Semi-Annual Environmental Monitoring Report

Project number: 42267-026

Period: July – December 2016

IND: Rajasthan Urban Sector Development Program

Submitted by the Local Self Government Department, Government of Rajasthan for the Asian Development Bank.

Semi-Annual Environmental Monitoring Report

LOAN NO: 3183 IND

Document Stage: Draft

India: Rajasthan Urban Sector Development Program

Implementation of Environmental Management and Monitoring Plan

Reporting Period: July– December 2016

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

ABBREVIATIONS

AC	–	Asbestos Cement
ADB	–	Asian Development Bank
ASO	–	Assistant Safeguards Officer
CPCB	–	Central Pollution Control Board
CTE	–	Consent to Establishment
CTO	–	Consent to Operation
DI	–	Ductile Iron (Pipe)
DWC	–	Double Wall Corrugated (Pipe)
EA	–	Executing Agency
EHS	–	Environmental Health & Safety
EMP	–	Environmental Management Plan;
ESS	–	Environmental Safeguard Specialist
GoR	–	Government of Rajasthan
HDPE	–	High Density Poly Ethylene
IA	–	Implementing Agency
ICB	–	International Competitive Bidding
IEE	–	Initial Environmental Examination;
LSGD	–	Local Self Government Department
MLD	–	Million Liters per Day
NCB	–	National Competitive Bidding
NOC	–	No Objection Certificate
NTP	–	Notice to Proceed
PCC	–	Plain Cement Concrete
PHED	–	Public Health Engineering Department
PIU	–	Project Implementation Unit;
PMDSC	–	Project Management, Design and Supervision Consultant
PMU	–	Project Management Unit
PO	–	Project Officer
RoW	–	Right of Way
RPCB	–	Rajasthan Pollution Control Board
RUIDP	–	Rajasthan Urban Infrastructure Development Project
RUSDP	–	Rajasthan Urban Sector Development Program
SDP	–	Sector Development Program
SIP	–	Service Improvement Plan
SBR	–	Sequential Batch Reactor
SPM	–	Suspended Particulate Matters
SPS	–	Safeguard Policy Statement, 2009
STP	–	Sewage Treatment Plant
ULB	–	Urban Local Body
WTP	–	Water Treatment Plant

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Executive Summary

1. Government of Rajasthan (GoR) has received a loan from ADB for implementation of water supply and sewerage systems in selected district towns in the state under Rajasthan Urban Sector Development Program (RUSDP). This Sector Development Program (SDP) will support the infrastructure needs and the reform program, which focuses on strengthening institutions and adjusting the policy, institutional, legal, financial, and regulatory framework. It comprises a project, financed by a project loan of US$250 million (project cost 360 million including state share of US$ 110 million), to invest in water distribution network and sewerage systems in the six project cities in the state. 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 water supply, and long-term O&M embedded construction contracts for nonrevenue water (NRW) reduction and sustainability of operations.

2. The desired output of SDP are: 1) Urban institutions strengthened, 2) Urban governance improved, 3) Water supply system rehabilitated and expanded 4) Wastewater system rehabilitated and expanded 5) Capacity building and efficient project management.

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 ADBSPS 2009 and therefore all the subprojects under RUSDP 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 IEEs and attached with bid documents of the contracts.

4. This Semi-Annual Environmental Monitoring Report analyzes the project periodically (over the total implementation period) and documents/monitors compliance status with National/ State/ Local Statutory Environmental Requirements along with compliance to approved IEE and EMPs as per ADB Safeguard Policy Statement i.e. ADB SPS 2009.

5. Up to December, 2016, Contracts for three packages namely RUSDP/Tonk/01, RUSDP/Pali/01 and RUSDP/Pali/02 have been awarded. NTP has been issued for package RUSDP/SGN/01(Sriganganagar) &RUSDP/JJN/01 (Jhunjhunu). Tendering of remaining packages is under progress. Physical works has started in Pali (RUSDP/Pali/01& RUSDP/Pali/02) and Tonk (RUSDP/Tonk/01) only. Periodical monitoring is being conducted by environmental specialist of PMDSC through site visits which includes public consultations, consultations with labors and contractors' staff, documents checking and environmental monitoring for ambient air and noise conditions and water quality and soil quality analysis through third party monitoring agencies. Compliance status with the environmental management and monitoring plan of the sub-projects are provided in the Report.

6. The work at Pali (RUSDP/Pali/01) and Tonk (RUSDP/Tonk/01) is being executed satisfactorily with due importance to all the provisions of EMP and complying all the national and state laws. Consent to Establish from Rajasthan Pollution Control Board (RPCB) for two STPs of Tonk is already obtained and application for Consent to Establish for STP at Pali and WTP at Pali is already submitted in RPCB for legal compliance. Physical works at RUSDP/Pali/02 has just started and contractor is oriented for safeguards requirements and compliances as per ADB SPS.

Semi-Annual Environmental Monitoring Report
July-December 2016

I. INTRODUCTION

1. **Project Description**: Government of Rajasthan (GoR) has received a loan from ADB for implementation of water supply and sewerage systems in selected district towns in the state under Rajasthan Urban Sector Development Program (RUSDP). RUSDP will complement the past and ongoing efforts of the Government of Rajasthan (GoR) to improve water supply and wastewater services to the residents of the state of Rajasthan. It comprises a project, financed by a project loan of US$250 million (project cost 360 million including state share of US$110million), to invest in water distribution network and sewerage systems in the six project towns in the state.

2. The Sector Development Program modality will support the infrastructure needs and the reform program, which focuses on strengthening institutions and adjusting the policy, institutional, legal, financial, and regulatory framework. The policy-based loan will provide financial support to the state government to implement reforms that will unlock the potential of various stakeholders, including municipal bodies, individual households, and private sector investors. The project loan will support catalytic investments that enhance productivity and leverage finances from various other sources in the project cities. The project will also introduce innovations in water supply and wastewater management, such as continuous water supply, and long-term O&M embedded construction contracts for nonrevenue water (NRW) reduction and sustainability of operations.

3. **Project Objectives:** One of the important lessons learnt by the GoR from past project is that the investments have to be coupled with sustainable and vibrant institutions, and effective governance systems, to sustain and maximize their impacts. The institutions in water and wastewater sectors in Rajasthan are weak and the responsibilities are fragmented. Accordingly, the GoR has committed to developing a long-term urban development policy that stimulates investments in urban infrastructure, and simultaneously, addresses institutional deficiencies, and targets major reforms in urban governance, therefore GoR has proposed to undertake a sector development program (SDP) with the loan assistance of Asian Development Bank (ADB). The proposed SDP will support the GoR's reform agenda, and will play a demonstrative role for urban sector operations in India.

4. The impact of the SDP will be sustainable urban development in Rajasthan. The outcome will be improved urban service delivery in Rajasthan. The SDP will have five outputs: Outputs 1 and 2 will be supported by the policy-based loan, while Outputs 3, 4 and 5 will be supported by the project loan. The project will invest in water and wastewater sectors in six project cities, each having a population of more than 100,000 (Pali, Tonk, Hanumangarh, Sri Ganganagar, Jhunjhunu, and Bhilwara). The six project cities were selected based on consideration of the cities' lack of basic services at present and their willingness to undertake reforms and institutional restructuring. The outputs will be:

(i) **Output 1:** Urban institutions strengthened. This output will include (a) creation of a sustainable corporatized state-level institution for urban development; (b) corporatization of water supply and wastewater operations in the capital city of Jaipur; (c) long-term performance-based management contracts in at least six cities of the state; (d) delegation of water supply and sewerage functions, along with adequate resources and tariff-setting authority, to municipal bodies; and (e) rationalization of urban property tax for municipal bodies.

(ii) **Output 2:** Urban governance improved. This output will include (a) formulation and approval of a long-term urban development policy; (b) human resource development plan for urban governance, including establishment of a state-level training institute; (c) support for smart cities and economic corridors; (d) water sector reforms such as reduction of NRW,24x7 water supply, individual household connections to residents in slum areas, benchmarking of urban services, development of geographic information system (GIS) and customer databases, and water and wastewater quality monitoring systems; (e) support for total sanitation and solid waste management; (f) support for linkages between sanitation and health; and (g) rationalization of water and sewerage tariffs for O&M cost recovery, and improvement of collection efficiencies.

(iii) **Output 3:** Water supply system rehabilitated and expanded in six project cities. This output will include (a) distribution network improvement on district metering area basis for NRW reduction; (b) provision of individual property connections to residents, especially the poor and households headed by women; (c) provision of 24-hour water supply; and (d) efficiency improvement in water supply through reduction of NRW and energy losses in electromechanical machinery.

(iv) **Output 4:** Wastewater system rehabilitated and expanded in six project cities. This output will include (a) rehabilitation and expansion of the sewerage network, including

separation of sanitary sewers from drains, and property connections; (b) modernization and expansion of wastewater treatment plants; (c) use of wastewater as a resource including recycling of wastewater, and energy generation through sludge digestion and gasification; and (d) septage management and decentralized wastewater treatment systems in suitable areas.

(v) **Output 5:** Capacity building and efficient project management. This output will include (a) capacity building of urban institutions and municipal bodies; (b) project management; (c) gender equality and social inclusion action plan; and (d) community awareness and participation plan.

5. **Description of sub-projects:** Six project towns (Bhilwara, Hanumangarh, Jhunjhunu, Pali, Tonk and Sriganganagar) are selected under this loan. There is one package in each town except in Pali, where there are two packages. Sub-projects are described in the table-1 below-

Table-1: Description of sub-projects under RUSDP (Loan 3183 -IND)

S No.	Town	Package No.	Cost(US$)	Description of works
1	Pali	RUSDP/Pali/01	65.85 million	Water Supply Distribution Network Improvements with house service connections; Replacement of worn out Pumping Machinery; Extension and Providing Sewer Network with House connections and construction of STP at Pali
2		RUSDP/Pali/02	12 million	Design, Construction Operation and maintenance of bulk water system at Pali including water treatment plant and Pump house etc
3	Tonk	RUSDP/Tonk/01	50.00 million	Water Supply Distribution Network Improvements with house service connections; Providing Sewer Network with House connections and construction of STP at Tonk
4	Sri Ganganagar	RUSDP/SGN/01	67.34million	Water Supply Distribution Network Improvements with house service connections; Replacement of worn out Pumping Machinery; Extension and Providing Sewer Network with House connections etc. at Sriganganagar
5	Hanumangarh	RUSDP/Hanu/01	22.87million	Water Supply Distribution Network Improvements with house service connections; Replacement of worn out Pumping Machinery; Extension and Providing Sewer Network with House connections etc. at Hanumangarh

S No.	Town	Package No.	Cost(US$)	Description of works
6	Jhunjhunu	RUSDP/JJN/01	31.78million	Distribution Network Improvements with house service connections; Replacement of worn out Pumping Machinery; Extension and Providing Sewer Network with House connections etc. at Jhunjhunu
7	Bhilwara	RUSDP/Bhil/01	55.57 million	Providing Sewer Network with House connections etc. at Bhilwara

6. **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 significant impacts are envisaged as per ADB SPS 2009 and therefore all the subprojects under RUSDP are categorized in Environmental Category B and Initial Environmental Examinations (IEEs) are prepared for all the subprojects accordingly.

7. **Details of site personnel and/or consultants responsible for environmental monitoring:** Out of six project towns, contract for only three sub-projects are awarded and NTP is issued for two sub-projects. Necessary Orientation of the PIU, PMDSC and Contractor staff are being done by Social and environmental expert PMDSC and regular monitoring is being conducted by PIU and PMDSC team at site. However to facilitate day to day monitoring, all PIUs have been already directed to nominate one engineer from PIU as Nodal officer and one support engineer from PMDSC to works as coordinator in their respective towns. Nodal officer, PIU will ensure day to day monitoring of implementation and the Coordinator, PMDSC will coordinate with PMDSC Social/ Environmental Expert, Contractor and CAPC in safeguard implementation. Nodal Officer, IPIU (with Coordinator PMDSC) will also be responsible of ensuring that all the Grievances received are resolved as per Grievance Redress Mechanism (GRM) prescribed in IEE/RP& EARF/RF. Details of all the nominated Nodal officer & Coordinators and Environmental monitoring personnel from contractor side deputed at both Pali and Tonk are given in following **Table-2**.

Table-2: Details of personnel and/or consultants responsible for environmental monitoring

A. PMU, PMDSC and PIUs EHS personals

Name of Official	Location	Designation	Contact Details
PMU & PMDSC at Jaipur			
Dr. D.R. Jangid	Jaipur	Project Officer, Environment, PMU, Jaipur	mail.ruidp@rajasthan.gov.in
Mr. Abhay Srivastava	Jaipur	Environmental Expert, PMDSC, Jaipur	pmdsc@rusdp.com

Name of Official	Location	Designation	Contact Details
PIUs and PMDSC at towns			
Mr. Vinod Kumar Meena	Tonk	Nodal Officer, PIU, Tonk	9782367534
Mr. Abhishek Sharma	Tonk	Coordinator, PMDSC, Tonk	9950067100
Mr. Bhiram Ram	Pali	Nodal Officer, PIU, Pali	9530365910
Mr. Ritesh Gupta	Pali	Coordinator, PMDSC, Tonk	9983639044

B. Contractors' EHS personals

S No.	Town	Package No.	Contractors' EHS personals
1	Pali	RUSDP/Pali/01	Mr. Rupesh Kumar Jain, HSE officer, L&T Limited email id:roopeshjain@lntecc.com
2		RUSDP/Pali/02	Yet to be nominated by contractor as work just started
3	Tonk	RUSDP/Tonk/01	Mr. Manish Anand, HSE officer, Tonk Water Supply Limited (TWSL)
4	Sri Ganganagar	RUSDP/SGN/01	NTP issued, contractor not mobilized
5	Hanumangarh	RUSDP/Hanu/01	Contract not awarded
6	Jhunjhunu	RUSDP/JJN/01	NTP issued, contractor not mobilized
7	Bhilwara	RUSDP/Bhil/01	Contract not awarded

8. **Overall status of sub-projects and cumulative progress of works:** Presently contracts are awarded in Tonk and Pali, though works are just started in contract no. RUSDP/Pali/02 in last months of the year. Overall status of the project and work progress is given in following **Table 3 & 4**-

Table 3: Overall status of sub-projects

S. No.	Sub-Project Name	Status of Sub-Project				List of Works	Progress of Works
		Design	Pre-Construction	Construction	Operational Phase		
1	RUSDP/Pali/01			✓		Attached as table 4	13.19%
2	RUSDP/Pali/02			✓		Attached as table 4	5.40
3	RUSDP/Tonk/01			✓		Attached as table 4	3.6%
4	RUSDP/SGN/01	✓					
5	RUSDP/Hanu/01	✓					
6	RUSDP/JJN/01	✓					
7	RUSDP/Bhil/01	✓					

Table 4: Cumulative Progress of Works up to 31.12.2016

Contract description	Cumulative Progress of works up to 31.12.2016
Tonk	
Package no - RUSDP/Tonk/01 **Works under package-** Water Supply DNI with HSC ; Providing Sewer Network with House connections and construction of 2 STPs at Tonk	**Survey works-** 71 sq km Topographical survey, 41183 nos consumer survey, 382km underground survey completed
Name of Contractor- M/s Tonk Water Supply Limited **Contract type- ICB**	**HDPE Pipe procurement and laying-** HDPE pipe procured -31.938/385.95km. HDPE pipe -25.34/385.95km layed in zone -1.

Contract description	Cumulative Progress of works up to 31.12.2016
Date of Award of Contract- 16-Nov-2015 **Cumulative Financial Progress-**1.84% **Cumulative Physical Progress-**3.6% **Stipulated Date of completion of Design Build-**14-Nov-2018	**House Service Connection (HSC)-** HSC-470 nos done.
	ESRs Works- **Sawai Madhopur ESR-**Shuttering for third brace is under progress. **Annapurna colony ESR-** Excavation work completed **Ramdawara ESR**-Excavation work completed
	4 mld STP, Soran- **Admin. Building:** Casting of plinth beam is completed. Reinforcement work for column second lift above plinth beam is in progress. **ESR:**-RCC work up to third brace is completed. **SBR:** concreting for raft is completed. Curing is under progress. **Inlet Sump:** Excavation is under progress
	16 mld STP, Molaipura- **Admin. Building -**Shuttering work is in progress for 1st slab beam & stair case completed. **SBR-1:** RCC work for raft is completed. **SBR-2:** Marking for raft is completed. **ESR:** 2nd lift column is completed above 3rd brace beam & stair case above 3rd brace beam completed. **Blower room :** Layout completed
	HDPE DWC-4. Procurement and laying- 518/225.21km procured and 3.829km laid. Sewer pipe laying trenchless out fall-0.568km. Total -4.397km
	CRMC building at Kidwai Park- PCC completed. Curing work is under progress. **CRMC- housing board-**PCC completed. Curing work is under progress. **CRMC Building at Jail Road-**Excavation work is completed & dressing work is in progress
Pali	
Package no – RUSDP/Pali/01 **Works under package-** Water Supply DNI with HSC ; Providing Sewer Network with House connections and construction of STP at Pali **Name of Contractor-** M/s L&T Limited **Contract type- ICB** **Date of Award of Contract-** 02-Nov-2015 **Cumulative Financial Progress-**7.30% **Cumulative Physical Progress-**13.19% **Stipulated Date of completion of Design Build-**31-Oct-2018	**Survey Works-** 155 Sqkm Topographical survey, 62355 nos consumer survey, 513km underground survey completed
	HDPE pipe procurement - Total -283.87/ 639.719km, DI K7 pipe -17.424/24.582km, HDPE DWC-161.20/279.564km, UPVC-91.23/260.693 km Completed
	Laying of pipe **HDPE Pipe-**114.688/639.719km, **DI K 7 pipe-**6.506/24.582km , Total water supply laid -121.195 km Testing of HDPE pipe -67.081/639.719km completed.
	Laying of HDPE- DWC-68.09/279.564, UPVC-2.395/260.693km completed.
	House service connection- 3389/49947 nos, Precast Manhole-1784/13334 nos completed.
	STP- SBR Tank SBR raft completed and Wall works under progress. Thickener -PCC completed. OHSR- Excavation is under progress
	CRMC Building: Out of 4 CRMC Building, work at 2 CRMC (Gandhi Nagar upto Plinth level and Labour Colony completed up to slab level), Excavation at Naya Gaon CRMC completed
Package no – RUSDP/Pali/02 **Works under package-** Construction of Bulk Water system and works for water supply and operation service for 10 years at Pali **Name of Contractor-** M/s Vishnu Prakash R Pungaliya	• Topographical survey and soil investigation completed. Submission and scrutiny of SIP is under progress. • DI K-9 pipe procured-13.3km.• Mandli Raw Water Pump House Trial Trench is laid 160 meter for Laying of 108 Dia Raw water transmission main from RWPF Mandli to WTP Manpura Bhakri. • Laying of 250 mm dia DI pipe line for Clear Water

Contract description	Cumulative Progress of works up to 31.12.2016
Contract type- NCB **Date of Award of Contract-** 11-July-2016 **Cumulative Financial Progress-**3.81% **Cumulative Physical Progress-**5.40% **Stipulated Date of completion of Design Build-**10-Jul-2018	Transmission Main from Mandia village to Mandli Clear Water Pumping Station is in progress. 728 meter is laid. • OHSR (industrial area)-Excavation work is in progress. • OHSR (Raikon ki dhani)-Excavation work is in progress. • OHSR (Shantinath)-Excavation work is in progress. • WTP- Staff Quarter Concreting work for raft foundation is in progress for first block. Staff quarter second block-PCC completed

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

Table-5: compliance of sub-projects with statutory requirements applicable

S. No.	Sub project name	Statutory environmental requirements	Status of compliance	Actions required
1	RUSDP/Pali /01 (Pali water supply and sewerage works)	Consent to Establish for STP – 15 MLD	Application submitted to RPCB, deficiencies identified by RPCB were complied and submitted to RPCB, consent is pending from RPCB	Nil
		Consent to establish & operate stone crusher	Not applicable now- No such requirement identified by the contractor in SIP, in case required it will be applied accordingly.	Contractor has to ensure to take CTE/CTO for stone crusher if used for this project
		PUC certificates for contractor's vehicles.	Complied- Being ensured through contractor.	Nil
2.	RUSDP/Pali/02 (Bulk water system for Pali)	Consent to Establish for WTP – 30mld	Application for CTE for WTP is submitted online in RPCB	Nil
		Consent to establish & operate stone crusher	Shall be decided after contractor's mobilization.	Contractor has to ensure to take CTE/CTO for stone crusher if used for this project
		PUC certificates for contractor's vehicles.	To be ensured through contractor after mobilization.	Nil
3	RUSDP /Tonk/01(Tonk Water Supply and Sewerage works)	Consent to Establish for STP – 4 MLD	CTE obtained from RPCB	Nil
		Consent to Establish for STP – 16 MLD	CTE obtained from RPCB	Nil
		Consent to establish & operate stone crusher	Not applicable now- No such requirement identified by the contractor in SIP, in case required, it will be applied accordingly.	Contractor has to ensure to take CTE/CTO for stone crusher if used for this project
		Forest clearance for proposed OHSR at Ramdwara	Complied- Forest clearance for proposed OHSR obtained (attached as appendix 3)	Nil
		PUC certificates for contractor's vehicles.	Complied- Being ensured through contractor.	Nil

S. No.	Sub project name	Statutory environmental requirements	Status of compliance	Actions required
4	RUSDP/Gang/01	Consent to Establish for WTP 40 MLD	Application for CTE shall be applied after mobilization of contractor	
5	RUSDP/Jhun/01	Consent to Establish for STP 7 MLD	Application for CTE shall be applied after mobilization of contractor	
6	RUSDP/Hanu/01	Consent to Establish for STP 9.5 MLD and 6.5 MLD Consent to Establish for WTP 40 MLD Consent to Establish for tertiary unit in existing STP of 7.5 MLD Consent to Establish for rehabilitation of existing 7.5 MLDWTP	Application for CTE shall be applied after mobilization of contractor	
7	RUSDP/Bhil/01	Consent to Establish for 30 MLDSTP	Application for CTE shall be applied after mobilization of contractor	

III. COMPLIANCE STATUS WITH ENVIRONMENTAL LOAN COVENANTS

Table-6: Compliance with Environmental Loan Covenants

Paragraph number of Loan Agreement	Covenant	Status of Compliance	Action Required
Schedule -5, Para-1	**Implementation arrangement-** The Borrower and the EA shall ensure that the Project is implemented in accordance with the detailed arrangements set forth in the PAM. Any subsequent change to the PAM shall become effective only after approval of such change by the Borrower, the State and ADB. In the event of any discrepancy between the PAM and this Loan Agreement, the provisions of this Loan Agreement shall prevail.	Complied- Project implementation arrangement has been made as per PAM and adequate and qualified staff is deputed in RUIDP, Consultants and contractors staff.	Nil
Schedule -5, Para-6	**Resources-** The Borrower and the EA shall ensure that the RUIDP shall be provided with adequate staff, resources, and facilities to implement the Project.	Complied- All the resources, facilities and adequate staff has been provided by RUIDP	Nil
Schedule -5, Para-7	**Project Website-** Within 12 months after the Effective Date, the Borrower shall ensure, or cause the EA to ensure, that a Project website is created to disclose information about various matters in regards to the Project, including procurement.	Complied- Project website has been created and important information including IEE/EMP and RP is being disclosed through this	Nil

Paragraph number of Loan Agreement	Covenant	Status of Compliance	Action Required
Schedule -5, Para-8	**Grievance Redress Mechanism-** Within 12 months after the Effective Date, the Borrower shall ensure, or cause the EA to ensure, that LSGD prepare a grievance redress mechanism, acceptable to ADB, and establish a special committee to receive and resolve complaints/grievances or act upon reports from stakeholders on misuse of funds and other irregularities, including grievances due to resettlement.	Complied- City Level Committee is formed and acting in all the project towns and grievance redress mechanism exists as described in IEE	Nil
Schedule-5, Para-9	The Borrower shall ensure, or cause the EA to ensure, that the preparation, design, construction, implementation, operation and decommissioning of the Project, and all 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 and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Being complied- All the proposed works are complying all the applicable laws and regulations of country and state related to environment, health and safety, EARF is being followed and all the measures and requirements given in IEE are being followed	Nil
Schedule-5, Para-13	**Human and Financial Resources to Implement Safeguards Requirements-** The Borrower shall make available, or cause the EA to make available, all necessary budgetary and human resources to fully implement the EMP as required	Complied- All the budgetary and human resources are provided to fully implement the EMP as required, adequate staff and funds are made available	Nil
Schedule-5, Para-14	**Safeguards-Related Provisions in Bidding Documents and Works Contracts-** 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 and the EMP, and any corrective or preventative actions set forth in a Safeguard Monitoring Report; (b) make available a budget for all such environmental and social measures; (c) provide the EA with a written notice of any unanticipated environmental risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE or the EMP; (d) adequately record the condition of roads, agricultural land the other infrastructure prior to starting to transport materials and construction; and	Being complied- all the bidding documents and contracts for works contain provisions to fulfill the requirements as set forth in IEE and EMP. Budgetary provision are made in BOQ for all such requirement for project execution, cost for other unanticipated environmental impacts and risks, which may arise during construction shall be met from contingency funds of the project. Bidding documents and contract agreements are very clear for restoration of pathways, local infrastructures and lands	Nil

Paragraph number of Loan Agreement	Covenant	Status of Compliance	Action Required
	(e) fullyreinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	to their pre-project conditions upon the completion of the construction works	
Schedule-5, Para-15	**Safeguard Monitoring and Reporting-** The Borrower shall do, or cause the EA to do, the following: (a) submit semi-annual Safeguards Monitoring Reports to ADB, and disclose relevant information from such reports to affected persons promptly upon submission; (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 IEE or the EMP, 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 (c) report any breach of compliance with the measures and requirements set forth in the EMP promptly after becoming aware of the breach.	Being complied- semi-annual monitoring report is being submitted to ADB. 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 IEE or the EMP, will be informed to ADB. Any breach of compliance of EMP shall also be informed to ADB promptly	Nil
Schedule-5, Para-18	**Labour Standards-** The EA shall ensure that all civil works contracts under the Project follow all applicable labor laws of the Borrower and the State, and that these further include provisions to the effect that contractors: (a) 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 (b) follow and implement all statutory provisions on labor (including not employing or using children as labor, and 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- All civil works contracts will follow all the applicable labor laws prevailing in the country and state, provision is also given in bid documents and contract agreements. Close monitoring of compliance of labor laws during project execution is being done by RUIDP and consultants. HIV/AIDS awareness programs shall be organized by the contractors on periodical basis.	HIV/AIDS awareness training is to be organized by contractors in Pali and Tonk

IV. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

9. Environmental management and monitoring plan has been prepared for all the sub projects and included in respective IEEs. Periodical monitoring is conducted by environmental specialist of PMDSC through site visits, public consultations, consultations with labors and

contractors staff, documents checking and environmental monitoring for ambient air and noise conditions and water quality analysis through third party monitoring agencies. Compliance status with the environmental management and monitoring plan of the sub-projects are given in following tables (**Table 7 to 9**) and environmental site visit reports are attached in **Annexure 4**-

SUMMARY MONITORING TABLES

Table-7: Summary Monitoring Table of Pali water supply and sewerage works (RUSDP/Pali /01)

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
Design Phase						
Treated effluent not meeting the disposal standards and associated impacts on receiving environment	STP design to meet CPCB wastewater disposal standards into inland water bodies including: • BOD less than 30 mg/l • Suspended solids less than 100 mg/l • Faecal coliform less than 1000/100 ml	• BOD at 200C for 5 days- less than 30 mg/l • Total suspended Solids (TSS)- less than 10 mg/l • Total kjeldahl nitrogen- less than 5 mg/l • Total Nitrogen- less than 5 mg/l	Detailed Project Report which describes the design of the STP on SBR process and SIP submitted by contractor	-	-	-
Impairment of STP treatment efficiency	• Ensure continuous uninterrupted power supply • Provide back-up facility (such as generator) and make sure that adequate fuel supplies during operation for running of generator when required; • Provide operating manual with all standard operating procedures (SOPs) for operation and maintenance of the facility; • The scope of work of facility contractor should include extended operation period (at least five years) to ensure smooth operation, training to the ULB staff and transfer of facility to Pali Nagar Parishad • Design should include online monitoring at the minimum	• Continuous uninterrupted power supply provision for STP • Operation manual after completion of STP • 10 years O&M included in contract and bid document • PLC/SCADA based online monitoring of pH, ammonia and TSS	Detailed Project Report, SIP submitted by contractor and bidding documents which describes the necessity of uninterrupted power supply, provision of 10 years O&M and automation of STP and SIP submitted by contractor	-	-	-

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	BOD, pH and Ammonia at the inlet and outlet of the plant					
Mixing of industrial effluent with sewage	• No industrial wastewater shall be allowed to dispose into municipal sewers • 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 RPCB, issue notice to all industries for compliance • Conduct regular wastewater quality monitoring (at inlet and at outlet of STP) to ensure that the treated effluent quality complies with the standards	• Design of sewerage network which excludes industrial waste water from the proposed sewerage system • Regular wastewater quality monitoring at inlet and outlet of STP during operation phase	Detailed Project Report and SIP submitted by contractor which describes sewerage network and O&M program	-	-	-
Pre-Construction Phase						
Compliance with environmental subproject selection criteria	Compliance with environmental subproject selection criteria A compliance checklist is appended to this report **(Appendix 5)**	Attached as appendix 5	Documents check and visual inspection	-	-	-
Utilities- Telephone lines, electric poles and wires, water lines within proposed project area may	• Identify and include locations and operators of these utilities in the detailed design documents to prevent unnecessary disruption of services during	• List of affected utilities • Contingency plan from contractors • Spoils management plan and traffic management plan of	Document check and visual inspection and SIP submitted by contractor	Proposed locations	22-23 July 2015	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
be impacted	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 and traffic management plan	contractor				
Social and Cultural Resources- Ground disturbance can uncover and damage archaeological and historical remains	• Consult Dept. of Archeology and museums, Government of Rajasthan to obtain an expert assessment of the archaeological potential of the site; • Consider alternatives if the site is found to be of medium or high risk; • 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.	• archaeological potential of the site • Chance finds protocol as listed in IEE	Document check and visual inspection	Proposed locations	22-23 July 2015	Abhay Srivastava, Environmental specialist, PMDSC
Construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas.- Disruption to traffic flow and	• 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,	• Site of construction work camps, labor camps, stockpiles areas and disposal area	Visual inspection, document check	Construction work camps, labor camps, stockpiles areas and disposal area	08-09 June 2016	Abhay Srivastava, Environment Specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
sensitive receptors	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 (a) site shall be selected preferably from barren, infertile lands. In case agricultural land needs to be selected, written consent from landowners (not 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	• 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 of material	Document checks	-	08-09 June 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
accelerated erosion, disturbance in natural drainage patterns, ponding and water logging, and water pollution.	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.					
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, permits, clearance, NOCs, etc. prior to award of civil works. • 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	• CTE of STP • NOCs from various departments	Document check	-	08-09 June 2016	Abhay Srivastava, Environmental specialist, PMDSC
Asbestos Cement Pipes- Health risk due to exposure to asbestos materials	• Obtain details from PHED on location of underground AC pipes • Locate the new pipe/sewer carefully to avoid encountering AC pipes • Leave the AC pipes undisturbed in the ground.	• List of underground AC pipes which are to be encountered during construction	Documents check	-	08-09 June 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
Construction Phase						
Training- Irreversible impact to the environment, workers, and community	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&S), core labor laws, applicable environmental laws, etc.	Training record	Documents check	-	08-09 June 2016, 08-09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Air quality- Emissions from construction vehicles, equipment, and machinery used for construction resulting to dusts and increase in concentration of vehicle-related pollutants	• Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; • Damp down exposed soil and any stockpiled material on site by water sprinkling necessary during dry weather; • Use tarpaulins to cover sand and other loose material when transported by trucks; and • Fit all heavy equipment and machinery with air pollution control devices which are operating correctly.	• Ambient air quality monitoring report • Vehicle maintenance records • Arrangements of water sprinkling • Transportation of construction materials in covered containers • PUC certificate of vehicles	Visual inspection and document checks	Working sites and construction camps, labor camps	Site inspections- 08-09 June 2016, 08-09 Nov. 2016 Ambient Air Quality monitoring- Jan. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Surface water quality- Mobilization of settled silt materials, and chemical contamination	• Prepare and implement a spoils management plan • Avoid stockpiling of earth fill especially during the monsoon season unless covered by tarpaulins or plastic sheets;	• Surface water quality test reports • Construction establishments near water bodies • Surface water quality monitoring results	Visual inspection and documents check	Construction sites, labor camps, storage areas for construction materials	Site inspections- 08-09 June 2016, 08-09 Nov. 2016 Surface Water	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
from fuels and lubricants during installation of pipelines can contaminate nearby surface water quality.	• 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 work in designated sites; and • Conduct surface quality inspection according to the Environmental Management Plan (EMP).	• Inspection of drainage from construction establishments • Storage areas for fuels and lubricants • Disposal of wastes • Stockpile areas		and fuel and lubricants	Quality Analysis- Jan. 16	
Noise level- 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/PMDSC 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	• Construction activities during night hours if any • Noise monitoring reports • Use of silencers in vehicle and noise-reducing mufflers in other noise generating equipments	Individual inspection, documents check, noise meters instrument	Working sites	Site inspections- 08-09 June 2016, 08-09 Nov. 2016 Ambient noise level monitoring- Jan. 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	levels not exceeding 80 decibels (dbA) when measured at a distance of 10 m or more from the vehicle/s.					
Landscape and aesthetics- Impacts due to excess excavated earth, excess construction materials, and solid waste 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	• Stockpiling areas • Spoils management plan by contractor • Solid waste management arrangements from contractor • Disposal sites	Visual inspection and documents check	Stockpiling areas, disposal areas, working sites	08-09 June 2016, 08-09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Existing Infrastructure and Facilities- Disruption of service and	• Obtain from PIU the list of affected utilities and operators if any; • Prepare a contingency plan	• List of affected utilities • Contingency plan from contractor	Document checks and visual inspection	Working sites	08-09 June 2016, 08-09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
damage to existing infrastructure at specified project location	to include actions to be done in case of unintentional interruption of service					
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 Revenue Department; and (iii) Plant two native trees for every one that is removed.	• List of trees affected and to be cut • Permission of tree cutting	Documents check	All sites	08-09 June 2016, 08-09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Land use- Environmental Issues due to land use change	• The impact due to change in land use will be negligible due to this project.	Not applicable	-	-	-	-
Accessibility- Traffic problems and conflicts near project locations and haul road	• Plan transportation routes so that heavy vehicles 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	• Traffic management plan • Permission from traffic department • Work plan and schedule of works • Pedestrian access • Traffic diversion	Site visit, public consultations and document checks	Working site	08-09 June 2016, 08-09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	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.					
Socio-Economic – Income- Impede the access of residents and customers to nearby shops	• Prepare and implement spoils management plan • 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	• Spoils management plan • Access to commercial establishments • Work plan for busy roads and commercial areas • Sign boards at sites • Sensitive receptors	Visual inspection, public consultations and documents checks	All sites	08-09 June 2016, 08-09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	• Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.					
Socio-Economic – Employment- Generation of temporary employment and increase in local revenue	• Employ at least 50% of the labour force, or to the maximum extent, local persons within the 2-km immediate area if manpower is available; • Secure construction materials from local market. • Comply with labor laws	% of labors from nearby areas of the city	Documents checks and consultations with labors	Working sites and labor camps	08-09 June 2016, 08-09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Occupational Health and Safety- Occupational hazards which can arise during work	• Comply with all national, state and local core labor laws • Develop and implement site-specific occupational health and safety (OH&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&S Training for all site personnel; (d) documented procedures to be followed for all site activities; and (e) documentation of work-related accidents; • Ensure that qualified first-aid can be provided at all times.	• Barricades and sign boards at site • Use of PPEs by workers • Training given to workers on safe work practices • Availability of first aid box at site and labor camps • Medical insurance of workers • Supply of potable drinking water at site and in labor camps • Working hours in the site and rest periods • Rest shed provided at site • Equipment fitness • Noise monitoring reports • Solid waste management at work site and labor camps	Site visit, documents checks, consultations with workers	Working sites	08-09 June 2016, 08-09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	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; • Provide supplies of potable drinking water; • 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: (a) work schedule should be adjusted to avoid peak temperature hours (12 – 3 PM); (b) provide appropriate shade near the work place; allow periodic resting and provide adequate water, and (c) provide necessary medicine and facilities to take care of dehydration related health issues • Provide clean eating areas where workers are not exposed to hazardous or noxious substances; • Provide H&S orientation					

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	training to all new 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					

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	public as appropriate; • Disallow worker exposure to noise level greater than 85 dBA for duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively; and • Provide proper solid and liquid waste management program in the workers campsites, separate from spoils and debris disposal, as their presence can add to existing volume at the project sites.					
Community Health and Safety.- Traffic accidents and vehicle collision with pedestrians during material and waste transportation	• 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.	• Traffic management plan • List of sensitive receptors • Vehicle and equipment maintenance records • Signage and traffic aids	Site visit, document checks	Working sites	08-09 June 2016, 08-09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Work Camps and worksites- Temporary air and noise pollution from machine operation, water	• Consult with PIU before locating project offices, sheds, and construction plants; • Minimize removal of vegetation and disallow	• Tree cutting records for works camps • Drinking water facilities • Sanitations conditions • Training records	Site visit, labor consultations, document checks	Workers camp	08-09 June 2016, 08-09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
pollution from storage and use of fuels, oils, solvents, and lubricants Unsanitary and poor living conditions for workers	cutting of trees; • Provide drinking water, water for other uses, and sanitation facilities for employees; • Ensure conditions of livability at work camps are maintained at the highest standards possible at all times; • Prohibit employees from poaching wildlife and cutting of trees for firewood; • 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.	• Oil and lubricants storage • Recycle and disposal of used oil and lubricants • Solid waste management • Gender based toilet and bathrooms for workers • Child labor employed				
Operational Phase- Not applicable (Presently works are in construction phase)						

Table-8: Summary Monitoring Table of Pali: Bulk Water Supply (RUSDP /Pali/02)

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
Design Phase						
Design of Water Treatment Plant- • Disposal of residues of water treatment (sludge) in to the receiving environment • Impairment of WTP treatment efficiency	• Quantity of generation of sludge should be estimated during design phase and it should be ensured that there is proper arrangement of collection and disposal of sludge at appropriate place • Ensure continuous uninterrupted power supply • Provide back-up facility (such as generator) and make sure that adequate fuel supplies during operation for running of generator when required; • Provide operating manual with all standard operating procedures (SOPs) for operation and maintenance of the facility; this should include guidance on the follow up actions in case of process disruptions, inferior quality of treated water; etc. Necessary training (hands-on and class room / exposure visits) shall be provided to the PHED staff dealing with WTP. • The scope of work of facility contractor should include extended	• Quantity of sludge generated per day during water treatment is WTP • Dedicated electrical connections for WTP • Power back up is not proposed as there is dedicated electrical connection proposed • SOP for operation and maintenance and training manual/schedule will be given by contractor after construction is completed • O&M period for 10 years is proposed for WTP operation • Efficient water treatment technology is considered which is approved by CPHEEO/PHED	Detailed Project Report which describes the design of the WTP process and SIP submitted by contractor and bidding documents which describes the necessity of uninterrupted power supply, provision of 10 years O&M and automation of WTP	-	-	-

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	operation period (at least five years) to ensure smooth operation, training to the PHED staff and transfer of facility to PHED • Design should include efficient treatment technology meeting the standards of CPHEEO/PHED					
Design of water supply network- Disruption of utilities and inconvenience to public	It should be kept in mind that minimum disturbance may occur to public in terms of disruption of utilities like existing water supply, electrical, telecommunication and minimum disturbance in traffic movement and access to establishments and houses	DMA wise construction work plan submitted by contractor with SOP and mitigation measures to reduce impacts of public and traffic disturbance	Detailed Project Report, SIP submitted by contractor and bidding documents which describes the necessity of uninterrupted power supply, provision of 10 years O&M and automation of WTP and SIP submitted by contractor	-	-	-
Pre-Construction Phase						
Compliance with environmental subproject selection criteria	Compliance with environmental subproject selection criteria A compliance checklist is appended to this report **(Appendix 5)**	Attached as appendix 5	Documents check and visual inspection	-	-	-

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
Utilities- Telephone lines, electric poles and wires, water lines within proposed project area may be impacted	• 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 and traffic management plan	• List of affected utilities • Contingency plan from contractors • Spoils management plan and traffic management plan of contractor	Document check, visual inspection and SIP submitted by contractor	Proposed locations	09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Social and Cultural Resources- Ground disturbance can uncover and damage archaeological and historical remains	• Consult Dept. of Archeology and museums, Government of Rajasthan to obtain an expert assessment of the archaeological potential of the site; • Consider alternatives if the site is found to be of medium or high risk; • 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.	• archaeological potential of the site • Chance finds protocol as listed in IEE	Document check and visual inspection	Proposed locations	09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Construction work camps, hot mix	• Prioritize areas within or nearest possible vacant	• Site of construction work camps, labor camps,	Visual inspection,	Construction work camps,	09 Nov. 2016	Abhay Srivastava,

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
plants, stockpile areas, storage areas, and disposal areas.- Disruption to traffic flow and sensitive receptors	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 (a) site shall be selected preferably from barren, infertile lands. In case agricultural land needs to be selected, written consent from landowners (not 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.	stockpiles areas and disposal area	document check, SIP submitted by contractor	labor camps, stockpiles areas and disposal area		Environment Specialist, PMDSC
Sources of materials-	• Prioritize sites already permitted by the Department	• Sources of material	Document checks, SIP	-	09 Nov. 2016	Abhay Srivastava,

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
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.	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.		submitted by contractor			Environmental specialist, PMDSC
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, permits, clearance, NOCs, etc. prior to award of civil works. • 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	• CTE of WTP • NOCs from various departments	Document check, submission of application for Consent to Establish	-	09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Asbestos Cement Pipes- Health risk due to exposure to asbestos materials	• Obtain details from PHED on location of underground AC pipes • Locate the new pipe/sewer carefully to avoid	• List of underground AC pipes which are to be encountered during construction	Documents check, DPR and SIP submitted by Contractor	-	09 Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	encountering AC pipes • Leave the AC pipes undisturbed in the ground.					
Construction Phase (Works just started and will be reported in next EMR)						
Operational Phase- Not applicable (Presently works are in construction phase)						

Table-9: Summary Monitoring Table of Tonk Water Supply and Sewerage works (RUSDP /Tonk/01)

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
Design Phase						
Treated effluent not meeting the disposal standards and associated impacts on receiving environment	STP design to meet CPCB wastewater disposal standards into inland water bodies including: • BOD less than 30 mg/l • Suspended solids less than 100 mg/l • Faecal coliform less than 1000/100 ml	• BOD at 200C for 5 days- less than 30 mg/l • Total suspended Solids (TSS)- less than 10 mg/l • Total kjeldahl nitrogen- less than 5 mg/l • Total Nitrogen- less than 5 mg/l	Detailed Project Report which describes the design of the STP on SBR process and SIP submitted from contractor	-	-	-
Impairment of STP treatment efficiency	• Ensure continuous uninterrupted power supply • Provide back-up facility (such as generator) and make sure that adequate fuel supplies	• Continuous uninterrupted power supply provision for STP • Operation manual after completion of STP	Detailed Project Report, bidding documents and SIP submitted	-	-	-

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	during operation for running of generator when required; • Provide operating manual with all standard operating procedures (SOPs) for operation and maintenance of the facility; • The scope of work of facility contractor should include extended operation period (at least five years) to ensure smooth operation, training to the ULB staff and transfer of facility to Tonk Nagar Parishad	• 10 years O&M included in contract and bid document	from contractor which describes the necessity of uninterrupted power supply provision of 10 years O&M and automation of STP			
Mixing of industrial effluent with sewage	• No industrial wastewater shall be allowed to dispose into municipal sewers • 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 RPCB, issue notice to all industries for compliance • Conduct regular wastewater quality monitoring (at inlet and at outlet of STP) to ensure that the treated effluent quality complies with the standards	• Design of sewerage network which excludes industrial waste water from the proposed sewerage system • Regular wastewater quality monitoring at inlet and outlet of STP during operation phase	Detailed Project Report and SIP submitted from contractor which describes sewerage network and O&M program	-	-	-
Pre-Construction Phase						
Compliance with environmental subproject	Compliance with environmental subproject selection criteria A compliance checklist is	Attached as appendix 5	Documents check and visual	-	-	-

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
selection criteria	appended to this report **(Appendix 5)**		inspection			
Utilities- Telephone lines, electric poles and wires, water lines within proposed project area may be impacted	• 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 and traffic management plan	• List of affected utilities • Contingency plan from contractors • Spoils management plan and traffic management plan of contractor	Document check and visual inspection	Proposed locations	15-16 December 2015	Abhay Srivastava, Environmental specialist, PMDSC
Social and Cultural Resources- Ground disturbance can uncover and damage archaeological and historical remains	• Consult Dept. of Archeology and museums, Government of Rajasthan to obtain an expert assessment of the archaeological potential of the site; • Consider alternatives if the site is found to be of medium or high risk; • 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.	• archaeological potential of the site • Chance finds protocol as listed in IEE	Document check and visual inspection	Proposed locations	15-16 December 2015	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
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 (a) site shall be selected preferably from barren, infertile lands. In case agricultural land needs to be selected, written consent from landowners (not 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.	• Site of construction work camps, labor camps, stockpiles areas and disposal area	Visual inspection, document check	Construction work camps, labor camps, stockpiles areas and disposal area	15-16 December 2015	Abhay Srivastava, Environment Specialist, PMDSC
Sources of materials-	• Prioritize sites already permitted by the Department	• Sources of material	Document checks	-	15-16 December	Abhay Srivastava,

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
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.	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.				2015	Environmental specialist, PMDSC
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, permits, clearance, NOCs, etc. prior to award of civil works. • 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	• CTE of STP • NOCs from various departments	Document check	-	15-16 December 2015	Abhay Srivastava, Environmental specialist, PMDSC
Asbestos Cement Pipes- Health risk due to exposure to asbestos materials	• Obtain details from PHED on location of underground AC pipes • Locate the new pipe/sewer carefully to avoid encountering AC pipes	• List of underground AC pipes which are to be encountered during construction	Documents check	-	15-16 December 2015	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	• Leave the AC pipes undisturbed in the ground.					
Construction Phase						
Training- Irreversible impact to the environment, workers, and community	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&S), core labor laws, applicable environmental laws, etc.	Training record	Documents check	-	28 Sept. 2016, 29 Dec. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Air quality- Emissions from construction vehicles, equipment, and machinery used for construction resulting to dusts and increase in concentration of vehicle-related pollutants	• Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; • Damp down exposed soil and any stockpiled material on site by water sprinkling necessary during dry weather; • Use tarpaulins to cover sand and other loose material when transported by trucks; and • Fit all heavy equipment and machinery with air pollution control devices which are operating correctly.	• Ambient air quality monitoring report • Vehicle maintenance records • Arrangements of water sprinkling • Transportation of construction materials in covered containers • PUC certificate of vehicles	Visual inspection and document checks	Working sites and construction camps, labor camps	Site inspections- 28 Sept. 2016, 29 Dec. 2016 Ambient Air Quality monitoring- Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Surface water quality- Mobilization of settled silt materials, and chemical contamination	• Prepare and implement a spoils management plan • Avoid stockpiling of earth fill especially during the monsoon season unless covered by tarpaulins or plastic sheets;	• Surface water quality test reports • Construction establishments near water bodies • Surface water quality	Visual inspection and documents check	Construction sites, labor camps, storage areas for construction materials and	Site inspections- 28 Sept. 2016, 29 Dec. 2016 Surface Water Quality	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
from fuels and lubricants during installation of pipelines can contaminate nearby surface water quality.	• 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 work in designated sites; and • Conduct surface quality inspection according to the Environmental Management Plan (EMP).	monitoring results • Inspection of drainage from construction establishments • Storage areas for fuels and lubricants • Disposal of wastes • Stockpile areas		fuel and lubricants	Analysis- Nov. 16	
Noise level- 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/PMDSC 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	• Construction activities during night hours if any • Noise monitoring reports • Use of silencers in vehicle and noise-reducing mufflers in other noise generating equipments	Individual inspection, documents check, noise meters instrument	Working sites	Site inspections- 28 Sept. 2016, 29 Dec. 2016 Ambient noise level monitoring- Nov. 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	decibels (dbA) when measured at a distance of 10 m or more from the vehicle/s.					
Landscape and aesthetics- Impacts due to excess excavated earth, excess construction materials, and solid waste 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	• Stockpiling areas • Spoils management plan by contractor • Solid waste management arrangements from contractor • Disposal sites	Visual inspection and documents check	Stockpiling areas, disposal areas, working sites	28 Sept. 2016, 29 Dec. 2016	Abhay Srivastava, Environmental specialist, PMDSC
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 • Contingency plan from contractor	Document checks and visual inspection	Working sites	28 Sept. 2016, 29 Dec. 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
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 Revenue Department; and (iii) Plant two native trees for every one that is removed.	• List of trees affected and to be cut • Permission of tree cutting	Documents check	All sites	28 Sept. 2016, 29 Dec. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Land use- Environmental Issues due to land use change	• The impact due to change in land use will be negligible due to this project.	Not applicable	-	-	-	-
Accessibility- Traffic problems and conflicts near project locations and haul road	• Plan transportation routes so that heavy vehicles 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	• Traffic management plan • Permission from traffic department • Work plan and schedule of works • Pedestrian access • Traffic diversion	Site visit, public consultations and document checks	Working site	28 Sept. 2016, 29 Dec. 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	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.					
Socio-Economic – Income- Impede the access of residents and customers to nearby shops	• Prepare and implement spoils management plan • 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.	• Spoils management plan • Access to commercial establishments • Work plan for busy roads and commercial areas • Sign boards at sites • Sensitive receptors	Visual inspection, public consultations and documents checks	All sites	28 Sept. 2016, 29 Dec. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Socio-Economic – Employment- Generation of	• Employ at least 50% of the labour force, or to the	% of labors from nearby areas of the city	Documents checks and consultations	Working sites and labor camps	28 Sept. 2016, 29 Dec. 2016	Abhay Srivastava, Environmental

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
temporary employment and increase in local revenue	maximum extent, local persons within the 2-km immediate area if manpower is available; • Secure construction materials from local market. • Comply with labor laws		with labors			specialist, PMDSC
Occupational Health and Safety- Occupational hazards which can arise during work	• Comply with all national, state and local core labor laws • Develop and implement site-specific occupational health and safety (OH&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&S Training for all site personnel; (d) documented procedures to be followed for all site activities; and (e) documentation of work-related accidents; • 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; • Provide supplies of potable	• Barricades and sign boards at site • Use of PPEs by workers • Training given to workers on safe work practices • Availability of first aid box at site and labor camps • Medical insurance of workers • Supply of potable drinking water at site and in labor camps • Working hours in the site and rest periods • Rest shed provided at site • Equipment fitness • Noise monitoring reports • Solid waste management at work site and labor camps	Site visit, documents checks, consultations with workers	Working sites	28 Sept. 2016, 29 Dec. 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	drinking water; • 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: (a) work schedule should be adjusted to avoid peak temperature hours (12 – 3 PM); (b) provide appropriate shade near the work place; allow periodic resting and provide adequate water, and (c) provide necessary medicine and facilities to take care of dehydration related health issues • Provide clean eating areas where workers are not exposed to hazardous or noxious substances; • Provide H&S orientation training to all new 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					

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	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 dBA for duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively; and • Provide proper solid and liquid waste management program in the workers campsites, separate from spoils and					

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	debris disposal, as their presence can add to existing volume at the project sites.					
Community Health and Safety.- Traffic accidents and vehicle collision with pedestrians during material and waste transportation	• 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.	• Traffic management plan • List of sensitive receptors • Vehicle and equipment maintenance records • Signage and traffic aids	Site visit, document checks	Working sites	28 Sept. 2016, 29 Dec. 2016	Abhay Srivastava, Environmental specialist, PMDSC
Work Camps and worksites- 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, 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; • Ensure conditions of livability at work camps are maintained at the highest standards possible at all times; • Prohibit employees from poaching wildlife and cutting of trees for firewood; • Train employees in the storage	• Tree cutting records for works camps • Drinking water facilities • Sanitations conditions • Training records • Oil and lubricants storage • Recycle and disposal of used oil and lubricants • Solid waste management • Gender based toilet and bathrooms for workers • Child labor employed	Site visit, labor consultations, document checks	Workers camp	28 Sept. 2016, 29 Dec. 2016	Abhay Srivastava, Environmental specialist, PMDSC

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	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.					
Operation phase (not applicable as works are not started yet)						

Table-9: Monitoring of Specific Mitigation Measures to be followed by Contractor

Issues	Observation		
	Water supply and sewerage works, Pali (RUSDP/Pali/01)	**Water supply and sewerage works, Tonk (RUSDP/Tonk/01)**	**Bulk Water Supply, Pali (RUSDP/Pali/02)**
What are the dust suppression techniques followed for site and if any dust was noted to escape the site boundaries;	Presently dust problem is not noticed at pipe laying sites during site visit but dust problem was noted at STP site	Dust problem noticed at STP, Molaipura site	Physical Works just started
If muddy water was escaping site boundaries or muddy tracks were seen on adjacent roads;	No such issues presently at site	No such issues noticed	
adequacy of type of erosion and sediment control measures installed on site, condition of erosion and sediment control measures including if these were intact following heavy rain;	No erosion problem noticed at site	No erosion and sedimentation problem was noticed at any site	
Are their designated areas for concrete works, and refueling;	Presently concrete works are being at STP site, refueling is being done at petrol pumps only	Concrete works are done at designated areas at STP sites, refueling is not done at site rather is done at petrol pumps	
Are their spill kits on site and if there are site procedure for handling emergencies;	Spill kits are available at site and emergency preparedness is active	No spill kits available at site and no emergency preparedness noticed	
Is there any chemical stored on site and what is the storage condition?	No chemical stored at site	No chemical is stored at any site	
Is there any dewatering activities if yes, where is the water being discharged;	No any dewatering activities being done at sites	Dewatering is being done at STP Soran site and dewatered water is being used for curing and sprinkling on dust	
How are the stockpiles being managed;	Stockpiles are covered by tarpaulin sheets	Stockpiles are having safe slopes and limited height	
How is solid and liquid waste being handled on site;	Solid waste is being managed through municipal waste disposal, no liquid waste is reported except waste water from workers camps treated through soak pit	Solid waste is being disposed through municipal system and no liquid waste is being generated	
Review of the complaint management system;	Complaints are being registered in grievance register and being sort out by contractor under PIU and PMDSC	Complaint is recorded in grievance register with all the information like date of complaint, action taken, date of resolve	
Checking if there are any activities being under taken out of working hours and how that is being managed.	Contractor is doing night work as per night work plan with all the basic requirement fulfilled	Night work is not being done	

V. OVERALL COMPLIANCE WITH EMP IN DIFFERENT PACKAGES

Table-10: overall Compliance with EMP

No.	Sub-Project Name	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.	RUSDP/Pali /01 (Pali water supply and sewerage works)	Yes	Yes	Satisfactory	Improvements in traffic sign boards, advance information to nearby people and dust control, timely environmental monitoring is needed
2.	RUSDP/Pali/02 (Bulk water system for Pali)	Works just started compliance of EMP will be provided in next SEMR			
3.	RUSDP /Tonk/01 (Tonk Water Supply and Sewerage works)	Yes	Yes	Partially satisfactory	Improvements in housekeeping in labor camps, use of full PPEs, provision of mobile toilets, timely environmental monitoring
4.	RUSDP/Gang/01	Contractor not mobilized at site			
5.	RUSDP/Jhun/01	Contractor not mobilized at site			
6.	RUSDP/Hanu/01	Works not awarded			
7.	RUSDP/Bhil/01	Works not awarded			

VI. APPROACH AND METHODOLOGY FOR ENVIRONMENTAL MONITORING OF THE PROJECT

10. **Institutional Arrangement for Environmental Monitoring.** For the measurement of effectiveness of the environmental performance of contractor, regular environmental monitoring is required. In RUSDP there is well established organizational structure for environmental monitoring. Project Officer (Environment) in PMU is overall looking environmental issues in the project. Assistant Safeguard Officers (ASO) deputed in each PIU will be responsible for day to day monitoring of environmental performance of project contractor. In PMDSC Environment Safeguard Specialist (ESS) is deputed intermittently with support of safeguard support staff who is responsible for preparation/update the IEE/EMP and environmental monitoring during construction phase. He will support PO (Environment) at PMU and ASOs at PIUs in

implementation, management and monitoring of all safeguard related activities. The consultant team also includes an Assistant Construction Manager at each PIU responsible for the construction supervision including environmental safeguards at subproject town level. CAPC will support PIU in construction facilitation, community consultation and grievance registration and redress during the construction.The contractor is required to appoint an Environment, Health and Safety (EHS) supervisor who will be 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, ASO&ESS); (iii) community liaison, consultations with interested/affected parties, and grievance redress; and (iv) reporting.

11. **Site visits.** Site visit is carried out by safeguard team which includes PMDSC environmental and social specialist and/or 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 team visits all the working sites along with town consultants/PIU engineers, contractor's EHS supervisor and site engineers and verifies 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.

12. **Document Checks.** At project office and during visit to project towns various documents related to environmental compliance are regularly checked by ESS. Main documents checked are PUC of contractor's vehicles, contractors HSE plan, 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.

13. **Consultations.** Consultation is a process in the project cycle in which an attempt is made to involve the public as stakeholders in project preparation 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 eradicate hurdles in the way of the project. Consultation during project preparation as an integral part of the social assessment process not only minimizes the risks and unwanted propaganda against the project

but also removes the gap between the community and the project formulators, which leads to timely completion of the project and making the project people friendly.

14. 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.

15. 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 APs 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

16. **Monitoring of ambient environmental conditions.** Environmental Monitoring for ambient air, noise, water and soil is being carried out six monthly in all project towns. The details of environmental monitoring are described in following paragraphs.

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

17. Before start of project activities baseline monitoring is being done in each project towns at prominent locations identified in IEE to access the initial conditions of environment in the project areas. During construction phase monitoring for ambient environmental conditions (air, water, noise and soil) is conducted on six-monthly 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 PMU. Monitoring results are compared from baseline data and/or national standards and if

unacceptable deviation is found, mitigation measures are prepared by ESS of PMDSC and conveyed to contractor for compliance. Type of environmental monitoring with parameters and location is given in following **Table 11** and method of monitoring and equipment used is given in **Table 12.**

Table-11: 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, ESRs, 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, ESRs, 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, ESR

Table 12: Method of monitoring and equipments used

S.No.	Parameter of monitoring	Equipments used	Methodology	Protocol of test
Air Quality				
1.	PM10	Fine Particulate Sampler (Envirotech APM 550)	Collection of particulate matter on filter papers and gravimetric analysis	IS 5182(part 23): 2006
2	PM2.5	PM2.5 sampler (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 (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	Absorption of a gases	IS 5182 (part VI):2006

S.No.	Parameter of monitoring	Equipments used	Methodology	Protocol of test
		with gaseous attachment (Envirotech APM 460BL), UV/VIS spectrophotometer	in liquid absorbent and analysis by Modified Jacob and Hochheiser (Na-arsenite)	
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
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

S.No.	Parameter of monitoring	Equipments used	Methodology	Protocol of test
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

VIII. RESULTS OF ENVIRONMENTAL MONITORING (DURING JULY-DEC. 2016)

1. Tonk

A. Ambient Air Monitoring

Date of Monitoring	Locations	Results				
		CO (mg/m^3)	$NO_2(\mu g/m^3)$	$SO_2(\mu g/m^3)$	$PM_{10}(\mu g/m^3)$	$PM_{2.5}(\mu g/m^3)$
10.11.2016	Pipe Laying Site at Civil Line	590	26.10	10.90	156.40	69.50
09.11.2016	Near STP site, Soran	1100	31.10	15.20	269.40	76.80
09.11.2016	Near STP site, Molaipura	590	28.40	11.80	141.60	56.20
10.11.2016	Near SPS site, Bhikapura	500	24.80	8.30	97.20	48.50
11.11.2016	Near Labour Camp	450	23.40	9.40	108.70	54.30
National Standards/ Limit		***2000 (8 hours avg.)***	**80**	**80**	***100***	***60***

B. Ambient Noise Monitoring

Date	Locations	Leq day time dB(A)	Leq night time dB(A)
	National Standard/ Limit	**55**	**45**
10.11.2016	Pipe Laying Site at Civil Line	60.70	43.50
09.11.2016	Near STP site, Soran	64.90	41.40
09.11.2016	Near STP site, Molaipura	66.30	44.20
10.11.2016	Near SPS site, Bhikapura	42.60	39.70
10.11.2016	Near Labour Camp at Molaipura	53.40	42.10
National Standard/ Limit (Residential)		**55**	**45**
National Standard/ Limit(Commercial)		**65**	**55**

C. Surface Water Quality

Date of monitoring- 14.11.2016

S.No	Parameters	Units	Standards As per IS 10500:2012		Tolerance Limits	Results
			Desirable Limits	Permissible Limits in absence of alternate source	As per IS 2296-1982	STP site, Soran
1	pH	-	6.5 to 8.5	NR		7.69
2	Turbidity	NTU	1	5		<1.0

S.No	Parameters	Units	Standards As per IS 10500:2012		Tolerance Limits	Results
			Desirable Limits	Permissible Limits in absence of alternate source	As per IS 2296-1982	STP site, Soran
3	Total Suspended Solids (TSS)	mg/l				89.0
4	Total Dissolved Solids (TDS)	mg/l	<500	<2000		1910
5	Total Hardness as $CaCO_3$	mg/l				133.28
6	Nitrate as NO_3	mg/l	<45	NR		
7	Chloride as Cl	mg/l	<250	<1000		254.10
8	Sulphate as SO_4	mg/l	<200	<400		134.71
9	Iron as Fe	mg/l	<0.3			0.21
10	Fluoride as F	mg/l	<1.0	<1.5	1.5	1.96
11	Zinc as Zn	mg/l	<5.0	<15		N.T
12	Copper as Cu	mg/l	<0.05	<1.5		N.T
13	Manganese as Mn	mg/l	<0.1	<0.3		N.T
14	Mercury as Hg	mg/l	<0.001	N.T.		N.T
15	Cadmium as Cd	mg/l	<0.003	N.T.		N.T
16	Chromium as Cr^{+6}	mg/l			1.0	N.T
17	Arsenic as As	mg/l	<0.01	<0.05	0.2	N.T
18	Lead as Pb	mg/l	<0.01	N.T.		N.T
19	Dissolved Oxygen (DO)	mg/l			5.0	6.3
20	Biochemical Oxygen Demand (BOD)	mg/l			3.0	2.7
21	Chemical Oxygen Demand (COD)	mg/l				12.31
22	Cyanide as CN	mg/l	0.05	NR	0.05	Absent
23	Boron as B	mg/l	0.5	1.0		0.18
24	Selenium as Se	mg/l	0.01	NR		N.T
25	Aluminium as Al	mg/l	0.03	0.2		N.T
26	Chlorine (residual free)	mg/l				<0.01
27	Calcium as Ca	mg/l	75	200		40.84
28	Magnesium as Mg	mg/l	30	100		7.63
29	Potassium	mg/l				26.22
30	Sodium	mg/l				468.0

D. Ground Water Quality

Date of monitoring-14.11.2016

S.No	Parameters	Units	Standards As per IS 10500:2012		Results		
			Desirable Limits	Permissible Limits in absence of alternate source	Near STP site, Soran	Near STP site, Molaipura	Near SPS site, Bhikapura
1	pH	-	6.5 to 8.5	NR	7.25	7.45	7.39
2	Total Dissolved Solids (TDS)	mg/l	<500	<2000	2322.0	353.0	2294
3	Total Hardness as $CaCO_3$	mg/l	<200	<600	490	113.68	874.16
4	Total alkanity as $CaCO_3$	mg/l	<200	<600	883.57	132.82	571.72
5	Nitrate as NO_3	mg/l	<45	NR			
6	Chloride as Cl	mg/l	<250	<1000	414.91	75.43	831.79
7	Sulphate as SO_4	mg/l	<200	<400	432.17	30.07	174.25
8	Iron as Fe	mg/l	<0.3		0.2	0.12	0.16
9	Fluoride as F	mg/l	<1.0	<1.5	1.63	0.31	1.07
10	Zinc as Zn	mg/l	<5.0	<15	N.T	0.03	N.T
11	Copper as Cu	mg/l	<0.05	<1.5	N.T	N.T.	N.T
12	Manganese as Mn	mg/l	<0.1	<0.3	N.T	N.T.	N.T
13	Mercury as Hg	mg/l	<0.001	N.T.	N.T	N.T.	N.T
14	Cadmium as Cd	mg/l	<0.003	N.T.	N.T	N.T.	N.T
15	Chromium as Cr^{+6}	mg/l	<0.05	N.T.	N.T	N.T.	N.T
16	Arsenic as As	mg/l	<0.01	<0.05	N.T	N.T.	N.T
17	Lead as Pb	mg/l	<0.01	N.T.	N.T	N.T.	N.T
18	Phosphate as PO_4	mg/l	-	-	-	-	-
19	Phenolic compound	mg/l	<0.001	<0.002	N.T.	N.T.	N.T.

IX. NATIONAL STANDARDS

A. National Ambient Air Quality Standards

Sl No:	Pollutants	Time weighted average	Concentration in ambient air		Method of measurement
			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
2	Nitrogen Dioxide (NO_2) µg/m^3	Annual 24 hours	40 80	30 80	Modified Jacob &Hochheiser (Na-Arsenite) Chemiluminescence
3	Particulate Matter (Size less than 10 µm) or PM10 µg/m^3	Annual 24 hours	60 100	60 100	Gravimetric -TOEM -Beta attenuation
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
5	Carbon Monoxide (CO) µg /m^3	8 hours 1 hours	02 04	02 04	Non Dispersive Infra Red (NDIR) Spectroscopy

B. National Ambient Air Quality Standards in Respect of Noise

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

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

C. Drinking Water Quality Standards (As per IS 10500:2012)

Table 1: 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 2: 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), mg/l, *Max*	0.5	No relaxation	IS 3025 (Part 34)	—
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 infection is required, it should be 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 provided 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 carbonate, mg/l, *Max*	200	600	IS 3025 (Part 23)	—
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

D. 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}

X. SUMMARY OF KEY ISSUES AND REMEDIAL ACTIONS

18. During site visits to project towns by safeguard team of PMDSC following key issues were identified and conveyed to PIU/Contractor for remedial action-

S.N.	Key issues	Remedial action required	Responsibility	Time for remedial action
Pali/01				
1	Traffic Sign Boards	Proper display	Contractor	Immediately
2.	Advance Information To Nearby People	Outreach team of the contractor under supervision of CAPC consultants to outreach all the areas.	Contractor	Regularly
3.	Dust Control	Regular Sprinkling of water should be conducted	Contractor	Immediately
4.	Timely environmental monitoring	Regular Monitoring to be conducted by the contractor and reported to Client.	Contractor	By Nov 2016 and later regularly after laps of 06 months.
Tonk				
1	Improvements in housekeeping in labor camps,	Suggested regular Housekeeping and regular removal/ disposal of solid waste.	Contractor	Immediately
2	Sanitation	Regular cleaning of Toilet and training of workers for utilization of facilities.	Contractor	Immediately
3	Use of PPEs	Contractor to ensure that every labor (permanent/ temporary) should use full PPE's based on the nature of work. Regular training for utilization of PPE's to be provided by the HSE personnel of contractor. Training for specialized	Contractor	Immediately

S.N.	Key issues	Remedial action required	Responsibility	Time for remedial action
		nature of work to be given to labours.		
	Dust Control	Regular Sprinkling of water without failure should be conducted	Contractor	Immediately
4	Record keeping	Proper records of Labor, Insurance, wages, PUCs etc should be kept ready at site and at central office.	Contractor	Immediately
5	Mobile toilets and drinking water facilities.	Contractor to ensure Mobile Toilets and Drinking water facilities for all sites.	Contractor	15 Jan 2017
6	timely environmental monitoring	Regular Monitoring and monitoring of collection points to be conducted by the contractor and reported to Client.	Contractor	Regularly after laps of 06 months.

XI. ORIENTATIONS FOR SAFEGUARDS

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

20. During the reporting period following safeguard orientations were done (**Photographs attached as Appendix 7**) -

Table 13: Safeguard Orientations Done during July-December 2016

S.N.	Orientation/training	Date	Town/ place	Demonstrators	Participants
1.	Orientation with the contractor on Social and Environment issues (package: RUSDP/Tonk /01) for social and environmental safeguards	31.08.2016	Tonk	Mr. Mukesh Moolrajani, Mr. Rishikesh Sharma, Safeguard Support, PMDSC	Mr. Yashbeer Vedwal, Site engineer, Ramnivas, foreman, Rishabh, site engineer, Sajal Srivastava, social expert, all from TWSL
2.	On site orientation for workers and supervisors (package: RUSDP/Tonk /01) for social and environmental safeguards	28.09.2016	Tonk	Mr. Abhay Srivastava, Environment Specialist, PMDSC Dr. Jyotidhari Singh, Resettlement Expert, PMDSC	Ramnivas, foreman, Rishabh, site engineer, Sajal Srivastava, social expert, Manish Srivastava, Environment Expert and others, all from TWSL
3.	Orientation with the contractor on Social and Environment issues	08 & 09 Nov. 2016	Pali	Mr. Abhay Srivastava (Environment Specialist, PMDSC)	Mr. Roopesh Jain, HSE officer, L&T Mr. Sushil Kumar, IR

S.N.	Orientation/training	Date	Town/ place	Demonstrators	Participants
	(package: RUSDP/Pali /01) for social and environmental safeguards			Mr. Jyotidhari Singh (Resettlement Expert, PMDSC) Mr. Mukesh Moolrajani, (Safeguard Support, PMDSC)	Officer, L&T, Mr. Devender, Social Expert, CAPC Workers and supervisors of M/s L&T
	Orientation with the contractor on Social and Environment issues (package: RUSDP/Pali /02) for social and environmental safeguards				Sh. Jitesh Rathi (Project Manager) Sh. Virendra Singh Ji Site Engineer
4.	On site orientation for workers and supervisors (package: RUSDP/Tonk /01) for social and environmental safeguards	17 Nov. 2016	Tonk	Mr. Mukesh Moolrajani, Mr. Rishikesh Sharma (Safeguard Support, PMDSC)	Sajal Srivastava, Social Expert, Manish Anand, HSE officer, Workers and others, all from TWSL
5.	On site orientation for workers and supervisors (package: RUSDP/Tonk /01) for social and environmental safeguards	29.12.2016	Tonk	Mr. Abhay Srivastava, Environment Specialist, PMDSC Mr. Mukesh Moolrajani, Mr. Rishikesh Sharma (Safeguard Support, PMDSC)	Sajal Srivastava, Social Expert, Manish Anand, HSE officer, Workers and others, all from TWSL

XII. PUBLIC CONSULTATION & GRIEVANCE REDRESS MECHANISM

A. PUBLIC CONSULTATION

21. Periodical monitoring is being conducted by environmental specialist of PMDSC through site visits which includes public consultations with project stakeholders including residents and shop owners, road users, public representatives etc, documents checking including environmental monitoring for ambient air and noise conditions and water quality analysis through third party monitoring agencies. Summary of consultations done during July to December 2016 is given in following table-

SUMMARY OF CONSULTATIONS DURING JULY to DECEMBER 2016
Consultation Report Tonk (date. 31.08.2016)

S.No.	Place of Consultation	Works being executed at/near site	Persons consulted	Topic Discussed during consultation	Output of consultations
1.	Bhikhapura Village Tonk (Near SPS Site)	Water Pipeline work at Village Bhikhapura	1. Shyam Lal Mali, Chandmal Saini 2. Vishnu Saini 3. Pooranman Saini 4. Nathulal Saini 5. Mahendra Saini, Hiralal	Execution of work Complaints Suggestions	Residents are pleased with the work and cooperated during the work and no

S.No.	Place of Consultation	Works being executed at/near site	Persons consulted	Topic Discussed during consultation	Output of consultations
			Saini, Bharat Saini 6. Nirmala Saini 7. Ram Lakhan Saini		complaints related to work reported. People are eager for water connections and willing to pay.

Consultation Report Tonk (date. 17.11.2016)

S.No.	Place of consultation	Works being executed at/near site	Persons consulted	Topics discussed during consultation	Outcome of consultation
1.	Tagor Chauraha, Tonk	Laying of 110 mm DI pipe for water supply	1. Brijmohan Saini, Tea seller (AP) 2. Gayrshi Lal Saini, Tea seller (AP) 3. Kamlesh Saini, Fruit/vegetable seller (APs)	Difficulties due to construction works like loss of access, dust problem, noise problem, destruction of utilities, any other complains	Access were left for vendors, no dust and noise problem, work was satisfactory
2	Tagor Chauraha, Tonk (Bahir Road Near Hospital)	Laying of 110 mm DI pipe for water supply	Bhawar Lal, Tea seller (other vendor – shifted to this location) Kamlesh Saini, Fruit/vegetable seller (AP)	Influx of vendors near hospital at Bahir Road Tegore Chora	The no. of vendors like snacks vendors, Vegetable vendors in the area has increased in last 2-3 months due to start of New Maternity Govt. Hospital.
3.	Tagor Chauraha, Tonk (Permanent Shops at Bahir Road)	Laying of 110 mm DI pipe for water supply	Shop Owners	Dissemination of information	Prior Information about the work schedule not provided. Provisions of Grievance registration not known.

Consultation Report Tonk (dtd. 29.12.2016)

S.No.	Place of consultation	Works being executed at/near site	Persons consulted	Topics discussed during consultation	Outcome of consultation
1.	Near Women Hospital	Laying for water supply line (completed in Nov. 2016)	1. Mahesh Khandelwal 2. Meghraj 3. Bhawani Shankar (Permanent shops)	Difficulties due to construction works like loss of access, dust problem, noise problem, destruction of	Access were left for shops, no dust and noise problem, no damage to utilities were done, work was satisfactory

S.No.	Place of consultation	Works being executed at/near site	Persons consulted	Topics discussed during consultation	Outcome of consultation
				utilities, any other complaints	
2	Near Women Hospital	Laying of Sewer Line	1) Shankar lal Mahawar, Fruit Vendor 2) Mr. Mohan Ahuja, ND Medicals (permanent Shop owner)	Difficulties due to construction works like loss of access, dust problem, noise problem, destruction of utilities, any other complaints. Prior information of work and grievance mechanism.	• Access were left for shops, no dust and noise problem, damage to utilities were done and restored, however contractor could have done it promptly, work was satisfactory over all. • Prior information of work not provided.
3	Soran village near STP Site	Construction of STP	1. Kamlal W/o Devlal Gujar 2. Kalu Bheel (Residents)	Difficulties due to construction works dust problem, noise problem, any other complaints	• No dust and noise problem, work is being done satisfactorily and no problem is reported from current work. However dumping of waste (by Nagar Parishad) is causing nuisance to villagers. • Lack of project related information in villagers was noticed.
4	Mahadev wali, Shiv Shakti Nagar	Sewer Line 200 mm dia.	1. Dr. K. L. Gurjar (resident) 2. Dr. Rameshwar Sharma (resident) 3. Madhu Sharma (Corporator)	Difficulties due to construction works dust problem, noise problem, any other complaints	• No dust and noise problem, work is being done satisfactory and no problem is reported from current work. • Project related information is not provided in the area however, street wise information is being provided related to civil work 1-2 days in advance. No display board and understanding of grievance procedures.

Consultation Report Pali (Dtd. 09.11.2016)

S.N.	Place of Consultations	Works being executed at/near site	Persons consulted	Topics discussed during consultation	Outcome of consultation
1	Near Anubrata Dwar/ Tilak Nagar Road	Water supply pipe line layed	1.Mr. Pintu Mistry, Lucky Auto Centre 2. Mr. Paras Mal, Dilkhush Hair Cutting Saloon	Impact Mitigation, Dissemination of Information, Feed Back	• No impact on livelihood as the work was executed on holiday when the shops were closed.
2	Pratap Chowk Area, near Raiko Ki Dhani	Sewer pipe laying and water supply pipe laying (110 mm)	1.Mr.BhagirathJi (Plot no. 267) 2. Bagda Ram Singhania, Manoj Singhania, Provision Store	Dissemination of Information, Feed Back	• No prior information about work to be taken up provided, • The work was completed in reasonable time and access to all the houses was maintained. • Contractor did a good job and no temporary inconvenience was observed.
3	Society Nagar (Work under progress)	water supply pipe laying (110 mm)	1.Ganga Ram, 2.Navin, 3.Jayant, (H.no.492) 4.Pukraj Mewada 5. Damodar Meena 6. Ravi Parihar (H.no. 649)	Dissemination of Information, Feed Back of works done	• No prior information about work to be taken up provided, • People face problems due to existing water Lines broken, though these are repaired within time
4	Shahid Bhagat Singh (BPL) Colony and Gandhinagar Area	House Connection of water supply	1. Md. Shah, A/50, 2. Sarvan, A/60 3. Vinod, A/61 4. Mrs. Champa Devi A/52)	Dissemination of Information, Feed Back of works done	• No inconvenience during work execution. • Problems in taking connections due to lack of documents required.
5	Shashtri Nagar	House Connection of water supply	Shaitan Singh, Dhanlaxmi Kirana Store	Dissemination of Information, Feed Back of works done	No issues, work satisfactory

Photographs of consultations are attached as **Appendix 2**.

B. PROJECT-SPECIFIC GRIEVANCE REDRESS MECHANISM

22. A project-specific grievance redress mechanism (GRM) is established to receive, evaluate, and facilitate the resolution of AP's concerns, complaints, and grievances about the social and environmental performance at the level of the project. The GRM aims to provide a time-bound and transparent mechanism to record and resolve social and environmental concerns linked to the project. A common GRM is in place for social, environmental, or any other grievances related to the project; the resettlement plans (RPs) and IEEs will follow the GRM described below. The GRM provides an accessible and trusted platform for receiving and

facilitating resolution of affected persons' grievances related to the project. The multi-tier GRM for the project is outlined below, each tier having time-bound schedules and with responsible persons identified to address grievances and seek appropriate persons' advice at each stage, as required.

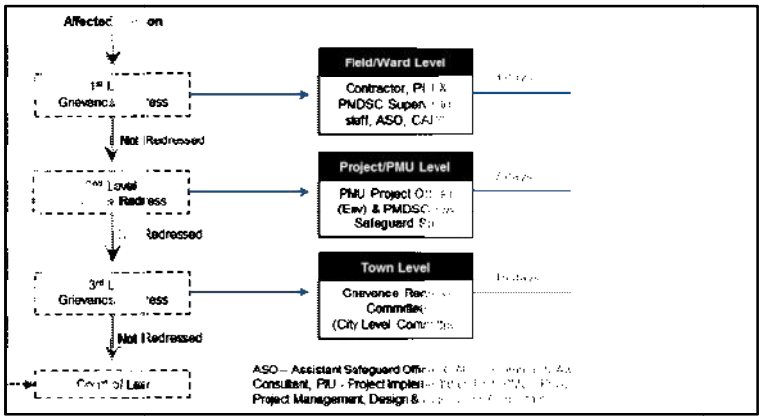
23. ULB/ PIUs (wide public awareness campaigns through CAPC) are ensuring that awareness on grievance redress procedures is generated through the campaign. PIU Assistant Safeguards Officer (ASO)/ Nodal officer through Community Awareness and Participation Consultant (CAPC) will conduct ULB-wide awareness campaigns to ensure that poor and vulnerable households are made aware of grievance redress procedures and entitlements.

24. APs have the flexibility of conveying grievances/suggestions by dropping grievance redress/suggestion forms in complaints/suggestion boxes or by e-mail, by post, by telephone, or by writing in a complaint register in ULB/PIU offices. 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 are being undertaken by CAPC. The PMU Project Officers (Environment & Social) will have the overall responsibility for timely grievance redress respectively on environmental and social safeguards issues and for registration of grievances, related disclosure, and communication with the aggrieved party through the PIU ASO/ Nodal officer. (Refer **Appendix 6** for status of Grievances during reporting period).

Grievance Redress Process

25. In case of grievances that are immediate and urgent in the perception of the complainant, the contractor, and supervision personnel from PIU and PMDSC on-site provides the most easily accessible or first level of contact for quick resolution of grievances. Contact phone numbers and names of the concerned PIU Assistant Safeguards Officer, contractors, are posted at all construction sites at visible locations.

FIGURE 7: GRIEVANCE REDRESS PROCESS



(i) **1st level grievance**. The contractors, PIU supervision personnel, PIU Assistant Safeguards Officer and implementing NGO/CAPC[1] can immediately resolve issues on-site in consultation with each other, and will be required to do so within 3 days of receipt of a complaint/grievance.

(ii) **2nd level grievance**. All grievances that cannot be redressed within 3 days at field/ward level will be brought to the notice of respective Project Officers (Environment/Social) of PMU. PMU POs will resolve the grievance within 7 days of receipt of compliance/grievance in discussion with the PIU, CAPC and the Contractor. PMDSC will assist POs in resolving the issue.

(iii) **3rd level grievance**. All the grievances that are not addressed by PMU within in 7 days of receipt will be brought to the notice of notice of the Grievance Redress Committee (GRC). The City Level Committee (CLC) that will be established in every project town will act as GRC[2]. GRC will meet twice a month and determine the merit of each grievance brought to the committee. The PIU ASO will be responsible to see through the process of redress of each grievance. The GRC will resolve the grievance within 15 days of receiving the complaint.

(iv) **4th level grievance**. Very major issues that are beyond the jurisdictional authority of the CLC or those that have the potential to cause social conflicts or environmental damage or those that remain unresolved at PMU/CLC level, will be referred to the Empowered Committee (EC)[3]. All decisions taken by the GRC and PSC will be communicated to the APs by the PIU ASO.

26. 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. Alternatively, if the grievance is related to land acquisition, resettlement & rehabilitation, the APs can approach the Land Acquisition, Rehabilitation and Resettlement Authority (LARRA). As per the latest

[1] Community Awareness and Public Participation (CAPC) will oversee the matters if there is no Resettlement Plan (RP) Implementing NGO

[2] City Level Committees (CLC) is formed at town-level with members composed of: District Collector (DC) as Chairperson, and following as members: ULB Commissioner; Assistant Safeguards Officer PIU; representative from RPCB regional office; and one representative each from relevant government departments as appropriate (PWD / PHED / DAM etc). All town-level GRCs will have at least one woman member/chairperson. In addition, for project-related grievances, representatives of APs, community-based organizations (CBOs), and eminent citizens will be invited as observers in GRC meetings

[3] The Empowered Committee (EC) will be chaired by the Minister of Urban Development and Housing, and members will include Ministers, Directors and/or representatives of other relevant Government Ministries and Departments

Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act, 2013, the state government will have to establish the LARRA to address grievances in implementation of LARRA.

27. In the event that the established GRM is not in a position to resolve the issue, the affected person also can use the ADB Accountability Mechanism through directly contacting (in writing) the Complaint Receiving Officer (CRO) at ADB headquarters or the ADB India Resident Mission (INRM). The complaint can be submitted in any of the official languages of ADB's DMCs. The ADB Accountability Mechanism information will be included in the PID to be distributed to the affected communities, as part of the project GRM.

XIII. CONCLUSION

28. Under RUSDP out of six towns, physical works are under progress in 02 towns. As per observations on site at Pali/01 the work is being executed satisfactorily with due importance to all the provisions of EMP and complying all the national and state laws. Few minor issues which require further compliance have been communicated to the contractor/PIU and it is expected that the compliance to the same will be made shortly. ADB SPS is being complied in all respect.

29. As per observations on site at Pali/02, the work contractor has done the required procurement and physical work of staff quarters has started in WTP in the month of December. Contractor has been oriented about requirements of ADB safeguard policy and EMP and is in process to set up the infrastructure of for compliances of EMP. Application for Consent to Establish for proposed WTP (30 MLD) is applied in RPCB (online system). As of now ADB SPS is being complied.

30. As per observations on site at Tonk/01 the work is being executed and is partially satisfactorily in terms of safeguards. Issues related to EHS are partially complied on site and PIU/employer representative/contractor is being notified through site visit reports and it is expected that all these issues will be resolved so that necessary compliance to ADB SPS is achieved.

APPENDIX 1: PHOTOS OF SITE VISITS AND CONSTRUCTION WORKS DURING JULY-DEC. 2016

1. PACKAGE: PALI/01

Barricades provided at STP site

Caution and signage displayed at site

Use of PPEs by workers at site

Fire extinguisher provided at labour camp

Portable access for residents

Training Center established for EHS Training at Labor Camp

Covered Water Tanks (for bathing) at Labor Camp

Display of safety cautions posters at worker training centre

Creche Established by Contractor at Labor Camp

Drinking Water Facilities Provided by Contractor at Labor Camp

Discussion with contractor's HSE personnel for labour issues

Execution of Water Supply Pipe laying works

2. PACKAGE: Pali/02

Office established by Contractor at WTP Site

Preparatory Work being done at WTP Site

Project Information Board at WTP Site

Material Unloading at WTP Site

3. PACKAGE: Tonk/01

Barricades provided at pipe laying sites

Caution and signage displayed at site

Improper arrangements for access to residents

Use of PPEs by workers at site

Project Information Board at STP Site

First Aid Facilities at labour camp at STP Site

Properly enclosed Mixers provided at STP Site

Labor Job Cards issued by Contractor

Barricades provided at Water Supply Pipe laying site

APPENDIX 2: PHOTOGRAPHS OF CONSULTATIONS DURING JULY-DECEMBER 2016

1. PACKAGE: PALI/01

Public consultations at Society Nagar

Public consultations at Society Nagar

Public consultations Near Pratap Chowk

Public consultations Near Pratap Chowk

Public consultations at Tilak Nagar Road

Public consultations at Shahid Bhagat Singh Colony

2. PACKAGE: TONK/01

Photographs of consultations (dtd. 31.08.2016)

Public Consultation at Village Bhikapura

Photographs of consultations (dtd. 17.11.2016)

Photographs of consultations (Dtd. 29.12.2016)
Consultation near Women Hospital



Consultations at Vill. Soran, near STP site


Consultation at Shiv Shakti Colony


APPENDIX 3: COPIES OF ENVIRONMENTAL CLEARANCES AND PERMITS

A. Consent to Establish for 4 MLD STP at Village Soran, District Tonk

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No : G(Plan)/1000/1836(1)/2016-2017/5228-5230 5228
Order No : 2016-2017/PLG/1008
Dispatch Date: 27/07/2016
Unit Id : 71768

M/s Sewage Treatment Plant, Vill.-Soran, Tonk

Commissioner, Nagar Parishad, Near Ghanta Ghar, Tonk , Tonk

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 15/10/2015 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 **Sewage Treatment Plant Vill Soran plant** situated / proposed at **Kharsra no 100, 101, 116/3, Village Soran Village Soran District Tonk Tehsil:Tonk District:Tonk** , 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 **02/11/2015** to **31/10/2018 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	4 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.

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

Signature valid

Page 1 of 4

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No : G(Plan)/1000/1836(1)/2016-2017/5228-5230
Order No : 2016-2017/PLG/1008
Unit Id : 71768
Dispatch Date: 27/07/2016

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	4000.000	NIL	4,000.000 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 **On Land for irrigation**. The main parameters for regular monitoring shall be as under.

Parameters	Standards
Total Suspended Solids	Not to exceed 100 mg/l
pH Value	Between 5.5 to 9.0
Oil and Grease	Not to exceed 10 mg/l
BOD (3 days at 27C)	Not to exceed 30 mg/l

7 That the unit shall not make any obstacles to any natural water flow i.e, natural nallah/stream carrying rain water to any water body.
8 That the water flow meters shall be provided at all suitable points to measure quantity of daily waste water generation, waste water treated and treated waste water utilized for irrigation, plantation/gardening purposes, daily record of the same shall be maintained and to be submitted to the Board.
9 That the unit shall install disinfection arrangement for treated sewage before utilization of the same for agriculture, irrigation, plantation/gardening etc.
10 That the unit shall not discharge any treated untreated effluent into any stream/Nallah which is ultimately terminating into any water body.
11 That the unit shall not install any air pollution source i.e, D.G. Set etc. without prior permission of the Board under the Air Act, 1981.
12 That the consent to operate under the water Act, 1974 from the State Board shall be obtained before commissioning of the STP.

Signature Valid

Page 2 of 4

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302
Phone: 0141-5159600,5159695 Fax: 0141-5159697

004

Registered

File No : G(Plan)/1000/1836(1)/2016-2017/5228-5230
Order No : 2016-2017/PLG/1008
Unit Id : 71768
Dispatch Date: 27/07/2016

13 **That the Municipality shall ensure that the work of laying down of sewerage network alongwith house connections is also completed simultaneously with the construction work of STP.**

14 That, not withstanding anything provided hereinabove, the State Board shall have power and reserves its right, as contained **section 27(2) of the Water Act** to review anyone or all the conditions imposed here in above and to make such variation as it deemed fit for the purpose of compliance of the **Water Act.**

15 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.

16 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, beside 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 the relevant provisions of the said Act(s).

This bears the approval of the competent authority.

Yours Sincerely

Group Incharge[PLG]

Signature valid

Page 3 of 4

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No : G(Plan)/1000/1836(1)/2016-2017/5228-5230
Order No : 2016-2017/PLG/1008 **Dispatch Date:** 27/07/2016
Unit Id : 71768

Copy To:-

1 Regional Officer, Regional Office, Rajasthan State Pollution Control Board, Kishangarh-With directions to ensure the compliance of consent conditions.
2 Master File.

Group Incharge[PLG]

Signature Valid

Page 4 of 4

B. Consent to Establish Issued for STP 16 MLD, Village Molaipura, District Tonk

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No : F(Plan)/Tonk(Tonk)/1837(1)/2016-2017/5225-5227 5225
Order No : 2016-2017/PLG/1009 **Dispatch Date:** 27/07/2016
Unit Id : 78848

M/s Commissioner, Nagar Parishad, Tonk
Nagar Parishad Office, Near Ghanta Ghar , Tonk

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 08/03/2016 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 **Sewage Treatment Plant 16 MLD Tonk plant** situated / proposed at **Khasra no2, Village Molaipura Tonk Tehsil:Tonk District:Tonk** , 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 **21/03/2016** to **28/02/2019 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	16 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.

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

Signature valid

Page 1 of 4

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No : F(Plan)/Tonk(Tonk)/1837(1)/2016-2017/5225-5227
Order No : 2016-2017/PLG/1009
Unit Id : 78848
Dispatch Date: 27/07/2016

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	16000.000	16.000	15,984.000 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 **On Land for irrigation**. The main parameters for regular monitoring shall be as under.

Parameters	Standards
Total Suspended Solids	**Not to exceed 100 mg/l**
Oil and Grease	**Not to exceed 10 mg/l**
Chemical Oxygen Demand	**Not to exceed 250 mg/l**
BOD (3 days at 27C)	**Not to exceed 30 mg/l**

7 **That the unit shall not make any obstacles to any natural water flow i.e, natural nallah/stream carrying rain water to any water body.**
8 **That the water flow meters shall be provided at all suitable points to measure quantity of daily waste water generation, waste water treated and treated waste water utilized for irrigation, plantation/gardening purposes, daily record of the same shall be maintained and to be submitted to the Board.**
9 **That the unit shall install disinfection arrangement for treated sewage before utilization of the same for agriculture, irrigation, plantation/gardening etc.**
10 **That the unit shall not discharge any treated untreated effluent into any stream/Nallah which is ultimately terminating into any water body.**
11 **That the unit shall not install any air pollution source i.e, D.G. Set etc. without prior permission of the Board under the Air Act, 1981.**
12 **That the consent to operate under the water Act, 1974 from the State Board shall be obtained before commissioning of the STP.**

Signature Valid

Page 2 of 4

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No : F(Plan)/Tonk(Tonk)/1837(1)/2016-2017/5225-5227
Order No : 2016-2017/PLG/1009
Unit Id : 78848 **Dispatch Date:** 27/07/2016

13 **That the Municipality shall ensure that the work of laying down of sewerage network alongwith house connections is also completed simultaneously with the construction work of STP.**

14 That, not withstanding anything provided hereinabove, the State Board shall have power and reserves its right, as contained **section 27(2) of the Water Act** to review anyone or all the conditions imposed here in above and to make such variation as it deemed fit for the purpose of compliance of the **Water Act.**

15 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.

16 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, beside 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 the relevant provisions of the said Act(s).

This bears the approval of the competent authority.

Yours Sincerely

Group Incharge[PLG]

Signature valid

Page 3 of 4

Rajasthan State Pollution Control Board
4, Institutional Area, Jhalana Doongari, Jaipur-302 004
Phone: 0141-5159600,5159695 Fax: 0141-5159697

Registered

File No : F(Plan)/Tonk(Tonk)/1837(1)/2016-2017/5225-5227
Order No : 2016-2017/PLG/1009 **Dispatch Date:** 27/07/2016
Unit Id : 78848

Copy To:-

1 Regional Officer, Regional Office, Rajasthan State Pollution Control Board, Kishangarh-With directions to ensure the compliance of consent conditions.
2 Master File.

Group Incharge[PLG]

Signature valid

Page 4 of 4

APPENDIX 4: ENVIRONMENTAL SITE INSPECTION REPORTS

Report No.1

PROJECT NAME: Tonk water Supply and Sewerage Works	**CONTRACT NUMBER:** RUSDP/Tonk/01
DATE: 31.08.2016	**SECTOR:** Water Supply & Sewerage
LOCATION: Bhikapura pipeline work, STP work at Molipura	**Contractor:** Tonk Water Supply Limited (TWSL)

WEATHER: Hot, clear, sunshine, medium wind **PROJECT ACTIVITY:** Water Supply Pipe laying works Administrative Building, Molaipura	**Project Activity Stage**	**Survey**	
		Design	
		Implementation	✓
		Pre-Commissioning	
		Guarantee Period	

Monitoring Items	**Compliance**				**Remarks**
Compliance marked as Yes/No/Not applicable(NA)/Partially Implemented(PI)	**YES**	**NO**	**NA**	**PI**	
EHS supervisor appointed by contractor and available on site	√				Qualified EHS supervisor is full time deputed at site
Construction site management plan (spoils, safety, schedule, equipment etc.,) prepared	√				Contractor has submitted Environment Management Plan incorporating all the EHS requirements
PUC available for all vehicles at site				√	PUC of some of the vehicles is not available at site
Traffic management plan prepared		√			traffic management plan is not prepared
Dust is under control	√				No dust problem is noticed at site
Excavated soil properly placed within minimum space	√				
Construction area is confined; no traffic/ pedestrian entry observed	√				Proper Barricades were seen to restrict traffic/pedestrian entry
Surplus soil / debris / waste is disposed without delay	√				Surplus soil not seen at site, excavated soil is backfilled on the same day
Construction material (sand/gravel/aggregate) brought to site as & when required only	√				Presently no sand/gravel/aggregate is being used at site
Tarpaulins used to cover sand & other loose material when transported by vehicles			√		No material transport is being practiced at this stage
After unloading, wheels & under carriage of vehicles cleaned prior to leaving the site			√		
No AC pipes disturbed / removed during excavation	√				No AC pipes encountered at site
No chance finds encountered during excavation	√				

Monitoring Items	Compliance				Remarks
Compliance marked as Yes/No/Not applicable(NA)/Partially Implemented(PI)	**YES**	**NO**	**NA**	**PI**	
Work is planned in consultation with traffic police	√				Proper barricades and traffic diversion boards displayed at site, work being executed in outskirt area with consultation of traffic police
Work is not being conducted during heavy traffic	√				
Work at a stretch is completed within a day (excavation, pipe laying & backfilling)	√				Work of pipe laying is being completed and trench is backfilled on the same day
Pipe trenches are not kept open unduly	√				Trench is closed after laying of pipe on the same day
Road is not completely closed; work is conducted on edge; at least one line is kept open	√				Excavation is done on half of the road and half of the road is open for traffic
Road is closed; alternative route provided & public informed, information board provided	√				Excavation is done on half of the road and half of the road is open for traffic, proper road signage is displayed at site
Pedestrian access to houses is not blocked due to pipe laying	√				Pedestrian access to houses is provided
After unloading, wheels & under carriage of vehicles cleaned prior to leaving the site		√			Pipe laying works are in roads and colonies and vehicle cleaning is not possible but tyres are cleaned manually
Deep excavation is conducted with land slip/protection measures			√		No deep excavation being conducted
First aid facilities are available onsite and workers informed	√				First aid facilities are available at site and workers are aware of it
Drinking water provided at the site	√				Workers informed that water is made available by the contractor.
Toilet facility provided at the site		√			Contractor is advised to provide mobile toilets at pipe laying sites
Separate toilet facility is provided for women workers at camp	√				Separate toilet is provided for women workers but presently no women workers engaged at Molaipura STP site
Workers camps are maintained cleanly				√	Workers camp at Molaipura is cleaned but solid waste management needs improvement
Adequate toilet & bath facilities provided				√	Toilets and bath facilities are provided but some improvement are still required and suggested to contractor to improve the facilities
Contractor employed local workers as far as possible				√	Presently local labour is mobilized, but it is expected that later, the workers from different parts of Rajasthan and other parts of India will be mobilized and accommodated in Camps

Monitoring Items	Compliance				Remarks
Compliance marked as Yes/No/Not applicable(NA)/Partially Implemented(PI)	**YES**	**NO**	**NA**	**PI**	
Workers camp setup with the permission of PIU	√				Camp of workers to be provided at Molipura and Soran for permanent labour.
Adequate housing provided	√				At present only 15-20 labour mobilized for pipe laying work and STP work, the accommodation for the labour is being provided by contractor.
Sufficient water provided for drinking /washing /bath				√	At worker camp bore well is established and provide sufficient water for drinking/washing/bath but supply of drinking water for pipe laying sites need improvement
No noisy work is conducted in the nights		√			At some sites pipe laying works are being conducted at night
Local people informed of noisy work	√				Local people are informed in advance of noisy works at night or day
No blasting activity conducted	√				
Pneumatic drills or other equipment creating vibration is not used near old/ risky buildings	√				

Report No. 2

PROJECT NAME: Tonk water Supply and Sewerage Works	**CONTRACT NUMBER:** RUSDP/Tonk/01
DATE: 28.09.2016	**SECTOR:** Water Supply & Sewerage
LOCATION: Pipeline work at Solangpura & Firdous Nagar, ESR work at Bisalpur Colony, STP Work at Molaipura and Soran	**Contractor:** Tonk Water Supply Limited (TWSL)

WEATHER: Hot, clear, sunshine, medium wind **PROJECT ACTIVITY:** Water Supply Pipe laying, ESR work, STP Work	**Project Activity Stage**	**Survey**	
		Design	
		Implementation	✓
		Pre-Commissioning	
		Guarantee Period	

Monitoring Items	Compliance				Remarks
Compliance marked as Yes/No/Not applicable(NA)/Partially Implemented(PI)	**YES**	**NO**	**NA**	**PI**	
EHS supervisor appointed by contractor and available on site	√				Qualified EHS supervisor is full time deputed at site
Construction site management plan (spoils, safety, schedule, equipment etc.,) prepared	√				EHS Plan is submitted by contractor covering all these points
PUC available for all vehicles at site				√	PUC of some of the vehicles is not available at site

Monitoring Items	Compliance				Remarks
Traffic management plan prepared		√			traffic management plan is not prepared
Dust is under control	√				No dust problem is noticed at site
Excavated soil properly placed within minimum space	√				
Construction area is confined; no traffic/ pedestrian entry observed	√				Proper Barricades were seen to restrict traffic/pedestrian entry
Surplus soil / debris / waste is disposed without delay	√				Surplus soil not seen at site, excavated soil is backfilled on the same day
Construction material (sand/gravel/aggregate) brought to site as & when required only	√				Construction material is properly stored at ESR and STP sites, whereas at pipe laying sites only required quantity for 1-2 days is brought
Tarpaulins used to cover sand & other loose material when transported by vehicles	√				Aggregates and sand are being carried in covered or wet conditions
After unloading, wheels & under carriage of vehicles cleaned prior to leaving the site				√	At pipe laying site wheel washing facility cannot be made available; however, the contractor is cleaning the wheels manually before leaving the permanent site.
No AC pipes disturbed / removed during excavation	√				No AC pipes encountered at site
No chance finds encountered during excavation	√				
Work is planned in consultation with traffic police	√				Necessary information is being provided to the traffic police for working in colony or urban area, whereas in remote areas, sites are kept properly barricaded with proper display boards for public convenience.
Work is not being conducted during heavy traffic			√		Work being executed in colonies and remote areas.
Work at a stretch is completed within a day (excavation, pipe laying & backfilling)	√				Work of pipe laying is being completed and trench is backfilled on the same day
Pipe trenches are not kept open unduly	√				
Road is not completely closed; work is conducted on edge; at least one line is kept open	√				Excavation is done on half of the road and half of the road is open for traffic
Road is closed; alternative route provided & public informed, information board provided	√				Excavation is done on half of the road and half of the road is open for traffic, proper road signage is displayed at site
Pedestrian access to houses is not blocked due to pipe laying	√				Pedestrian access to houses is provided
Spaces left in between trenches for access	√				Access is being provided to every house as per requirement and site conditions.
Wooden planks/ metal sheets provided across trench for pedestrian	√				Pedestrian access to houses is provided

Monitoring Items	Compliance				Remarks
No public / unauthorized entry observed in worksite	√				
Children safety measures (barricades , security) in place at works in residential areas	√				Barricades provided at site
Prior public information provided about the work, schedule and disturbances	√				Contractor team is providing the desired information of work.
Caution /warning board provided on site	√				Caution boards and warning boards provided at site. Contractor to provide information details for officers for registration of Grievance.
Guards with red flag provided during work at busy roads			√		Work being executed in colonies and remote areas.
Workers using appropriate PPE (boots, gloves, helmets, earmuffs etc)				√	Some of the temporary workers (hired for that day for concrete works) were not using PPEs, most of the permanent workers were using required PPEs at site Contractor instructed to provide PPEs to temporary labor as well.
Workers conducting or near heavy noise work is provided with ear muffs			√		Noisy works are not being done at this stage
Contractor is following standard & safe construction practices				√	HSE officer needs to regularly monitor the working site to ensure safe construction practices as workers are not properly trained for PPEs using and adequate PPEs were not observed with the workers.
Deep excavation is conducted with land slip/protection measures			√		No deep excavation being conducted
First aid facilities are available onsite and workers informed				√	First aid facilities are not available at all site and workers are aware of it. there is requirement of improvement of contents of first aid box
Drinking water provided at the site	√				Workers informed that water is made available by the contractor.
Toilet facility provided at the site				√	Contractor has constructed toilets at both STP Site, but the facilities provided are not adequate. Adequate no. of Mobile toilets is recommended to be purchased and to be utilized for running pipe laying sites.
Workers camp setup with the permission of PIU	√				Camp of workers is provided at Molipura and Soran for permanent labor with permission of PIU.
Separate toilet facility is provided for women workers at camp				√	Separate toilets are provided for women workers but no adequate facilities are provided and not marked for women use
Workers camps are maintained cleanly				√	General cleanliness is observed at workers camp but adequate solid waste disposal is

Monitoring Items	Compliance				Remarks
					required
Adequate toilet & bath facilities provided				√	Adequate numbers of toilets and baths are provided but facilities like flushing arrangement is not provided and contractor is instructed to comply all the provisions
Adequate housing provided	√				Contractor has provided the sufficient number of housing but needs to work on basic facilities.
Sufficient water provided for drinking /washing /bath	√				At worker camp bore well is established and provides sufficient water for drinking/washing/bath
Contractor employed local workers as far as possible	√				Skilled workers are hired from other states where as unskilled workers are hired locally
No noisy work is conducted in the nights	√				Night works are not being conducted at this time
Local people informed of noisy work			√		No noisy work is being conducted at present
No blasting activity conducted	√				
Pneumatic drills or other equipment creating vibration is not used near old/ risky buildings	√				

Report No. 3

PROJECT NAME: Pali water Supply and Sewerage Works	**CONTRACT NUMBER:** RUSDP/Pali/01
DATE: 09&10 Nov. 2016	**SECTOR:** Water Supply & Sewerage
LOCATION: Pipeline work, STP work	**Contractor:** L&T

WEATHER: Hot, clear, sunshine, medium wind **PROJECT ACTIVITY:** Water Supply and Sewerage Pipe laying works STP Site	**Project Activity Stage**	**Survey**	
		Design	
		Implementation	✓
		Pre-Commissioning	
		Guarantee Period	

Monitoring Items	Compliance				Remarks
Compliance marked as Yes/No/Not applicable(NA)/Partially Implemented(PI)	**YES**	**NO**	**NA**	**PI**	
EHS supervisor appointed by contractor and available on site	√				Qualified EHS supervisor is full time deputed at site but
Construction site management plan (spoils, safety, schedule, equipment etc.,) prepared				√	HIRA and SOP submitted by the contractor. Spoil management plan yet to be submitted by the contractor.
PUC available for all vehicles at site	√				PUC of the vehicles is available with contractor, contractor advised to keep

Monitoring Items	Compliance				Remarks
					copies in vehicles along with license as well.
Traffic management plan prepared	√				traffic management plan prepared
Dust is under control				√	Minor dust problem was noticed at STP site only, contractor advised to do regular sprinkling.
Excavated soil properly placed within minimum space	√				
Construction area is confined; no traffic/ pedestrian entry observed	√				Proper Barricades were seen to restrict traffic/pedestrian entry
Surplus soil / debris / waste is disposed without delay	√				Surplus soil not seen at site, excavated soil is backfilled on the same day
Construction material (sand/gravel/aggregate) brought to site as & when required only	√				
Tarpaulins used to cover sand & other loose material when transported by vehicles	√				
After unloading, wheels & under carriage of vehicles cleaned prior to leaving the site				√	At pipe laying site wheel washing facility cannot be made available; however, the contractor is cleaning the wheels manually before leaving the permanent site.
No AC pipes disturbed / removed during excavation	√				No AC pipes encountered at site
No chance finds encountered during excavation	√				
Work is planned in consultation with traffic police	√				As per traffic management Plan contractor is consulting Traffic Police as per requirement (for laying of pipes on road)
Work is not being conducted during heavy traffic	√				At present work is being executed at low / no traffic area.
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	√				Excavation is done on half of the road and half of the road is open for traffic
Road is closed; alternative route provided & public informed, information board provided	√				Excavation is done on half of the road and half of the road is open for traffic. Proper sign boards noticed at sites.
Pedestrian access to houses is not blocked due to pipe laying	√				Pedestrian access to houses is provided, contractor is using wooden plank and advised to use steel plates as per requirement.
Spaces left in between trenches for access	√				

Monitoring Items	Compliance				Remarks
Wooden planks/ metal sheets provided across trench for pedestrian	√				Pedestrian access to houses is provided. Contractor is using wooden plank and advised to use steel plates as per requirement.
No public / unauthorized entry observed in worksite	√				
Children safety measures (barricades , security) in place at works in residential areas	√				Barricades provided at site, contractor advised to increase barricades as per requirement.
Prior public information provided about the work, schedule and disturbances	√				
Caution /warning board provided on site	√				Caution boards and warning boards provided at site
Guards with red flag provided during work at busy roads			√		Work being executed at low traffic areas.
Workers using appropriate PPE (boots, gloves, helmets, earmuffs etc)	√				
Workers conducting or near heavy noise work is provided with ear muffs			√		Noisy works are not being done at this stage
Contractor is following standard & safe construction practices	√				
Deep excavation is conducted with land slip/protection measures			√		No deep excavation being conducted
First aid facilities are available onsite and workers informed	√				First aid facilities are available at site and workers are aware of it
Drinking water provided at the site	√				
Toilet facility provided at the site	√				Mobile toilets also deployed for pipe laying site.
Separate toilet facility is provided for women workers				√	Separate toilets are provided for workers at 2 nos of workers camps, whereas at STP site no toilets are provided and contractor is instructed to provide all the facilities as per EMP
Workers camps are maintained cleanly	√				Contractor is providing neat and clean living conditions.
Adequate toilet & bath facilities provided	√				
Contractor employed local workers as far as possible	√				Unskilled labor is employed locally. Along with local labour, the specialized workers from different parts of Rajasthan and India are mobilized.
Workers camp setup with the permission of PIU	√				.
Adequate housing provided	√				Adequate housing provided in labor camps.

Monitoring Items	Compliance				Remarks
Sufficient water provided for drinking /washing /bath	√				
No noisy work is conducted in the nights	√				Night works are not being conducted at this time. Night work plan has been conveyed to contractor to be followed accordingly.
Local people informed of noisy work			√		No noisy work is being conducted at present
No blasting activity conducted	√				
Pneumatic drills or other equipment creating vibration is not used near old/ risky buildings	√				

Report No. 4

PROJECT NAME: Tonk water Supply and Sewerage Works	**CONTRACT NUMBER:** RUSDP/Tonk/01
DATE: 17 Nov. 2016	**SECTOR:** Water Supply & Sewerage
LOCATION: pipeline work at Tegor Choraha, ESR work at Bisalpur Colony, STP Work at Molaipura and Soran	**Contractor:** Tonk Water Supply Limited (TWSL)

WEATHER: Hot, clear, sunshine, medium wind **PROJECT ACTIVITY:** Water Supply Pipe laying works, ESR work and STP Work	**Project Activity Stage**	**Survey**	
		Design	
		Implementation	✓
		Pre-Commissioning	
		Guarantee Period	

Monitoring Items	Compliance				Remarks
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	√				
PUC available for all vehicles at site				√	PUC of some of the vehicles is not available at site
Traffic management plan prepared	√				
Dust is under control	√				No dust problem is noticed at site
Excavated soil properly placed within minimum space	√				
Construction area is confined; no traffic/ pedestrian entry observed				√	Barricades are provided but improvement is still required.

Monitoring Items	Compliance				Remarks
Compliance marked as Yes/No/Not applicable(NA)/Partially Implemented(PI)	**YES**	**NO**	**NA**	**PI**	
Surplus soil / debris / waste is disposed without delay	√				Surplus soil not seen at site, excavated soil is backfilled on the same day
Construction material (sand/gravel/aggregate) brought to site as & when required only	√				Sand, Gravel and Aggregates are stored properly at ESR and STP sites, for pipe laying sites, only required quantities (1-2 days) are being brought to site.
Tarpaulins used to cover sand & other loose material when transported by vehicles	√				
After unloading, wheels & under carriage of vehicles cleaned prior to leaving the site	√				As per feasibility contractor is doing vehicle cleaning.
No AC pipes disturbed / removed during excavation	√				No AC pipes encountered at site
No chance finds encountered during excavation	√				
Work is planned in consultation with traffic police	√				Detailed methodology submitted by contractor in Traffic management plan, presently work is being executed in low traffic area and contractor is advised to deploy adequate no. of caution boards and diversion boards.
Work is not being conducted during heavy traffic	√				
Work at a stretch is completed within a day (excavation, pipe laying & backfilling)	√				Work of pipe laying is being completed and trench is backfilled on the same day
Pipe trenches are not kept open unduly	√				
Road is not completely closed; work is conducted on edge; at least one line is kept open	√				Excavation is done on half of the road and half of the road is open for traffic
Road is closed; alternative route provided & public informed, information board provided	√				Excavation is done on half of the road and half of the road is open for traffic, contractor advised to deploy adequate no. of caution boards and diversion boards.
Pedestrian access to houses is not blocked due to pipe laying	√				Pedestrian access to houses and commercial establishment is being provided. Contractor advised to use proper wooden plans and metal sheets promptly.
Spaces left in between trenches for access	√				
Wooden planks/ metal sheets provided across trench for pedestrian	√				Contractor advised to use steel plates as per requirement.
No public / unauthorized entry observed in worksite		√			STP Site Molaipura is not properly fenced.
Children safety measures (barricades , security) in place at works in residential areas	√				Barricades provided at site. Contractor advised to improve on the security as per

Monitoring Items	Compliance				Remarks
Compliance marked as Yes/No/Not applicable(NA)/Partially Implemented(PI)	**YES**	**NO**	**NA**	**PI**	
					requirement.
Prior public information provided about the work, schedule and disturbances				√	Contractor is providing advance information to nearby people about the nature and duration of works, but more improvement in this system is required though public consultations
Caution /warning board provided on site				√	Contractor advised to provide adequate Caution boards and warning boards. Contractor to provide information details for officers for registration of Grievance.
Guards with red flag provided during work at busy roads		√			At present work is being executed in low traffic road, no red flag and guard is required.
Workers using appropriate PPE (boots, gloves, helmets, earmuffs etc)				√	PPEs are compulsorily provided to permanent works but few temporary workers seen without proper/adequate PPEs and contractor instructed to provide PPEs to temporary labor as well.
Workers conducting or near heavy noise work is provided with ear muffs			√		Noisy works are not being done at this stage
Contractor is following standard & safe construction practices				√	HSE officer needs to regularly monitor the working site to ensure safe construction practices as workers are not properly trained for PPEs using and adequate PPEs were not observed with the workers. Instruction to contractor issued to allow work only after approval of EHS supervisor's approval and screening.
Deep excavation is conducted with land slip/protection measures			√		No deep excavation being conducted
First aid facilities are available on site and workers informed				√	First aid facilities are not available at all site contractor instructed to ensure the same for all sites, JCBs used at site could be used to keep first aid kits.
Drinking water provided at the site				√	It was noticed that water is made available by the contractor at permanent sites but drinking water was not available at pipe laying sites.
Toilet facility provided at the site				√	Toilets at STP sites were provided but not available at pipe laying sites. Contractor was instructed to provide mobile toilets at pipe laying sites
Separate toilet facility is provided for women workers at camp				√	The camps at STPs are still under construction. Toilets are provided but not complete in all respect, necessary instruction and orientation was again
Workers camps are maintained cleanly					

Monitoring Items	Compliance				Remarks
Compliance marked as Yes/No/Not applicable(NA)/Partially Implemented(PI)	**YES**	**NO**	**NA**	**PI**	
Adequate toilet & bath facilities provided					done. Bath facilities also provided but not properly marked. Contractor instructed to do necessary training and to ensure that the bathrooms are utilized by the labour.
Contractor employed local workers as far as possible	√				Skilled workers are being mobilized from other states, whereas unskilled workers are being hired locally.
Workers camp setup with the permission of PIU	√				
Adequate housing provided				√	Contractor advised to construct rooms as per labour requirement and ensure that sufficient housing is always available.
Sufficient water provided for drinking /washing /bath				√	Contractor instructed and oriented for basic requirement to be maintained at all site.
No noisy work is conducted in the nights	√				Night works are not being conducted at this time, however contractor has been advised to submit night work plan (if any)
Local people informed of noisy work			√		No noisy work is being conducted at present
No blasting activity conducted	√				
Pneumatic drills or other equipment creating vibration is not used near old/ risky buildings	√				

Report No. 5

PROJECT NAME: Tonk water Supply and Sewerage Works	**CONTRACT NUMBER:** RUSDP/Tonk/01
DATE: 29.12. 2016	**SECTOR:** Water Supply & Sewerage
LOCATION: pipeline work at Shiv Shakti Colony & women hospital, STP Work at Molaipura and Soran	**Contractor:** Tonk Water Supply Limited (TWSL)

WEATHER: Hot, clear, sunshine, medium wind **PROJECT ACTIVITY:** Water Supply Pipe laying works at at Shiv Shakti Colony, women hospital, STP Work at Molaipura, Soran	**Project Activity Stage**	**Survey**	
		Design	
		Implementation	✓
		Pre-Commissioning	
		Guarantee Period	

Monitoring Items	Compliance				Remarks
Compliance marked as Yes/No/Not applicable(NA)/Partially Implemented(PI)	**YES**	**NO**	**NA**	**PI**	

Monitoring Items	Compliance				Remarks
EHS supervisor appointed by contractor and available on site	√				Qualified EHS supervisor is full time deputed at site
Construction site management plan (spoils, safety, schedule, equipment etc.,) prepared	√				Contractor has prepared site HSE Plan
PUC available for all vehicles at site				√	PUC of some of the vehicles is not available at site
Traffic management plan prepared	√				
Dust is under control		√			Dust problem noticed at STP site, Molaipura
Excavated soil properly placed within minimum space	√				
Construction area is confined; no traffic/ pedestrian entry observed	√				Proper Barricades were seen to restrict traffic/pedestrian entry
Surplus soil / debris / waste is disposed without delay	√				Surplus soil not seen at site, excavated soil is backfilled on the same day and surplus soil is removed from site
Construction material (sand/gravel/aggregate) brought to site as & when required only	√				Presently no sand/gravel/aggregate is being stored in excess amount at site and material for 2-3 days usage is brought to sites of pipe laying
Tarpaulins used to cover sand & other loose material when transported by vehicles	√				
After unloading, wheels & under carriage of vehicles cleaned prior to leaving the site				√	Wheel washing facility is not available at STP sites but wheels are cleaned manually before leaving site
No AC pipes disturbed / removed during excavation	√				No AC pipes encountered at site
No chance finds encountered during excavation	√				No chance finds encountered during excavation till now
Work is planned in consultation with traffic police	√				Traffic police is consulted before pipe laying works
Work is not being conducted during heavy traffic	√				Presently pipe laying is not being done in heavy traffic areas
Work at a stretch is completed within a day (excavation, pipe laying & backfilling)	√				Work of pipe laying is being completed and trench is backfilled on the same day
Pipe trenches are not kept open unduly	√				Work of pipe laying is being completed and trench is backfilled on the same day
Road is not completely closed; work is conducted on edge; at least one line is kept open	√				Excavation is done on half of the road and half of the road is open for traffic
Road is closed; alternative route provided & public informed, information board provided			√		Excavation is done on half of the road and half of the road is open for traffic
Pedestrian access to houses is not blocked due to pipe laying	√				Pedestrian access to houses is provided.

Monitoring Items	Compliance				Remarks
Spaces left in between trenches for access	√				
Wooden planks/ metal sheets provided across trench for pedestrian	√				Pedestrian access to houses is provided, contractor advised to use steel plates/sheets for pedestrian movement.
No public / unauthorized entry observed in worksite				√	STP Site, Molaipura is not properly fenced whereas other sites seen fenced to check unauthorized entry into site
Children safety measures (barricades , security) in place at works in residential areas	√				Barricades provided at site.
Prior public information provided about the work, schedule and disturbances	√				Public is informed by contractor in advance about the nature and duration of works during pipe laying works
Caution /warning board provided on site	√				Caution boards and warning boards provided at site.
Guards with red flag provided during work at busy roads		√			Although work is presently being executed in main road, no red flag and guard is provided.
Workers using appropriate PPE (boots, gloves, helmets, earmuffs etc)				√	Some of the temporary workers were not using full PPEs, while most of the permanent workers were using required PPEs at site Contractor instructed to provide PPEs to temporary labor as well.
Workers conducting or near heavy noise work is provided with ear muffs			√		Noisy works are not being done at this stage
Contractor is following standard & safe construction practices				√	Though contractor is following safe construction practices but improvement is needed during works at height
Deep excavation is conducted with land slip/protection measures			√		No deep excavation being conducted
First aid facilities are available onsite and workers informed				√	First aid facilities are available at permanent sites like STPs but was not available in some pipe laying sites
Drinking water provided at the site	√				Drinking water is provided at the sites
Toilet facility provided at the site				√	Toilet facilities are provided in permanent sites like STPs but not provided at pipe laying sites and contractor is advised to provide mobile toilets for workers at pipe laying sites
Separate toilet facility is provided for women workers at camp	√				
Workers camps are maintained cleanly				√	Housekeeping and solid waste management is required at camps
Adequate toilet & bath facilities provided	√				Toilets and baths are provided in STP

Monitoring Items	Compliance				Remarks
					worker camps
Contractor employed local workers as far as possible				√	Unskilled workers are hired locally whereas skilled workers are mostly hired from other states
Workers camp setup with the permission of PIU	√				
Adequate housing provided	√				Sufficient numbers of rooms are provided in workers camps
Sufficient water provided for drinking /washing /bath	√				
No noisy work is conducted in the nights	√				Night works are not being conducted at this time, however contractor has been advised to follow night work plan provided to him
Local people informed of noisy work			√		No noisy work is being conducted at present
No blasting activity conducted	√				
Pneumatic drills or other equipment creating vibration is not used near old/ risky buildings	√				

APPENDIX-5: COMPLIANCES OF ENVIRONMENTAL SELECTION CRITERIA

Applicability	Environmental Selection Criteria	Compliance
All Subprojects	i. Comply with all requirements of relevant national and state laws.	Being complied
	ii. Avoid significant environmental impacts.	Being complied
	iii. Avoid and/or minimize 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	Complied
	iv. Avoid locating subprojects in forest areas	Complied
	v. If there are underground asbestos cement (AC) pipes in the existing systems, the project design should include that the AC pipes are left undisturbed in the ground	Being complied
	vi. Prior to site clearance & trench exaction for pipes/sewers, exact location of underground AC pipes should be ascertain with the Public Health Engineering Department (PHED)	Being complied
	vii. Avoid where possible, and minimize to extent feasible, facilities in locations with social conflicts.	Complied
	viii. Avoid where possible locations that will result in destruction/disturbance to historical and cultural places/values.	Being complied
	ix. Avoid tree-cutting where possible. Retain mature roadside trees which are important/valuable or historically significant. If any trees have to be removed, plant two new trees for every one that is lost.	Being complied
	x. Ensure all planning and design interventions and decisions are made in consultation with local communities and include women. Reflect inputs from public consultation and disclosure for site selection.	Being complied
Water Supply	i. Comply with all requirements of relevant national and local laws, rules, and guidelines.	Being complied
	ii. Utilize water sources at sustainable levels of abstraction only (i.e. without significant reductions in the quantity or quality of the source overall); augmentation of water supply from an existing groundwater source or development of new groundwater source should be supported by groundwater studies establishing water availability and sustainability	Not applicable
	iii. Avoid using water sources that may be polluted by upstream users;	Not applicable
	iv. Avoid water-use conflicts by not abstracting water that is used for other purposes (e.g., irrigation);	Not applicable
	v. Locate all new facilities/buildings at sites where there is no risk of flooding or other hazards that might impair functioning of, or present a risk of damage to water treatment plants, tanks/reservoirs, or their environs.	Complied
	vi. Locate pipelines within road right of way (RoW) as far as possible, to reduce the acquisition of new land. Ensure that pipeline routes do not require the acquisition of land from private owners in amounts that are a significant proportion of their total	Complied

Applicability	Environmental Selection Criteria	Compliance
	land holding (>10%).	
	vii. Ensure that communities who relinquish land needed for pipelines or other facilities are provided with an improved water supply as part of the scheme.	Not applicable
	viii. Avoid all usage of pipes that are manufactured from asbestos concrete.	Complied
	ix. Ensure water to be supplied to consumers will meet national drinking water standards at all times.	Being complied
	x. Ensure that improvements in the water supply system are combined with improvements in wastewater and drainage to deal with the increased discharge of domestic wastewater.	Being complied
	xi. Ensure appropriate training will be provided to ULB staff on the operations and maintenance of the facilities.	Being complied
	xii. Ensure sludge management facilities are included in the water treatment plant.	Not applicable
Sewerage	i. Comply with all requirements of relevant national and local laws, rules, and guidelines.	Being complied
	ii. Ensure no immediate downstream drinking water intakes at treated wastewater disposal point.	Being complied
	iii. Locate sewage treatment plant (STP) preferably 500 m from any inhabited areas, in locations where no urban expansion is expected in the next 20 years, so that people are not affected by odor or other nuisance from the STP.	Complied
	iv. Locate facilities where there is a suitable means of disposal for the treated wastewater effluent and bio-solids.	Complied
	v. Locate facilities where there is no risk of flooding or other hazards that might impair operations and present a risk of damage to the facilities or its environs.	Complied
	vi. Ensure appropriate training will be provided to ULB staffs on the operations and maintenance of the facilities.	Being complied
	vii. Locate sewage pipelines on roads RoW wherever feasible, to reduce the acquisition of new land	Complied

APPENDIX-6: STATUS OF GRIEVANCES RECEIVED/ADDRESSED IN SUB PROJECTS

A: STATUS OF GRIEVANCES RECEIVED/ADDRESSED (JULY –DEC 2016), PALI TOWN (PACKAGE NO: PALI/01)

	Road Restoration related issues					Water supply line issues					Septic tank damaged issues					Access way issues					New water connection not working properly						Other issues				
Number of grievance received	04					23					10					03					08						04				
Rectified within days	0-1	2-3	4-5	5-7	Pending	0-1	2-3	4-5	5-7	Pending	0-1	2-3	4-5	5-7	Pending	0-1	2-3	4-5	5-7	Pending	0-1	2-3	4-5	5-7	>10	Pending	0-1	2-3	4-5	5-7	Pending
Nos. of grievances rectified		03			01*	11	06	04	01	01*	04	06				02	01					02	04		01	01	01	01		02	

B: STATUS OF GRIEVANCES RECEIVED/ADDRESSED (JULY –DEC 2016), TONK TOWN (PACKAGE NO: TONK/01)

	Road Restoration related issues					Water supply line issues					Access way issues					New water connection not working properly					Other issues				
Number of grievance received						116					04														
Rectified within days	0-1	2-3	4-5	5-7	Pending	0-1	2-3	4-5	5-7	Pending	0-1	2-3	4-5	5-7	Pending	0-1	2-3	4-5	5-7	Pending	0-1	2-3	4-5	5-7	Pending
Nos. of grievances rectified						116					04														

Note: Data of grievances as received from contractors' grievance register
* Pending issues notified to concern PIU/ coordinator for resolution.

APPENDIX-7: PHOTOGRAPHS OF SAGEGUARD ORIENTATIONS

Tonk – August & September 2016 (Tonk/01)


Discussion / Orientation with Contractor Team


Orientation of Contractor's site engineers, workers and supervisors

Photographs of Orientation (Tonk – November 2016)


Photographs of Orientation (Tonk – December 2016)




Photographs of Orientation (Pali – November 2016)

Orientation of Labor for Pali/01

Orientation of Contractor -Pali/02

Orientation of Outreach Team of Contractor Pali/01

On Site Orientation of site engineer of Contractor Pali/02