-10-2022	ZONE-04	Rajkapoor	3
4.	Excavation Safety Training	07-11-2022	ZONE-04	Rajkapoor	4
5.	Excavation Safety Training	15-11-2022	ZONE-03	Rajkapoor	5
6.	Excavation Safety Training	27-11-2022	ZONE-04	Rajkapoor	4
7.	Excavation Safety Training	06-12-2022	ZONE-04	Rajkapoor	7
8.	Excavation Safety Training	17-12-2022	ZONE-03	Rajkapoor	8
9.	Excavation Safety Training	29-12-2022	ZONE-04	Rajkapoor	5
10.	Excavation Safety Training	07-01-2023	ZONE-02	Rajkapoor	6
11.	Excavation Safety Training	18-01-2023	ZONE-03	Rajkapoor	9
12.	Excavation Safety Training	30-01-2023	ZONE-04	Rajkapoor	5
13.	Waste Water – General Introduction	07-02-2023	Ward no. 12	Laxmi Narayan / Rajkapoor	10
14.	Solid Waste – General Introduction	09-02-2023	Ward no. 12	Laxmi Narayan / Rajkapoor	07
15.	HIV-AIDS Awareness	13-02-2023	Darichho ka mohla	Laxmi Narayan / Rajkapoor	09
16.	First Aid and CPR	20-02-2023	STP	Laxmi Narayan / Rajkapoor	09
17.	Plastic Waste – Collection and Storage	27/02/2023	Majisa ka Bag	Rajkapoor	09
18.	Material Handling	28/02/2023	STP	Laxmi Narayan / Rajkapoor	09
19.	World Wildlife Day	03-03-2023	Ward no. 11	Laxmi Narayan / Rajkapoor	05
20.	Solid Waste – General Introduction	10-03-2023	Ward no. 23	Laxmi Narayan / Rajkapoor	07
21.	First Aid	21-03-2023	STP	Laxmi Narayan / Rajkapoor	05
22.	World Water day	25/03/2023	J. En. Campus	Laxmi Narayan /Rajkapoor	05
23.	Causes of Air Pollution	29/03/2023	Majhi sab ka bag	Laxmi Narayan / Rajkapoor	10
24.	Causes of Water Pollution	29/03/2023	Ward No. 06	Laxmi Narayan / Rajkapoor	09

Kuchaman Town

S.No.	Activities done	Date	Location	Trainer	No. of participants
1.	CWT (Excavation & Electrical Safety)	01-10-2022	Kuchaman	Anurag Bagherwal	3
2.	FAT (First Aid Training)	01-10-2022	Kuchaman	Anurag Bagherwal	3
3.	CWT (Excavation & Electrical Safety)	01-10-2022	Kuchaman	Anurag Bagherwal	5
4.	CWT (Excavation & Electrical Safety)	03-10-2022	Kuchaman	Anurag Bagherwal	11
5.	FAT (First Aid Training)	03-10-2022	Kuchaman	Anurag Bagherwal	17
6.	SST (Working on road & Material Handling Safety)	06-10-2022	Kuchaman	Anurag Bagherwal	7
7.	FAT (First Aid Training)	10-10-2022	Kuchaman	Anurag Bagherwal	4
8.	CWT (Excavation & Electrical Safety)	10-10-2022	Kuchaman	Anurag Bagherwal	4
9.	CWT (Excavation & Electrical Safety)	11-10-2022	Kuchaman	Anurag Bagherwal	7
10.	FAT (First Aid Training)	11-10-2022	Kuchaman	Anurag Bagherwal	11
11.	SST (Working on road & Material Handling Safety)	15-10-2022	Kuchaman	Anurag Bagherwal	10
12.	Mock Drill (Electrocution)	15-10-2022	Kuchaman	Anurag Bagherwal	7
13.	MOCK DRILL (Fall of workmen)	15-10-2022	Kuchaman	Anurag Bagherwal	19
14.	CWT (Excavation & Electrical Safety)	01-11-2022	Kuchaman	Anurag Bagherwal	14
15.	FAT (First Aid Training)	01-11-2022	Kuchaman	Anurag Bagherwal	18
16.	FAT (First Aid Training)	04-11-2022	Kuchaman	Anurag Bagherwal	5
17.	CWT (Excavation & Electrical Safety)	04-11-2022	Kuchaman	Anurag Bagherwal	14
18.	FAT (First Aid Training)	05-11-2022	Kuchaman	Anurag Bagherwal	9
19.	FAT (First Aid Training)	07-11-2022	Kuchaman	Anurag Bagherwal	5
20.	CWT (Excavation & Electrical Safety)	07-11-2022	Kuchaman	Anurag Bagherwal	5
21.	CWT (Excavation & Electrical Safety)	11-11-2022	Kuchaman	Anurag Bagherwal	11
22.	SST (Working on road & Material Handling Safety)	12-11-2022	Kuchaman	Anurag Bagherwal	9
23.	CWT (Excavation & Electrical Safety)	14-11-2022	Kuchaman	Anurag Bagherwal	11
24.	CWT (Excavation & Electrical Safety	16-11-2022	Kuchaman	Anurag Bagherwal	10
25.	CWT (Excavation & Electrical Safety	16-11-2022	Kuchaman	Anurag Bagherwal	7
26.	SST (Working on road & Material Handling Safety)	16-11-2022	Kuchaman	Anurag Bagherwal	4
27.	SST (Working on road & Material Handling Safety)	24-11-2022	Kuchaman	Anurag Bagherwal	5
28.	Mock Drill (Electrocution)	11-11-2022	Kuchaman	Anurag Bagherwal	7
29.	Mock Drill Hit By Vehicle	24-11-2022	Kuchaman	Anurag Bagherwal	5
30.	CWT (Excavation & Electrical Safety)	01-12-2022	Kuchaman	Anurag Bagherwal	5
31.	FAT (First Aid Training)	01-12-2022	Kuchaman	Anurag Bagherwal	5
32.	FAT (First Aid Training)	02-12-2022	Kuchaman	Anurag Bagherwal	8
33.	CWT (Excavation & Electrical Safety)	02-12-2022	Kuchaman	Anurag Bagherwal	21
34.	FAT (First Aid Training)	03-12-2022	Kuchaman	Anurag Bagherwal	21
35.	FAT (First Aid Training)	07-12-2022	Kuchaman	Anurag Bagherwal	14
36.	CWT (Excavation & Electrical Safety)	07-12-2022	Kuchaman	Anurag Bagherwal	22
37.	CWT (Excavation & Electrical Safety)	13-12-2022	Kuchaman	Anurag Bagherwal	11
38.	SST (Excavation & Material Handling Safety)	14-12-2022	Kuchaman	Anurag Bagherwal	7
39.	CWT (Excavation & Electrical Safety)	15-12-2022	Kuchaman	Anurag Bagherwal	7
40.	CWT (Excavation & Electrical Safety	17-12-2022	Kuchaman	Anurag Bagherwal	18
41.	CWT (Excavation & Electrical Safety	20-12-2022	Kuchaman	Anurag Bagherwal	13
42.	SST (Excavation Safety &Electrical Safety)	21-12-2022	Kuchaman	Anurag Bagherwal	10
43.	CWT (Excavation & Electrical Safety)	26-12-2022	Kuchaman	Anurag Bagherwal	14
44.	Mock Drill (Electrocution)	19-12-2022	Kuchaman	Anurag Bagherwal	9
45.	Mock Drill Hit By Vehicle	15-12-2022	Kuchaman	Anurag Bagherwal	13

46.	SST	03-01-2023	Kuchaman	Anurag Bagherwal	45
47.	CWT (Excavation Safety, Electrical Safety , Importance of Mandatory Pipes, Material Handling Safety & Safety For Covid 19)	05-01-2023	Kuchaman	Anurag Bagherwal	6
48.	CWT (Excavation Safety, Electrical Safety , Importance of Mandatory Popes, Material Handling Safety & Safety For Covid 19)	06-01-2023	Kuchaman	Anurag Bagherwal	6
49.	First Aid Training	06-01-2023	Kuchaman	Anurag Bagherwal	6
50.	First Aid Training	07-01-2023	Kuchaman	Anurag Bagherwal	6
51.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Pipes, Material Handling Safety & Safety For Covid 19)	07-01-2023	Kuchaman	Anurag Bagherwal	6
52.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Pipes, Material Handling Safety & Safety For Covid 19)	09-01-2023	Kuchaman	Anurag Bagherwal	12
53.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Pipes, Material Handling Safety & Safety For Covid 19)	17-01-2023	Kuchaman	Anurag Bagherwal	5
54.	First Aid Training	17-01-2023	Kuchaman	Anurag Bagherwal	5
55.	First Aid Training	19-01-2023	Kuchaman	Anurag Bagherwal	8
56.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Pipes, Material Handling Safety & Safety For Covid 19)	19-01-2023	Kuchaman	Anurag Bagherwal	7
57.	SST	19-01-2023	Kuchaman	Anurag Bagherwal	9
58.	SST	24-01-2023	Kuchaman	Anurag Bagherwal	12
59.	CWT (Excavation Safety, Electrical Safety, Importance of Mandatory Pipes, Material Handling Safety & Safety For Covid 19)	24-01-2023	Kuchaman	Anurag Bagherwal	4
60.	CWT (Excavation Safety, Electrical Safety, Importance Of Mandatory Ppes, Material Handling Safety & Safety For Covid 19)	27-01-2023	Kuchaman	Anurag Bagherwal	8
61.	EHS ALERT 9	31.01.2023	Kuchaman	Anurag Bagherwal	18 (Staff)
62.	Mock Drill	16-01-2023	Kuchaman	Anurag Bagherwal	10
63.	Mock Drill	19-01-2023	Kuchaman	Anurag Bagherwal	9
64.	CWT (Excavation Safety, Electrical Safety , Importance of Mandatory Pipes & Safety for COVID 19)	02-02-2023	Kuchaman	Anurag Bagherwal	15
65.	First Aid Training	02-02-2023	Kuchaman	Anurag Bagherwal	7
66.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	03-02-2023	Kuchaman	Anurag Bagherwal	9
67.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	08-02-2023	Kuchaman	Anurag Bagherwal	5
68.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	11-02-2023	Kuchaman	Anurag Bagherwal	12
69.	SST	11-02-2023	Kuchaman	Anurag Bagherwal	6
70.	First Aid Training	13-02-2023	Kuchaman	Anurag Bagherwal	7
71.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	17-02-2023	Kuchaman	Anurag Bagherwal	5
72.	SST	20-02-2023	Kuchaman	Anurag Bagherwal	7
73.	First Aid Training	20-02-2023	Kuchaman	Anurag Bagherwal	10
74.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For Covid 19)	20-02-2023	Kuchaman	Anurag Bagherwal	10

75.	First Aid Training	25-02-2023	Kuchaman	Anurag Bagherwal	15
76.	Mock Drill	11-02-2023	Kuchaman	Anurag Bagherwal	8
77.	Mock Drill	22-02-2023	Kuchaman	Anurag Bagherwal	8
78.	EHS Alert 01	01-03-2023	Kuchaman	Anurag Bagherwal	17
79.	EHS Alert 02	03-03-2023	Kuchaman	Anurag Bagherwal	08
80.	SST	03-03-2023	Kuchaman	Anurag Bagherwal	10
81.	SST	03-03-2023	Kuchaman	Anurag Bagherwal	07
82.	SST	10-03-2023	Kuchaman	Anurag Bagherwal	12
83.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	11-03-2023	Kuchaman	Anurag Bagherwal	16
84.	EHS Alert	11-03-2023	Kuchaman	Anurag Bagherwal	11
85.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	13-03-2023	Kuchaman	Anurag Bagherwal	09
86.	EHS Alert (#10,#11,#12)	15-03-2023	Kuchaman	Anurag Bagherwal	06
87.	SST	16-03-2023	Kuchaman	Anurag Bagherwal	21
88.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	17-03-2023	Kuchaman	Anurag Bagherwal	12
89.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	17-03-2023	Kuchaman	Anurag Bagherwal	07
90.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	21-03-2023	Kuchaman	Anurag Bagherwal	06
91.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	23-03-2023	Kuchaman	Anurag Bagherwal	14
92.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	23-03-2023	Kuchaman	Anurag Bagherwal	06
93.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	27-03-2023	Kuchaman	Anurag Bagherwal	11
94.	CWT (Excavation Safety, Electrical Safety , Importance Of Mandatory Ppes, Material Handling Safety & Safety For COVID 19)	27-03-2023	Kuchaman	Anurag Bagherwal	11
95.	First Aid Training	11-03-2023	Kuchaman	Anurag Bagherwal	15
96.	First Aid Training	13-03-2023	Kuchaman	Anurag Bagherwal	06
97.	First Aid Training	17-03-2023	Kuchaman	Anurag Bagherwal	07
98.	First Aid Training	18-03-2023	Kuchaman	Anurag Bagherwal	03
99.	Mock Drill	10-03-2023	Kuchaman	Anurag Bagherwal	09
100.	Mock Drill	15-03-2023	Kuchaman	Anurag Bagherwal	09
101.	Mock Drill	30-03-2023	Kuchaman	Anurag Bagherwal	10

Ladnu Town

S.No.	Activities done	Date	Location	Trainer	No. of participants
1.	Electrocution	19/10/22	Asota	Jeevan Kumar p k , Anil Choudhary	
2.	Snake Bite	29/10/22	Zone 2	Jeevan Kumar p k , Abhishek Mishra	
3.	Induction Training 1	03.10.2022	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	5
4.	Induction Training 2	03.10.2022	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	2
5.	Induction Training 3	04.10.2022	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	2
6.	Induction Training 4	10.10.2022	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	2
7.	Induction Training 5	10.10.2022	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	1
8.	Induction Training 6	17.10.2022	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	3
9.	Induction Training 7	19.10.2022	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	1
10.	Induction Training 8	20.10.2022	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	2
11.	Induction Training 9	20.10.2022	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	10
12.	Contractors work men training		On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	-
13.	Site specific training		On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	-
14.	EHS Alert training		On site	Jeevan Kumar p k , Anil & Abhishek	
15.	Electrocution	28/11/22	Asota	Jeevan Kumar p k , Abhishek mishra	-
16.	Slip trip fall	28/11/22	Zone 2	Jeevan Kumar p k , Abhishek Mishra	
17.	Induction Training		On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	-
18.	Contractors work men training		On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	
19.	Site specific training		On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	
20.	EHS Alert training		On site	Jeevan Kumar p k , Anil & Abhishek	
21.	Electrocution	30/12/22	Asota village	Jeevan Kumar p k , Abhishek mishra	
22.	Slip trip fall	29/12/22	Zone 2	Jeevan Kumar p k , Abhishek Mishra	
23.	Induction Training		On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	
24.	Contractors work men training		On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	
25.	Site specific training		On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	
26.	EHS Alert training		On site	Jeevan Kumar p k , Anil & Abhishek	
27.	Electrocution	31/1/23	Zone 2	Jeevan Kumar p k , Abhishek mishra	
28.	Snake Bite	31/1/23	Asota Village	Jeevan Kumar p k , Abhishek Mishra	
29.	Induction Training -04	28.01.2023	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	6
30.	Site specific training -1	10.01.2023	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	8
31.	Site specific training - 2	11.01.2023	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	5
32.	Site specific training -3	16.01.2023	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	4

33.	Site specific training - 4	28.01.2023	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	5
34.	Contractors work men training	20.01.2023	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	5
35.	Contractors work men training	24.01.2023	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	6
36.	Contractors work men training	27.01.2023	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	6
37.	EHS Alert training (09 Soil collapse)	30.01.2023	On site	Jeevan Kumar p k , Anil & Abhishek	4
38.	Mock drill - 29	31.01.2023	On site	Jeevan Kumar p k , Anil Choudhary, Abhishek Mishra	5
39.	Mock Drill - 30	31.01.2023	On site	Jeevan Kumar p k , Anil & Abhishek	14
40.	Induction Training – 01	03.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	2
41.	Induction Training – 02	06.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	4
42.	Induction Training – 03	06.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	1
43.	Induction Training – 04	11.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	1
44.	Induction Training – 05	18.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	6
45.	EHS Alert - 01	08.2.2023	On site	Jeevan Kumar p k , Abhishek Mishra	4
46.	EHS Alert - 02	09.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	5
47.	Site Specific Training - 01	09.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	7
48.	Site Specific Training - 02	18.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	6
49.	Site Specific Training - 03	24.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	5
50.	Site Specific Training - 04	25.2.2023	On site	Jeevan Kumar p k , Abhishek Mishra	4
51.	CWT - 01	06.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	7
52.	CWT - 02	09.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	6
53.	Mock drill on Slip Trip fall	25.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	6
54.	Mock drill on Hit by vehicle	25.02.2023	On site	Jeevan Kumar p k , Abhishek Mishra	5
55.	Induction Training – 01	03.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	2
56.	Induction Training – 02	**03**.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	6
57.	Induction Training – 03	04.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	1
58.	Induction Training – 04	13.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	6
59.	Induction Training – 05	15.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	3
60.	Induction Training – 06	17.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	6
61.	EHS Alert - 01	03.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	4
62.	EHS Alert - 02	03.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	6
63.	EHS Alert - 03	13.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	10
64.	OJT 01	30.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	14
65.	Site Specific Training - 01	16.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	5
66.	Site Specific Training - 02	20.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	6
67.	Site Specific Training - 03	27.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	6
68.	Contractor Workmen Training - 01	23.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	6
69.	Contractor Workmen Training - 02	24.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	5
70.	Mock drill on Slip Trip fall	27.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	5
71.	Mock drill on Electrocution	27.03.2023	On site	Jeevan Kumar p k , Abhishek Mishra	6

Abu Road Town

1.	Activities done	Date	Location	Trainer	No. of participants
2.	SST	02.11.2022	Manpur	Monuj Saikia	5
3.	EHS ALERT	03.11.2022	Manpur	Monuj Saikia	3
4.	CWT	03.11.2022	Manpur	Monuj Saikia	9
5.	SST	04.11.2022	Manpur	Monuj Saikia	5
6.	OT	04.11.2022	Manpur	Monuj Saikia	5
7.	OT	05.11.2022	Manpur	Monuj Saikia	5
8.	EHS ALERT	11.11.2022	Manpur	Monuj Saikia	7
9.	OT	12.11.2022	Manpur	Monuj Saikia	5
10.	SST	14.11.2022	Manpur	Monuj Saikia	6
11.	CWT	15.11.2022	Manpur	Monuj Saikia	10
12.	CWT	16.11.2022	Manpur	Monuj Saikia	10
13.	SST	16.11.2022	Manpur	Monuj Saikia	5
14.	OT	17.11.2022	Manpur	Monuj Saikia	6
15.	SST	17.11.2022	Manpur	Monuj Saikia	5
16.	SST	17.11.2022	Manpur	Monuj Saikia	6
17.	CWT	19.11.2022	Manpur	Monuj Saikia	9
18.	OT	21.11.2022	Manpur	Monuj Saikia	5
19.	SST	21.11.2022	Manpur	Monuj Saikia	5
20.	SST (STAFF)	21.11.2022	Main Office	Monuj Saikia	10
21.	SST	02.12.2022	Manpur	Monuj Saikia	7
22.	SST	03.12.2022	Manpur	Monuj Saikia	4
23.	EHS alert	05.12.2022	Manpur	Monuj Saikia	4
24.	EHS alert	05.12.2022	Manpur	Monuj Saikia	4
25.	EHS alert	05.12.2022	Manpur	Monuj Saikia	5
26.	EHS alert	07.12.2022	Manpur	Monuj Saikia	5
27.	EHS alert	13.12.2022	Manpur	Monuj Saikia	4
28.	other-Internal	14.12.2022	Manpur	Monuj Saikia	5
29.	EHS alert	15.12.2022	Manpur	Monuj Saikia	5
30.	SST	15.12.2022	Manpur	Monuj Saikia	6
31.	CWT	17.12.2022	Manpur	Monuj Saikia	8
32.	other-Internal	23.12.2022	Manpur	Monuj Saikia	6
33.	CWT	26.12.2022	Manpur	Monuj Saikia	8
34.	CWT	28.12.2022	Manpur	Monuj Saikia	6
35.	SST	02.01.2023	Manpur	Monuj Saikia	6
36.	CWT	04.01.2023	Manpur	Monuj Saikia	10
37.	EHS alert	06.01.2023	Manpur	Monuj Saikia	5
38.	CWT	10.01.2023	Manpur	Monuj Saikia	11
39.	SST	10.01.2023	Manpur	Monuj Saikia	6
40.	other-Internal	12.01.2023	Manpur	Monuj Saikia	6
41.	EHS Alert	04.02.2023	Gandhinagar	Monuj Saikia	5
42.	Other-Internal	06.02.2023	Manpur	Monuj Saikia	6
43.	SST	06.02.2023	Santpur	Monuj Saikia	5
44.	SST	06.02.2023	Manpur	Monuj Saikia	6
45.	SST	07.02.2023	Manpur	Monuj Saikia	5

46.	other-Internal	08.02.2023	Manpur	Monuj Saikia	5
47.	CWT	13.02.2023	Manpur	Monuj Saikia	7
48.	SST	24.03.2023	Manpur	Monuj Saikia	4
49.	CWT	22.03.2023	Manpur	Monuj Saikia	11
50.	CWT	18.03.2023	Santpur	Monuj Saikia	6
51.	SST	03.03.2023	Manpur	Monuj Saikia	4
52.	other-Internal	17.03.2023	Manpur	Monuj Saikia	6
53.	other-Internal	23.03.2023	Manpur	Monuj Saikia	5
54.	SST	15.03.2023	Manpur	Monuj Saikia	5
55.	CWT	18.03.2023	Manpur	Monuj Saikia	6
56.	SST	29.03.2023	Manpur	Monuj Saikia	5
57.	SST	11.03.2023	Manpur	Monuj Saikia	5

Sirohi town

S. No.	Activities done	Date	Location	Trainer	No. of participants
1.	On Job Training	01.11.22	Sirohi	Satish/Subhash	6
2.	Site specific Training	02.11.22	Sirohi	Yogesh /Satish	11
3.	Site specific Training	05.11.22	Sirohi	Satish	10
4.	CWT Training	10.11.22	Sirohi	Subhash	14
5.	Site specific Training	11.11.22	Sirohi	Yogesh	12
6.	On Job Training	12.11.22	Sirohi	Satish/Subhash	7
7.	CWT Training	15.11.22	Sirohi	Yogesh /Satish	18
8.	CWT Training	19.11.22	Sirohi	Satish	12
9.	Site specific Training	22.11.22	Sirohi	Subhash	11
10.	Site specific Training	24.11.22	Sirohi	Yogesh	5
11.	Site specific Training	28.11.22	Sirohi	Satish/Yogesh	13
12.	Mock Drill	28.11.22	Sirohi	Subhash	8
13.	Mock Drill	29.11.22	Sirohi	Yogesh	10
14.	On Job Training	03/12/22	Sirohi	Satish/Subhash	13
15.	Site specific Training	05/12/22	Sirohi	Yogesh /Satish	09
16.	Site specific Training	06/12/22	Sirohi	Satish	12
17.	On Job Training	06/12/22	Sirohi	Subhash	08
18.	Site specific Training	07/12/22	Sirohi	Yogesh	17
19.	Site specific Training	10/12/22	Sirohi	Satish/Subhash	8
20.	Site specific Training	12/12/22	Sirohi	Yogesh /Satish	25
21.	Site specific Training	12/12/22	Sirohi	Satish	08
22.	On Job Training	13/12/22	Sirohi	Subhash	09
23.	Site specific Training	14/12/22	Sirohi	Yogesh	11
24.	Site specific Training	17/12/22	Sirohi	Satish/Yogesh	22
25.	Site specific Training	19/12/22	Sirohi	Subhash	14
26.	CWT Training	19/12/22	Sirohi	Yogesh	23
27.	On Job Training	21/12/22	Sirohi	Satish	09
28.	Site specific Training	21/12/22	Sirohi	Subhash	09
29.	CWT Training	24/12/22	Sirohi	Yogesh	30

30.	Site specific Training	26/12/22	Sirohi	Satish/Yogesh	06
31.	On Job Training	28/12/22	Sirohi	Subhash	09
32.	On Job Training	29/12/22	Sirohi	Satish/Yogesh	09
33.	Mock Drill	29/12/22	Sirohi	Subhash	09
34.	Mock Drill	30/12/22	Sirohi	Satish/Yogesh	09
35.	On Job Training	03/01/23	Sirohi	Satish	15
36.	Site specific Training	05/01/23	Sirohi	Subhash	12
37.	Site specific Training	06/01/23	Sirohi	Yogesh	10
38.	On Job Training	06/01/23	Sirohi	Satish/Subhash	11
39.	Site specific Training	07/01/23	Sirohi	Yogesh /Satish	09
40.	Site specific Training	10/01/23	Sirohi	Satish	08
41.	Site specific Training	12/01/23	Sirohi	Subhash	07
42.	Site specific Training	12/01/23	Sirohi	Yogesh	11
43.	On Job Training	13/01/23	Sirohi	Satish/Yogesh	19
44.	Site specific Training	14/01/23	Sirohi	Subhash	08
45.	Site specific Training	17/01/23	Sirohi	Satish/Yogesh	11
46.	Site specific Training	19/01/23	Sirohi	Subhash	13
47.	CWT Training	19/01/23	Sirohi	Satish/Yogesh	14
48.	On Job Training	21/01/23	Sirohi	Satish/Yogesh	08
49.	Site specific Training	21/01/23	Sirohi	Subhash	07
50.	CWT Training	24/01/23	Sirohi	Satish/Yogesh	19
51.	Site specific Training	26/01/23	Sirohi	Subhash	21
52.	On Job Training	28/01/23	Sirohi	Satish/Yogesh	23
53.	On Job Training	29/01/23	Sirohi	Satish/Yogesh	19
54.	Mock Drill	29/01/23	Sirohi	Satish	09
55.	Mock Drill	30/01/23	Sirohi	Subhash	12
56.	CWT Training	02/02/23	Sirohi	Yogesh	15
57.	SST Training	05/02/23	Sirohi	Satish/Subhash	12
58.	SST Training	07/02/23	Sirohi	Yogesh /Satish	10
59.	CWT Training	12/02/23	Sirohi	Satish	11
60.	CWT Training	15/02/23	Sirohi	Subhash	09
61.	On Job Training	17/02/23	Sirohi	Satish/Yogesh	08
62.	On Job Training	20/02/23	Sirohi	Satish/Yogesh	07
63.	CWT Training	04/03/23	Sirohi	Satish	12
64.	SST Training	05/03/23	Sirohi	Satish/Subhash	10
65.	SST Training	08/03/23	Sirohi	Subhash /Satish	05
66.	CWT Training	12/03/23	Sirohi	Satish	13
67.	CWT Training	13/03/23	Sirohi	Subhash	15
68.	On Job Training	19/03/23	Sirohi	Satish/Subhash	10
69.	On Job Training	21/03/23	Sirohi	Satish/Subhash	06
70.	SST Training	22/03/23	Sirohi	Satish	07
71.	SST Training	23/03/23	Sirohi	Subhash	09
72.	On Job Training	25/03/23	Sirohi	Subhash	07
73.	On Job Training	27/03/23	Sirohi	Satish/Subhash	09

74.	On Job Training	27/03/23	Sirohi	Satish/Subhash	08
75.	Mock Drill	28/03/23	Sirohi	Subhash /Satish	15
76.	Mock Drill	30/03/23	Sirohi	Satish	12

Fatehpur Town

S. No.	Activities done	Date	Location	Trainer	No. of participants
1.	EHS ALERT	06.11.2022	Fatehpur	Ikram Khan	6
2.	EHS ALERT	11.11.2022	Fatehpur	Ikram Khan	7
3.	MOCKDRIL	15.11.2022	Fatehpur	Ikram Khan	8
4.	SST	16.11.2022	Fatehpur	Ikram Khan	6
5.	SST	18.11.2022	Fatehpur	Ikram Khan	5
6.	EHS ALERT	10.12.2022	Fatehpur	Ikram Khan	6
7.	EHS ALERT	21.12.2022	Fatehpur	Ikram Khan	7
8.	MOCKDRIL	15.12.2022	Fatehpur	Ikram Khan	8
9.	SST	24.12.2022	Fatehpur	Ikram Khan	6
10.	SST	26.12.2022	Fatehpur	Ikram Khan	5
11.	CWT	15.01.2023	Fatehpur	Ikram Khan	12
12.	Induction	18.01.2023	Fatehpur	Ikram Khan	14
13.	CWT	22.01.2023	Fatehpur	Ikram Khan	8
14.	SST	23.01.2023	Fatehpur	Ikram Khan	4
15.	Induction	25.01.2023	Fatehpur	Ikram Khan	18
16.	EHS ALERT	12.02.2023	Fatehpur	Ikram Khan	6
17.	EHS ALERT	13.02.2023	Fatehpur	Ikram Khan	8
18.	MOCKDRIL	15.02.2023	Fatehpur	Ikram Khan	10
19.	SST	14.02.2023	Fatehpur	Ikram Khan	7
20.	SST	16.02.2023	Fatehpur	Ikram Khan	9
21.	CWT	15.02.2023	Fatehpur	Ikram Khan	6
22.	Induction	18.02.2023	Fatehpur	Ikram Khan	8
23.	CWT	22.02.2023	Fatehpur	Ikram Khan	7
24.	SST	23.02.2023	Fatehpur	Ikram Khan	8
25.	Induction	25.02.2023	Fatehpur	Ikram Khan	7
26.	SST	31.03.2023	Fatehpur	Mr.Kamalesh, Mr.Anil singh, Mis Manisha, Mr.Sunil kumar	25

Laxmangarh town

S. No.	Activities done	Date	Location	Trainer	No. of participants
1.	Induction	11/1/2022	Laxmangarh	Vinayak Dev, Saved Khan	1
2.	CWT	11/1/2022	Laxmangarh	Vinayak Dev, Saved Khan	1
3.	Induction	11/2/2022	Laxmangarh	Vinayak Dev, Saved Khan	5
4.	CWT	11/2/2022	Laxmangarh	Vinayak Dev, Saved Khan	5
5.	SST	11/7/2022	Laxmangarh	Vinayak Dev, Saved Khan	3
6.	Induction	11/8/2022	Laxmangarh	Vinayak Dev, Saved Khan	14
7.			Laxmangarh	Vinayak Dev, Saved Khan	2
8.	CWT	11/8/2022	Laxmangarh	Vinayak Dev, Saved Khan	14
9.			Laxmangarh	Vinayak Dev, Saved Khan	2
10.	SST	11/9/2022	Laxmangarh	Vinayak Dev, Saved Khan	4
11.	Induction	11/11/2022	Laxmangarh	Vinayak Dev, Saved Khan	3
12.	CWT	11/11/2022	Laxmangarh	Vinayak Dev, Saved Khan	3
13.	Induction	11/14/2022	Laxmangarh	Vinayak Dev, Saved Khan	5
14.	CWT	11/14/2022	Laxmangarh	Vinayak Dev, Saved Khan	5
15.	SST	11/14/2022	Laxmangarh	Vinayak Dev, Saved Khan	3
16.	EHS Alert Training	11/14/2022	Laxmangarh	Vinayak Dev, Saved Khan	5
17.	Induction	11/19/2022	Laxmangarh	Vinayak Dev, Saved Khan	2
18.		11/19/2022	Laxmangarh	Vinayak Dev, Saved Khan	1
19.	CWT	11/19/2022	Laxmangarh	Vinayak Dev, Saved Khan	2
20.		11/19/2022	Laxmangarh	Vinayak Dev, Saved Khan	1
21.	EHS Alert Training	11/23/2022	Laxmangarh	Vinayak Dev, Saved Khan	1
22.			Laxmangarh	Vinayak Dev, Saved Khan	1
23.	Induction	11/29/2022	Laxmangarh	Vinayak Dev, Saved Khan	4
24.	CWT	11/29/2022	Laxmangarh	Vinayak Dev, Saved Khan	4
25.	Induction	12/5/2022	Laxmangarh	Vinayak Dev, Saved Khan	1
26.	CWT	12/7/2022	Laxmangarh	Vinayak Dev, Saved Khan	1
27.	Induction	12/8/2022	Laxmangarh	Vinayak Dev, Saved Khan	5
28.	CWT	12/8/2022	Laxmangarh	Vinayak Dev, Saved Khan	5
29.	SST	12/10/2022	Laxmangarh	Vinayak Dev, Saved Khan	3
30.	Induction	12/14/2022	Laxmangarh	Vinayak Dev, Saved Khan	14
31.		12//2022	Laxmangarh	Vinayak Dev, Saved Khan	2
32.	CWT	12/17/2022	Laxmangarh	Vinayak Dev, Saved Khan	14
33.		12//2022	Laxmangarh	Vinayak Dev, Saved Khan	2
34.	SST	12/20/2022	Laxmangarh	Vinayak Dev, Saved Khan	4
35.	Induction	12/20/2022	Laxmangarh	Vinayak Dev, Saved Khan	3
36.	CWT	12/22/2022	Laxmangarh	Vinayak Dev, Saved Khan	3
37.	Induction	12/21/2022	Laxmangarh	Vinayak Dev, Saved Khan	5
38.	CWT	12/24/2022	Laxmangarh	Vinayak Dev, Saved Khan	5
39.	SST	12/24/2022	Laxmangarh	Vinayak Dev, Saved Khan	3
40.	EHS Alert Training	12/26/2022	Laxmangarh	Vinayak Dev, Saved Khan	5
41.	Induction	12/28/2022	Laxmangarh	Vinayak Dev, Saved Khan	2
42.		12//2022	Laxmangarh	Vinayak Dev, Saved Khan	1
43.	CWT	12/28/2022	Laxmangarh	Vinayak Dev, Saved Khan	2
44.		12//2022	Laxmangarh	Vinayak Dev, Saved Khan	1
45.	EHS Alert Training	12/29/2022	Laxmangarh	Vinayak Dev, Saved Khan	1
46.		12//2022	Laxmangarh	Vinayak Dev, Saved Khan	1
47.	Induction	12/29/2022	Laxmangarh	Vinayak Dev, Saved Khan	4

48.	CWT	12/29/2022	Laxmangarh	Vinayak Dev, Saved Khan	4
49.	Induction	11.01.2023	Laxmangarh	Vinayak Dev, Saved Khan	
50.	CWT	15.01.2023	Laxmangarh	Vinayak Dev, Saved Khan	14
51.	Induction	18.01.2023	Laxmangarh	Vinayak Dev, Saved Khan	4
52.	CWT	22.01.2023	Laxmangarh	Vinayak Dev, Saved Khan	5
53.	SST	23.01.2023	Laxmangarh	Vinayak Dev, Saved Khan	10
54.	Induction	25.01.2023	Laxmangarh	Vinayak Dev, Saved Khan	6
55.	SST	07.02.2023	Laxmangarh	Vinayak Dev, Saved Khan	7
56.	Induction	09.02.2023	Laxmangarh	Vinayak Dev, Saved Khan	8
57.	CWT	11.02.2023	Laxmangarh	Vinayak Dev, Saved Khan	5
58.	Induction	16.02.2023	Laxmangarh	Vinayak Dev, Saved Khan	11
59.	CWT	21.02.2023	Laxmangarh	Vinayak Dev, Saved Khan	4
60.	SST	22.02.2023	Laxmangarh	Vinayak Dev, Saved Khan	9
61.	EHS Alert Training	24.02.2023	Laxmangarh	Vinayak Dev, Saved Khan	6
62.	CWT	27.02.2023	Laxmangarh	Vinayak Dev, Saved Khan	8
63.	SST	31/03/2023	Laxmangarh	Mr Neeraj, Mr. Jeevan Mr. Sohan, Mis. Priyanka Mis, Pooja, Mr. Ajai, Mr. Maneesh	35

Ratangarh Town

S. No.	Activities done	Date	Location	Trainer	No. of participants
1	3	30/11/2022	Ratangarh	Praveen singh and Himanshu mandan	150
2	3	30/12/2022	Ratangarh	Praveen singh and Himanshu mandan	150
3	Awareness Training to Locality	31/01/2023	Ratangarh	Praveen Singh and Himanshu Mandan	165
4	4	28/02/2023	Ratangarh	Praveen singh and Himanshu mandan	165
5	6	31/03/2023	Ratangarh	Praveen singh and Himanshu mandan	179

Sardarshahar town

S. No.	Activities done	Date	Location	Trainer	No. of participants
1.	CWT-Work At Height	10.11.2022	STP 2.3	Monish Khan	09
2.	CWT-Excavation Safety	29.11.2022	workmen Camp	Monish Khan	14
3.	SST-View EHS	23.11.2022	L & T Office	Rakesh Kumar Sahu	16
4.	SST- Work At Height	28.11.2022	STP 2.3	Israyeel Khan	08
5.	OT-Dengue Prevention	29.11.2022	SPS 2.3	Israyeel Khan	06
6.	MD-Hit By Object	28.11.2022	Ramnagar	Monish Khan	09
7.	MD-Snake Bite	29.11.2022	workmen Camp	Monish & Israyeel	14
8.	MD-Electrofusion	10.11.2022	STP 2.3	Monish Khan	11
9.	EHS Alert 07	04.11.2022	STP 3.4	Monish Khan	19
10.	EHS Alert 08	05.11.2022	Sardarshahar	Rakesh Kumar Sahu	05
11.	EHS Alert 08	24.11.2022	Sardarshahar	Rakesh Kumar Sahu	08
12.	EHS Alert 08	25.11.2022	Sardarshahar	Rakesh Kumar Sahu	06
13.	EHS Alert 08	25.11.2022	Sardarshahar	Rakesh Kumar Sahu	15
14.	EHS Alert 08	24.11.2022	Sardarshahar	Rakesh Kumar Sahu	07
15.	EHS Alert 08	24.11.2022	Sardarshahar	Rakesh Kumar Sahu	09
16.	EHS Alert 08	24.11.2022	Sardarshahar	Rakesh Kumar Sahu	08
17.	CWT-Work At Height	23.12.2022	Sardarshahar	Monish Khan	08
18.	SST-AIDS	01.12.2022	Sardarshahar	Monish Khan	08
19.	SST-Grinding Machine	08.12.2022	Sardarshahar	Israyeel Khan	32
20.	SST- Electrical Safety	15.12.2022	Sardarshahar	Rakesh Kumar Sahu	35
21.	OT-Health Surveillance	29.11.2022	Sardarshahar	Israyeel Khan	06
22.	MD-Hit By Object	24.12.2022	Sardarshahar	Israyeel Khan	11
23.	MD-Electrofusion	23.12.2022	Sardarshahar	Monish Khan	8
24.	EHS Alert	14.12.2022	Sardarshahar	Monish Khan	7
25.	EHS Alert	17.12.2022	Sardarshahar	Monish Khan	6
26.	EHS Alert	19.12.2022	Sardarshahar	Rakesh Kumar Sahu	10
27.	SST-Air Pollution	02.12.2022	Sardarshahar	Rakesh Kumar Sahu	10
28.	SST-Health Surveillance	02.12.2022	Sardarshahar	Rakesh Kumar Sahu	14
29.	SST-Health Surveillance	01.12.2022	Sardarshahar	Israyeel Khan	07
30.	SST-Health Surveillance	01.12.2022	Sardarshahar	Israyeel Khan	14
31.	SST-Grinding Machine	08.12.2022	Sardarshahar	Israyeel Khan	06
32.	CWT-Work At Height	13.01.2023	Sardarshahar	Rakesh Kumar Sahu	13
33.	CWT-Excavation Safety	14.01.2023	Sardarshahar	Rakesh Kumar Sahu	12
34.	SST-BBS	03.01.2023	Sardarshahar	Rakesh Kumar Sahu	19
35.	SST- Defensive Driving(Staff)	10.01.2023	Sardarshahar	Rakesh Kumar Sahu	27
36.	OT-Fire Safety	02.01.2023	Sardarshahar	Rakesh Kumar Sahu	07
37.	MD-Hit By Two Wheeler	24.01.2023	Sardarshahar	Rakesh Kumar Sahu	13
38.	MD-Hit By Sharp Edge	12.01.2023	Sardarshahar	Rakesh Kumar Sahu	7
39.	EHS Alert	25.01.2023	Sardarshahar	Rakesh Kumar Sahu	9
40.	EHS Alert	27.01.2023	Sardarshahar	Rakesh Kumar Sahu	12
41.	EHS Alert	30.01.2023	Sardarshahar	Rakesh Kumar Sahu	04
42.	SST-Grinding Safety	07.01.2023	Sardarshahar	Rakesh Kumar Sahu	12
43.	SST-Work At Height	05.01.2023	Sardarshahar	Rakesh Kumar Sahu	17
44.	SST-Defensive Driving	01.12.2022	Sardarshahar	Rakesh Kumar Sahu	07
45.	SST-BBS	04.01.2023	Sardarshahar	Rakesh Kumar Sahu	09
46.	SST-Grinding Machine	23.01.2023	Sardarshahar	Rakesh Kumar Sahu	09
47.	CWT-Behavioral Based Safety	07.02.2023	Sardarshahar	Rakesh Kumar Sahu	58
48.	CWT-Excavation Safety	14.01.2023	Sardarshahar	Rakesh Kumar Sahu	12
49.	SST-Work At Height	24.02.2023	Sardarshahar	Rakesh Kumar Sahu	05
50.	SST- ERP Training	24.02.2023	Sardarshahar	Rakesh Kumar Sahu	10

51.	OT-Fire Safety	23.02.2023	Sardarshahar	Rakesh Kumar Sahu	05
52.	MD-Electrofusion	15.02.2023	Sardarshahar	Rakesh Kumar Sahu	12
53.	MD-Hit By Object	25.02.2023	Sardarshahar	Rakesh Kumar Sahu	11
54.	EHS Alert 10	11.02.2023	Sardarshahar	Rakesh Kumar Sahu	15
55.	EHS Alert 09	16.02.2023	Sardarshahar	Rakesh Kumar Sahu	16
56.	EHS Alert 10	10.02.2023	Sardarshahar	Rakesh Kumar Sahu	09
57.	SST-Grinding Safety	07.02.2023	Sardarshahar	Rakesh Kumar Sahu	10
58.	SST-Work At Height	05.02.2023	Sardarshahar	Rakesh Kumar Sahu	14
59.	SST-Defensive Driving	01.02.2022	Sardarshahar	Rakesh Kumar Sahu	09
60.	EHS Alert 10	18.02.2023	Sardarshahar	Rakesh Kumar Sahu	05
61.	CWT-Behavioral Based Safety	17.03.2023	Sardarshahar	Rakesh Kumar Sahu	05
62.	CWT-Excavation Safety	18.03.2023	Sardarshahar	Rakesh Kumar Sahu	08
63.	SST-Work At Height	21.03.2023	Sardarshahar	Rakesh Kumar Sahu	06
64.	SST- BBS Training	03.03.2023	Sardarshahar	Rakesh Kumar Sahu	10
65.	OT-ERP Training	04.03.2023	Sardarshahar	Rakesh Kumar Sahu	05
66.	MD-Drowning Hazard	25.03.2023	Sardarshahar	Rakesh Kumar Sahu	09
67.	MD-Fall Person	18.03.2023	Sardarshahar	Rakesh Kumar Sahu	09
68.	EHS Alert 11	13.03.2023	Sardarshahar	Rakesh Kumar Sahu	04
69.	EHS Alert 12	11.03.2023	Sardarshahar	Rakesh Kumar Sahu	05
70.	EHS Alert 11	16.03.2023	Sardarshahar	Rakesh Kumar Sahu	05
71.	SST-Grinding Safety	10.03.2023	Sardarshahar	Rakesh Kumar Sahu	04
72.	SST-Work At Height	18.03.2023	Sardarshahar	Rakesh Kumar Sahu	05
73.	SST-BBS Training	04.03.2022	Sardarshahar	Rakesh Kumar Sahu	08
74.	EHS Alert Staff	04.03.2023	Sardarshahar	Rakesh Kumar Sahu	16

Banswara Town

S. No.	Activities done	Date	Location	Trainer	No. of participants
1.	Work at Height safety training	03/11/2022	STP	Faisal	12
2.	Excavation Safety training	0511/2022	WTP	Faisal	09
3.	PPE ‘s safety Training	09/11/2022	Bahubali colony	Faisal	20
4.	Material manual Handling	12/11/2022	STP	Faisal	10
5.	Loading unloading safety	16/11/2022	STP	Faisal	05
6.	Electrical safety training	17/11/2022	WTP	Faisal	05
7.	Ladder Safety training	19/11/2022	STP	Faisal	10
8.	Covid-19 Safety training	22/112022	Dahod road	Faisal	10
9.	Housekeeping training	25/11/2022	WTP	Faisal	15
10.	Fire Safety Training	29/11/2022	WTP	Faisal	10
11.	Mock-drill on Electrical Safety	27-12-2022	STP	Ashish rawat	07
12.	Fire Fighting Training	28-12-2022	WTP	Ashish rawat	06
13.	Co-vid Precaution Training	28-12-2022	STP	Ashish rawat	12
14.	Electrical Safety Training	27-12-2022	STP	Ashish rawat	20
15.	Road Safety Training	28-12-2022	Ratlam Road	Ashish rawat	15
16.	Height Safety Training	30-12-2022	STP	Ashish rawat	07
17.	PPE Talks	27-12-2022	WTP	Ashish rawat	10
18.	Housekeeping training	31-12-2022	Ratlam Road	Ashish rawat	06
19.	Labour meeting	24-12-2022	Surajpoll Gate	Ashish rawat	11
20.	Material handling training	23-12-2022	STP	Ashish rawat	06
21.	General safety training	25-12-2022	STP	Ashish rawat	12
22.	Material handling training	23-12-2022	STP	Ashish rawat	06
23.	Labour meeting	24-12-2022	Surajpoll Gate	Ashish rawat	11

24.	General safety training	25-12-2022	STP	Ashish rawat	12
25.	PPE Talks	27-12-2022	WTP	Ashish rawat	10
26.	Electrical Safety Training	27-12-2022	STP	Ashish rawat	20
27.	Mock-drill on Electrical Safety	27-12-2022	STP	Ashish rawat	07
28.	Fire Fighting Training	28-12-2022	WTP	Ashish rawat	06
29.	Co-vid Precaution Training	28-12-2022	STP	Ashish rawat	12
30.	Road Safety Training	28-12-2022	Ratlam Road	Ashish rawat	15
31.	Height Safety Training	30-12-2022	STP	Ashish rawat	07
32.	Housekeeping training	31-12-2022	Ratlam Road	Ashish rawat	06
33.	Road Safety	21-01-2023	Udaipur Road	Ashish rawat	7
34.	General Safety Rule	22-01-2023	STP	Ashish rawat	6
35.	Height Work Safety	27-01-2023	STP	Ashish rawat	12
36.	Disinfection Safety	24-01-2023	Udaipur Road	Ashish rawat	20
37.	Labour Meeting	12-01-2023	Bhagatsingh Colony	Ashish rawat	15
38.	Health Checkup	19-01-2023	CAMP	Ashish rawat	7
39.	House Keeping	Regular	Every Site	Ashish rawat	10
40.	Thermal Screening	Regular	Every Site	Ashish rawat	6
41.	Sanitization	Regular	Every Site	Ashish rawat	11
42.	Work at Height safety training	23/02/2023	STP	Ashish Rawat	12
43.	Excavation Safety training	15/02/2023	Madareshwar road	Ashish Rawat	20
44.	PPE ‘s safety Training	08/02/2023	AmbaWari	Ashish Rawat	15
45.	Material manual Handling	12/02/2023	STP	Ashish Rawat	20
46.	Loading unloading safety	13/02/2023	Nayi awadi	Ashish Rawat	12
47.	General safety rule	19/02/2023	Madar colony	Ashish Rawat	20
48.	Labour meeting	14/02/2023	Ratlam road	Ashish Rawat	30
49.	Housekeeping training	25/02/2023	Muslim colony	Ashish Rawat	25
50.	First aid Safety Training	24/02/2023	STP	Ashish Rawat	15
51.	Work at Height safety training	28/03/2023	STP	Ashis Rawat	12
52.	Excavation Safety training	25/03/2023	WTP	Ashis Rawat	20
53.	PPE ‘s safety Training	23/03/2023	WTP	Ashis Rawat	15
54.	Material manual Handling	22/03/2023	STP	Ashis Rawat	20
55.	Housekeeping training	30/03/2023	STP	Ashis Rawat	25
56.	First aid Safety Training	27/03/2023	STP	Ashis Rawat	15

Pratapgarh town

S. No.	Activities done	Date	Location	Trainer	No. of participants
1.	Work at Height safety training	02/11/2022	SPS	Ashutosh Kumar	20
2.	Excavation Safety training	0511/2022	Bagwas	Ashutosh Kumar	10
3.	PPE ‘s safety Training	09/11/2022	STP	Ashutosh Kumar	20
4.	Material manual Handling	12/11/2022	STP	Ashutosh Kumar	10
5.	Loading unloading safety	15/11/2022	Bada Bagh	Ashutosh Kumar	05
6.	Electrical safety training	17/11/2022	Bagwas NH	Ashutosh Kumar	05
7.	Ladder Safety training	19/11/2022	SPS	Ashutosh Kumar	10
8.	Covid-19 Safety training	23/112022	STP	Ashutosh Kumar	06
9.	Housekeeping training	25/11/2022	Nakoda Nagar	Ashutosh Kumar	20
10.	Fire Safety Training	29/11/2022	STP	Ashutosh Kumar	15
11.	Road safety Training	01/12/2022	SPS	Ashutosh Kumar	15
12.	Excavation Safety training	05/12/2022	Nakoda Nagar	Ashutosh Kumar	07

13.	PPE ‘s safety Training	08/12/2022	SPS	Ashutosh Kumar	40
14.	Material manual Handling	12/12/2022	SPS	Ashutosh Kumar	10
15.	Loading unloading safety	16/12/2022	Kachhi Basti	Ashutosh Kumar	05
16.	Covid-19 Safety training	19/12/2022	STP	Ashutosh Kumar	10
17.	Work at Height safety training	25/12/2022	STP	Ashutosh Kumar	20
18.	Fire Safety Training	26/12/2022	STP	Ashutosh Kumar	15
19.	Road safety Training	01/12/2022	SPS	Ashutosh Kumar	15
20.	Excavation Safety training	05/12/2022	Nakoda Nagar	Ashutosh Kumar	07
21.	PPE ‘s safety Training	08/12/2022	SPS	Ashutosh Kumar	40
22.	Material manual Handling	12/12/2022	SPS	Ashutosh Kumar	10
23.	Loading unloading safety	16/12/2022	Kachhi Basti	Ashutosh Kumar	05
24.	Covid-19 Safety training	19/12/2022	STP	Ashutosh Kumar	10
25.	Work at Height safety training	25/12/2022	STP	Ashutosh Kumar	20
26.	Fire Safety Training	26/12/2022	STP	Ashutosh Kumar	15
27.	LAA (Life After Accident) safety training	06/01/2023	STP	Ashutosh Kumar	30
28.	Road Safety Training	05/01/2023	Bagwas	Ashutosh Kumar	07
29.	PPE ‘s safety Training	08/01/2023	SPS	Ashutosh Kumar	15
30.	General Safety Training	12/01/2023	STP	Ashutosh Kumar	20
31.	Covid-19 Safety training	19/01/2023	STP	Ashutosh Kumar	10
32.	Material Lifting Safety Training	27/01/2023	STP	Ashutosh Kumar	30
33.	Work at Height Safety Training	31/01/2023	SPS	Ashutosh Kumar	15
34.	PPE ‘s safety Training	04/02/2023	STP	Ashutosh Kumar	40
35.	PPE ‘s safety Training	11/02/2023	SPS	Ashutosh Kumar	15
36.	General Safety Training`	18/02/2023	STP	Ashutosh Kumar	25
37.	Covid-19 Safety training	25/02/2023	SPS	Ashutosh Kumar	10
38.	PPE ‘s safety Training	05/03/2023	STP	Ashutosh Kumar	35
39.	Work at Height Training	15/03/2023	STP	Ashutosh Kumar	10
40.	Road safety Safety Training`	28/03/2023	STP	Ashutosh Kumar	08
41.	Covid-19 Safety training	31/03/2023	STP	Ashutosh Kumar	15

Directions by PMU to all PIUs for implementation of Prevention and Control Measures Adopted for COVID-19

RUIDP

Office of Project Director
Rajasthan Urban Infrastructure Development Project (Unit of RUDSICO)
AVS Building, Jawahar Circle, JLN Marg, Jaipur - 302017
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No. F3 (301)(72)/RUIDP/PMU/Env/12680 - 85 Date: 01.02.2021

Superintending Engineers,
RUIDP, PIU, Ratangarh/ Sirohi/ Kuchaman/ Banswara

Executive Engineer
RUIDP, PIU, Mandawa/ Khetri

Sub: Regarding Safe Operating Procedures (SOP) and COVID-19 Management Plan in all project towns under RSTDSP (RUIDP Ph-IV)

In reference to above cited subject, Safe Operating Procedures (SOP) and COVID-19 Management Plan is prepared in response to coronavirus disease (COVID-19) pandemic and being sent to PIU. You are requested to share this plan with contractors and properly monitor the implementation of the provisions of this plan at all work sites, offices and worker's camps.

(Dr Hemant Kumar Sharma)
Addl Project Director

No. F3 (301)(72)/RUIDP/PMU/Env/12686 - 99 Date: 01.02.2021
Copy to following for information and take immediate necessary action-

1. Additional Chief Engineer, RUIDP, Zone-Jaipur/ Jodhpur.
2. Executive Engineer, PIU, Fatehpur/ Laxmangarh/ Ratangarh/ Sardarshahar/ Makrana/ Kuchamang/ Ladnu/ Didwana/ Abu Road/ Sirohi/ Banswara/ Pratapgarh.
3. Team Leader, PMCBC, Jaipur
4. Team Leader, CMSC-1, Zone-Jaipur/ CMSC-2, Zone-Jodhpur

(Praveen Ankodia)
Superintending Engineer-III

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Appendix 10: Prevention and Control Measures Adopted in RSTDSP for COVID-19 during October 2022 to March 2023

Didwana town					
S. No.	**Activities done**	**Date**	**Location**	**No. of Participants**	**Remarks**
1.	Site medical visit 1	02/10/22	STP	30	
2.	Site medical visit 2	09/10/22	Zone 05	8	
3.	Site medical visit 3	16/10/22	SPS	10	
4.	Site medical visit 4	20/10/22	Zone 06	6	
5.	Site medical visit 1	02/11/22	STP	30	
6.	Site medical visit 2	09/11/22	Zone 05	8	
7.	Site medical visit 3	16/11/22	SPS	10	
8.	Site medical visit 4	20/11/22	Zone 06	6	
9.	Site medical visit 1	02/12/22	STP	30	
10.	Site medical visit 2	09/12/22	Zone 05	8	
11.	Site medical visit 3	16/12/22	SPS	10	
12.	Site medical visit 4	20/12/22	Zone 06	6	
13.	Site medical visit 1	02/01/23	STP	30	
14.	Site medical visit 2	09/01/23	Zone 05	8	
15.	Site medical visit 3	16/01/23	SPS	10	
16.	Site medical visit 4	20/01/23	Zone 06	6	
17.	Mask Distribution	20/01/23	All sites	50	
18.	Site medical visit 1	02/02/23	STP	30	
19.	Site medical visit 2	09/02/23	Zone 05	8	
20.	Site medical visit 3	16/02/23	SPS	10	
21.	Site medical visit 4	20/02/23	Zone 06	6	
22.	Mask Distribution	On Daily Basis	All Zones	NA	
23.	Thermal screening at the site	On Daily Basis	All Zones	N/A	
24.	Sanitization activity at the site	On Daily Basis	All Zones	N/A	
25.	Dis-infection Activity	Daily Basis	All Zones	NA	
Makrana Town					
1.	Site medical visit 1	09/10/22	Zone 06	5	
2.	Site medical visit 2	16/10/22	Zone 05	8	
3.	Site medical visit 3	02/10/22	Zone 04	7	
4.	Site medical visit 4	09/10/22	Zone 07	6	
5.	Site medical visit 1	09/11/22	Zone 06	5	
6.	Site medical visit 2	16/11/22	Zone 05	8	
7.	Site medical visit 3	02/11/22	Zone 04	7	
8.	Site medical visit 4	09/11/22	Zone 07	6	
9.	Site medical visit 1	09/12/22	Zone 06	5	
10.	Site medical visit 2	16/12/22	Zone 05	8	
11.	Site medical visit 3	02/12/22	Zone 04	7	
12.	Site medical visit 4	09/12/22	Zone 07	6	
13.	Site medical visit 1	09/01/23	Zone 06	5	
14.	Site medical visit 2	16/01/23	Zone 05	8	
15.	Site medical visit 3	02/01/23	Zone 04	7	
16.	Site medical visit 4	09/01/23	Zone 07	6	
17.	Mask Distribution	20/01/23	All sites	50	
18.	Site medical visit 1	09/02/23	Zone 06	5	
19.	Site medical visit 2	16/02/23	Zone 05	8	
20.	Site medical visit 3	02/02/23	Zone 04	7	
21.	Site medical visit 4	09/02/23	Zone 07	6	
22.	Mask Distribution	On Daily Basis	All Zones	NA	
23.	Thermal screening at the site	On Daily Basis	All Zones	N/A	
24.	Sanitization activity at the site	On Daily Basis	All Zones	N/A	
25.	Dis-infection Activity	Daily Basis	All Zones	NA	

Ladnu Town					
1.	Thermal screening at the site	On Daily Basis	All locations	N/A	
2.	Sanitization activity at the site	On Daily Basis	All locations	N/A	
3.	Regular Disinfection Activity	On Weekly Basis	All Locations	NA	
4.	Mask Distribution	Daily Basis	SPS area	NA	
5.	Health Check-up for workmen	5 Check up in October 2022	Workmen camp	6	
6.	Health Check-up for workmen	8 Check up in November 2022	wmc & Site	94	
7.	Medical Health Check up	04.03.2023	Workmen camp	09	
8.	Medical Health Check up	15.03.2023	Workmen camp	6	
9.	Medical Health Check up	16.03.2023	Workmen camp	7	
10.	Medical Health Check up	17.03.2023	Workmen camp	7	
11.	Medical Health Check up	17.03.2023	Workmen camp	7	
12.	Medical Health Check up	21.03.2023	Workmen camp	6	
13.	Medical Health Check up	28.03.2023	Workmen camp	11	
Kuchaman Town					
1.	Health Check-up Camp	01-10-2022	Kuchaman	5	
2.	Health Check-up Camp	03-10-2022	Kuchaman	5	
3.	Health Check-up Camp	10-10-2022	Kuchaman	14	
4.	Health Check-up Camp	11-10-2022	Kuchaman	9	
5.	Health Check-up Camp	15-10-2022	Kuchaman	9	
6.	Thermal screening at the site	On Daily Basis	All locations	N/A	
7.	Sanitization activity at the site	On Daily Basis	All locations	N/A	
8.	Regular Disinfection Activity	On Weekly Basis	All Locations	NA	
9.	Mask Distribution	Daily Basis	Work Site	NA	
10.	Health Check-up Camp	1-11-2022	Kuchaman	5	
11.	Health Check-up Camp	04-11-2022	Kuchaman	5	
12.	Health Check-up Camp	5-11-2022	Kuchaman	14	
13.	Health Check-up Camp	7-11-2022	Kuchaman	12	
14.	Health Check-up Camp	12-11-2022	Kuchaman	10	
15.	Health Check-up Camp	14-11-2022	Kuchaman	9	
16.	Health Check-up Camp	15-11-2022	Kuchaman	9	
17.	Health Check-up Camp	16-11-2022	Kuchaman	9	
18.	Thermal screening at the site	On Daily Basis	All locations	N/A	
19.	Sanitization activity at the site	On Daily Basis	All locations	N/A	
20.	Regular Disinfection Activity	On Weekly Basis	All Locations	NA	
21.	Mask Distribution	Daily Basis	Work Site	NA	
22.	Health Check-up Camp	01-12-2022	Kuchaman	5	
23.	Health Check-up Camp	02-12-2022	Kuchaman	8	
24.	Health Check-up Camp	03-12-2022	Kuchaman	21	
25.	Health Check-up Camp	07-12-2022	Kuchaman	13	
26.	Health Check-up Camp	13-12-2022	Kuchaman	12	
27.	Health Check-up Camp	15-12-2022	Kuchaman	7	
28.	Health Check-up Camp	17-12-2022	Kuchaman	13	
29.	Health Check-up Camp	20-11-2022	Kuchaman	13	
30.	Health Check-up Camp	21-12-2022	Kuchaman	15	
31.	Health Check-up Camp	26-12-2022	Kuchaman	13	
32.	Health Check-up Camp	28-12-2022	Kuchaman	5	
33.	Thermal screening at the site	On Daily Basis	All locations	N/A	
34.	Sanitization activity at the site	On Daily Basis	All locations	N/A	
35.	Regular Disinfection Activity	On Weekly Basis	All Locations	NA	
36.	Mask Distribution	Daily Basis	Work Site	NA	
37.	Tetanus Vaccination & Health Check-up Camp	16.01.2023	Kuchaman	30	
38.	Thermal screening at the site	On Daily Basis	All locations	N/A	
39.	Sanitization activity at the site	On Daily Basis	All locations	N/A	

40.	Regular Disinfection Activity	On Weekly Basis	All Locations	NA	
41.	Mask Distribution	Daily Basis	Work Site	NA	
42.	Awareness Training Program for workmen and staff	January 2022	Training Centre camp & Office	100	
43.	Display of Signage for Covid-19 Awareness	January 2022	All site areas	Maximum	
44.	Separate Isolation facilities for workmen and staffs	January 2022	Workmen camps	N/A	
45.	Health Check-up Camp	01.02.2023	Kuchaman	15	
46.	Health Check-up Camp	02.02.2023	Kuchaman	09	
47.	Health Check-up Camp	07.02.2023	Kuchaman	15	
48.	Health Check-up Camp	08.02.2023	Kuchaman	11	
49.	Health Check-up Camp	13.02.2023	Kuchaman	05	
50.	Health Check-up Camp	17.02.2023	Kuchaman	11	
51.	Health Check-up Camp	20.02.2023	Kuchaman	5	
52.	Health Check-up Camp	22.02.2023	Kuchaman	10	
53.	Thermal screening at the site	On Daily Basis	All locations	N/A	
54.	Sanitization activity at the site	On Daily Basis	All locations	N/A	
55.	Regular Disinfection Activity	On Weekly Basis	All Locations	NA	
56.	Mask Distribution	Daily Basis	Work Site	NA	
57.	Health Check-up Camp	09.03.2023	Kuchaman	10	
58.	Health Check-up Camp	10.03.2023	Kuchaman	10	
59.	Health Check-up Camp	11.03.2023	Kuchaman	20	
60.	Health Check-up Camp	13.03.2023	Kuchaman	18	
61.	Health Check-up Camp	17.03.2023	Kuchaman	15	
62.	Health Check-up Camp	18.03.2023	Kuchaman	09	
63.	Health Check-up Camp	21.03.2023	Kuchaman	06	
64.	Health Check-up Camp	23.03.2023	Kuchaman	15	
65.	Thermal screening at the site	On Daily Basis	All locations	N/A	
66.	Sanitization activity at the site	On Daily Basis	All locations	N/A	
67.	Regular Disinfection Activity	On Weekly Basis	All Locations	NA	
68.	Mask Distribution	Daily Basis	Work Site	NA	
Mandawa Town					
1.	Thermal screening at the site	On Daily Basis	All locations	N/A	
2.	Sanitization activity at the site	On Daily Basis	All locations	N/A	
3.	Regular Disinfection Activity	On Weekly Basis	All Locations	NA	
4.	Mask Distribution	Daily Basis	Work Site	NA	
Khetri Town					
1.	Thermal screening at the site	On Daily Basis	All locations	N/A	
2.	Sanitization activity at the site	On Daily Basis	All locations	N/A	
3.	Regular Disinfection Activity	On Weekly Basis	All Locations	NA	
4.	Mask Distribution	Daily Basis	Work Site	NA	
5.	Mask & Sanitizer	04-10-2022	Ward No. 04	4	
6.	Sanitizer & Body temperature	11-10-2022	Ward No. 25	5	
7.	Mask & Safety Glove	28-10-2022	Ward No. 23	3	
8.	Mask & Sanitizer	01-11-2022	Ward No. 25	4	
9.	Sanitizer & Body temperature	16-11-2022	Ward No.	5	
10.	Mask & Safety Glove	29-11-2022	Ward No. 11	3	
11.	Mask & Sanitizer	03-12-2022	Ward No. 22	7	
12.	Sanitizer & Body temperature	19-12-2022	Ward No. 12	5	
13.	Mask & Safety Glove	28-12-2022	Ward No. 10	4	
14.	Mask & Sanitizer	04-01-2023	Ward No. 02	4	
15.	Sanitizer & Body temperature	16-01-2023	Ward No. 17	5	
16.	Mask & Safety Glove	28-01-2023	Ward No. 24	7	
17.	Mask & Sanitizer	02-02-2023	Ward No. 03	10	
18.	Mask & Safety Glove	03-02-2023	Ward No. 03	07	

19.	Sanitizer & Body temperature	10-02-2023	Ward No. 01	09	
20.	Mask & Safety Glove	20-02-2023	Ward No. 06	13	
21.	Mask & Sanitizer	03-03-2023	Ward No. 23	07	
22.	Mask & Safety Glove	13-03-2023	Ward No. 24	11	
23.	Sanitizer & Body temperature	16-03-2023	Ward No. 17	09	
24.	Mask & Safety Glove	28-03-2023	Ward No. 04	05	
Abu road					
1.	Thermal screening at the site	On Daily Basis	All locations	130	
2.	Hand Sanitization activity	On Daily Basis	All locations	175	
3.	Regular Disinfection Activity	On Weekly Basis	Manpur & Santpur	NA	
4.	Mask Distribution	Daily Basis	Work Site	200	
5.	Awareness Training Program for workmen and staff	Daily basis	Manpur	80	
6.	Office & Labor Camp Disinfection Activity	10.11.2022	Work Site	NA	
7.	Display of Signage for Covid-19 Awareness	Daily	All prominent locations		
8.	Health Check-up Camp	01.11.2022 to 30.11.2022	Manpur	78	
9.	Site medical visit	09.11.2022	Manpur	10	
10.	Thermal screening of workers at the site	Daily	Manpur & Santpur Workmen camp		
11.	Hand Sanitization activity of workers at the site	Daily	Abu Road		
12.	Mask Distribution	Regularly	Abu Road		
13.	Office & Labor Camp Disinfection Activity	19.12.2022	Manpur & Santpur		
14.	COVID-19 Awareness & Precautions Training for workmen and staff	01.12.2022 to 31.12.2022	Manpur		
15.	Display of Signage for Covid-19 Awareness	Daily	All prominent locations		
16.	Health Check-up Camp	01.12.2022 to 31.12.2022	Manpur		
17.	Site medical visit	Regularly	Manpur		
18.	Thermal screening of workers at the site	Daily	Manpur & Santpur Workmen camp	200	
19.	Hand Sanitization activity of workers at the site	Daily	Abu Road	200	
20.	Mask Distribution	Regularly	Abu Road	200+	
21.	Office & Labor Camp Disinfection Activity	11.01.2023	Manpur & Santpur	NA	
22.	COVID-19 Awareness & Precautions Training for workmen and staff	01.01.2023 to 31.01.2023	Manpur	67	
23.	Display of Signage for Covid-19 Awareness	Daily	All prominent locations		
24.	Health Check-up Camp	Regularly	Manpur	78	
25.	Site medical visit	Regularly	Manpur	67	
26.	Thermal screening of workers at the site	Daily	Manpur & Santpur Workmen camp	250	
27.	Hand Sanitization activity of workers at the site	Daily	Abu Road	250	
28.	Mask Distribution	Regularly	Abu Road	200+	

29.	Office & Labor Camp Disinfection Activity	18.02.2023	Manpur & Santpur	NA	
30.	COVID-19 Awareness & Precautions Training for workmen and staff	01.02.2023 to 28.02.2023	Manpur	46	
31.	Display of Signage for Covid-19 Awareness	Daily	All prominent locations		
32.	Health Check-up Camp	01.02.2023 to 28.02.2023	Manpur	62	
33.	Site medical visit	01.02.2023 to 28.02.2023	Manpur	61	
34.	Thermal screening of workers at the site	Daily	Manpur & Santpur Workmen camp	110	
35.	Hand Sanitization activity of workers at the site	Daily	Abu Road	110	
36.	Mask Distribution	Regularly	Abu Road	200	
37.	Office & Labor Camp Disinfection Activity	18.03.2023	Manpur & Santpur	NA	
38.	COVID-19 Awareness & Precautions Training for workmen and staff	01.03.2023 to 31.03.2023	Manpur	35	
39.	Display of Signage for Covid-19 Awareness	Daily	All prominent locations		
40.	Health Check-up Camp	01.03.2023 to 31.03.2023	Manpur	51	
41.	Site medical visit	01.03.2023 to 31.03.2023	Manpur	63	
Sirohi town					
1.	Thermal screening of workers at the site	Dailly	Sirohi	165	
2.	Hand Sanitization activity of workers at the site	Whole Month	Sirohi	20	
3.	Mask Distribution	10/11/22	Sirohi	45	
4.	Office & Labor Camp Disinfection Activity	20/11/22	Sirohi	05	
5.	COVID-19 Awareness & Precautions Training for workmen and staff	15/11/22	Sirohi	40	
6.	Display of Signage for Covid-19 Awareness	10/11/22	Sirohi	30	
7.	Health Check-up Camp		Sirohi		
8.	Site medical visit	8	Sirohi	156	
9.	Thermal screening of workers at the site	Dailly	Sirohi	165	
10.	Hand Sanitization activity of workers at the site	Whole Month	Sirohi	20	
11.	Mask Distribution	10/11/22	Sirohi	45	
12.	Office & Labor Camp Disinfection Activity	20/11/22	Sirohi	05	
13.	COVID-19 Awareness & Precautions Training for workmen and staff	15/11/22	Sirohi	40	
14.	Display of Signage for Covid-19 Awareness	10/11/22	Sirohi	30	
15.	Health Check-up Camp		Sirohi		
16.	Site medical visit	8	Sirohi	156	
17.	Thermal screening of workers at the site	Dailly	Sirohi	156	

18.	Hand Sanitization activity of workers at the site	Whole Month	Sirohi	19	
19.	Mask Distribution	10/01/23	Sirohi	35	
20.	Office & Labor Camp Disinfection Activity	20/01/23	Sirohi	04	
21.	COVID-19 Awareness & Precautions Training for workmen and staff	15/01/23	Sirohi	52	
22.	Display of Signage for Covid-19 Awareness	10/01/23	Sirohi	22	
23.	Health Check-up Camp	-	Sirohi	-	
24.	Site medical visit	8	Sirohi	212	
25.	Thermal screening of workers at the site	Dailly	Sirohi	255	
26.	Hand Sanitization activity of workers at the site	Whole Month	Sirohi	19	
27.	Mask Distribution	03/02/23	Sirohi	120	
28.	Office & Labor Camp Disinfection Activity	03/02/23	Sirohi	04	
29.	COVID-19 Awareness & Precautions Training for workmen and staff	10/02/23	Sirohi	52	
30.	Display of Signage for Covid-19 Awareness	02/02/23	Sirohi	22	
31.	Health Check-up Camp		Sirohi		
32.	Site medical visit	8	Sirohi	212	
33.	Thermal screening of workers at the site	Dailly	Sirohi	150	
34.	Hand Sanitization activity of workers at the site	Whole Month	Sirohi	19	
35.	Mask Distribution	02/03/23	Sirohi	120	
36.	Office & Labor Camp Disinfection Activity	04/03/23	Sirohi	04	
37.	COVID-19 Awareness & Precautions Training for workmen and staff	08/03/23	Sirohi	45	
38.	Display of Signage for Covid-19 Awareness	03/03/23	Sirohi	35	
39.	Health Check-up Camp		Sirohi		
40.	Site medical visit	8	Sirohi	143	
Fatehpur Town					
1.	Thermal screening of workers at the site	10.11.2022, 19.11.2022	Across the sites.	94	
2.	Hand Sanitization activity of workers at the site	Regular Basis	Across the sites.		
3.	Mask Distribution	10.11.2022, 19.11.2022	Across the sites.	47	
4.	Office & Labor Camp Disinfection Activity	15.11.2022			
5.	COVID-19 Awareness & Precautions Training for workmen and staff	-	-		
6.	Display of Signage for Covid-19 Awareness	14.11.2022	Across the sites.		
7.	Health Check-up Camp	Weekly basis	Across the sites	47	
8.	Thermal screening of workers at the site	11.12.2022, 21.12.2022	Across the sites.	108	

9.	Hand Sanitization activity of workers at the site	Regular Basis	Across the sites.		
10.	Mask Distribution	90.12.2022, 15.12.2022	Across the sites.	61	
11.	Office & Labor Camp Disinfection Activity	16.12.2022			
12.	COVID-19 Awareness & Precautions Training for workmen and staff	-	-		
13.	Display of Signage for Covid-19 Awareness	21.12.2022	Across the sites.		
14.	Health Check-up Camp	Weekly basis	Across the sites	61	
15.	Thermal screening of workers at the site	11.01.2023, 21.01.2023	Across the sites.	120	
16.	Hand Sanitization activity of workers at the site	Regular Basis	Across the sites.	-	
17.	Mask Distribution	09.01.2023, 15.01.2023	Across the sites.	64	
18.	Office & Labor Camp Disinfection Activity	16.01.2023		-	
19.	COVID-19 Awareness & Precautions Training for workmen and staff	-	-	-	
20.	Display of Signage for Covid-19 Awareness	21.01.2023	Across the sites.	-	
21.	Health Check-up Camp	Weekly basis	Across the sites	64	
22.	Thermal screening of workers at the site	11.02.2023, 21.02.2023	Across the sites.	110	
23.	Hand Sanitization activity of workers at the site	Regular Basis	Across the sites.		
24.	Mask Distribution	09.02.2023, 15.02.2023	Across the sites.	58	
25.	Office & Labor Camp Disinfection Activity	16.02.2023			
26.	COVID-19 Awareness & Precautions Training for workmen and staff	-	-		
27.	Display of Signage for Covid-19 Awareness	21.02.2023	Across the sites.		
28.	Health Check-up Camp	Weekly basis	Across the sites	58	
29.	Thermal screening of workers at the site	16/03/2023	Zone-WC,1,2,	135	
30.	Hand Sanitization activity of workers at the site	20/03/2023	Zone-STP,1.2	135	
31.	Mask Distribution	28/03/2023	Zone-1,2,	10	
32.	Office & Labor Camp Disinfection Activity	Weekly	Office $ Labour Camp	4	
33.	COVID-19 Awareness & Precautions Training for workmen and staff	28/03/2023	Labour Camp,zone-1,2	2	
34.	Display of Signage for Covid-19 Awareness		Zone-Office, wc, 1,2,	10	
35.	Health Check-up Camp	30/03/2023	STP	3	
36.	Site medical visit	30/03/2023	STP And Site	3	
Laxmangarh Town					
1.	Thermal screening of workers at the site	08.11.2022, 22.11.2022	Across the sites.	53	
2.	Hand Sanitization activity of workers at the site	Regular Basis	Across the sites.		

3.	Mask Distribution	08.11.2022, 22.11.2022	Across the sites.	21	
4.	Office & Labor Camp Disinfection Activity	17.11.2022			
5.	Display of Signage for Covid-19 Awareness	15.11.2022	Across the sites.		
6.	Health Check-up Camp	Weekly basis	Across the sites	21	
7.	Thermal screening of workers at the site	10.12.2022, 23.12.2022	Across the sites.	47	
8.	Hand Sanitization activity of workers at the site	Regular Basis	Across the sites.		
9.	Mask Distribution	18.12.2022, 23.12.2022	Across the sites.	26	
10.	Office & Labor Camp Disinfection Activity	21.12.2022			
11.	COVID-19 Awareness & Precautions Training for workmen and staff	-	-		
12.	Display of Signage for Covid-19 Awareness	22.11.2022	Across the sites.		
13.	Health Check-up Camp	Weekly basis	Across the sites	26	
14.	Thermal screening of workers at the site	10.01.2023, 23.01.2023	Across the sites.	43	
15.	Hand Sanitization activity of workers at the site	Regular Basis	Across the sites.	-	
16.	Mask Distribution	18.01.2023, 23.01.2023	Across the sites.	29	
17.	Office & Labor Camp Disinfection Activity	21.01.2023		-	
18.	COVID-19 Awareness & Precautions Training for workmen and staff	-	-	-	
19.	Display of Signage for Covid-19 Awareness	22.01.2023	Across the sites.		
20.	Health Check-up Camp	Weekly basis	Across the sites	29	
21.	Thermal screening of workers at the site	10.02.2023, 23.02.2023	Across the sites.	52	
22.	Hand Sanitization activity of workers at the site	Regular Basis	Across the sites.		
23.	Mask Distribution	18.02.2023, 23.02.2023	Across the sites.	29	
24.	Office & Labor Camp Disinfection Activity	21.02.2023			
25.	COVID-19 Awareness & Precautions Training for workmen and staff	-	-		
26.	Display of Signage for Covid-19 Awareness	22.02.2023	Across the sites.		
27.	Health Check-up Camp	Weekly basis	Across the sites	29	
28.	Thermal screening of workers at the site	30/03/2023	AEN Campus, WC, Zone-1,2,3&8	50	
29.	Hand Sanitization activity of workers at the site	30/03/2023	AEN Campus, WC, Zone-1,2,3&8	50	
30.	Mask Distribution	30/03/2023	AEN Campus, WC, Zone-1,2,3&8	15	

31.	Office & Labor Camp Disinfection Activity	Weekly	Office , Labour Camp	4	
32.	COVID-19 Awareness & Precautions Training for workmen and staff	31/03/2023	Zone-1,2,3&8 Zone	20	
33.	Display of Signage for Covid-19 Awareness	27/03/2023	Zone-1,2,4,5	5	
34.	Health Check-up Camp	Weekly	AEN Campus, WC, Zone-1,2,3&8	04	
35.	Site medical visit	Weekly	Labour Camp	04	
Ratangarh town					
1.	Thermal screening of workers at the site	30/11/2022	Zone-2	25	
2.	Hand Sanitization activity of workers at the site	02/12/2022	Zone-1	20	
3.	Mask Distribution	26/11/2022	Zone-1,2,3,4	110	
4.	Office & Labor Camp Disinfection Activity	30/11/2022	Office $ Labour Camp		
5.	COVID-19 Awareness & Precautions Training for workmen and staff	28/11/2022	Labour Camp,zone-1,2,4	115	
6.	Display of Signage for Covid-19 Awareness	29/11/2022	Zone-1,2,4	50	
7.	Health Check-up Camp	30/11/2022	STP6.1	75	
8.	Site medical visit	30/11/2022	STP3.8 And Site	110	
9.	Thermal screening of workers at the site	30/12/2022	Zone-1	25	
10.	Hand Sanitization activity of workers at the site	30/12/2022	Zone-3	20	
11.	Mask Distribution	26/12/2022	Zone-1,2,3,4	110	
12.	Office & Labor Camp Disinfection Activity	30/12/2022	Office & Labour Camp		
13.	COVID-19 Awareness & Precautions Training for workmen and staff	28/12/2022	Labour Camp,zone-1,2,4	115	
14.	Display of Signage for Covid-19 Awareness	29/12/2022	Zone-1,2,4	50	
15.	Health Check-up Camp	30/12/2022	STP6.1	75	
16.	Site medical visit	30/12/2022	STP3.8 And Site	110	
17.	Thermal screening of workers at the site	30/01/2023	Zone-1,2,4	40	
18.	Hand Sanitization activity of workers at the site	30/01/2023	Zone-3.2	36	
19.	Mask Distribution	28/01/2023	Zone-1,2,3,4	110	
20.	Office & Labor Camp Disinfection Activity	25/01/2023	Office $ Labour Camp	110	
21.	COVID-19 Awareness & Precautions Training for workmen and staff	19/01/2023	Labour Camp,zone-1,2,4,5	120	
22.	Display of Signage for Covid-19 Awareness	30/01/2023	Zone-1,2,4	50	
23.	Health Check-up Camp	30/01/2023	STP6.1,3.8	85	
24.	Site medical visit	30/01/2023	STP3.8 And Site	30	
25.	Blood Donation Camp	30/01/2023	Govt.Hospital, Ratangarh	28	
26.	Thermal screening of workers at the site	28/02/2023	Zone-1,2,4	40	

27.	Hand Sanitization activity of workers at the site	28/02/2023	Zone-3.2	36	
28.	Mask Distribution	28/02/2023	Zone-1,2,3,4	110	
29.	Office & Labor Camp Disinfection Activity	28/02/2023	Office & Labour Camp		
30.	COVID-19 Awareness & Precautions Training for workmen and staff	28/02/2023	Labour Camp,zone-1,2,4,5	120	
31.	Display of Signage for Covid-19 Awareness	28/02/2023	Zone-1,2,4	50	
32.	Health Check-up Camp	28/02/2023	STP6.1,3.8	85	
33.	Site medical visit	28/02/2023	STP3.8 And Site	30	
34.	Blood Donation Camp	28/02/2023	Govt.Hospital, Ratangarh	28	
35.	Thermal screening of workers at the site	30/03/2023	Zone-1,2,4,5	52	
36.	Hand Sanitization activity of workers at the site	30/03/2023	Zone-1,2,3	55	
37.	Mask Distribution	30/03/2023	Zone-1,2,3,4	130	
38.	Office & Labor Camp Disinfection Activity	31/03/2023	Office & Labour Camp		
39.	COVID-19 Awareness & Precautions Training for workmen and staff	31/03/2023	Labour Camp,zone-1,2,3.4.5	179	
40.	Display of Signage for Covid-19 Awareness	27/03/2023	Zone-1,2,4,5	50	
41.	Health Check-up Camp	24/03/2023	STP-6.1	85	
42.	Site medical visit	31/03/2023	STP3.8,6.1 And Site	30	
Sardarshahar Town					
1.	Thermal screening of workers at the site	All Day	Sardarshahar	200	
2.	Hand Sanitization activity of workers at the site	All Day	Sardarshahar	200	
3.	Mask Distribution	AS Required	Sardarshahar	200	
4.	Office & Labor Camp Disinfection Activity	10 days in month	Sardarshahar	200	
5.	COVID-19 Awareness & Precautions Training for workmen and staff	As Required	Sardarshahar	200	
6.	Display of Signage for Covid-19 Awareness	As Required	Sardarshahar	200	
7.	Health Check-up Camp	08 times in month	Sardarshahar	200	
8.	Site medical visit	08 times in month	Sardarshahar	200	
9.	Thermal screening of workers at the site	All Day	Sardarshahar	196	
10.	Hand Sanitization activity of workers at the site	All Day	Sardarshahar	196	
11.	Mask Distribution	AS Required	Sardarshahar	250	
12.	Office & Labor Camp Disinfection Activity	10 days in month	Sardarshahar	196	
13.	COVID-19 Awareness & Precautions Training for workmen and staff	AS Required	Sardarshahar	170	
14.	Display of Signage for Covid-19 Awareness	AS Required	Sardarshahar	175	
15.	Health Check-up Camp	08 times in month	Sardarshahar	196	
16.	Site medical visit	08 times in month	Sardarshahar	196	

17.	Thermal screening of workers at the site	All Day	Sardarshahar	230	
18.	Hand Sanitization activity of workers at the site	All Day	Sardarshahar	230	
19.	Mask Distribution	AS Required	Sardarshahar	230	
20.	Office & Labor Camp Disinfection Activity	10 days in month	Sardarshahar	230	
21.	COVID-19 Awareness & Precautions Training for workmen and staff	AS Required	Sardarshahar	230	
22.	Display of Signage for Covid-19 Awareness	AS Required	Sardarshahar	230	
23.	Health Check-up Camp	08 times in month	Sardarshahar	230	
24.	Site medical visit	08 times in month	Sardarshahar	230	
25.	Thermal screening of workers at the site	All Day	Sardarshahar	221	
26.	Hand Sanitization activity of workers at the site	All Day	Sardarshahar	221	
27.	Mask Distribution	AS Required	Sardarshahar	250	
28.	Office & Labor Camp Disinfection Activity	10 days in month	Sardarshahar	01	
29.	COVID-19 Awareness & Precautions Training for workmen and staff	AS Required	Sardarshahar	140	
30.	Display of Signage for Covid-19 Awareness	AS Required	Sardarshahar	221	
31.	Health Check-up Camp	08 times in month	Sardarshahar	200	
32.	Site medical visit	08 times in month	Sardarshahar	8	
33.	Thermal screening of workers at the site	All Day	Sardarshahar	190	
34.	Hand Sanitization activity of workers at the site	All Day	Sardarshahar	190	
35.	Mask Distribution	AS Required	Sardarshahar	300	
36.	Office & Labor Camp Disinfection Activity	10 days in month	Sardarshahar	01	
37.	COVID-19 Awareness & Precautions Training for workmen and staff	AS Required	Sardarshahar	120	
38.	Display of Signage for Covid-19 Awareness	AS Required	Sardarshahar	190	
39.	Health Check-up Camp	08 times in month	Sardarshahar	150	
Pratapgarh Town					
1.	Thermal screening of workers at the site	23/11/2022	STP	10	
2.	Hand Sanitization activity of workers at the site	23/11/2022	STP	10	
3.	Mask Distribution	23/11/2022	STP	10	
4.	Office & Labor Camp Disinfection Activity	23/11/2022	STP	15	
5.	COVID-19 Awareness & Precautions Training for workmen and staff	23/11/2022	STP	10	
6.	Display of Signage for Covid-19 Awareness	25/11/2022	STP	20	
7.	Thermal screening of workers at the site	Daily Basis	STP	ALL	
8.	Hand Sanitization activity of workers at the site	Daily Basis	STP	ALL	

9.	Mask Distribution	19/12/2022	STP	25	
10.	Office & Labor Camp Disinfection Activity	Daily Basis	STP	15	
11.	COVID-19 Awareness & Precautions Training for workmen and staff	19/12/2022	STP	25	
12.	Display of Signage for Covid-19 Awareness	19/12/2022	STP	20	
13.	Health Check-up Camp	14/12/2022	STP	45	
14.	Site medical visit	14/12/2022	STP		
15.	Thermal screening of workers at the site	Daily Basis	STP	ALL	
16.	Hand Sanitization activity of workers at the site	Daily Basis	STP	ALL	
17.	Mask Distribution	19/01/2023	STP	25	
18.	Office & Labor Camp Disinfection Activity	Daily Basis	STP	15	
19.	COVID-19 Awareness & Precautions Training for workmen and staff	19/01/2023	STP	25	
20.	Display of Signage for Covid-19 Awareness	19/01/2023	STP	20	
21.	Health Check-up Camp	14/01/2023	STP	45	
22.	Site medical visit	14/01/2023	STP		
23.	Thermal screening of workers at the site	Daily Basis	STP	ALL	
24.	Hand Sanitization activity of workers at the site	Daily Basis	STP	ALL	
25.	Mask Distribution	24/02/2022	STP	25	
26.	Office & Labor Camp Disinfection Activity	Daily Basis	STP	15	
27.	COVID-19 Awareness & Precautions Training for workmen and staff	24/02/2022	STP	25	
28.	Display of Signage for Covid-19 Awareness	01/02/2022	STP	20	
29.	Health Check-up Camp	14/12/2022	STP	45	
30.	Site medical visit	14/12/2022	STP		
31.	Thermal screening of workers at the site	Daily Basis	STP	ALL	
32.	Hand Sanitization activity of workers at the site	Daily Basis	STP	ALL	
33.	Mask Distribution	28/03/2023	STP	25	
34.	Office & Labor Camp Disinfection Activity	Daily Basis	STP	15	
35.	COVID-19 Awareness & Precautions Training for workmen and staff	28/03/2023	STP	25	
36.	Display of Signage for Covid-19 Awareness	01/02/2022	STP	20	
37.	Health Check-up Camp	14/12/2022	STP	45	
38.	Site medical visit	14/12/2022	STP		
Banswara Town					
1.	Thermal screening of workers at the site	19.11.2022	STP	09	
2.	Hand Sanitization activity of workers at the site	19.11.2022	STP	11	
3.	Mask Distribution	20.11.2022	STP	15	

4.	Office & Labor Camp Disinfection Activity	19.11.2022	STP	12	
5.	COVID-19 Awareness & Precautions Training for workmen and staff	19.11.2022	STP	10	
6.	Display of Signage for Covid-19 Awareness	24.11.2022	STP	13	
7.	Thermal screening of workers at the site	27-12-2022	STP		
8.	Hand Sanitization activity of workers at the site	27-12-2022	STP		
9.	Mask Distribution	27-12-2022	STP		
10.	Office & Labor Camp Disinfection Activity	27-12-2022	STP		
11.	COVID-19 Awareness & Precautions Training for workmen and staff	28-12-2022	WTP		
12.	Display of Signage for Covid-19 Awareness	28-12-2022	WTP		
13.	Thermal screening of workers at the site	21-1-2023	Udaipur road	12	
14.	Hand Sanitization activity of workers at the site	21-1-2023	Udaipur road	15	
15.	Mask Distribution	24-1-2023	Udaipur road	20	
16.	Office & Labor Camp Disinfection Activity	24-1-2023	Labour camp	10	
17.	COVID-19 Awareness & Precautions Training for workmen and staff	24-1-2023	Udaipur road	10	
18.	Display of Signage for Covid-19 Awareness	27-1-2023	Udaipur road	8	
19.	Health Check-up Camp	19-1-2023	Camp	150	
20.	Thermal screening of workers at the site	Regular at site	All Site	10-20	
21.	Hand Sanitization activity of workers at the site	Regular at site	All Site	10-20	
22.	Mask Distribution	Twice per month	All Site	All worker	
23.	Office & Labor Camp Disinfection Activity	19.02.2023	Labour camp	20	
24.	COVID-19 Awareness & Precautions Training for workmen and staff	15.02.2023	STP	15	
25.	Display of Signage for Covid-19 Awareness	Permanent	STP, WTP	20	
26.	Thermal screening of workers at the site	Regulal at site	All Site	15-20	
27.	Hand Sanitization activity of workers at the site	Regulal at site	All Site	20-20	
28.	Mask Distribution	Twice per month	All Site	All worker	
29.	Office & Labor Camp Disinfection Activity	25.03.2023	Labour camp	30	
30.	COVID-19 Awareness & Precautions Training for workmen and staff	20.03.2023	STP	20	
31.	Display of Signage for Covid-19 Awareness	Permanent	STP, WTP	30	

Environmental Monitoring Report

Project Number: 42267-031
Semestral Report: October 2022 – March 2023
September 2023

India: Rajasthan Secondary Towns Development Sector Project

Part 5 of 5: Appendix 10 (continued) and Appendices 11 - 13

Prepared by Rajasthan Urban Drinking Water Sewerage and Infrastructure Corporation Limited, Government of Rajasthan for the Asian Development Bank.

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Asian Development Bank

Photographs showing COVID-19: Awareness, Prevention and Control Compliance by Towns during October 2022 to March 2023

<table>
<tr><th colspan="2">Abu Road Town</th></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Thermal Screening at site On Daily Basis (Abu Road)</td><td>Disinfection Activity (Abu Road)</td></tr>
<tr><td> 
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<tr><td>Medical Health Checkup of site workers (Abu Road)</td><td>Labor Meeting about Awareness & Safety of covid-19 (Abu Road)</td></tr>
<tr><th colspan="2">Sirohi town</th></tr>
<tr><td> 
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</td></tr>
<tr><td>Labor Meeting about Awareness & Safety of COVID-19 Sirohi</td><td>Face Mask Distribution (Sirohi)</td></tr>
<tr><th colspan="2">Fatehpur Town</th></tr>
</table>

	
Thermal Screening of workers at site Fatehpur	**Hand Sanitization activity of workers at site Fatehpur**
	
Medical Health Checkup of site workers (Fatehpur)	**Glucose Distribution to Site Workers (Fatehpur)**
Laxmangarh Town	
	
Thermal Screening of workers at site Laxmangarh	**Hand Sanitization activity of workers at site Laxmangarh**
	
Medical Health Checkup of site workers (Laxmangarh)	**Glucose Distribution to Site Workers (Laxmangarh)**

Ratangarh Town	
	
Thermal Screening of workers at site (Ratangarh)	**Hand Sanitization activity of workers at site Ratangarh**
	
HIV/ AIDS Training camp at Ratangarh	**Medical Health Check-up of site workers at Ratangarh**
Sardarshahar Town	
	
Thermal Screening of workers at site (Sardarshahar)	**Hand Sanitization activity of workers at site (Sardarshahar)**
	
Face Mask Distribution (Sardarshahar)	**COVID 19 safety and awareness meeting with labours at (Sardarshahar)**

	
HIV/ AIDS Training camp at Sardarshahar	**Medical Health Checkup of site workers (Sardarshahar)**
Pratapgarh Town	
	
Thermal Screening at site On Daily Basis (Pratapgarh)	**Hand Sanitization activity at site On Daily Basis Pratapgarh)**
	
Face Mask Distribution to workers at Site (Pratapgarh)	**COVID 19 safety and awareness meeting with labours at Pratapgarh**
Banswara Town	
	
Thermal Screening at site On Daily Basis (Banswara)	**Sanitization activity at site On Daily Basis (Banswara)**



Labor Meeting about Awareness & Safety of covid-19 at Banswara



Face Mask Distribution at Banswara

Didwana Town



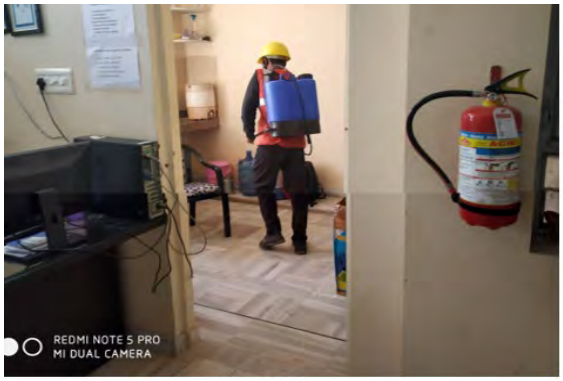
Thermal Screening of workers at site (Didwana)



Hand Sanitization activity (Didwana)



Face Mask Distribution to Labours at Site (Didwana)



Disinfection Activity (Didwana)



COVID Vaccination campaign at site (Didwana)



COVID Awareness campaign (Didwana)

Makrana Town



Hand Sanitization activity (Makrana)



Face Mask distribution to workers at site (Makrana)



Thermal Screening and Hand Sanitization activity at site (Makrana)



Disinfection Activities at site (Makrana)

Ladnu Town



Thermal Screening of workers at site (Ladnu)



Hand Sanitization activity of workers at site Ladnu



Disinfection Activity (Ladnu)

Mandawa Town	
	
Thermal Screening at site On Daily Basis (Mandawa)	**Sanitization activity at site On Daily Basis (Mandawa)**
	
Thermal Screening at site On Daily Basis (Mandawa)	**HIV/ AIDS Training camp at Mandawa**
Khetri Town	
	
Thermal Screening at site On Daily Basis (Khetri)	**Sanitization activity at site On Daily Basis (Khetri)**
	
COVID 19 safety and awareness meeting with labours at Khetri	**HIV/ AIDS Training camp at Khetri**

Appendix 11: ENVIRONMENTAL MONITORING RESULTS DURING OCTOBER 2022 TO MARCH 2023 IN RSTDSP

Air Monitoring Results - Last Quarter of 2022 (October 2022 to December 2022)

Ambient Air Quality Standards (National and IFC Standards)					
Standards	**PM_{10} ($\mu g/m^3$)**	**$PM_{2.5}$ ($\mu g/m^3$)**	**SO_2 ($\mu g/m^3$)**	**NO_2 ($\mu g/m^3$)**	**CO ($\mu g/m^3$)**
National Ambient Air Quality Standards	60 (Annual) 100 (24-hr)	40 (Annual) 60 (24-hr)	50 (Annual) 80 (24-hr)	40 (Annual) 80 (24-hr)	2,000 (8-hr) 4,000 (1-hr)
IFC Standards Applicable as Per ADB SPS ($\mu g/m^3$)	20 (Annual) 50 (24-hr)	10 (Annual) 25 (24-hr)	50 (Annual) 20 (24-hr) 500 (10-min)	40 (Annual) 80 (24-hr) 200 (1-hr)	2,000 (8-hr) 4,000 (1-hr) 100,000 (15-min)

S.No.	Package / Town / Monitoring Location	Monitoring date	PM_{10} ($\mu g/m^{3)}$)	$PM_{2.5}$ ($\mu g/m^{3)}$)	SO_2 ($\mu g/m^{3)}$)	NO_2 ($\mu g/m^{3)}$)	CO ($\mu g/m^{3)}$)
1.	**RSTDIP/PRT/01**						
	Pratapgarh Town						
	STP Site Pratapgarh	03.10.2022	82.46	35.37	10.64	24.86	520
	Sewerage Pumping Station		77.85	32.14	9.27	22.91	510
	Near Kila Parisar Pipe Laying Site		86.24	40.82	12.05	26.97	540
2.	**RSTDIP/BNS/04**						
	Banswara Town						
	PHED AEn Campus WTP	19.10.2022 to 21.10.2022	80.5	43.2	19.4	22.5	482
	Kagdi WTP		58.5	34.7	10.4	13.2	267
	STP site		65.3	30.1	11.2	14.5	375
	SPS @ Nathelav		74.7	36.2	13.6	16.1	392
	Custom Chauraha		88.3	48.5	21.7	24.2	612
3.	**RSTDIP/SHR-ABR/01**						
	Abu Road Town						
	Luniapura CWR	07.11.2022 to 09.11.2022	75.43	39.49	11.95	19.25	560
	Kui CWR		76.75	46.20	8.16	23.14	820
	Manpur Labor Colony		71.24	40.96	9.82	26.72	760
	Near STP & WTP Santpur		69.73	30.06	7.77	18.35	780
	Network Location (Abkari Abu Road)		73.11	45.52	10.16	22.70	490
4.	**RSTDIP/SHR-ABR/01**						
	Sirohi Town						
	WTP (9MLD at Angore PHED campus)	06.11.2022 to 07.11.2022	70.14	32.35	14.86	22.06	500
	Near Workmen camp (STP 5.0 MLD)		79.42	38.16	7.85	19.53	660
	1.7 MLD STP (Near Revdar Road)		67.05	32.75	8.80	21.05	650
	Vaidnath Colony (office Area)		65.24	29.16	7.06	18.98	530
5.	**RSTDIP/ KTR/03**						
	Khetri Town						
	Near PHED office old	09.11.2022 to 10.11.2022	80.45	42.35	8.56	16.46	310
	Near Ajeet Govt Hospital		64.35	34.25	7.21	15.30	290
	Near UP Koshadhikari office		72.45	39.55	7.97	17.24	300
	Near JEN Staff Colony		67.35	37.65	8.10	16.20	320
	In Jai Singh Govt School		60.75	31.55	7.78	14.36	280
	Near ITI College		75.85	42.75	8.67	18.43	260
	Near Prashashnik Bhawan		77.35	43.55	8.12	13.65	320
6.	**RSTDIP/MDW/03**						
	Mandawa Town						
	SPS-1 (PHED Campus beside SPS Site)	08.12.2022 to 09.12.2022	73.84	40.18	10.49	17.23	670
	CWR Site - 1		75.19	38.96	10.87	19.74	660
	STP Site - 1		77.94	47.82	11.06	21.69	690

	Pipe Laying within the preferably Near ward no. 17		75.61	34.24	10.67	19.36	630
7.	**RSTDIP/SRD/01**						
	Sardarshahar Town						
	PHED Campus (CWR 24 KL)	05.12.2022 to 08.12.2022	80.01	31.33	12.60	23.64	830
	STP-1 (2.3 MLD South Campus)		69.15	27.53	8.35	16.04	610
	Zone -2 (Dev Apartment) Pipe Laying		69.54	29.08	10.71	16.96	650
	STP-2 (3.40 MLD North Campus)		75.86	33.67	11.91	20.15	710
	SPS (2.30 MLD) Gaushala Land		73.42	32.19	11.31	18.27	650
8.	**RSTDIP / RTG-FTP-LXG / 01**						
	Fatehpur Town						
	STP (4.3 MLD) Near Naribari Village Road	02.12.2022 to 04.12.2022	72.11	30.78	10.25	16.96	690
	SPS (3.5 MLD) Dadi Sati Temple		74.21	28.96	10.78	15.85	700
	SPS (0.6 MLD) Aqsha mazid		70.85	30.45	9.69	17.11	700
	SPS (1.1 MLD) Near Railway Under Pass		72.41	32.11	10.45	18.22	720
9.	**RSTDIP / RTG-FTP-LXG / 01**						
	Laxmangarh Town						
	PHED AEn campus	01.12.2022 to 02.12.2022	80.69	35.41	12.11	19.64	720
	Bad ke Balaji PHED campus		88.69	40.85	9.69	17.21	690
	Workmen camp		90.23	35.74	12.89	20.74	720
	ExEn Campus		75.12	36.89	11.85	18.96	750
10.	**RSTDIP / RTG-FTP-LXG / 01**						
	Ratangarh Town						
	STP 3.8 MLD	06.12.2022 to 08.12.2022	78.61	40.99	13.91	24.53	680
	RJ Guest House Hospital		71.87	42.80	14.31	25.10	700
	SPS 4.6 MLD		73.81	42.64	13.52	24.50	560
	Labour Camp		72.53	29.60	11.40	23.14	570
	SPS 3.8 MLD		76.48	40.48	10.96	24.98	610
	STP 6.1 MLD		74.28	45.65	28.33	25.51	660
11	**RSTDIP/KMN/02**						
	Kuchaman Town						
	STP Site, Near New Bus Stand	27.12.2022 to 31.12.2022	87.5	45.8	9.6	28.0	460
	Pipe Laying Site - I, Dalla Balaji Road		80.7	37.5	9.2	29.0	340
	73OKL CWR, Budsu Road		82.8	41.7	8.0	26.0	320
	1200KL CWR. Pachwa Road		78.9	38.1	7.8	22.0	410
	Labour Colony, Pachwa Road		86.7	40.9	8.4	24.0	440
	Pipe Laying Site- 2, Guljarpura		90.2	50.0	9.6	32.0	380
	SPS Site, RUIDP Office		76.6	36.4	10.0	24.0	470
12	**RSTDIP/LDN-DID-MKN/01**						
	Didwana Town						
	STP Site - 01	08.12.2022 to 10.12.2022	78.0	37.0	9.8	30.0	510
	SPS Site- 02		80.0	43.0	8.1	27.0	530
	Pipe Laying Site- 1 (Zone- 6)		76.0	38.0	7.1	22.0	490
	Pipe laying Site- 2 (Zone-7)		74.0	36.0	7.0	25.0	480
13	**RSTDIP/LDN-DID-MKN/01**						
	Makrana Town						
	SPS Site - 01	11.12.2022 to 13.12.2022	84.0	43.0	7.8	29.0	550
	STP Site - 01		88.0	52.0	11.2	36.0	590
	SPS Site - 02		86.0	47.0	10.8	33.0	580
	Pipe Laying Site, Matavar Road		79.0	42.0	7.8	31.2	520
14	**RSTDIP/LDN-DID-MKN/01**						
	Ladnu Town						
	STP Site- 01	06.12.2022 to 08.12.2022	86.0	44.0	8.2	32.0	560
	Pipe Laying Site, Janta Colony		82.0	41.0	7.6	28.0	540
	STP Site - 02		88.0	45.0	10.5	34.0	570

Air Monitoring Results - First Quarter of 2023 (January to March 2023)

S.No.	Package / Town / Monitoring Location	Monitoring date	PM_{10} ($\mu g/m^3$)	$PM_{2.5}$ ($\mu g/m^3$)	SO_2 ($\mu g/m^3$)	NO_2 ($\mu g/m^3$)	CO ($\mu g/m^3$)
1	**RSTDIP/KTR/03**						
	Khetri Town						
	STP Construction Site	08.02.2023 to 11.02.2023	81.35	41.26	8.42	15.36	300
	Construction Site JEn Campus		67.45	37.61	7.98	14.36	290
	Construction Site AEn Campus		70.25	38.45	7.56	16.20	280
	Construction Site Nr. Polo Ground		65.25	35.75	7.98	14.70	310
	Construction Site Nr. Lahoty Store Yard		62.35	32.45	7.68	13.67	270
	Construction Site Nr. Shani Temple		76.85	41.75	8.24	15.32	270
2	**RSTDIP/PRT/01**						
	Pratapgarh Town						
	STP Site	18.02.2023 to 19.02.2023	80.65	34.17	9.50	25.64	550
	Sewerage Pumping Station		75.42	30.14	8.95	23.57	530
	Nakoda Nagar		79.40	33.25	9.20	24.18	530
3	**RSTDIP/SRD/01**						
	Sardarshahar Town						
	STP – 1 (2.3 MLD) South Campus	23.03.2023 to 26.03.2023	70.21	31.94	8.91	16.74	630
	STP – 2 (3.4 MLD) North Campus		74.25	32.91	12.06	20.67	690
	PHED Campus (CWR 2400 KL)		79.06	30.48	11.89	24.51	800
	Pipe Laying Zone - 1		70.81	30.64	8.92	17.35	670
	1.6 MLD STP		72.64	33.14	11.47	23.18	660
	MWPS Zone - 2		70.05	32.69	11.47	17.63	670
4	**RSTDIP/BNS/04**						
	Banswara Town						
	AEn (PHED) Campus WTP	01.03.2023 to 03.03.2023	74.3	44.8	22.3	25.7	408
	Kagdi WTP		62.1	28.6	12.2	14.2	252
	STP Site		68.8	32.4	13.3	17.2	389
	SPS @ Nathelav		78.4	38.2	15.2	17.2	421
	Pipli chowk- Market Area		88.3	48.5	21.7	24.2	612
	Pratapgarh Road		80.1	44.3	23.2	27.8	605
5	**RSTDIP/MDW/03**						
	Mandawa Town						
	SPS - 1 ((PHED Campus) Besides SPS Site	27.03.2023 to 31.03.2023	71.47	34.58	9.98	18.15	660
	CWR Site - 1		73.56	29.16	8.80	18.40	700
	STP Site - 1		74.06	36.37	9.58	20.03	520
	Pipe Laying Site (Dumra Ki Dhani)		78.65	33.19	10.64	21.0	770
6	**RSTDIP/SHR-ABR/01**						
	Sirohi Town						
	Angore WTP	21.02.2023 to 22.02.2023	73.55	35.14	15.02	21.36	530
	Near Workmen Camp (STP 5.0 MLD)		81.34	39.05	10.57	20.22	620
	1.7 MLD STP (Near Revdar Road)		67.41	35.12	11.07	20.84	680
	Vaidnath Colony (Office Area)		66.28	30.61	9.47	19.12	540
7	**RSTDIP/RTG-FTP-LXG/01**						
	Ratangarh Town						
	STP 3.5 MLD	21.03.2023 to 23.03.2023	70.19	39.49	11.96	23.35	630
	STP 6.1 MLD		68.60	38.62	12.36	24.05	660
	SPS 3.8 MLD		70.20	40.78	12.37	23.35	520
	SPS 4.6 MLD		68.94	28.45	11.12	21.30	560
	Workmen Habitat		7215	38.31	9.92	22.50	580
	At Hospital		71.01	41.24	11.55	23.89	610
8	**RSTDIP/RTG-FTP-LXG/01**						
	Fatehpur Town						
	At Nawalgarh Railway Puliya		75.14	23.83	11.70	18.82	580

	Naribari Road 3.5 MLD STP	25.03.2023 to 26.03.2023	70.12	21.43	11.29	20.35	560
	Workmen Camp Bikaner Puliya		67.54	20.69	10.79	19.33	520
	Behind Dholi Sati Temple 3.5 MLD		69.40	22.59	15.17	21.26	540
9	**RSTDIP/RTG-FTP-LXG/01**						
	Laxmangarh Town						
	RMC & MCC Office Mansi	26.03.2023 to 27.03.2023	74.15	20.59	14.81	21.85	500
	Bad ka Balaji		75.81	23.75	18.85	22.35	570
	AEn Campus		77.52	27.35	19.87	22.99	600
	Store Yard & Labor Camp		70.08	21.85	16.91	21.35	580
10	**RSTDIP/SHR-ABR/01**						
	Abu Road Town						
	Manpur STP	28.03.2023 to 29.03.2023	73.65	33.89	10.58	15.21	750
	Manpur Workmen Camp		70.42	28.96	9.88	14.32	520
	Near STP & WTP Santpur		72.64	33.56	9.52	15.11	710
	HDPE Pipe Laying Kesarganj		69.78	30.12	9.71	14.62	680
11	**RSTDIP/LDN-DID-MKN/01**						
	Didwana Town						
	STP 3 MLD Site	28.03.2023 to 30.03.2023	74.0	40.0	8.2	32.0	450
	Pipe Laying Site		69.0	36.0	8.0	24.0	480
	SPS 1.7 MLD Site		63.0	31.0	7.6	22.0	520
	SPS 1.3 MLD Site		72.0	42.0	8.8	30.0	680
12	**RSTDIP/LDN-DID-MKN/01**						
	Ladnu Town						
	STP -1 (5.5 MLD) Site	30.03.2023 to 01.04.2023	58.0	36.0	7.2	20.0	570
	STP -1 (2.4 MLD) Site		54.0	30.0	8.2	24.0	520
	Pipe Laying Site, Dayanad Colony		63.0	33.0	7.0	26.0	560
	Pipe Laying Site, Ladnu		66.0	39.0	6.8	22.0	620
13	**RSTDIP/LDN-DID-MKN/01**						
	Makrana Town						
	SPS 2.3 MLD Site	27.03.2023 to 28.03.2023	77.0	46.0	9.8	28.0	520
	STP 7.7 MLD Site		67.0	41.0	8.6	21.0	490
	SPS 2.1 MLD Site		73.0	33.0	7.4	24.0	580
	Pipe Laying Site, Matavar Road		70.0	38.0	8.4	22.0	540
14	**RSTDIP/KMN/02**						
	Kuchaman Town						
	STP Near Bus Stand	25.03.2023 to 27.03.2023	60.0	38.0	9.8	32.0	520
	L&T Labor Colony		54.0	32.0	8.2	24.0	480
	L&T Site 1200 KL, Pachwa Road		56.0	38.0	8.6	26.0	420
	RUIDP Office, Kuchaman		62.0	44.0	9.4	34.0	520
	Pipe Laying Site - 1 Gujjarpura		68.0	43.0	7.6	30.0	540
	Pipe Laying Site - 2 Dalla Balaji Road		57.0	40.0	7.2	27.0	580
	730 KL CWR Budsu Road		71.0	48.0	8.8	29.0	620

Noise Monitoring Results
Noise Monitoring results – Last Quarter of 2022 (October to December 2022)

Noise Standard (National)	Type of area	Noise Level Leq (dB(A))	
		Day time	Night time
Applicable Per ADB SPS (IFC's limits for Noise Level)	Industrial Area	75	70
	Commercial/ Mixed Area	65	55
	Residential/ Rural	55	45
	Sensitive area	50	40
	Residential/ institutional/ educational	55 dB(A)	45 dB(A)

No.	Package / Town / Monitoring Location	Monitoring date	Noise Level Leq (dB(A))	
			Day time	Night time
1	**RSTDIP/PRT/01**			
	Pratapgarh Town			
	STP Pratapgarh	03.10.2022	60.8	48.2
	Sewerage Pumping Station		51.3	42.6
	Near Kila Parisar Pipe Laying Site		55.4	45.7
2	**RSTDIP/BNS/04**			
	Banswara Town			
	PHED AEn Campus WTP	19.10.2022 to 21.10.2022	52.0	45.0
	Kagdi WTP		46.0	40.0
	STP site		55.0	48.0
	SPS @ Nathelav		58.0	46.0
	Custom Chauraha		50.0	42.0
3	**RSTDIP/SHR-ABR/01**			
	Sirohi Town			
	WTP (9MLD at Angore PHED campus)	06.11.2022 to 07.11.2022	53.08	46.40
	Near Workmen camp (STP 5.0 MLD)		59.68	43.24
	1.7 MLD STP (Near Revdar Road)		65.84	44.06
	Vaidnath Colony (office Area)		52.06	44.09
4	**RSTDIP/SHR-ABR/01**			
	Abu Road Town			
	Kui CWR	07.11.2022 to 09.11.2022	58.11	43.82
	Luniapura CWR		62.09	43.92
	Network Location (Abkari AbuRoad)		62.49	44.06
	Manpur Labor Colony		54.09	42.38
	Near STP & WTP Santpur		56.24	41.62
5	**RSTDIP/ KTR/03**			
	Khetri Town			
	Near PHED office old	09.11.2022 to 10.11.2022	53.5	41.3
	Near Ajeet Govt Hospital		57.5	46.3
	Near UP Koshadhikari office		58.7	45.5
	Near JEN Staff Colony		56.5	46.3
	In Jai Singh Govt School		54.5	40.3
	STP proposed Site		59.3	47.1
	Near Prashashnik Bhawan		55.7	42.5
6	**RSTDIP/MDW/03**			
	Mandawa Town			
	SPS-1 (PHED Campus beside SPS Site)	08.12.2022 to 10.12.2022	51.48	40.69
	CWR Site - 1		53.67	42.74
	STP Site - 1		55.47	43.78
	Pipe Laying within the preferably Near ward no. 17		56.28	44.19
7	**RSTDIP/SRD/01**			
	Sardarshahar Town			
	PHED Campus (CWR 24 KL)		53.14	42.02

No.	Package / Town / Monitoring Location	Monitoring date	Noise Level Leq (dB(A))	
			Day time	Night time
	STP-1 (2.3 MLD South Campus)	05.12.2022 to 08.12.2022	48.14	40.82
	Zone -2 (Dev Apartment) Pipe Laying		50.54	41.22
	STP-2 (3.40 MLD North Campus)		50.21	38.96
	SPS (2.30 MLD) Gaushala Land		53.94	44.02
8	**RSTDIP / RTG-FTP-LXG / 01**			
	Fatehpur Town			
	STP (4.3 MLD) Near Naribari Village Road	02.12.2022 to 04.12.2022	54.63	44.60
	SPS (3.5 MLD) Dadi Sati Temple		52.38	43.72
	SPS (0.6 MLD) Aqsha mazid		53.89	41.72
	SPS (1.1 MLD) Near Railway Under Pass		59.17	49.78
9	**RSTDIP / RTG-FTP-LXG / 01**			
	Laxmangarh Town			
	PHED AEn campus	01.12.2022 to 02.12.2022	53.89	44.12
	Bad ke Balaji PHED campus		52.78	41.89
	Workmen camp		59.69	47.12
	ExEn Campus		53.78	42.11
10	**RSTDIP / RTG-FTP-LXG / 01**			
	Ratangarh Town			
	STP 3.8 MLD	06.12.2022 to 08.12.2022	58.74	45.83
	RJ Guest House Hospital		54.74	43.83
	SPS 4.6 MLD		59.74	46.83
	Labour Camp		60.34	47.13
	SPS 3.8 MLD		62.36	56.46
	STP 6.1 MLD		68.76	56.46
11	**RSTDIP/KMN/02**			
	Kuchaman Town			
	STP Site, Near New Bus Stand	27.12.2022 to 31.12.2022	64.3	41.9
	Pipe Laying Site - I, Dalla Balaji Road		58.5	40.7
	73OKL CWR, Budsu Road		61.2	41.4
	1200KL CWR. Pachwa Road		60.7	39.9
	Labour Colony, Pachwa Road		59.2	39.3
	Pipe Laying Site- 2, Guljarpura		61.3	42.8
	SPS Site, RUIDP Office		59.3	40.5
12	**RSTDIP/LDN-DID-MKN/01**			
	Didwana Town			
	STP Site - 01	08.12.2022 to 10.12.2022	61.0	42.9
	SPS Site- 02		61.6	41.9
	Pipe Laying Site- 1 (Zone- 6)		60.0	40.8
	Pipe laying Site- 2 (Zone-7)		58.6	39.8
13	**RSTDIP/LDN-DID-MKN/01**			
	Makrana Town			
	SPS Site - 01	11.12.2022 to 13.12.2022	60.8	40.4
	STP Site - 01		64.6	50.9
	SPS Site - 02		62.3	43.9
	Pipe Laying Site, Matavar Road		61.2	41.9
14	**RSTDIP/LDN-DID-MKN/01**			
	Ladnu Town			
	STP Site- 01	06.12.2022 to 08.12.2022	63.4	41.5
	Pipe Laying Site, Janta Colony		58.9	38.5
	STP Site - 02		57.7	41.3

Noise Monitoring results – First Quarter of 2023 (January to March 2023)

S.No.	Package / Town / Monitoring Location	Monitoring date	Noise Level Leq (dB(A))	
			Day time	Night time
1	**RSTDIP/KTR/03**			
	Khetri Town			
	STP Construction Site	08.02.2023 to 11.02.2023	51.5	40.3
	Construction Site JEn Campus		54.7	43.5
	Construction Site AEn Campus		56.5	42.3
	Construction Site Nr. Polo Ground		55.3	45.1
	Construction Site Nr. Lahoty Store Yard		53.3	39.1
	Construction Site Nr. Shani Temple		55.3	44.1
2	**RSTDIP/PRT/01**			
	Pratapgarh Town			
	STP Site	18.02.2023 to 19.02.2023	58.5	46.0
	Sewerage Pumping Station		52.0	43.2
	Nakoda Nagar		57.8	45.0
3	**RSTDIP/SRD/01**			
	Sardarshahar Town			
	STP – 1 (2.3 MLD) South Campus	23.03.2023 to 26.03.2023	50.87	41.20
	STP – 2 (3.4 MLD) North Campus		50.87	39.44
	PHED Campus (CWR 2400 KL)		53.87	42.98
	Pipe Laying Zone - 1		51.82	42.03
	1.6 MLD STP		54.12	45.72
	MWPS Zone - 2		54.09	44.73
4	**RSTDIP/BNS/04**			
	Banswara Town			
	WTP- AEn (PHED) Campus	01.03.2023 to 03.03.2023	56	48
	WTP-Kagdi WTP		51	46
	STP Site		62	52
	SPS @ Nathelav		57	47
	Pipli chowk- Market Area		74	63
	Pratapgarh Road		70	61
5	**RSTDIP/MDW/03**			
	Mandawa Town			
	SPS - 1 ((PHED Campus) Besides SPS Site	27.03.2023 to 31.03.2023	51.0	43.5
	CWR Site - 1		56.5	46.9
	STP Site - 1		56.6	45.9
	Pipe Laying Site (Dumra Ki Dhani)		51.8	43.8
6	**RSTDIP/SHR-ABR/01**			
	Sirohi Town			
	Angore WTP	21.02.2023 to 22.02.2023	57.11	46.36
	Near Workmen Camp (STP 5.0 MLD)		60.17	47.32
	1.7 MLD STP (Near Revdar Road)		63.85	48.03
	Vaidnath Colony (Office Area)		53.74	41.22
7	**RSTDIP/RTG-FTP-LXG/01**			
	Ratangarh Town			
	STP 3.8 MLD	21.03.2023 to 23.03.2023	59.93	44.81
	STP 6.1 MLD		54.53	43.91
	SPS 3.8 MLD		60.13	45.52
	SPS 4.6 MLD		61.23	46.01
	Workmen Habitat		62.84	55.22
	At Hospital		53.33	41.91
	RSTDIP/RTG-FTP-LXG/01			

S.No.	Package / Town / Monitoring Location	Monitoring date	Noise Level Leq (dB(A))	
			Day time	Night time
8	**Fatehpur Town**			
	At Nawalgarh Railway Puliya	25.03.2023 to 26.03.2023	68.83	51.41
	Naribari Road 3.5 MLD STP		67.43	52.21
	Workmen Camp Bikaner Puliya		66.13	49.61
	Behind Dholi Sati Temple 3.5 MLD		64.43	48.21
9	**RSTDIP/RTG-FTP-LXG/01**			
	Laxmangarh Town			
	RMC & MCC Office Mansi	26.03.2023 to 27.03.2023	61.93	45.91
	Bad ka Balaji		58.69	42.40
	AEn Campus		61.83	46.01
	Store Yard & Labor Camp		63.83	48.61
10	**RSTDIP/SHR-ABR/01**			
	Abu Road Town			
	Manpur STP	28.03.2023 to 29.03.2023	58.12	42.73
	Manpur Workmen Camp		52.44	43.65
	Near STP & WTP Santpur		59.32	46.82
	HDPE Pipe Laying Kesarganj		62.54	48.22
11	**RSTDIP/LDN-DID-MKN/01**			
	Didwana Town			
	STP 3 MLD Site	28.03.2023 to 30.03.2023	62.5	43.0
	Pipe Laying Site		58.1	41.5
	SPS 1.7 MLD Site		56.9	38.9
	SPS 1.3 MLD Site		59.6	42.2
12	**RSTDIP/LDN-DID-MKN/01**			
	Ladnu Town			
	STP -1 (5.5 MLD) Site	30.03.2023 to 01.04.2023	64.0	44.6
	STP -1 (2.4 MLD) Site		56.1	40.4
	Pipe Laying Site, Dayanad Colony		57.8	39.6
	Pipe Laying Site, Ladnu		55.7	38.1
13	**RSTDIP/LDN-DID-MKN/01**			
	Makrana Town			
	SPS 2.3 MLD Site	27.03.2023 to 28.03.2023	56.9	39.0
	STP 7.7 MLD Site		61.7	45.7
	SPS 2.1 MLD Site		59.0	41.1
	Pipe Laying Site, Matavar Road		60.0	43.5
14	**RSTDIP/KMN/02**			
	Kuchaman Town			
	STP Near Bus Stand	25.03.2023 to 27.03.2023	61.2	39.1
	L&T Labor Colony		57.9	37.8
	L&T Site 1200 KL, Pachwa Road		60.4	38.8
	RUIDP Office, Kuchaman		59.6	38.6
	Pipe Laying Site - 1 Gujjarpura		57.6	39.7
	Pipe Laying Site - 2 Dalla Balaji Road		59.7	40.9
	730 KL CWR Budsu Road		62.0	40.5

Ground water Quality Monitoring Results

S.No	Parameters	Units	RSTDIP/BNS/04			RSTDIP/KTR/03	RSTDIP/PRT/01	
			Banswara Date of Sampling: 19.10.2022			Khetri Date of Sampling: 10.11.2022	Pratapagarh Date of Sampling: 04.10.2022	
			PHED AEn Campus WTP	STP Site	SPS @ Nathelav	Sidhi Vinayak Temple	STP Site Pratapgarh	Near Govt. Girls Sr. Sec. School (at SPS)
1	pH	-	8.46	7.42	8.08	7.71	7.14	7.42
2	Total Dissolved solids	mg/l	220.0	436.0	528.0	260	456.30	488.50
3	Total Hardness as $CaCO_3$	mg/l	188.0	404.0	448.0	192	160.99	181.12
4	Alkalinity as $CaCO_3$	mg/l	64.0	140.0	128.0	210	112.20	123.42
5	Chlorides as Cl	mg/l	24.0	54.0	116.0	163.98	128.54	133.13
6	Dissolved Oxygen (DO)	mg/l	5.6	5.4	5.1	6.6	5.80	6.15
7	Fluorides (as F)	mg/l	0.54	0.58	0.61	0.43	0.10	0.12
8	Sulphate as SO_4	mg/l	28.4	31.0	67.0	72.44	51.41	53.25
9	Iron as Fe	mg/l	0.13	0.13	0.19	0.12	0.04	0.05
10	Nitrate as NO_3	mg/l	3.93	5.12	5.12	21.0	10.45	11.44
11	Phenolic compounds	mg/l	BDL < 0.01	BDL < 0.01	BDL < 0.01	BDL < 0.01	-	-
12	Copper as Cu	mg/l	0.10	0.11	0.13	0.13	BDL	BDL
13	Zinc as Zn	mg/l	0.11	0.10	0.12	0.22	0.08	0.05
14	Manganese as Mn	mg/l	BDL < 0.1	BDL < 0.1	BDL < 0.1	BDL < 0.1	BDL < 0.1	BDL < 0.1
15	Mercury (as Hg)	mg/l	BDL < 0.001	BDL < 0.001	BDL < 0.001	BDL < 0.001	BDL < 0.001	BDL < 0.001
16	Cadmium (as Cd)	mg/l	BDL < 0.003	BDL < 0.003	BDL < 0.003	BDL < 0.003	BDL < 0.003	BDL < 0.003
17	Hexavalent Chromium as Cr^{+6})	mg/l	BDL < 0.03	BDL < 0.03	BDL < 0.03	BDL < 0.03	BDL < 0.03	BDL < 0.03
18	Arsenic (as As)	mg/l	BDL < 0.01	BDL < 0.01	BDL < 0.01	BDL < 0.01	BDL < 0.01	BDL < 0.01
19	Lead (as Pb)	mg/l	BDL < 0.01	BDL < 0.01	BDL < 0.01	BDL < 0.01	BDL < 0.01	BDL < 0.01
20	Phosphate as P	mg/l	0.26	0.31	0.34	BDL	-	-

BDL= Below Detectible Limits

Ground water Quality Monitoring Results
Continuation Sheet – 2

S.No	Parameters	Units	RSTDIP/SHR-ABR/01 Sirohi Town Date of Sampling : 07.11.2022				
			Luniapura CWR	Kui CWR	Manpura Labor Colony	Near STP & WTP Santpur	Network Location (Abu Road)
1	pH	-	7.76	7.48	8.02	7.32	7.28
2	Total Dissolved solids	mg/l	1110.0	920.0	856.0	989.0	986.0
3	Total Alkalinity	mg/l	366.96	228.69	228.69	216.50	358.40
4	Total Hardness as $CaCO_3$	mg/l	596.9	246.59	239.9	234.74	572.34
5	Nitrate as NO_3	mg/l	19.69	14.24	19.72	15.49	12.10
6	Chlorides as Cl	mg/l	324.16	419.16	419.28	415.46	344.28
7	Sulphate as SO_4	mg/l	127.0	137.05	135.69	126.18	138.06
8	Fluorides (as F)	mg/l	0.79	0.66	0.76	0.75	0.78
9	Iron as Fe	mg/l	0.28	0.28	0.27	0.28	0.28
10	Arsenic (as As)	mg/l	BDL	BDL	BDL	BDL	BDL
11	Mercury (as Hg)	mg/l	BDL	BDL	BDL	BDL	BDL
12	Lead (as Pb)	mg/l	BDL	BDL	BDL	BDL	BDL
13	Cadmium (as Cd)	mg/l	BDL	BDL	BDL	BDL	BDL
14	Copper as Cu	mg/l	BDL	BDL	BDL	BDL	BDL
15	Total Chromium (as Cr)	mg/l	BDL	BDL	BDL	BDL	BDL
16	Zinc as Zn	mg/l	0.32	0.11	BDL	0.20	0.17
17	Manganese as Mn	mg/l	BDL	BDL	BDL	BDL	BDL
18	Calcium (as Ca)	mg/l	179.64	75.48	75.49	75.29	147.20
19	Magnesium (as Mg)	mg/l	6.16	9.81	12.53	11.40	2.15
20	Aluminum (as Al)	mg/l	BDL	BDL	BDL	BDL	BDL

BDL= Below Detectible Limits

Ground water Quality Monitoring Results
Continuation Sheet – 3

S.No	Parameters	Units	RSTDIP/SHR-ABR/01 Abu Road Town Date of Sampling : 08.11.2022				
			Luniapura CWR	Kui CWR	Manpura Labor Colony	Near STP & WTP Santpur	Network Location (Abu Road)
1	pH	-	7.76	7.48	8.02	7.32	7.28
2	Total Dissolved solids	mg/l	1110.0	920.0	856.0	989.0	986.0
3	Total Alkalinity	mg/l	366.96	228.69	228.69	216.50	358.40
4	Total Hardness as $CaCO_3$	mg/l	596.9	246.59	239.9	234.74	572.34
5	Nitrate as NO_3	mg/l	19.69	14.24	19.72	15.49	12.10
6	Chlorides as Cl	mg/l	324.16	419.16	419.28	415.46	344.28
7	Sulphate as SO_4	mg/l	127.0	137.05	135.69	126.18	138.06
8	Calcium (as Ca)	mg/l	179.64	75.48	75.49	75.29	147.20
9	Magnesium (as Mg)	mg/l	6.16	9.81	12.53	11.40	2.15
10	Fluorides (as F)	mg/l	0.79	0.66	0.76	0.75	0.78
11	Iron as Fe	mg/l	0.28	0.28	0.27	0.28	0.28
12	Arsenic (as As)	mg/l	BDL	BDL	BDL	BDL	BDL
13	Mercury (as Hg)	mg/l	BDL	BDL	BDL	BDL	BDL
14	Lead (as Pb)	mg/l	BDL	BDL	BDL	BDL	BDL
15	Cadmium (as Cd)	mg/l	BDL	BDL	BDL	BDL	BDL
16	Copper as Cu	mg/l	BDL	BDL	BDL	BDL	BDL
17	Total Chromium (as Cr)	mg/l	BDL	BDL	BDL	BDL	BDL
18	Zinc as Zn	mg/l	0.32	0.11	BDL	0.20	0.17
19	Aluminum (as Al)	mg/l	BDL	BDL	BDL	BDL	BDL
20	Manganese as Mn	mg/l	BDL	BDL	BDL	BDL	BDL

BDL= Below Detectible Limits

Ground water Quality Monitoring Results
Continuation Sheet – 4

S.No	Parameters	Units	Town Name: Mandawa (RSTDIP/MDW/03) (Date of sampling: 08.12.2022		
			Location		
			STP-1	CWR Site - 1	SPS -1
1	pH (at 25° C)	-	7.49	8.01	7.58
2	Total Hardness as $CaCO_3$	mg/l	158.45	177.12	189.66
3	Alkalinity	mg/l	474.91	547.64	588.37
4	Chlorides as Cl	mg/l	28.36	207.45	199.78
5	Total Dissolved solids	mg/l	681.69	786.63	1374.55
6	Sulphate as SO_4	mg/l	21.06	93.14	104.27
7	Fluorides (as F)	mg/l	0.49	0.72	0.74
8	Nitrate as NO_3	mg/l	23.14	32.58	37.69
9	Iron as Fe	mg/l	0.15	0.18	0.19
10	Total Chromium (as Cr)	mg/l	BDL (< 0.01)	BDL (< 0.01)	BDL (< 0.01)
11	Phenolic Compounds	mg/l	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)
12	Zinc as Zn	mg/l	BDL (< 0.01)	BDL (< 0.01)	BDL (< 0.01)
13	Copper as Cu	mg/l	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)
14	Manganese as Mn	mg/l	BDL (< 0.01)	BDL (< 0.01)	BDL (< 0.01)
15	Cadmium as Cd	mg/l	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)
16	Lead (as Pb)	mg/l	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)
17	Arsenic (as As)	mg/l	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)
18	Mercury (as Hg)	mg/l	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)
19	Phosphate as PO4	mg/l	0.29	0.46	0.49
20	Dissolved Oxygen	mg/l	7.1	6.4	6.8

BDL= Below Detectible Limits

Ground water Quality Monitoring Results
Continuation Sheet – 5

S.No	Parameters	Units	Sardarshahar Town (RSTDIP/SRD/01) Date of Sampling: 05.12.2022				
			Location				
			PHED Campus (CWR 24 KL)	STP-1 (2.3 MLD South Campus)	Zone -2 (Dev Apartment) Pipe Laying	STP-2 (3.40 MLD North Campus)	SPS (2.30 MLD) Gaushala Land
1	pH (at 25° C)	-	7.66	7.48	7.86	7.96	7.74
2	Total Dissolved solids	mg/l	1448.0	269.0	728.0	1358.0	974.0
3	Alkalinity	mg/l	512.16	143.56	294.88	516.04	388.0
4	Total Hardness as $CaCO_3$	mg/l	496.0	144.0	300.0	404.0	328.0
5	Nitrate as NO_3	mg/l	25.17	9.47	11.76	23.2	9.15
6	Chlorides as Cl	mg/l	350.84	64.06	193.16	331.13	291.71
7	Sulphate as SO_4	mg/l	213.09	40.65	107.22	214.44	111.27
8	Fluorides (as F)	mg/l	0.73	0.44	0.61	0.79	0.64
9	Iron as Fe	mg/l	0.18	0.11	0.14	0.17	0.17
10	Zinc as Zn	mg/l	0.42	BDL (< 0.01)	0.28	BDL (< 0.01)	0.43
11	Dissolved Oxygen	mg/l	4.6	4.9	4.4	4.7	4.6
12	Phosphate as PO4	mg/l	0.42	BDL (<0.2)	0.28	0.41	0.40
13	Arsenic (as As)	mg/l	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)
14	Mercury (as Hg)	mg/l	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)
15	Lead (as Pb)	mg/l	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)
16	Cadmium as Cd	mg/l	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)
17	Copper as Cu	mg/l	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)
18	Manganese as Mn	mg/l	BDL (< 0.01)	BDL (< 0.01)	BDL (< 0.01)	BDL (< 0.01)	BDL (< 0.01)
19	Phenolic Compounds	mg/l	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)
20	Hexavalent Chromium (as Cr+6)	mg/l	BDL (< 0.02)	BDL (< 0.02)	BDL(< 0.02)	BDL (< 0.02)	BDL (< 0.02)

BDL= Below Detectible Limits

Ground water Quality Monitoring Results
Continuation Sheet – 6

S.No	Parameters	Units	Fatehpur Town (RSTDIP / RTG-FTP-LXG / 01) (Date of sampling: 02.12.2022 to 03.12.2022				Laxmangarh Town (RSTDIP / RTG-FTP-LXG / 01) (Date of sampling: 01.12.2022	
			Locations					
			STP (4.3 MLD) Near Naribari Village Road	SPS (3.5 MLD) Dadi Sati Temple	SPS (0.6 MLD) Aqsha mazid	SPS (1.1 MLD) Near Railway Under Pass	PHED AEn Campus	Bad ke balaji PHED campus
1	pH (at 25° C)	-	8.04	8.01	7.74	8.0	8.04	8.92
2	Total Dissolved solids	mg/l	1245.0	1515.0	1125.0	1035.0	920.0	295.0
3	Chlorides as Cl	mg/l	250.33	250.40	146.20	149.60	179.40	32.75
4	Total Alkalinity	mg/l	710.80	744.34	782.48	812.0	362.55	125.32
5	Total Hardness as $CaCO_3$	mg/l	164.33	164.26	46.34	144.29	160.92	80.63
6	Fluorides (as F)	mg/l	1.17	1.29	1.10	1.19	0.89	0.37
7	Nitrate as NO_3	mg/l	30.20	26.19	22.0	20.48	21.23	9.13
8	Sulphate as SO_4	mg/l	66.32	83.33	9.24	80.33	125.17	9.53
9	Dissolved Oxygen	mg/l	6.9	7.3	5.9	6.8	6.6	6.8
10	Total Iron as Fe	mg/l	0.36	BDL (< 0.1)	BDL (< 0.1)	BDL (< 0.1)	0.15	BDL (< 0.1)
11	Phenolic Compounds	mg/l	BDL (< 0.0004)	BDL (< 0.0004)	BDL (< 0.0004)	BDL (< 0.0004)	BDL (< 0.0004)	BDL (< 0.0004)
12	Arsenic (as As)	mg/l	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)
13	Mercury (as Hg)	mg/l	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)
14	Lead (as Pb)	mg/l	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)
15	Cadmium as Cd	mg/l	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)
16	Zinc as Zn	mg/l	BDL (< 2.0	BDL (< 2.0	BDL (< 2.0	BDL (< 2.0	BDL (< 2.0	BDL (< 2.0
17	Manganese as Mn	mg/l	BDL (< 0.05)	BDL (< 0.05)	BDL (< 0.05)	BDL (< 0.05)	BDL (< 0.05)	BDL (< 0.05)
18	Phosphate as P	mg/l	BDL (<0.2)	BDL (<0.2)	BDL (<0.2)	BDL (<0.2)	BDL (<0.2)	BDL (<0.2)
19	Hexavalent Chromium (as Cr+6)	mg/l	BDL (< 0.3)	BDL (< 0.3)	BDL (< 0.3)	BDL (< 0.3)	BDL (< 0.3)	BDL (< 0.3)

BDL= Below Detectible Limits

Ground water Quality Monitoring Results
Continuation Sheet – 7

S.No	Parameters	Units	Ratangarh Town (RSTDIP / RTG-FTP-LXG / 01) (Date of sampling: 07.12.2022					
			Locations					
			STP 3.8 MLD	RJ Guest House Hospital	SPS 4.6 MLD	Labour Camp	SPS 3.8 MLD	STP 6.1 MLD
1	pH	-	7.14	7.39	7.77	7.89	7.10	7.59
2	Turbidity	NTU	BDL (< 1.0)	BDL (< 1.0)	BDL (< 1.0)	BDL (< 1.0)	BDL (< 1.0)	BDL (< 1.0)
3	Total Hardness as $CaCO_3$	mg/l	8.16	28.56	155.04	85.68	558.96	20.4
4	Calcium (as Ca)	mg/l	1.63	6.54	34.34	13.08	63.77	17.98
5	Total Alkalinity	mg/l	3.68	16.32	181.56	401.12	478.4	18.4
6	Chlorides as Cl	mg/l	13.30	57.0	229.91	304.02	554.84	112.10
7	Magnesium (as Mg)	mg/l	BDL (< 2.0)	2.97	16.85	12.89	97.16	BDL (< 2.0)
8	Total Dissolved solids	mg/l	42.0	192.4	456.0	1508	1696.0	320.0
9	Sulphate as SO_4	mg/l	9.32	19.84	36.51	96.43	47.42	14.08
10	Fluorides (as F)	mg/l	0.18	0.35	0.89	1.93	0.25	0.20
11	Nitrate as NO_3	mg/l	BDL (< 0.5)	2.96	16.33	20.16	24.16	2.03
12	Iron as Fe	mg/l	BDL (< 0.1)	0.07	0.14	0.13	0.14	BDL (< 0.1)
13	Copper as Cu	mg/l	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)
14	Manganese(as Mn)	mg/l	BDL (< 0.05)	BDL (< 0.05)	BDL (< 0.05)	BDL (< 0.05)	BDL (< 0.05)	BDL (< 0.05)
15	Lead (as Pb)	mg/l	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)
16	Electrical Conductivity	mg/l	64.7	296.0	710.0	1508	4015.38	493.0
17	Sodium as Na	mg/l	23.13	79.4	48.50	153.1	741.0	217.4
18	Potassium as K	mg/l	0.21	0.78	1.25	5.28	7.79	1.02
19	Colour	Hazen	BDL (< 1.0)	BDL (< 1.0)	BDL (< 1.0)	BDL (< 1.0)	BDL (< 1.0)	BDL (< 1.0)
20	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
21	Phosphorus	mg/l	BDL (< 0.2)	BDL (< 0.2)	BDL (< 0.2)	BDL (< 0.2)	BDL (< 0.2)	BDL (< 0.2)

BDL= Below Detectible Limits

Ground water Quality Monitoring Results
Continuation Sheet – 8

S.No	Parameters	Units	Town Name: Kuchaman (Date of sampling: 28.12.2022 and 30.12.2022			Town Name: Didwana (Date of sampling: 08.12.2022 and 09.12.2022		
			Locations					
			STP Site, Near New Bus Stand	Labour Colony, Pachwa Road	SPS Site, RUIDP office	STP Site 1	SPS Site 2	Pipe Laying Site- 1 Zone- 6)
1	pH (at 25° C)	-	8.3	7.56	8.24	8.21	7.38	8.08
2	Total Dissolved solids	mg/l	1098.0	1922.0	1504.0	2456.0	252.0	1550.0
3	Total Hardness as $CaCO_3$	mg/l	204.0	567.0	73.0	240.0	136.0	188.0
4	Alkalinity (as CaCO3)	mg/l	333.0	239.0	529.0	987.0	97.0	615.0
5	Chlorides as Cl	mg/l	321.0	940.0	413.0	570.0	25.0	325.0
6	Sulphate as SO_4	mg/l	80.0	73.0	125.0	98.0	27.0	74.0
7	Fluorides (as F)	mg/l	0.47	0.27	0.90	3.8	0.1	0.69
8	Nitrate as NO_3	mg/l	55.0	27.0	25.0	32.0	0.45	15.0
9	Dissolved Oxygen	mg/l	5.1	4.6	5.0	5.3	5.8	5.2
10	Phosphate as PO4	mg/l	BDL < 0.15	BDL < 0.15	BDL < 0.15	0.068	0.58	0.036
11	Arsenic (as As)	mg/l	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)
12	Cadmium as Cd	mg/l	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)
13	Iron as Fe	mg/l	BDL < 0.05	BDL < 0.05	BDL < 0.05	BDL < 0.05	BDL < 0.05	BDL < 0.05
14	Copper as Cu	mg/l	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)
15	Lead (as Pb)	mg/l	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)
16	Manganese as Mn	mg/l	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)
17	Zinc as Zn	mg/l	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)
18	Phenolic Compounds	mg/l	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)
19	Mercury (as Hg)	mg/l	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)
20	Hexavalent Chromium (as Cr+6)	mg/l	BDL (< 0.01)	BDL (< 0.01)	BDL (< 0.01)	BDL (< 0.03)	BDL (< 0.03)	BDL (< 0.03)

BDL= Below Detectible Limits

Ground water Quality Monitoring Results
Continuation Sheet – 9

S.No	Parameters	Units	Town Name: Makrana (Date of sampling: 11.12.2022 and 12.12.2022)			Town Name: Ladnu (Date of sampling: 06.12.2022	
			SPS Site 1	STP Site 1	SPS Site 2	STP Site 1	STP Site 2
1	pH (at 25° C)	-	7.53	7.40	7.46	8.36	7.76
2	Total Dissolved solids	mg/l	2496.0	2058.0	214.0	23598.0	6566.0
3	Total Hardness as $CaCO_3$	mg/l	1082.0	710.0	312.0	616.0	594.0
4	Alkalinity (as CaCO3)	mg/l	290.0	777.0	92.0	1491.0	767.0
5	Chlorides as Cl	mg/l	425.0	470.0	21.0	11446.0	2249.0
6	Sulphate as SO_4	mg/l	185.0	70.0	22.0	2800.0	825.0
7	Fluorides (as F)	mg/l	0.4	0.42	0.1	18.0	7.2
8	Nitrate as NO_3	mg/l	95.0	51.0	0.1	31.0	24.0
9	Dissolved Oxygen	mg/l	4.6	5.0	6.0	5.2	5.6
10	Phosphate as PO4	mg/l	0.093	0.0.041	0.083	0.037	BDL < 0.03
11	Arsenic (as As)	mg/l	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)
12	Cadmium as Cd	mg/l	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)
13	Iron as Fe	mg/l	BDL < 0.05	BDL < 0.05	BDL < 0.05	BDL < 0.05	BDL < 0.05
14	Copper as Cu	mg/l	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)
15	Lead (as Pb)	mg/l	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)
16	Manganese as Mn	mg/l	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)
17	Zinc as Zn	mg/l	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)
18	Phenolic Compounds	mg/l	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)
19	Mercury (as Hg)	mg/l	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)	BDL (< 0.001)
20	Hexavalent Chromium (as Cr+6)	mg/l	BDL (< 0.03)	BDL (< 0.03)	BDL (< 0.03)	BDL (< 0.03)	BDL (< 0.03)

BDL= Below Detectible Limits

Ground Water Quality Monitoring Results
Continuation Sheet – 10

S.No	Parameters	Units	Town Name: Khetri (Date of sampling: 09.02.2023		
			Locations		
			Tubewell Near Lahoty Store Yard	Construction Water of STP Site	Tap water of AEn campus
1	pH (at 25° C)	-	7.03	7.13	7.25
2	Total Dissolved solids	mg/l	480.0	460.0	210.0
3	Total Hardness (as $CaCO_{3)}$	mg/l	312.0	292.0	180.0
4	Chlorides (as Cl)	mg/l	135.98	129.98	39.98
5	Fluorides (as F)	mg/l	0.52	0.68	0.32
6	Sulphate (as $SO_{4)}$	mg/l	64.34	58.32	22.34
7	Nitrate (as $NO_{3)}$	mg/l	22.24	24.20	15.25
8	Alkalinity (as CaCO3)	mg/l	220	240	150
9	Iron as Fe	mg/l	0.12	0.16	0.08
10	Chromium (Hexavalent)	mg/l	BDL (< 0.03)	BDL (< 0.03)	BDL (< 0.03)
11	Dissolved Oxygen	mg/l	6.8	5.7	6.2
12	Phenolic Compounds	mg/l	BDL	BDL	BDL
13	Total Phosphate	mg/l	BDL	BDL	BDL
14	Arsenic (as As)	mg/l	BDL	BDL	BDL
15	Cadmium (as Cd)	mg/l	BDL	BDL	BDL
16	Copper (as Cu)	mg/l	0.14	0.10	0.10
17	Lead (as Pb)	mg/l	BDL	BDL	BDL
18	Manganese (as Mn)	mg/l	BDL	BDL	BDL
19	Zinc (as Zn)	mg/l	0.22	0.28	0.28
20	Mercury (as Hg)	mg/l	BDL	BDL	BDL

BDL= Below Detectible Limits

Ground Water Quality Monitoring Results
Continuation Sheet – 11

S.No	Parameters	Units	Town Name: Pratapgarh (Date of sampling: 18.02.2023	
			Locations	
			STP Site	Near Rajkiye Zila Ayurvedic Chikitsalay (At)SPS
1	pH (at 25° C)	-	7.22	7.50
2	Turbidity (NTU)	NTU	< 1	< 1
3	Total Dissolved solids	mg/l	425.60	464.50
4	Total Suspended solids	mg/l	3.90	4.80
5	Total Hardness (as $CaCO_{3)}$	mg/l	156.10	184.50
6	Calcium (as Ca)	mg/l	42.17	44.53
7	Magnesium (as Mg)	mg/l	7.80	17.24
8	Total Alkalinity	mg/l	104.50	110.24
9	Nitrate (as $NO_{3)}$	mg/l	8.95	13.60
10	Chloride (as Cl)	mg/l	124.02	145.80
11	Residual Free Chlorine	mg/l	BDL	BDL
12	Sulphate (as $SO_{4)}$	mg/l	47.20	54.40
13	Iron (as Fe)	mg/l	0.04	0.03
14	Fluorides (as F)	mg/l	0.12	0.15
15	Sodium (as Na)	mg/l	30.24	42.51
16	Potassium (as K)	mg/l	12.85	19.63
17	Zinc (as Zn)	mg/l	0.05	0.04
18	Copper (as Cu)	mg/l	BDL	BDL
19	Manganese (as Mn)	mg/l	BDL	BDL
20	Mercury (as Hg)	mg/l	BDL	BDL
21	Cyanide (as CN)	mg/l	BDL	BDL
22	Cadmium (as Cd)	mg/l	BDL	BDL
23	Arsenic (as As)	mg/l	BDL	BDL
24	Lead (as Pb)	mg/l	BDL	BDL
25	Boron (as B)	mg/l	BDL	BDL
26	Selenium (as Se)	mg/l	BDL	BDL
27	Aluminium (as Al)	mg/l	BDL	BDL
28	Chromium (Hexavalent)	mg/l	BDL	BDL
29	Dissolved Oxygen	mg/l	4.90	5.20
30	BOD	mg/l	BDL	BDL
31	COD	mg/l	BDL	BDL

BDL= Below Detectible Limits

Ground Water Quality Monitoring Results
Continuation Sheet – 12

S. No	Parameters	Units	Name of Town: Sirohi (Date of sampling: 21.02.2023)			
			Location			
			WTP (9 MLD at Angore PHED Campus)	Near Workmen Camp (STP 5.0 MLD)	STP 1.7 MLD Near Revdar Road	Vaidnath Colony (Office RO)
1	pH	-	7.65	7.84	7.45	7.61
2	Total Dissolved solids	mg/l	1211.0	1309.0	1026.0	117.0
3	Alkalinity as $CaCO_3$	mg/l	192.41	214.05	175.28	38.41
4	Total Hardness as $CaCO_3$	mg/l	211.36	223.23	196.11	66.21
5	Nitrate as NO_3	mg/l	10.65	12.89	10.56	0.85
6	Chlorides as Cl	mg/l	437.12	412.13	425.6	31.05
7	Sulphate as SO_4	mg/l	110.05	140.35	120.47	3.87
8	Calcium as Ca	mg/l	72.46	75.04	65.82	18.41
9	Magnesium as Mg	mg/l	7.43	9.21	7.75	4.93
10	Fluoride as F	mg/l	0.73	0.89	0.69	0.21
11	Iron as Fe	mg/l	0.22	0.28	0.31	7.85
12	Arsenic (as As)	mg/l	BDL<0.002	BDL<0.002	BDL<0.002	BDL<0.002
13	Mercury (as Hg)	mg/l	BDL<0.0005	BDL<0.0005	BDL<0.0005	BDL<0.0005
14	Lead (as Pb)	mg/l	BDL<0.002	BDL<0.002	BDL<0.002	BDL<0.002
15	Cadmium (as Cd)	mg/l	BDL<0.002	BDL<0.002	BDL<0.002	BDL<0.002
16	Copper as Cu	mg/l	BDL<0.002	BDL<0.002	BDL<0.002	BDL<0.002
17	Zinc as Zn	mg/l	0.21	0.12	0.22	0.25
18	Manganese as Mn	mg/l	BDL<0.01	BDL<0.01	BDL<0.01	BDL<0.01
19	Phenolic compounds	mg/l	BDL<0.0004	BDL<0.0004	BDL<0.0004	BDL<0.0004
20	Total Chromium as Cr)	mg/l	BDL<0.002	BDL<0.002	BDL<0.002	BDL<0.002

BDL= Below Detectible Limits

Ground Water Quality Monitoring Results
Continuation Sheet – 13

S. No	Parameters	Units	Town Name: Banswara (Date of sampling: 03.03.2023			
			Location			
			AEn (PHED Campus)	STP Site	SPS @ Nathelav	Pratapgarh Road
1	pH	-	8.1	7.6	7.6	7.5
2	Total Dissolved solids	mg/l	242	468	564	294
3	Alkalinity as $CaCO_3$	mg/l	54	102	98	62
4	Total Hardness as $CaCO_3$	mg/l	162	262	416	132
5	Nitrate as NO_3	mg/l	4.65	9.18	10.3	5.31
6	Chlorides as Cl	mg/l	20	68	128	32
7	Sulphate as SO_4	mg/l	32.5	49.5	78	42.4
8	Fluorides (as F)	mg/l	0.38	0.48	0.64	0.31
9	Iron as Fe	mg/l	0.11	0.14	0.24	0.14
10	Arsenic (as As)	mg/l	BDL<0.01	BDL<0.01	BDL<0.01	BDL<0.01
11	Mercury (as Hg)	mg/l	BDL<0.001	BDL<0.001	BDL<0.001	BDL<0.001
12	Lead (as Pb)	mg/l	BDL<0.01	BDL<0.01	BDL<0.01	BDL<0.01
13	Cadmium (as Cd)	mg/l	BDL<0.003	BDL<0.003	BDL<0.003	BDL<0.003
14	Copper as Cu	mg/l	0.11	0.14	0.16	0.14
15	Zinc as Zn	mg/l	0.10	0.12	0.11	0.10
16	Manganese as Mn	mg/l	BDL<0.1	BDL<0.1	BDL<0.1	BDL<0.1
17	Phenolic compounds	mg/l	BDL<0.01	BDL<0.01	BDL<0.01	BDL<0.01
18	Dissolved Oxygen (DO)	mg/l	5.8	5.2	5.3	5.5
19	Phosphate as P	mg/l	0.18	0.35	0.30	0.21
20	Hexavalent Chromium as Cr^{+6})	mg/l	BDL<0.03	BDL<0.03	BDL<0.03	BDL<0.03

BDL= Below Detectible Limits

Ground Water Quality Monitoring Results
Continuation Sheet – 14

S. No	Parameters	Units	Name of Town: Ratangarh (Date of sampling: 22.03.2023 & 23.03.2023)				
			Location				
			STP 3.8 MLD	Labour Camp	STP 6.1 MLD	RJ Guest House	SPS 4.6 MLD
1	pH	-	7.32	8.11	7.91	7.91	8.71
2	Turbidity	NTU	BDL <1.0	BDL <1.0	BDL <1.0	BDL <1.0	BDL <1.0
3	Calcium as CaCO3	mg/l	4.30	16.03	20.04	10.02	38.08
4	Chlorides as Cl	mg/l	15.31	296.76	107.20	49.63	223.97
5	Electrical Conductivity	µS/cm	125.0	1400.0	500.0	410.0	625.0
6	Fluoride as F	mg/l	0.21	0.99	0.24	0.31	0.85
7	Magnesium as Mg	mg/l	BDL < 2.0	12.15	BDL < 2.0	2.43	17.0
8	Nitrate as NO_3	mg/l	BDL < 0.5	17.89	1.16	2.11	10.11
9	Sulphate as SO_4	mg/l	8.04	89.88	15.18	17.86	32.74
10	Total Alkalinity as $CaCO_3$	mg/l	7.76	407.40	23.28	19.40	151.32
11	Total Dissolved solids	mg/l	82.0	910.0	374.0	269.0	495.0
12	Total Hardness as $CaCO_3$	mg/l	10.0	90.0	50.0	35.0	165.0
13	Sodium as Na	mg/l	26.22	150.20	210.10	65.82	40.05
14	Potassium as K	mg/l	0.31	7.28	3.50	0.96	3.30
15	Copper as Cu	mg/l	BDL<0.05	BDL<0.05	BDL<0.05	BDL<0.05	BDL<0.05
16	Iron as Fe	mg/l	BDL < 0.1	0.16	BDL < 0.1	BDL < 0.1	BDL < 0.1
17	Lead (as Pb)	mg/l	BDL<0.05	BDL<0.05	BDL<0.05	BDL<0.05	BDL<0.05
18	Manganese as Mn	mg/l	BDL<0.05	BDL<0.05	BDL<0.05	BDL<0.05	BDL<0.05
19	Color	Hazen	BDL < 1.0	BDL < 1.0	BDL < 1.0	BDL < 1.0	BDL < 1.0
20	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
21	Phosphorus	mg/l	BDL < 0.2	BDL < 0.2	BDL < 0.2	BDL < 0.2	BDL < 0.2

BDL= Below Detectible Limits

Ground Water Quality Monitoring Results
Continuation Sheet – 15

S.No	Parameters	Units	Town Name: Sardarshahar (Date of sampling: 23.03.2023)				
			Locations				
			PHED Campus CWR 2400 KL	STP -1 (2.3 MLD) South campus	STP -2 (3.4 MLD) North campus	STP - (1.6 MLD) (pre-Construction Activity)	Zone – 1 Pipe Laying
1	pH (at 25° C)	-	7.85	7.50	7.81	7.68	7.61
2	Total Dissolved solids	mg/l	131.6	270.0	1357.0	975.0	725.0
3	Total Alkalinity	mg/l	89.24	144.32	517.41	389.0	282.0
4	Total Hardness (as $CaCO_{3)}$	mg/l	125.3	145.3	405.1	329.7	298.5
5	Nitrate (as $NO_{3)}$	mg/l	1.27	9.88	20.75	9.58	10.45
6	Chloride (as Cl)	mg/l	21.05	64.85	332.46	292.43	192.41
7	Sulphate (as $SO_{4)}$	mg/l	9.71	41.03	215.01	112.48	106.22
8	Fluorides (as F)	mg/l	0.67	0.46	0.80	0.66	0.63
9	Iron (as Fe)	mg/l	0.09	0.13	0.19	0.19	0.16
10	Arsenic (as As)	mg/l	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)	BDL (< 0.005)
11	Mercury (as Hg)	mg/l	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)
12	Lead (as Pb)	mg/l	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)
13	Cadmium (as Cd)	mg/l	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)
14	Copper (as Cu)	mg/l	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)	BDL (< 0.002)
15	Zinc (as Zn)	mg/l	0.36	BDL (< 0.01)	BDL (< 0.01)	0.45	0.29
16	Manganese (as Mn)	mg/l	BDL (< 0.01)	BDL (< 0.01)	BDL (< 0.01)	BDL (< 0.01)	BDL (< 0.01)
17	Phenolic Compounds	mg/l	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)	BDL (< 0.0005)
18	Dissolved Oxygen	mg/l	6.0	6.0	5.9	6.3	6.2
19	Phosphate as P	mg/l	0.44	BDL (< 0.2)	0.49	0.43	0.30
20	Hexavalent Chromium as Cr+6	mg/l	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)	BDL (< 0.02)

BDL= Below Detectible Limits

Ground Water Quality Monitoring Results
Continuation Sheet – 16

S. No	Parameters	Units	Name of Town: Kuchaman (Date of sampling: 25.03.2023)		
			Location		
			Borewell at labor Colony	Borewell Near RUIDP Office	Borewell at farm House near STPSite
1	pH	-	7.64	8.23	7.74
2	Arsenic (as As)	mg/l	BDL<0.005	BDL<0.005	BDL<0.005
3	Cadmium (as Cd)	mg/l	BDL<0.001	BDL<0.001	BDL<0.001
4	Chlorides as Cl	mg/l	212.0	91.0	68.0
5	Copper as Cu	mg/l	BDL<0.02	BDL<0.02	BDL<0.02
6	Fluoride as F	mg/l	< 0.1	0.63	0.69
7	Iron as Fe	mg/l	BDL < 0.05	0.07	BDL < 0.05
8	Lead (as Pb)	mg/l	BDL<0.01	BDL<0.01	BDL<0.01
9	Manganese as Mn	mg/l	BDL<0.02	BDL<0.02	BDL<0.02
10	Nitrate as NO_3	mg/l	14.0	21.0	73.0
11	Phenolic compounds	mg/l	BDL<0.001	BDL<0.001	BDL<0.001
12	Sulphate as SO_4	mg/l	76.0	144.0	112.0
13	Total Hardness as $CaCO_3$	mg/l	580.0	80.0	440.0
14	Zinc as Zn	mg/l	BDL<0.02	BDL<0.02	BDL<0.02
15	Total Dissolved solids	mg/l	1966.0	1946.0	1672.0
16	Dissolved Oxygen	mg/	4.9	5.1	4.8
17	Phosphate (as PO_4)	mg/	BDL < 0.15	BDL < 0.15	BDL < 0.15
18	Alkalinity as $CaCO_3$	mg/l	260.0	508.0	440.0
19	Mercury (as Hg)	mg/l	BDL<0.001	BDL<0.001	BDL<0.001
20	Hexavalent Chromium as Cr^{+6})	mg/l	BDL<0.01	BDL<0.01	BDL<0.01

BDL= Below Detectible Limits

Ground Water Quality Monitoring Results
Continuation Sheet – 17

S. No	Parameters	Units	Name of Town: Fatehpur (Date of sampling: 25.03.2023)			
			Location			
			Behind Dholi Sati Temple	Naribari Road 3.5 MLD STP	Workmen Camp	At Nawalgarh Railway Station
1	pH	-	7.63	7.58	7.93	6.21
2	Turbidity	NTU	BDL <1.0	BDL <1.0	BDL <1.0	BDL <1.0
3	Calcium as CaCO3	mg/l	93.21	34.73	18.28	3.66
4	Chlorides as Cl	mg/l	70.19	306.97	24.33	20.59
5	Electrical Conductivity	µS/cm	725.0	1520.0	1978.0	288.0
6	Fluoride as F	mg/l	0.30	0.25	0.13	0.25
7	Magnesium as Mg	mg/l	3.32	18.83	11.08	2.21
8	Nitrate as NO_3	mg/l	BDL < 0.5	2.36	3.47	BDL < 0.5
9	Sulphate as SO_4	mg/l	99.06	79.72	71.70	15.33
10	Total Alkalinity as $CaCO_3$	mg/l	213.40	562.32	822.56	50.44
11	Total Dissolved solids	mg/l	470.0	988.0	1286.0	230.0
12	Total Hardness as $CaCO_3$	mg/l	246.24	164.16	91.20	18.24
13	Sodium as Na	mg/l	65.10	85.20	35.10	96.44
14	Potassium as K	mg/l	4.90	22.10	3.56	5.59
15	Copper as Cu	mg/l	BDL<0.05	BDL<0.05	BDL<0.05	BDL<0.05
16	Iron as Fe	mg/l	1.0	0.20	0.16	BDL < 0.1
17	Lead (as Pb)	mg/l	BDL<0.05	BDL<0.05	BDL<0.05	BDL<0.05
18	Manganese as Mn	mg/l	BDL<0.05	BDL<0.05	BDL<0.05	BDL<0.05
19	Color	Hazen	BDL < 1.0	BDL < 1.0	BDL < 1.0	BDL < 1.0
20	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable
21	Phosphorus	mg/l	BDL < 0.2	BDL < 0.2	BDL < 0.2	BDL < 0.2

BDL= Below Detectible Limits

Ground Water Quality Monitoring Results
Continuation Sheet – 18

S. No	Parameters	Units	Name of Town: Laxmangarh (Date of sampling: 27.03.2023 & 28.03.2023)			
			Results			
			Location			
			RMC Office Mansi	At Store Yard Labour Camp	At Bad ka Balaji	At AEn Campus
1	pH	-	8.19	8.11	7.92	7.75
2	Turbidity	NTU	BDL <1.0	BDL <1.0	BDL <1.0	BDL <1.0
3	Calcium as CaCO3	mg/l	3.66	9.14	32.90	36.55
4	Chlorides as Cl	mg/l	11.23	104.28	26.20	69.25
5	Electrical Conductivity	µS/cm	121.0	986.0	508.0	489.0
6	Fluoride as F	mg/l	BDL < 0.2	BDL < 0.2	0.31	0.25
7	Magnesium as Mg	mg/l	BDL < 2.0	7.76	6.45	8.87
8	Nitrate as NO_3	mg/l	BDL < 0.5	0.73	1.35	0.64
9	Sulphate as SO_4	mg/l	28.54	17.45	30.90	20.75
10	Total Alkalinity as $CaCO_3$	mg/l	7.76	496.64	108.64	170.72
11	Total Dissolved solids	mg/l	90.0	640.0	355.0	318.0
12	Total Hardness as $CaCO_3$	mg/l	BDL < 5.0	54.72	109.44	127.68
13	Copper as Cu	mg/l	BDL<0.05	BDL<0.05	BDL<0.05	BDL<0.05
14	Iron as Fe	mg/l	BDL < 0.1	0.16	0.23	0.23
15	Lead (as Pb)	mg/l	BDL<0.05	BDL<0.05	BDL<0.05	BDL<0.05
16	Manganese as Mn	mg/l	BDL<0.05	BDL<0.05	BDL<0.05	BDL<0.05
17	Color	Hazen	BDL < 1.0	BDL < 1.0	BDL < 1.0	BDL < 1.0
18	Odour	-	Agreeable	Agreeable	Agreeable	Agreeable
19	Sodium as Na	mg/l	BDL < 1.0	15.1	13.10	40.56
20	Potassium as K	mg/l	BDL < 0.5	6.89	BDL < 0.5	3.56
21	Phosphorus	mg/l	BDL < 0.2	BDL < 0.2	BDL < 0.2	BDL < 0.2

BDL= Below Detectible Limits

Ground Water Quality Monitoring Results
Continuation Sheet – 19

S. No	Parameters	Units	Name of Town: Mandawa (Date of sampling: 31/03/2023)		
			Location		
			STP - 1	CWR Site - 1	SPS Site - 1
1	pH	-	7.34	8.02	7.74
2	Total Hardness as $CaCO_3$	mg/l	145.0	230.0	230.0
3	Alkalinity as $CaCO_3$	mg/l	454.0	562.5	585.0
4	Chlorides as Cl	mg/l	40.27	271.83	297.0
5	Total Dissolved solids	mg/l	552.0	964.0	1055.0
6	Sulphate as SO_4	mg/l	25.89	86.73	102.26
7	Fluorides (as F)	mg/l	0.46	0.72	0.78
8	Nitrate as NO_3	mg/l	16.12	28.29	28.03
9	Iron as Fe	mg/l	0.20	0.26	0.24
10	Cadmium (as Cd)	mg/l	BDL (<0.002)	BDL (<0.002)	BDL (<0.002)
11	Lead (as Pb)	mg/l	BDL (<0.005)	BDL (<0.005)	BDL (<0.005)
12	Arsenic (as As)	mg/l	BDL (<0.005)	BDL (<0.005)	BDL (<0.005)
13	Mercury (as Hg)	mg/l	BDL (<0.001)	BDL (<0.001)	BDL (<0.001)
14	Hexavalent Chromium as Cr^{+6})	mg/l	BDL (<0.02)	BDL (<0.02)	BDL (<0.02)

BDL= Below Detectible Limits

Ground Water Quality Monitoring Results
Continuation Sheet – 20

S. No	Parameters	Units	Name of Town: Abu Road (Date of sampling: 28.03.2023)			
			Results			
			Location			
			Manpur STP	Manpur Workmen Camp	Near STP WTP Santpur	Ksearganj
1	pH	-	7.96	8.14	7.42	7.65
2	Conductivity (at 25° C)	µs/cm	1321.0	1344.0	1591.0	1591.0
3	Total Dissolved solids	mg/l	849.0	857.0	992.0	985.0
4	Alkalinity as $CaCO_3$	mg/l	227.41	229.11	217.22	265.41
5	Total Hardness as $CaCO_3$	mg/l	237.6	240.1	235.04	352.69
6	Nitrate as NO_3	mg/l	18.15	19.86	16.21	12.47
7	Chlorides as Cl	mg/l	420.37	420.02	415.87	338.65
8	Sulphate as SO_4	mg/l	132.41	136.21	126.54	136.47
9	Calcium as Ca	mg/l	76.85	75.84	75.67	126.45
10	Magnesium as Mg	mg/l	11.05	12.27	11.15	8.89
11	Fluoride as F	mg/l	0.77	0.78	0.77	0.75
12	Iron as Fe	mg/l	0.28	0.29	0.30	0.33
13	Arsenic (as As)	mg/l	BDL<0.002	BDL<0.002	BDL<0.002	BDL<0.002
14	Mercury (as Hg)	mg/l	BDL<0.0005	BDL<0.0005	BDL<0.0005	BDL<0.0005
15	Lead (as Pb)	mg/l	BDL<0.002	BDL<0.002	BDL<0.002	BDL<0.002
16	Cadmium (as Cd)	mg/l	BDL<0.002	BDL<0.002	BDL<0.002	BDL<0.002
17	Copper as Cu	mg/l	BDL<0.002	BDL<0.002	BDL<0.002	BDL<0.002
18	Total Chromium as Cr)	mg/l	BDL<0.002	BDL<0.002	BDL<0.002	BDL<0.002
19	Zinc as Zn	mg/l	BDL<0.01	BDL<0.01	0.21	0.19
20	Manganese as Mn	mg/l	BDL<0.01	BDL<0.01	BDL<0.01	BDL<0.01
21	Phenolic compounds	mg/l	BDL<0.0004	BDL<0.0004	BDL<0.0004	BDL<0.0004

BDL= Below Detectible Limits

Ground Water Quality Monitoring Results
Continuation Sheet – 21

S. No	Parameters	Units	Town: Didwana	Town: Ladnu	Town: Makrana
			Date of sampling: 29.03.2023	Date of sampling: 30.03.2023	Date of sampling: 27.03.2023
			Location		
			STP 3 MLD Site Mela Maidan	Dugwell at STP – 1 (5.5 MLD STP Site)	Borewell nearby STP Site
1	pH	-	8.13	9.29	7.52
2	Arsenic (as As)	mg/l	BDL<0.005	BDL<0.005	BDL<0.005
3	Cadmium (as Cd)	mg/l	BDL<0.001	BDL<0.001	BDL<0.001
4	Chlorides as Cl	mg/l	2872.0	11871.0	479.0
5	Copper as Cu	mg/l	BDL<0.02	BDL<0.02	BDL<0.02
6	Fluoride as F	mg/l	0.51	14.0	0.58
7	Iron as Fe	mg/l	BDL < 0.05	BDL < 0.05	BDL < 0.05
8	Lead (as Pb)	mg/l	BDL<0.005	BDL<0.005	BDL<0.005
9	Manganese as Mn	mg/l	BDL<0.02	BDL<0.02	BDL<0.02
10	Nitrate as NO_3	mg/l	96.0	193.0	238.0
11	Phenolic compounds	mg/l	BDL<0.001	BDL<0.001	BDL<0.001
12	Sulphate as SO_4	mg/l	295.0	3900.0	76.0
13	Total Hardness as $CaCO_3$	mg/l	1320.0	690.0	680.0
14	Zinc as Zn	mg/l	BDL<0.02	BDL<0.02	BDL<0.02
15	Total Dissolved solids	mg/l	6270.0	24115.0	2067.0
16	Dissolved Oxygen	mg/	5.2	5.1	4.9
17	Phosphate (as PO_4)	mg/	BDL < 0.03	BDL < 0.03	BDL < 0.03
18	Alkalinity as $CaCO_3$	mg/l	400.0	1060.0	700.0
19	Mercury (as Hg)	mg/l	BDL<0.001	BDL<0.001	BDL<0.001
20	Hexavalent Chromium as Cr^{+6})	mg/l	BDL<0.03	BDL<0.03	BDL<0.03

BDL= Below Detectible Limits

Surface water Quality Monitoring Results

S.No	Parameters	Units	Town : Khetri (RSTDIP/KTR/03) Date of Sampling: 10.11.2022				
			PHED office Old	Ajeet Govt Hospital	UP koshadhi kari office	JEN Staff Colony	In jai Singh Govt. School
1	pH	-	7.26	7.34	7.49	7.70	7.59
2	Total Dissolved solids	mg/l	310	310	270	315	265
3	Total Hardness as $CaCO_3$	mg/l	192	192	198	204	212
4	Chlorides as Cl	mg/l	145.98	149.98	157.95	151.95	155.98
5	Fluorides (as F)	mg/l	0.46	0.52	0.44	0.34	0.36
6	Sulphate as SO_4	mg/l	68.36	69.43	82.24	68.34	78.16
7	Nitrate as NO_3	mg/l	19.50	21	22.50	23.50	22.5
8	Alkalinity as $CaCO_3$	mg/l	195	210	225	230	220
9	Iron as Fe	mg/l	0.11	0.18	0.13	0.14	0.12
10	Hexavalent Chromium	mg/l	BDL (< 0.03)	BDL (< 0.03)	BDL (< 0.03)	BDL (< 0.03)	BDL (< 0.03)
11	Dissolved Oxygen (DO)	mg/l	6.7	5.9	6.6	5.9	5.7
12	Phenolic compounds	mg/l	BDL	BDL	BDL	BDL	BDL
13	Phosphate as P	mg/l	BDL	BDL	BDL	BDL	BDL
14	Arsenic (as As)	mg/l	BDL	BDL	BDL	BDL	BDL
15	Cadmium (as Cd)	mg/l	BDL	BDL	BDL	BDL	BDL
16	Copper as Cu	mg/l	0.12	0.11	0.10	0.15	0.10
17	Lead (as Pb)	mg/l	BDL	BDL	BDL	BDL	BDL
18	Manganese as Mn	mg/l	BDL	BDL	BDL	BDL	BDL
19	Zinc as Zn	mg/l	0.24	0.26	0.32	0.38	0.28
20	Mercury (as Hg)	mg/l	BDL	BDL	BDL	BDL	BDL

BDL= Below Detectible Limits

Surface water Quality Monitoring Results
Continuation Sheet – 2

S.No	Parameters	Units	RSTDIP/SHR-ABR/01	RSTDIP/BNS/04
			Sirohi Town Date of Sampling: 07.11.2022	Banswara Date of Sampling: 19.10.2022
			Angore Dam	Kagdi Intake
1	pH	-	7.82	8.43
2	Turbidity	NTU	2.0	0.1
3	Total Dissolved solids	mg/l	460.0	131.0
4	Chlorides as Cl	mg/l	88.40	18.0
5	Sulphate as SO_4	mg/l	33.14	8.96
6	Total Suspended Solids (TSS)	mg/l	5.0	BDL < 5.0
7	Total Hardness as $CaCO_3$	mg/l	138.70	140.0
8	Calcium (as Ca)	mg/l	30.06	27.0
9	Magnesium (as Mg)	mg/l	15.48	17.5
10	Fluorides (as F)	mg/l	0.27	0.76
11	Nitrate as NO_3	mg/l	6.0	-
12	Dissolved Oxygen (DO)	mg/l	6.2	5.4
13	B.O.D. @ 27 °C for 3 days	mg/l	7.8	BDL < 2.0
14	C.O.D.	mg/l	38.42	BDL < 4.0
15	Iron as Fe	mg/l	0.19	0.12
16	Zinc as Zn	mg/l	0.36	0.14
17	Copper as Cu	mg/l	BDL	0.07
18	Manganese as Mn	mg/l	BDL	0.1
19	Lead (as Pb)	mg/l	BDL < 0.01	BDL < 0.01
20	Arsenic (as As)	mg/l	BDL < 0.01	BDL < 0.01
21	Boron	mg/l	BDL	0.05
22	Cadmium (as Cd)	mg/l	BDL < 0.003	BDL < 0.003
23	Selenium (as Se)	mg/l	BDL < 0.01	BDL < 0.01
24	Mercury (as Hg)	mg/l	BDL < 0.001	BDL < 0.001
25	Sodium	mg/l	56.3	15.0
26	Potassium	mg/l	4.5	2.3
27	Residual free chlorine	mg/l	BDL	0.2
28	Cyanide	mg/l	BDL < 0.01	BDL < 0.01
29	Aluminium	mg/l	BDL < 0.01	BDL < 0.01
30	Hexavalent Chromium as Cr^{+6})	mg/l	BDL < 0.03	BDL < 0.03

BDL= Below Detectible Limits

Surface water Quality Monitoring Results
Continuation Sheet – 3

S. No	Parameters	Units	Town : Didwana (Date of sampling: 29/03/2023
			Location : Pond Near STP (3 MLD)Site
1	Turbidity	NTU	28.0
2	Total Suspended solids	mg/l	18.0
3	pH Value	-	8.18
4	Hexavalent Chromium as Cr^{+6})	mg/l	BDL<0.01
5	Potassium (as K)	mg/l	210.0
6	Dissolved Oxygen (DO)	mg/l	4.8
7	Biochemical Oxygen Demand (BOD)	mg/l	80.0
8	Aluminum (as Al)	mg/l	BDL<0.01
9	Total Dissolved solids	mg/l	4784.0
10	Total Residual Chlorine	mg/l	BDL<0.1
11	Cyanide (as CN)	mg/l	BDL<0.02
12	Total Hardness as $CaCO_3$	mg/l	318.0
13	Chlorides (as Cl)	mg/l	1909.0
14	Sulphate (as SO_4)	mg/l	295.0
15	Nitrate (as NO_3)	mg/l	BDL < 0.5
16	Fluorides (as F)	mg/l	1.2
17	Calcium (as Ca)	mg/l	54.0
18	Magnesium (as Mg)	mg/l	44.0
19	Copper (as Cu)	mg/l	BDL < 0.02
20	Iron (as Fe)	mg/l	0.35
21	Manganese (as Mn)	mg/l	BDL < 0.02
22	Zinc (as Zn)	mg/l	BDL < 0.02
23	Boron (as B)	mg/l	BDL < 0.5
24	Arsenic (as As)	mg/l	BDL<0.005
25	Mercury (as Hg)	mg/l	BDL<0.001
26	Lead (as Pb)	mg/l	BDL<0.005
27	Cadmium (as Cd)	mg/l	BDL<0.001
28	Selenium (as Se)	mg/l	BDL<0.005
29	Sodium (as Na)	mg/l	1430.0
30	Chemical Oxygen Demand (COD)	mg/l	210.0

BDL= Below Detectible Limits

Surface water Quality Monitoring Results
Continuation Sheet – 4

S.No	Parameters	Units	Town : Banswara (RSTDIP/BNS/04) Date of Sampling: 03.03.2023
			Location : Kagdi Lake
1	pH	-	8.6
2	Turbidity	**NTU**	0.2
3	Total Dissolved solids	mg/l	170
4	Total Suspended Solids (TSS)	mg/l	BDL < 5.0
5	Total Hardness as $CaCO_3$	mg/l	108
6	Calcium (as Ca)	mg/l	24
7	Magnesium (as Mg)	mg/l	11.7
8	Chlorides as Cl	mg/l	28
9	Dissolved Oxygen (DO)	mg/l	5.6
10	Fluorides (as F)	mg/l	0.71
11	Phenolic Compound	mg/l	BDL < 0.01
12	C.O.D.	mg/l	BDL < 4.0
13	B.O.D. @ 27 °C for 3 days	mg/l	BDL < 2.0
14	Sodium	mg/l	12.3
15	Potassium	mg/l	2.1
16	Iron as Fe	mg/l	0.12
17	Sulphate as SO_4	mg/l	11.3
18	Copper as Cu	mg/l	0.1
19	Zinc as Zn	mg/l	0.10
20	Manganese as Mn	mg/l	0.11
21	Mercury (as Hg)	mg/l	BDL < 0.001
22	Cadmium (as Cd)	mg/l	BDL < 0.003
23	Hexavalent Chromium as Cr^{+6})	mg/l	BDL < 0.03
24	Arsenic (as As)	mg/l	BDL < 0.01
25	Lead (as Pb)	mg/l	BDL < 0.01
26	Phosphate	mg/l	0.28
27	Cyanide	mg/l	BDL < 0.01
28	Boron	mg/l	0.06
29	Selenium (as Se)	mg/l	BDL < 0.01
30	Aluminium	mg/l	BDL < 0.01
31	Total Residual chlorine	mg/l	0.2

BDL= Below Detectible Limits

Soil Quality Results

S. No.	Parameters	Unit of Measurements	RSTDIP/SHR-ABR/01								
			Abu Road Town Date of Sampling : 08.11.2022					Sirohi Town Date of Sampling: 07.11.2022			
			Luniapura CWR	Kui CWR	Manpura Labor Colony	Near STP & WTP Santpur	Network Location (Abu Road)	WTP (9MLD at Angore PHED campus)	Near Workmen camp (STP 5.0 MLD)	1.7 MLD STP (Near Revdar Road)	Vaidnath Colony (office Area)
1	pH (at 25°C)	-	8.15	7.94	7.84	7.81	8.21	7.93	7.98	7.96	7.48
2	Electrical Conductivity	mS/cm	0.377	0.395	0.368	0.361	0.368	0.350	0.364	0.364	0.392
3	Calcium (as Ca)	mg/kg	415.52	412.36	428.66	401.55	418.72	412.42	408.42	392.30	296.20
4	Magnesium (as Mg)	mg/kg	81.08	95.54	89.89	86.68	85.89	89.75	82.09	75.36	80.12
5	Sodium (as Na)	mg/kg	88.98	84.35	98.09	94.91	88.89	76.49	80.37	63.10	90.76
6	Potassium (as K)	Kg/hac.	146.38	172.19	189.98	181.12	169.76	190.85	156.64	164.78	154.39
7	Organic Carbon	%	0.56	0.62	0.69	0.57	0.58	0.56	0.59	0.60	0.57
8	Soil Texture	-	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy
9	Available Nitrogen (as N)	Kg/hac.	279.05	275.55	289.95	268.09	277.64	318.19	280.09	266.50	268.59
10	Phosphate	mg/kg	22.0	22.09	26.15	19.41	25.19	26.0	20.16	21.74	24.18
11	Moisture content	%	6.64	6.20	5.44	3.87	6.63	4.10	4.24	3.22	3.10
12	Permeability	cm/S	0.0010	0.0009	0.0008	0.0008	0.0009	0.0008	0.0006	0.0007	0.0009
13	Oil & Grease	mg/kg	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

BDL= Below Detectible Limits

Soil Quality Results (Continued sheet---2)

S. No.	Parameters	Unit of Measurements	RSTDIP/KTR/03						
			Town: Khetri Date of Sampling: 10.11.2022						
			PHED office old	Ajeet Govt Hospital	UP Koshadhikari office	JEn Staff Colony	Jai Singh Govt School	STP Proposed Site	Sidhi Vinayak temple
1	pH (at 25°C)	-	7.69	7.71	7.64	7.56	7.81	7.79	7.58
2	Electrical Conductivity	mS/cm	0.139	0.132	0.156	0.134	0.149	0.160	0.130
3	Soil Texture	-	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy	Sandy
4	Moisture content	%	0.32	0.30	0.30	0.31	0.23	0.36	0.22
5	Calcium (as Ca)	%	11.24	11.63	15.24	12.60	14.65	14.20	12.34
6	Bulk density	gm/cc	1.18	1.24	1.56	1.55	1.61	1.61	1.70
7	Magnesium (as Mg)	mg/kg	33.12	30.25	34.12	38.12	40.24	42.68	41.20
8	Organic Carbon	%	0.25	0.26	0.28	0.34	0.32	0.24	0.25
9	Sodium (as Na)	µg/ml	3.8	3.6	3.4	3.7	3.6	3.6	4.1
10	Potassium (as K)	µg/ml	4.2	4.0	4.0	3.4	3.2	3.1	3.8
11	Total Kjeldhal Nitrogen (as TKN)	%	0.02	0.03	0.03	0.02	0.01	0.03	0.02
12	Phosphate	Kg/ha	10.8	11.6	13.2	15.1	9.56	10.5	13.6

Soil Quality Results (Continued sheet ---3)

S. No.	Parameters	Unit of Measurements	RSTDIP/PRT/01		
			Pratapgarh Date of Sampling: 04.10.2022		
			STP Pratapgarh	Sewerage Pumping Station	Near Kila Parisar Pipe Laying Site
1	pH (at 25°C)	-	8.02	8.55	7.79
2	Electrical Conductivity	µS/cm	645.80	754.80	410.45
3	Moisture content	%	13.64	14.0	12.93
4	Soil Texture	-	Sandy Loam	Sandy Loam	Sandy Loam
5	Calcium (as Ca)	mg/kg	5.80	6.76	7.07
6	Magnesium (as Mg)	mg/kg	10.39	9.85	15.46
7	Permeability	cm/hr	11.50	12.40	9.70
8	Total Kjeldhal Nitrogen (as TKN)	mg/kg	364.78	415.86	390.55
9	Sodium (as Na)	mg/kg	93.55	102.64	85.43
10	Phosphorous (as P)	mg/kg	136.72	122.43	118.42
11	Potassium (as K)	mg/kg	66.50	61.83	55.63
12	Organic Carbon	%	0.58	0.97	0.75
13	Oil & Grease	mg/kg	BDL	BDL	BDL

Soil Quality Results (Continued sheet ---4)

S. No.	Parameters	Unit of Measurements	RSTDIP/MDW/03		
			Mandawa Date of Sampling: 11.12.2022		
			Dumra ki dhani ward no. 04	Near BOB bank ward no.10	Shiv Mandir wardno. 12
1	pH (at 25°C)	-	8.49	8.75	8.21
2	Electrical Conductivity	mS/cm	0.418	0.579	0.478
3	Soil Texture	-	Sandy Loam	Sandy Loam	Sandy Loam
4	Moisture content	%	2.78	3.96	3.74
5	Calcium (as Ca)	mg/kg	66.45	49.85	45.36
6	Magnesium (as Mg)	mg/kg	15.63	23.79	21.41
7	Sodium (as Na)	mg/kg	33.74	32.47	38.96
8	Potassium (as K)	Kg/hec.	238.14	225.41	220.41
9	Available Nitrogen (as N)	Kg/hec	210.78	220.36	216.85
10	Available Phosphorous (as P)	Kg/hec	40.85	45.96	43.85
11	Permeability	cm/S	0.00141	0.00174	0.00189
12	Organic Matter	%	0.75	0.78	0.74
13	Oil & Grease	mg/kg	BDL(<0.5)	BDL(<0.5)	BDL(<0.5)

BDL= Below Detectible Limits

Soil Quality Results (Continued sheet ---5)

S. No.	Parameters	Unit of Measurements	Sardarshahar Town (RSTDIP/SRD/01) Date of Sampling: 05.12.2022				
			Location				
			PHED Campus (CWR 24 KL)	STP-1 (2.3 MLD South Campus)	Zone -2 (Dev Apartment) Pipe Laying	STP-2 (3.40 MLD North Campus)	SPS (2.30 MLD) Gaushala Land
1	pH (at 25°C)	-	8.21	8.32	8.42	8.22	8.04
2	Electrical Conductivity	mS/cm	0.432	0.374	0.284	0.386	0.425
3	Calcium (as Ca)	mg/kg	152.64	136.84	124.2	148.92	152.6
4	Magnesium (as Mg)	mg/kg	98.46	92.58	78.58	96.4	102.2
5	Sodium (as Na)	mg/kg	88.50	95.02	86.5	102.28	86.57
6	Potassium (as K)	kg/hec.	162.8	166.2	154.3	155.32	169.26
7	Organic Carbon	%	0.54	0.54	0.55	0.55	0.58
8	Soil Texture	-	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam
9	Total Kjeldhal Nitrogen (as TKN)	kg/hec.	374.2	342.14	348.6	360.74	368.4
10	Available Phosphorous	kg/hec.	33.76	34.56	30.5	31.36	34.82
11	Moisture content	%	4.88	8.04	3.15	4.46	4.69
12	Permeability	cm/S	0.0008	0.0009	0.0007	0.0008	0.0006
13	Oil & Grease	mg/kg	11.86	11.86	10.48	12.54	12.08

Soil Quality Results (Continued sheet ---6)

S.No.	Parameters	Unit of Measurements	Ratangarh Town (RSTDIP / RTG-FTP-LXG / 01) (Date of sampling: 07.12.2022				
			Location				
			STP 3.8 MLD	STP 6.1 MLD	SPS 4.6 MLD	Labour Colony	SPS 3.8 MLD
1	pH (at 25°C)	-	7.92	7.95	8.05	7.86	8.21
2	Electrical Conductivity	mS/cm	0.283	0.338	0.286	0.305	0.322
3	Bulk Density	gm/cc	1.42	1.38	1.40	1.39	1.36
4	Chloride	mg/kg	132.87	133.14	149.86	148.24	113.95
5	Calcium (as Ca)	mg/kg	760.40	793.10	735.87	809.46	784.96
6	Sodium (as Na)	mg/kg	87.27	102.30	90.53	92.17	84.57
7	Potassium (as K)	kg/hec.	152.49	139.54	141.98	140.40	163.10
8	Organic Carbon	%	0.50	0.52	0.51	0.53	0.54
9	Magnesium (as Mg)	mg/kg	382.02	386.98	396.90	357.21	37.06
10	Available Phosphorous	kg/hec.	21.36	22.42	25.26	18.59	22.49
11	Moisture content	%	1.04	1.55	1.02	1.58	1.96
12	Specific Gravity	-	2.58	2.51	2.42	2.36	2.45
13	Total Kjeldhal Nitrogen (as TKN)	mg/kg	163.43	180.47	169.57	175.25	184.61
14	Soil Texture	-	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam

BDL= Below Detectible Limits

Soil Quality Monitoring Results (Continuation Sheet – 7)

S.No.	Parameters	Unit of Measurements	Fatehpur Town (RSTDIP / RTG-FTP-LXG / 01) (Date of sampling: 02.12.2022 to 03.12.2022				Laxmangarh Town (RSTDIP / RTG-FTP-LXG / 01) (Date of sampling: 01.12.2022	
			Location					
			STP (4.3 MLD) Near Naribari Village Road	SPS (3.5 MLD) Dadi Sati Temple	SPS (0.6 MLD) Aqsha maszid	SPS (1.10 MLD) Near Railway Under Pass	Bad ke Balaji PHED Campus	PHED AEn Campus
1	pH (at 25°C)	-	8.10	8.09	8.26	8.08	7.86	7.96
2	Electrical Conductivity	mS/cm	0.290	0.275	0.310	0.270	0.290	0.355
3	Calcium (as Ca)	mg/kg	125.7	125.4	133.7	117.46	162.28	144.26
4	Sodium (as Na)	mg/kg	41.9	42.6	44.7	37.4	60.33	34.0
5	Potassium (as K)	kg/hec.	99.7	99.4	98.3	94.5	49.0	128.19
6	Organic Carbon	%	0.49	0.48	0.44	0.44	0.44	0.79
7	Magnesium (as Mg)	mg/kg	63.8	63.9	56.6	59.6	41.18	89.30
8	Available Nitrogen (as N)	kg/hec.	164.8	159.3	155.9	154.0	149.40	286.19
9	Moisture content	%	10.12	8.7	8.4	8.3	0.80	0.34
10	Permeability	m/sec	2.99*15^ -8	2.9*12^-7	2.93*13^-6	2.94*12^-5	3.91*12^-6	2.78*14^-5
11	Oil & Grease	mg/kg	8.65	7.76	7.72	7.84	11.15	13.43
12	Available Phosphorous	kg/hec.	42.7	39.8	39.1	40.9	44.0	56.34

BDL= Below Detectible Limits

Soil Quality Monitoring Results (Continuation Sheet – 8)

S.No.	Parameters	Unit of Measurements	Town: Kuchaman Date of Sampling: 28.12.2022 to 30.12.2022			Town: Didwana Date of Sampling: 08.12.2022		
			Location					
			STP Site, Near New Bus Stand	Labour colony, Pachwa Road	SPS Site, RUIDP Office	STP Site -1	SPS Site 2	Pipe Laying Site (Zone-6)
1	pH (at 25°C)	-	9.32	8.29	8.04	9.30	8.31	9.48
2	Oil & Grease	mg/kg	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
3	Sand	%	39.0	72.0	79.0	82.0	85.0	89.0
4	Slit	%	16.0	7.0	8.0	10.0	11.0	5.0
5	Texture	-	Clay	Sandy Loam	Sandy Loam	Sandy Loam	Sand	Sand
6	Exchangeable Sodium (as Na)	mg/kg	29.0	1.9	7.5	2.1	2.3	4.5
7	Clay	%	45.0	11.0	13.0	8.0	4.0	6.0
8	Electrical Conductivity	µS/cm	3010.0	228.0	78.0	554.0	376.0	367.0
9	Total Nitrogen (as N)	mg/kg	426.0	196.0	134.0	252.0	190.0	140.0
10	Organic Matter	%	0.54	0.21	0.32	0.31	0.26	0.22
11	Permeability	Cm/hr	0.02	4.7	5.8	4.0	4.6	4.9
12	Calcium (as CaO)	mg/kg	7100.0	7950.0	1050.0	18200	18250	5900
13	Exchangeable Magnesium (as Mg)	mg/kg	1860.0	360.0	90.0	330.0	120.0	420.0
14	Exchangeable Potassium (as K)	mg/kg	501.0	90.0	38.0	608.0	126.0	460.0
15	Phosphate as PO4	mg/kg	42.0	19.0	26.0	28.0	21.0	19.0
16	Moisture content at 105 °C	%	35.0	21.0	18.0	22.0	17.0	14.0

Soil Quality Monitoring Results (Continuation Sheet – 9)

S.No.	Parameters	Unit of Measurements	Town: Makrana Date of Sampling: 11.12.2022 and 12.12.2022			Town: Ladnu Date of Sampling: 06.12.2022 and 07.12.2022		
			Location					
			SPS Site -1	STP Site 1	Pipe Laying Site	STP Site -1	STP Site 2	Pipe Laying Site
1	pH (at 25°C)	-	8.46	8.82	8.75	8.43	8.28	8.58
2	Oil & Grease	mg/kg	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
3	Sand	%	76.0	92.0	90.0	85.0	86.0	88.0
4	Slit	%	14.0	5.0	6.0	9.0	7.0	5.0
5	Texture	-	Sandy Loam	Sand	Sand	Sand	Sand	Sand
6	Exchangeable Sodium (as Na)	mg/kg	2.5	2.6	5.3	6.5	2.8	1.8
7	Clay	%	10.0	3.0	4.0	6.0	7.0	7.0
8	Electrical Conductivity	µS/cm	260.0	140.0	431.0	277.0	379.0	621.0
9	Total Nitrogen (as N)	mg/kg	353.0	146.0	179.0	302.0	224.0	168.0
10	Organic Matter	%	0.42	0.10	0.16	0.28	0.24	0.21
11	Permeability	Cm/hr	3.9	5.3	5.1	4.8	4.7	5.0
12	Calcium (as CaO)	mg/kg	7000	5850	5750	4150.0	16700	14600
13	Exchangeable Magnesium (as Mg)	mg/kg	180.0	120.0	150.0	120.0	300.0	210.0
14	Exchangeable Potassium (as K)	mg/kg	189.0	102.0	326.0	234.0	166.0	321.0
15	Phosphate as PO4	mg/kg	13.0	12.0	17.0	14.0	16.0	10.0
16	Moisture content at 105 °C	%	24.0	10.0	12.0	18.0	16.0	15.0

Soil Quality Monitoring Results
(Continuation Sheet – 10)

Town: Khetri
Date of Sampling: 09.02.2023

S. No.	Parameters	Unit of Measurements	Town: Khetri Date of Sampling: 09.02.2023 Location			
			STP construction Site	Construction Site near AEn campus	Construction Site near Polo Ground	construction Site near Lahoty Store Yard
1	pH (at 25°C)	-	7.51	7.86	7.76	7.68
2	Electrical Conductivity	mS/cm	0.142	0.136	0.160	0.138
3	Texture	-	Sandy	Sandy	Sandy	Sandy
4	Moisture content at 105 °C	%	0.36	0.34	0.32	0.34
5	Calcium carbonate	%	12.42	10.52	14.20	11.34
6	Bulk Density	gm/cc	1.42	1.22	1.50	1.52
7	Magnesium	mg/kg	35.12	28.34	32.14	36.12
8	Organic Matter	%	0.28	0.28	0.26	0.35
9	Sodium (as Na)	µg/ml	3.9	3.8	3.6	3.9
10	Potassium (as K)	µg/ml	4.4	4.1	3.9	3.5
11	Total Kjeldhal Nitrogen (as TKN)	%	0.03	0.02	0.04	0.03
12	Total Phosphate (as P	Kg/ha	9.86	12.7	14.6	14.6

Town: Pratapgarh
Date of Sampling: 18.02.2023

S. No.	Parameters	Unit of Measurements	Town: Pratapgarh Date of Sampling: 18.02.2023 Location		
			STP Site	Sewerage Pumping Station	Nakoda Nagar
1	pH (at 25°C)	-	8.10	8.14	7.80
2	Electrical Conductivity	µS/cm	666.20	811.50	390.55
3	Moisture content at 105 °C	%	14.50	12.30	11.50
4	Texture	-	Sandy Loam	Sandy Loam	Sandy Loam
	Sand	%	76.20	76.50	73.25
	Slit	%	9.15	9.20	8.95
	Clay	%	14.65	14.30	17.80
5	Calcium (as Ca)	mg/kg	6.20	8.70	10.24
6	Magnesium (as Mg)	mg/kg	10.54	7.94	18.80
7	Permeability	Cm/hr	13.0	8.00	11.50
8	Total Kjeldhal Nitrogen (as TKN)	mg/kg	350.50	390.54	425.62
9	Sodium (as Na)	mg/kg	99.82	98.50	90.65
10	Total Phosphate (as P)	mg/kg	141.50	115.40	152.32
11	Potassium (as K)	mg/kg	68.52	57.50	64.70
12	Organic Matter	%	0.61	0.90	0.80
13	Oil & Grease	mg/kg	BDL	BDL	BDL

BDL= Below Detectible Limits

Soil Quality Monitoring Results
(Continuation Sheet – 11)

Town: Sirohi
Date of Sampling: 21.02.2023

S.No.	Parameters	Unit of Measurements	Town: Sirohi Date of Sampling: 21.02.2023 Location			
			WTP (9 MLD at Angore PHED Campus)	Near Workmen Camp (STP 5.0 MLD)	STP 1.7 MLD Near Revdar Road	Vaidnath Colony
1	pH (at 25°C)	-	7.65	8.10	7.55	7.68
2	Electrical Conductivity	mS/cm	0.352	0.368	0.368	0.394
3	Calcium (as Ca)	mg/kg	413.21	409.21	393.21	396.85
4	Magnesium (as Mg)	mg/kg	88.41	81.95	76.05	80.81
5	Sodium (as Na)	mg/kg	75.49	80.87	64.41	91.13
6	Potassium (as K)	Kg/hec	191.32	157.40	165.25	155.02
7	Organic Matter	%	0.58	0.61	0.62	0.58
8	Soil Texture	-	Sandy	Sandy	Sandy	Sandy
9	Available Nitrogen (as N)	Kg/hec	319.25	281.06	266.99	296.17
10	Phosphate (as P)	mg/kg	27.0	20.95	22.01	24.69
11	Soil Moisture	%	4.62	4.87	3.87	3.18
12	Permeability	Cm/S	0.0009	0.0007	0.0008	0.0008
13	Oil & Grease	mg/kg	BDL (< 0.1.0)	BDL (< 0.10)	BDL (< 0.1.0)	BDL (< 0.1.0)

BDL= Below Detectible Limits

Town: Banswara
Location: STP Site
Date of Sampling: 03.03.2023

S.No.	Parameters	Unit of Measurements	Results
1	pH (at 25°C)	-	9.14
2	Electrical Conductivity	mS/cm	0.345
3	Soil Moisture	%	2.35
4	Soil Texture	-	Sandy Loam
5	Calcium (as Ca)	mg/kg	1560
6	Magnesium (as Mg)	mg/kg	980
7	Permeability	cm/sec	10^{-4}
8	Sodium (as Na)	mg/kg	1130
9	Potassium (as K)	mg/kg	792
10	Phosphate	Kg/ha	24
11	Organic Matter	%	0.41
12	Nitrogen (as N)	mg/kg	134
13	Oil & Grease	mg/kg	BDL < 1.0

BDL= Below Detectible Limits

Soil Quality Monitoring Results
(Continuation Sheet – 12)
Town: Ratangarh
Date of Sampling: 22.03.2023

S.No.	Parameters	Unit of Measurements	Town: Ratangarh Date of Sampling: 22.03.2023				
			Location				
			STP 3.8 MLD	STP 6.1 MLD	SPS 3.8 MLD	Labour Camp	SPS 4.6
1	pH (at 25°C)	-	8.11	7.89	8.85	7.97	8.02
2	Electrical Conductivity	mS/cm	0.27	0.309	0.325	0.288	0.341
3	Bilk Density	gm/cc	1.16	1.45	1.46	1.45	1.46
4	Chloride	mg/kg	141.68	149.61	114.86	150.70	114.86
5	Calcium (as Ca)	mg/kg	691.38	811.62	781.56	731.46	801.6
6	Sodium (as Na)	mg/kg	87.92	93.33	85.06	91.32	104.98
7	Potassium (as K)	Kg/ha	154.42	141.28	164.35	142.12	141.72
8	Organic Matter	%	0.61	0.61	0.59	0.54	0.60
9	Magnesium (as Mg)	mg/kg	385.10	356.49	371.74	400.45	387.07
10	Available Phosphorus	Kg/ha	22.18	19.05	23.06	26.37	23.33
11	Soil Moisture	%	1.79	1.74	2.41	1.41	1.75
12	Specific Gravity	-	2.84	2.59	2.59	2.73	2.74
13	Total Kjeldhal Nitrogen (as TKN)	mg/kg	164.26	176.95	170.33	169.71	181.57
14	Soil Texture	-	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam

Town: Sardarshahar
Date of Sampling: 23.03.2023 to 25.03.2023

S. No.	Parameters	Unit of Measurements	Town: Sardarshahar Date of Sampling: 23.03.2023 to 25.03.2023					
			Location					
			PHED Campus CWR 2400 KL	STP -1 (2.3 MLD) South campus	STP -2 (3.4 MLD) North campus	STP - (1.6 MLD) (pre-Construction Activity)	Zone – 1 Pipe Laying	MWPS Zone 2
1	pH (at 25°C)	-	7.94	8.35	8.26	7.98	8.36	7.65
2	Elec. Conductivity	mS/cm	0.435	0.375	0.389	0.428	0.279	0.425
3	Calcium (as Ca)	mg/kg	153.02	137.05	149.12	153.4	126.4	151.3
4	Magnesium (as Mg)	mg/kg	98.64	92.84	96.81	101.7	79.12	103.4
5	Sodium (as Na)	mg/kg	89.12	95.36	102.64	85.63	84.9	80.47
6	Potassium (as K)	Kg/hec	164.58	166.7	155.75	166.12	158.4	161.48
7	Organic Carbon	%	0.55	0.56	0.56	0.57	0.56	0.58
8	Soil Texture	-	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam
9	Total Kjeldhal Nitrogen (as TKN)	Kg/hec	375.4	343.12	360.85	367.2	349.5	368.4
10	Available Phosphate (as P)	Kg/hec	35.06	35.63	32.12	33.61	33.6	31.69
11	Moisture content at 105 °C	%	5.32	8.36	4.75	4.67	3.87	4.96
12	Permeability	Cm/S	0.0008	0.001	0.0009	0.0006	0.0006	0.0005
13	Oil & Grease	mg/kg	5.96	7.52	6.36	6.36	4.98	5.21

Soil Quality Monitoring Results
(Continuation Sheet – 13)

Town: Kuchaman
Date of Sampling: 25.03.2023 & 26.03.2023

S.No.	Parameters	Unit of Measurements	Town: Kuchaman Date of Sampling: 25.03.2023 & 26.03.2023		
			Location		
			Labor Colony	SPS Site Near RUIDP Office	STP Near Bus Stand
1	pH (at 25°C)	-	8.49	8.67	8.68
2	Oil & Grease	mg/kg	< 25.0	< 25.0	< 25.0
3	Sand	%	89.0	93.0	70.0
4	Slit	%	6.0	4.0	10.0
5	Soil Texture	-	Sand	Sand	Sandy Clay Loam
6	Exchangeable Sodium (as Na)	mg/kg	102.0	122.0	7200.0
7	Clay	%	5.0	3.0	20.0
8	Electrical Conductivity (at 25°C)	µS/cm	56.0	69.0	1107.0
9	Total Nitrogen (as N)	mg/kg	194.0	179.0	347.0
10	Organic Matter	%	0.29	0.21	0.88
11	Permeability	Cm/hr	4.8	5.0	1.5
12	Calcium (as CaO)	mg/kg	1050.0	1800.0	4350.0
13	Exchangeable Magnesium (as Mg)	mg/kg	210.0	890.0	1290.0
14	Exchangeable Potassium (as K)	mg/kg	32.0	48.0	522.0
15	Phosphate as PO_4	mg/kg	11.0	15.0	9.1
16	Soil Moisture	%	19.0	15.0	22.0

Town: Mandawa
Date of Sampling: 31.03.2023

S.No.	Parameters	Unit of Measurements	Town: Mandawa Date of Sampling: 31.03.2023		
			Location		
			SPS - 1	CWR Site 1	STP Site - 1
1	pH (at 25°C)	-	8.30	8.41	8.21
2	Electrical Conductivity	mS/cm	0.492	0.522	0.452
3	Calcium (as Ca)	mg/kg	40.08	44.09	36.07
4	Sodium (as Na)	mg/kg	33.56	35.71	45.67
5	Potassium (as K)	Kg/hec	256.51	272.54	144.47
6	Organic Matter	%	0.75	0.72	0.66
7	Magnesium (as Mg)	mg/kg	12.16	15.2	12.16
8	Available Nitrogen (as N)	Kg/hec	230.57	243.03	221.23
9	Available Phosphate (as P)	Kg/hec	38.27	41.35	42.02
10	Soil Moisture	%	2.90	4.71	4.07
11	Permeability	Cm/S	0.001261	0.00862	0.00168
12	Soil Texture	-	Sandy Loam	Sandy Loam	Sandy Loam
13	Oil & Grease	mg/kg	BDL (< 0.5)	BDL (< 0.5)	BDL (< 0.5)

BDL= Below Detectible Limits

Soil Quality Monitoring Results
(Continuation Sheet – 14)
Town: Fatehpur
Date of Sampling: 25.03.2023

S.No.	Parameters	Unit of Measurements	Town: Fatehpur Date of Sampling: 25.03.2023			
			Location			
			At Nawalgarh Railway Station	At Naribari Road 3.5 MLD	Workmen Camp Bikaner Puliya	Behind Dhol Sati temple
1	pH (at 25°C)	-	8.34	8.11	8.10	8.21
2	Bilk Density	gm/cc	1.42	1.36	1.40	1.44
3	Available Phosphorus	Kg/ha	40.69	39.43	35.94	41.56
4	Potassium (as K)	Kg/ha	141.58	141.14	136.52	181.27
5	Electrical Conductivity	mS/cm	0.280	112.80	0.270	0.290
6	Calcium (as Ca)	mg/kg	146.17	164.40	127.87	146.13
7	Magnesium (as Mg)	mg/kg	49.89	32.26	62.64	61.09
8	Organic Matter	%	0.15	0.35	0.18	0.59
9	Soil Moisture	%	1.73	0.75	0.75	0.76
10	Sodium (as Na)	mg/kg	40.99	59.95	85.92	51.95
11	Chloride	mg/kg	149.70	187.02	112.26	130.97
12	Total Kjeldhal Nitrogen (as TKN)	mg/kg	177.02	132.97	120.83	126.90
13	Soil Texture	-	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam

Town: Laxmangarh
Date of Sampling: 27.03.2023

S.No.	Parameters	Unit of Measurements	Town: Laxmangarh Date of Sampling: 27.03.2023			
			Location			
			AEn Campus	At Bad ke Balaji	At Store Yard & Labor Camp	At RMC & MCC office Mansi
1	pH (at 25°C)	-	8.76	7.96	8.05	8.71
2	Bilk Density	gm/cc	1.45	1.49	1.45	1.49
3	Available Phosphorus	Kg/ha	37.66	42.86	39.83	37.23
4	Potassium (as K)	Kg/ha	203.65	116.37	125.33	132.04
5	Electrical Conductivity	mS/cm	0.209	0.395	0.290	76.20
6	Calcium (as Ca)	mg/kg	137.0	109.60	146.13	155.27
7	Magnesium (as Mg)	mg/kg	55.99	78.16	59.32	57.09
8	Organic Matter	%	0.14	0.15	0.31	0.22
9	Soil Moisture	%	0.76	0.79	0.66	0.61
10	Sodium (as Na)	mg/kg	98.92	64.95	74.94	64.95
11	Chloride	mg/kg	149.68	112.26	149.68	130.97
12	Total Kjeldhal Nitrogen (as TKN)	mg/kg	114.76	102.61	90.47	98.54
13	Soil Texture	-	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam

Soil Quality Monitoring Results
(Continuation Sheet – 15)
Town: Abu Road
Date of Sampling: 28.03.2023

S.No.	Parameters	Unit of Measurements	Town: Abu Road Date of Sampling: 28.03.2023			
			Location			
			Manpur STP	Manpur Workmen Camp	Near STP & WTP Santpur	Kesarganj HDPE pipe laying
1	pH (at 25°C)	-	7.69	7.74	7.76	7.96
2	Electrical Conductivity	mS/cm	0.395	0.357	0.368	0.373
3	Soil Texture	-	Sandy	Sandy	Sandy	Sandy
4	Calcium (as Ca)	mg/kg	409.65	420.69	402.36	413.66
5	Sodium (as Na)	mg/kg	82.41	82.66	95.04	83.86
6	Potassium (as K)	mg/kg	168.12	185.21	182.12	167.71
7	Organic Matter	%	0.62	0.66	0.58	0.57
8	Magnesium (as Mg)	mg/kg	93.25	83.02	86.89	81.86
9	Available Nitrogen (as N)	Kg/hec	270.48	284.36	268.98	273.45
10	Phosphate (as P)	mg/kg	20.12	21.54	19.75	19.45
11	Soil Moisture	%	3.45	3.45	3.94	3.65
12	Permeability	Cm/S	0.0008	0.0006	0.0009	0.0006
13	Oil & Grease	mg/kg	BDL (< 0.5.0)	BDL (< 0.5.0)	BDL (< 0.5.0)	BDL (< 0.5.0)

BDL= Below Detectible Limits

Town: Didwana
Date of Sampling: 29.03.2023

S.No.	Parameters	Unit of Measurements	Town: Didwana Date of Sampling: 29.03.2023		
			Location		
			STP 3 MLD Site	SPS 1.7 MLD Site	SPS 1.3 MLD Site
1	pH (at 25°C)	-	9.24	9.06	8.45
2	Oil & Grease	mg/kg	< 25.0	< 25.0	< 25.0
3	Sand	%	81.0	89.0	92.0
4	Slit	%	10.0	5.0	6.0
5	Soil Texture	-	Sandy Loam	Sand	Sand
6	Exchangeable Sodium (as Na)	mg/kg	440.0	1090.0	115.0
7	Clay	%	9.0	6.0	2.0
8	Electrical Conductivity (at 25°C)	µS/cm	226.0	478.0	108.0
9	Total Nitrogen (as N)	mg/kg	258.0	230	174.0
10	Organic Matter	%	0.39	0.26	0.16
11	Permeability	Cm/hr	3.9	4.7	5.1
12	Calcium (as CaO)	mg/kg	7250	5300	4600
13	Exchangeable Magnesium (as Mg)	mg/kg	1140	1560	810.0
14	Exchangeable Potassium (as K)	mg/kg	26.0	433.0	20.0
15	Phosphate as PO_4	mg/kg	11.0	25.0	10.0
16	Soil Moisture	%	27.0	22.0	16.0

Soil Quality Monitoring Results
(Continuation Sheet – 16)

Town: Ladnu
Date of Sampling: 30.03.2023

S.No.	Parameters	Unit of Measurements	Town: Ladnu Date of Sampling: 30.03.2023	
			Location	
			STP – 1 (5.5 MLD) Site	STP – 2 (2.4 MLD) Site
1	pH (at 25°C)	-	8.40	8.22
2	Oil & Grease	mg/kg	< 25.0	< 25.0
3	Sand	%	90.0	88.0
4	Slit	%	6.0	9.0
5	Soil Texture	-	Sand	Sand
6	Exchangeable Sodium (as Na)	mg/kg	203.0	113.0
7	Clay	%	4.0	3.0
8	Electrical Conductivity (at 25°C)	µS/cm	126.0	65.0
9	Total Nitrogen (as N)	mg/kg	213.0	185.0
10	Organic Matter	%	0.21	0.19
11	Permeability	Cm/hr	4.8	4.6
12	Calcium (as CaO)	mg/kg	5200	1850
13	Exchangeable Magnesium (as Mg)	mg/kg	930.0	450.0
14	Exchangeable Potassium (as K)	mg/kg	62.0	41.0
15	Phosphate as PO_4	mg/kg	9.9	12.0
16	Soil Moisture	%	20.0	22.0

Town: Makrana
Date of Sampling: 27.03.2023

S.No.	Parameters	Unit of Measurements	Town: Makrana Date of Sampling: 27.03.2023		
			Location		
			STP 7.7 MLD Site	SPS 2.3 MLD Site	SPS 2.1 MLD Site
1	pH (at 25°C)	-	8.09	8.27	8.12
2	Oil & Grease	mg/kg	BDL < 25.0	BDL < 25.0	BDL < 25.0
3	Sand	%	91.0	87.0	90.0
4	Slit	%	4.0	11.0	7.0
5	Soil Texture	-	Sand	Sand	Sand
6	Exchangeable Sodium (as Na)	mg/kg	265.0	240.0	185.0
7	Clay	%	5.0	2.0	3.0
8	Electrical Conductivity (at 25°C)	µS/cm	231.0	272.0	205.0
9	Total Nitrogen (as N)	mg/kg	190.0	179.0	202.0
10	Organic Matter	%	0.22	0.20	0.18
11	Permeability	Cm/hr	5.0	4.6	4.8
12	Calcium (as CaO)	mg/kg	7950	4900	2050
13	Exchangeable Magnesium (as Mg)	mg/kg	990.0	1230	900.0
14	Exchangeable Potassium (as K)	mg/kg	96.0	249.0	55.0
15	Phosphate as PO_4	mg/kg	9.3	22.0	9.4
16	Soil Moisture	%	18.0	21.0	19.0

BDL= Below Detectible Limits

APPENDIX 12: LETTER FROM PMU TO ESTABLISH GRM IN ALL PIUs

RUIDP

Government of Rajasthan

Office of Project Director

Rajasthan Urban Infrastructure Development Project(Unit of RUDSICO)

AVS Building, Jawahar Circle, JLN Marg, Jaipur - 302017

Tel No.: 0141-2721966, Fax No.: 0141-2721919,

email: mailruidp@gmail.com, mail.ruidp@rajasthan.gov.in web site : -https://urban.rajasthan.gov.in/ruidp

No. F3 (301) (60)/RUIDP/PMU/PH-IV/ ADB S. Safeguard /Gen adm./2020-21/1136 Date: 18/12/2020

Superintending Egnieer/Executive Engineer
PIU- Abu Road, Sirohi, Ratangarh, Fatehpur, Laxmangarh, Sardarshar, Kuchaman, Ladnu, Makrana, Didwana, Dhariawad, Mandawa, Pratapgarh and Banswara.

Subject:- Nomination of Safeguard and Safety Officer (SSO) of each PIUs for proper monitoring of Environmental and Resettlement issues and addressing of safeguard related Grievances through Grievance Redress Mechanism.

Reference: -Agreed Environmental Resettlement framework and EARF of RSTDSP.

All PIUs are directed to issue an office order to nominate one engineer from PIU to works as Safeguard and Safety Officer (SSO). It will be additional responsibility of Safeguard and Safety Officer (SSO), PIU to ensure day to day monitoring of implementation of Environmental Management and Monitoring Plan (EMMP) provisions, Implementation & Monitoring Resettlement Plan (RP) and ADB Safeguard Policy& Safety compliance in concern town.

Further it is directed that all the PIU should maintain proper separate records of safeguard related Grievances received in their town and ensure that the safeguard related Grievances received are resolved as per Grievance Redress Mechanism (GRM) prescribed in EARF/RF which is summarized as under (for ready reference)

Methodology of multi-tier GRM	Responsibility/Action to be taken	Time Frame	Record Keeping
1st level: Grievances that are immediate and urgent in the perception of the complainant, the contractor, and supervision personnel from PIU and CMSC on-site will provide the most easily accessible or first level of contact for quick resolution of grievances	EE PIU will resolve issues in consultation with supervision personnel (ACM), Safeguard and Safety Officer (SSO) PIU, Contractor, and Safeguard staff of CMSC. If required, city level monitoring committee (CLMC) will be involved in resolution of grievances at the 1st level.	PIU will resolve issues within 7 days of receipt of a complain/ grievance.	Safeguard Support of CMSC will oversee the matters and prioritize / follow up the issues with PIU/Contractor. Safeguard and Safety Officer of PIUs, Safeguard Support of CMSC will record Grievances timely in the format enclosed as Annexure 1. Contractor/ Safeguard Support of CMSC will enter the general Grievance received (in a summarized manner) in Grievance Register (format enclosed as Annexure 2) on receipt form public forwarded to head of PIU or Safeguard and Safety Officer (SSO) for resolve in time and provide summarized information as and when require. The grievance register will be endorsed by all field agencies involved in implementation of EMP and

21/12/20

Project Management and Capacity Building Consultancy (PMCC) RSTDSP (RUIDP-V)

Received on 21/12/2020 Inward No 1000

TL	PTL/PE	SDE	SSO
PE	PE	PE	SSO
PS	PS	PS	IT
CS	PE	PMC	ACC
PC	CM	PMC	SSO

Methodology of multi-tier GRM	Responsibility/Action to be taken	Time Frame	Record Keeping
			RP.
2nd level: All grievances that cannot be redressed within 7 days at field/PIU level will be brought to the notice of Zonal PIU headed by Additional Chief Engineer (ACE).	The ACE at zonal PIU will resolve issues in consultation with SE/EE PIU, assistant safeguard officer (ASO), field level PIU, CMSC, and the contractor.	The ACE at zonal PIU will resolve the grievance within 7 days of receipt of complaint/grievance.	Environmental and Social Safeguards Personal of CMSC will keep all the records referred to zonal PIU and after completion, all the details will be submitted to PMU.
3rd level: All the grievances that are not addressed by Zonal PIU within 7 days of receipt will be brought to the notice of the PMU.	Project Officer (Social/Environment) at PMU will resolve the grievance with necessary coordination of Zonal PIU and CMSC and guidance/instruction of additional project director (APD-PMU).	PMU will resolve the grievance within 15 days of receipt of grievance.	Safeguard Support of PMCBC will keep all the records referred to PMU.
4th level: Grievances not redressed through this process within/at the project level within stipulated time period will be referred to the CLC/grievance redress committee (GRC).	Zonal PIU will inform the CLC regarding any grievances required to be resolved urgently.	The GRC will resolve the grievance within 15 days of receiving the complaint.	Environmental and Social Safeguards Personal of CMSC will keep all the records.
Please note that an aggrieved person shall have access to the country's legal system at any stage, and accessing the country's legal system can run parallel to accessing the GRM and is not dependent on the negative outcome of the GRM.			

PIU Safeguard and Safety Officer (SSO) will monitor the entire process and all decisions taken by the PIU, zonal officers, PMU and GRC and will be communicated to the APs by Safeguard Support of CMSC.

It is also directed that names and contact number of the concerned Safeguard and Safety Officer (SSO) of PIU, contractors, safeguard support staff of CMSC will be posted at all construction sites at visible locations.

All PIUs will ensure timely issuance of order with a copy to Project Officer (Social & Environment), PMU. Further PIUs will be responsible to ensure redressal of grievances as per GRM procedures summarized above.

Chief Engineer, RUIDP

No. F3 (301) (60)/RUIDP/PMU/PH-IV/ Social Safeguard/General Adm./2020-21/ Date: 18/12/2020
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Copy to the following for information and necessary action please:-

1. ACE-I &II Phase-IV, RUIDP zone Jaipur & Jodhpur
2. TL, PMCBC, Phase-IV, RUIDP
3. TL CMSC-01/02 Phase-IV, RUIDP zone Jaipur & Jodhpur

18/12/2020

(K. M. Mandawaria)
PO (Co-ord. & Social)

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APPENDIX 13: ACCIDENT, INCIDENT, NEAR MISS AND FIRST AID CASES IN PROJECT TOWNS DURING OCTOBER 2022 TO MARCH 2023 PERIOD

1. Town: Abu Road
Contractor: Larsen & Toubro Construction Limited (L&T)
Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	0	0
December, 2022	0	0	0	0
January, 2023	0	0	0	0
February, 2023	0	0	0	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

2. Town: Sirohi
Contractor: Larsen & Toubro Construction Limited (L&T)
Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	0	0
December, 2022	0	0	0	0
January, 2023	0	0	0	0
February, 2023	0	0	0	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

3. Town: Sardarshahar
Contractor: Larsen & Toubro Construction Limited (L&T)
Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	0	0
December, 2022	0	0	0	0
January, 2023	0	0	0	0
February, 2023	0	0	0	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

4. Town: Fatehpur

Contractor: Larsen & Toubro Construction Limited (L&T)

Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	0	0
December, 2022	0	0	0	0
January, 2023	0	0	0	0
February, 2023	0	0	0	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

5. Town: Laxmangarh

Contractor: Larsen & Toubro Construction Limited (L&T)

Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	0	0
December, 2022	0	0	0	0
January, 2023	0	0	0	0
February, 2023	0	0	0	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

6. Town: Ratangarh

Contractor: Larsen & Toubro Construction Limited (L&T)
Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	0	0
December, 2022	0	0	0	0
January, 2023	0	0	0	0
February, 2023	0	0	0	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

7. Town: Pratapgarh

Contractor: M/s. Khilari Infrastructure Pvt. Ltd.
Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	1	0
December, 2022	0	0	0	0
January, 2023	0	0	0	0
February, 2023	0	0	1	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	1	minor	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	1	minor	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

8. Town: Banswara

Contractor: BIPL-SC-HP Joint Venture
Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	0	0
December, 2022	0	0	0	0
January, 2023	0	0	0	0
February, 2023	0	0	0	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

9. Town: Kuchaman

Contractor: Larsen & Toubro Construction Limited (L&T)

Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	0	0
December, 2022	0	0	0	0
January, 2023	0	0	0	0
February, 2023	0	0	0	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

10.own: Ladnu

Contractor: Larsen & Toubro Construction Limited (L&T)
Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	0	1
December, 2022	0	0	0	0
January, 2023	0	0	0	0
February, 2023	0	0	0	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	1	minor	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

11.Town: Didwana

Contractor: Larsen & Toubro Construction Limited (L&T)
Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	0	0
December, 2022	0	0	0	0
January, 2023	0	0	0	0
February, 2023	0	0	0	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

12.Town: Makrana

Contractor: Larsen & Toubro Construction Limited (L&T)
Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	1	0
December, 2022	0	0	0	0
January, 2023	0	0	0	0
February, 2023	0	0	0	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	1	Manhole cover HD-20 placed on road, badly damaged at different locations. Manhole covers which was supplied to Makrana under LDM sewerage project from M/s-Natani polymers, is found in very poor serviceability. Reinforcement and spacing of steel are not proper. Because of this, it's not able to bear the load of vehicles leading to damage of manhole cover when vehicles pass above it.	New manhole cover provided. Communicated with vendor regarding the issue.
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

13. Town: Khetri

Contractor: M/s Lahoty LNA (JV), Jaipur

Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	0	0
November, 2022	0	0	1	0
December, 2022	0	0	1	0
January, 2023	0	0	0	0
February, 2023	0	0	0	0
March, 2023	0	0	0	0

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	1	Got out of hand while using DWC pipe	Instructed labour and conduct safety training for material handling.
3.	**December, 2022**	1	After backfilling curing in trench for compaction in that condition due to wet surface labour saved from slipped.	Complete proper housekeeping and clean surface was done.
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	0	0	0
2.	**November, 2022**	0	0	0
3.	**December, 2022**	0	0	0
4.	**January, 2023**	0	0	0
5.	**February, 2023**	0	0	0
6.	**March, 2023**	0	0	0

14.Town: Mandawa

Contractor: LNA R&B JV

Duration: 1st October to 31st March 2023

Month	Nos. of Accident cases	Nos. of Incident Cases	Nos. of Near miss cases	Nos. of first aid cases
October, 2022	0	0	16	22
November, 2022	0	0	15	9
December, 2022	0	0	9	6
January, 2023	0	0	3	2
February, 2023	0	0	6	2
March, 2023	0	0	1	3

Details of Near miss cases-

S.No.	Month	Number of near miss cases	Nature of near miss and their number	Action taken
1.	**October, 2022**	16	Minor	Manoj
2.	**November, 2022**	15	Minor	Manoj
3.	**December, 2022**	9	Minor	Manoj
4.	**January, 2023**	3	Minor	Manoj
5.	**February, 2023**	6	Minor	Manoj
6.	**March, 2023**	1	Minor	Manoj

Details of first aid cases-

S.No.	Month	Number of first aid cases	Nature of first aid cases and their number	Action taken
1.	**October, 2022**	22	Minor	Manoj
2.	**November, 2022**	9	Minor	Manoj
3.	**December, 2022**	6	Minor	Manoj
4.	**January, 2023**	2	Minor	Manoj
5.	**February, 2023**	2	Minor	Manoj
6.	**March, 2023**	3	Minor	Manoj

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