Environmental Monitoring Report

Project Number: 43253-025
August 2018

Period: July 2017 – December 2017

IND: Karnataka Integrated Urban Water Management Investment Program - Tranche 1

Submitted by

Karnataka Urban Infrastructure Development & Finance Corporation (KUIDFC)

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From: Adivappa [mailto:adivappa@kuidfc.com]
Sent: Tuesday, March 13, 2018 2:47 PM
To: Saugata Dasgupta <sdasgupta@adb.org>; Akira Matsunaga <amatsunaga@adb.org>
Cc: a achyuth <a.achyuth@gmail.com>; Pramod Kumar <pramodkumar@adb.org>; Jayamala P <jayamalap@kuidfc.com>; Ashok G Bhat <agbhat@kuidfc.com>; KC Kalekar <kalekar@kuidfc.com>
Subject: Sending SEMR July to December 2017-reg (L 3148)

Sir,

Please see the attachment SEMR for the period July to December 2017.
Regards,

AEE
KIUWMIP,KUIDFC

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Semi Annual Environmental Monitoring Report

ADB Loan Number 3148-IND
Period Covered: July to December 2017

India: Karnataka Integrated Urban Water Management Investment Program **(KIUWMIP)**

Tranche 1- 6th Report

February 2018

Prepared by
Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC) Government of Karnataka for Asian Development Bank

ABBREVIATIONS

ADB	Asian Development Bank
ADB SPS	Asian Development Bank Safeguard Policy Statement
APMC	Agricultural Produce Market Committee
BOD	Bio-Chemical Oxygen Demand
BPL	Below Poverty Line
CAP	Corrective Action Plan
CBO	Community Based Organizations
CC	Complaint Cell
CC Drain	Cement Concrete Drain
CFE	Consent for Establishment
CFO	Consent for Operation
CGWB	Central Ground Water Board
CMC	City Municipal Council
CPCB	Central Pollution Control Board
dbA	Decibels
DI	Ductile Iron
DPR	Detailed Project Report
DS	Double Suction
EA	Executing Agency
EAC	Expert Appraisal Committee
EC	Environmental Clearance
EIA	Environmental Impact Assessment
ELSR	Elevated Storage Reservoir
EMP	Environmental Management Plan
GDP	Gross Domestic Product
GIL	Grasim Industries Limited
GoI	Government of India
GoK	Government of Karnataka
GLSR	Ground Level Service Reservoir
GRC	Grievance Redress Committee
HDPE	High Density Polyethylene
H&S	Health and Safety
IA	Implementing Agency
IEE	Initial Environmental Examination
IWRM	Integrated Water Resource Management
KIUWMIP	Karnataka Integrated Urban Water Management Investment Program
KMRP	Karnataka Municipal Reforms Project
KSPCB	Karnataka State Pollution Control Board
KSRTC	Karnataka State Road Transport Corporation
KTCP	Karnataka Town and Country Planning
KUIDFC	Karnataka Urban Infrastructure Development & Finance Corporation
KUWSDB	Karnataka Urban Water Supply & Drainage Board
M&M	Major and Medium
MFF	Multitranche Financing Facility
MoEFCC	Ministry of Environment, Forest & Climate Change
MSL	Mean Sea Level
NGO	Non-Government Organization
NKUSIP	North Karnataka Urban Sector Investment Program
NO_2	Nitrogen Oxide

NRW	Non Revenue Water
OCRP	Office of Compliance Review Panel
OHT	Over Head Tank
OSPF	Office of the Special Project Facilitator
O&M	Operation & Maintenance
PC	Program Consultants
PCU	Project Co-ordination Unit
PMU	Program Management Unit
PMDCSC	Project Management Design and Construction Supervision Consultant
PIU	Program Implementation Unit
PWD	Public Works Department
RCC	Reinforced Cement Concrete
REA	Rapid Environmental Assessment
RF	Resettlement Framework
RP	Resettlement Plan
RPMU	Regional Program Management Unit
RSPM	Residual Suspended Particulate Matter
SC	Scheduled Caste
SEIAA	State Environmental Impact Assessment Authority
SPM	Suspended Particulate Matter
SPS	Sewage Pumping Station
ST	Scheduled Tribe
STP	Sewage Treatment plant
SW	Stone Ware
TMC	Town Municipal Council
ToR	Terms of References
UGD	under Ground Drainage
ULB	Urban Local Body
UDWSP	Urban Drinking Water & Sanitation Policy
USD	US Dollars
(U)WSS	(Urban) Water Supply & Sanitation

CONTENTS

Sl. No.	Contents	Page no.
I	**INTRODUCTION**	**5**
A	Background	5
B	Purpose of the Report	5
II	**IMPLEMENTATION PROGRESS**	**6**
A	Status of Subprojects under Tranche 1	6
B	Compliance to Safeguard Loan Covenants	21
C	Implementation Arrangement	25
III	**ENVIRONMENTAL PROCEDURE REVIEW**	**31**
A	Environment Legal Requirement	31
B	Compliance with Environmental Legal Requirements(Consents & Statutory clearances)	31
IV	**COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN**	**37**
V	**ENVIRONMENTAL MONITORING AND EVALUATION**	**114**
VI	**CONSULTATIONS AND DISCLOSURES CONDUCTED**	**134**
VII	**GRIEVANCE REDRESS MECHANISM**	**134**
VIII	**FINDINGS AND RECOMMENDATIONS**	**136**

LIST of TABLES

Table No.	Contents	Page No.
1	Status of Sub Project under Tranche 1	7
2	Compliance to Loan Agreements (Environmental Safeguards)	21
3	Activity and Responsibility – safeguard Implementation	27
4	Details of KIUWMIP Environmental Safeguard Team	28
5	Environmental Legal Requirements Applicable to KIUWMIP Project 1	31
6	Status of Compliance with National and State Legal Requirements	31
7	Compliance to EMP of the Package- Providing expansion of Sewage System in Davangere City, (District 1 & 3)	39
8	Compliance to EMP of the Package- Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP	49
9	Compliance to EMP of the Package- Bulk Water Supply System in Davangere City,	61
10	Compliance to EMP of the Package- Providing expansion of sewage system in Harihar city	72
11	Compliance to EMP of the Package- Bulk water supply system in Harihar city	84
12	Compliance to EMP of the Package- Providing expansion of sewage system in Byadgi Town	94
13	Compliance to EMP of the Package- Bulk water supply system in Byadgi Town	106
14	Ambient Air Quality Monitoring at Sites of construction	117

15	Noise Level Monitoring at project sites of Davangere, Harihar and Byadgi	123
16	Performance Fact Sheet for Required Environmental Consents/Clearances of KIUWMIP Project 1	130
17	Performance Fact Sheet for EMP Implementation of KIUWMIP Project 1	131
18	Indicative Schedule for Consultations and Disclosure	134
16	Corrective Action Plan	136

LIST of FIGURES

Figure No.	Contents	Page No.
Figure 1	Location of project towns	6
Figure 2	KIUWMIP Safeguards Implementation Arrangement	28
Figure 3	Grievance Redress Process	135

APPENDIX

Appendix	Contents	Page No.
1	Photo Illustration	138
2	Monitoring Budget	147
3	Compliance against CFE condition	148
4	Labour license	164
5	Labour compensation Insurance	174
6	Sample site specific EMP	197
7	Google Map shows sampling stations	209
8	Spoil Management Plan	220
9	Traffic Management Plan	226
10	Sample Internal Training document- Contractor	234
11	Medical Tie up and Health check up	243
12	Letter from Superintending Engineer, Regional Project Management Unit for excess earth disposal instruction to contractors	250
13	Sample filled public consultation format	252
14	Safety and Environment Training- Note	256
15	GRM – GRC Notification	263
16	Sample filled Grievance Register	266

I. INTRODUCTION

A. Background

1. The Karnataka Integrated Urban Water Management Investment Program (KIUWMIP, the Program) aims to improve water resource management in urban areas in a holistic and sustainable manner. Investment support will be provided to modernize and expand urban water supply & sanitation (UWSS) while strengthening relevant institutions to enhance efficiency, productivity and sustainability in water use. The Program focuses on priority investments and institutional strengthening in water supply & sanitation within an IWRM context.

2. The Program will be implemented over a four-year period and will be funded by a loan via the Multitranche Financing Facility (MFF) of Asian Development Bank (ADB). The Executing Agency is the Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC) and implementing agencies for the Investment Program will be respective Urban Local Bodies (ULBs). Initially Byadgi, Harihar, Ranebennur and Davangere are the four towns chosen to benefit from the first tranche of the investment. As the Detailed Project Report costs have exceeded substantially compared to the costs indicated on the basis of feasibility studies, ADB would finance water and sewerage infrastructure only in three towns namely (1) Davanagere, (2) Harihar and (3) Byadgi under Tranche-1 (investments on Ranebennur sewerage and water supply are proposed to be met out of NKUSIP savings and GoK exclusive funding respectively)

3. The programme proposes the MFF spread across two tranches over a period of ten years (2014-2024) with the total size of $225 M. The shares of ADB propose to be $150 million and counterpart funding from the state Government is estimated at $75 million. In addition to the Loan funds of $150M, the ADB has agreed to support the programme with an additional amount of $1.8 M as a grant fund out of its urban financing partnership facility.

4. In **Tranche 1** main outcome will be providing 24x7 Water supply and sewerage system including treatment of sewage at Byadgi, Harihar and Davangere. Location of project towns is shown in **Figure 1.**

5. The Program Management Unit (PMU) is located in Bangalore, Regional Program Management Unit (RPMU) in Davangere and Program Implementation Unit in the three Tranche 1 towns has been established. Project Management Design & Construction Supervision Consultant (PMDCSC) is also in placed.

B. Purpose of the Report

6. **Environmental Categorization**. KIUWMIP **Tranche 1** town has been categorized as ADB **Category B** for environment as per ADB Safeguard Policy (SPS 2009). Initial environmental examination reports (IEEs) were prepared for each subproject.

7. This report is the semi-annual environment monitoring report (SEMR) covering period **July to December 2017**. This SEMR describes the implementation of the environmental management plan (EMP) in each subproject IEE.

Figure 1: Location of project towns

II. IMPLEMENTATION PROGRESS

A. Status of Subprojects under Tranche 1

8. There are 9 sub projects in Tranche 1 (Project 1) under implementation. Three water supply packages, one at Byadgi, one at Harihar and rest at Davangere are awarded recently. Physical construction has been started for two sub project at Byadgi (UGD +STP and bulk water supply), two sub project at Harihar (UGD+STP and bulk water supply) and three sub projects at Davangere (separate contract for UGD and STP and bulk water supply). Status of sub projects is given in **Table 1.** Site photographs are attached as **Appendix 1.**

Table 1: Status of Sub Project under Tranche 1 (Upto 31st December 2017)

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
Byadgi	**01BDG01**	Design, Build, Operate & Maintain for 6 years for Byadgi comprehensive scheme from covering SBR STP (5 MLD), network (82.2 km), and 3202 manholes, construction of one septic tank (275 users, 0.03 ML) and provision of 6,206 nos HSCs	16.04.2016	36 months	15.04.2019	**Cumulative Progress Up to 31st December 2017** **Sewer Pipe Line** **uPVC Pipes** • Laying of 40,381 m of 160 mm pipe completed. • Laying of 522 m of 200 mm pipe completed. **RCC Pipes** • Laying of 15 m of 150 mm pipe completed. **Total for Pipeline** • Laying of 40,903 m completed. **Manholes** • Construction of 1,612manholes Completed. **House service Connection** • Total 7,389 m of 110mm pipe line work completed. • 756 Chamber completed. **STP Works** • Brickwork up to lintel level completed at staff quarters.	**36.0%**	No

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
						• East side and west side compound wall completed. • Roof slab shuttering work under progress at workshop. • Roof slab shuttering work under progress at toilet block. • Forming and 5th lift works under progress at SBR. • Construction of CCT completed except for parshall flume. • Inlet chamber Plinth Column under progress at wet well.		
Byadgi	**01BDG02**	Improvement of Water Supply System (bulk) in Byadgi Town -. Laying of 8.7 km water supply pipeline of 400mm Diameter.	18.05.2017	18 months	17.11.2018	• Supply of DI Pipes for 8.7 km received at site. • Pipeline laying completed for 6.2km. • Hydraulic testing 6.2km Completed. • Air valve RCC Chamber construction under progress.	**63.88%**	No
Byadgi	**01WS03**	Construction of Distribution Network- Operator assisted in Byadgi	16.08.2017	120 months	14.08.2027	• Household Survey Completed. • Design Validation under progress	Nil	No

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
		including 8 Years O & M of 24 x 7- • Construction of one 1 LL capacity OHT at Nehru Nagara. • Distribution pipeline of 101.7 km ranging from 63mm diameter to 300mm diameter. • Providing 7389 number of House service connections						
Harihar	**01HRA01**	Expansion of the sewerage network (72.16 km sewers, 2640 nos. manholes, 4 nos. pumping stations, 18 MLD STP)	09.01.2015	30 months	08.07.2017 (Extended – upto 30.01.2018)	**Cumulative Progress Up to December -2017** **Sewer Pipe Line** **RCC-NP3 class** • Laying of 813 m of 500mm diameter pipes Completed. • Laying of 388 m of 450 mm diameter pipes Completed. • Laying of 1,458 m of 350 mm diameter pipes Completed.	**78.7%**	No

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
						• Laying of 1,317 m of 300 mm diameter pipes Completed. • Laying of 1,478 m of 250mm diameter pipes Completed. • Laying of 458 m of 200mm diameter pipes Completed. • Laying of 2,317 m of 150mm diameter pipes Completed. **uPVC pipes** • Laying of 58,758 m of 160 mm diameter pipes Completed. • Laying of 3,247 m of 200 mm diameter pipes Completed. • Laying of 2,290 m of 250 mm diameter pipes Completed. Total for Pipeline • Total of 72,524 m of pipe line work completed. Manholes • Construction of 2,446 manholes Completed. **DI Pumping Main (K-7 Class)**		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
						• Laying of 1,436 m of 400 mm diameter pipes Completed. • Laying of 655 m of 300mm diameter pipes Completed. • Laying of 888 m of 200mm diameter pipes Completed. • Laying of 925m of 150 mm diameter pipes Completed. • Total 3,904m of Pumping main pipe line work completed <u>House service Connection</u> • Total 54149m of 110mm pipe line work completed. **Other Works** **<u>WET WELLS</u>** • APMC, Amaravth & Guttur Wet well Screen chamber Completed. • Keshavanagar under Progress. • 4Nos. Wet well C.C. Work Completed • Amaravathi & APMC Pump House work completed. • Keshava Nagar & Guttur Pump house		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
						Colum C.C work Completed **Sewage Treatment Plant** **Formation of Bunds** • FA-2 & FA-3 Bund formation work completed up to 4.5mtr. • MA- Branket and Floor Bed formation work completed. • MA-3 M-2 Pond work completed. • FA-1 pond Bund formation work under progress • MA-pond Bund formation work completed. **Baffle Wall** • Baffle wall Completed **Foot Bridge** • Aerator Column Concrete work completed up to Foot Bridge level. • FA-3-A,B & FA-2-A,B,C & FA-1 B, A Completed. • Floor Slab Concrete work under progress. **Pre Treatment Unit**		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
						• Inlet Structure work under Progress. **Control Panel room** • Concrete works completed up to roof level.		
Harihar	**01HRA02**	Improvement of water supply system (bulk) in Harihara City. package • Dismantling of existing WTP. • Raw water transmission pipeline for 4.3 km of 400mm diameter. • Construction of new 20 MLD capacity Water treatment plant. • Clear water transmission pipeline for 11.51 km ranging from 450mm diameter to 200mm diameter.	18.05.2017	18 months	17.11.2018	• Dismantling of existing WTP completed. • Supply of DI Pipes for 15.20 km received at site. • Pipeline laying completed for 2.80km. • OHT at Amaravathi PCC Completed, Reinforcement completed, raft completed and Column under progress. • Aerator, Raw Water Channel, Flash Mixture raft completed and column under progress. • Wash Water tank up to raft and Beam completed. • Sump and Pump house Excavation Under progress.	**33.67%**	No

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
		• Construction of two OHTs of 15 LL capacity and 10LL capacity.						
Harihar	**01WS04**	Construction of Distribution Network- Operator assisted in Harihara including 8 Years O & M of 24 x 7 Harihara Water Supply • Distribution pipeline of 178 km ranging from 63mm diameter to 400mm diameter. • Providing 14,000 number of House service connections.	01.09.2017	123 months	01.12.2027	• Household survey completed. • Design validation is under progress.	Nil	No
Davangere	**01DVG01**	Expansion of sewerage system (District 1 & 3) for Davangere	09.01.2015	36 months	08.01.2018	**Cumulative Progress Up to December -2017** **RCC-NP3 pipes** • Laying of 1633 m for 600 mm diameter completed.	**76.76%**	No

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
		-203.46 km sewers, 7581 nos. manholes				• Laying of 587 m for 500 mm diameter completed. • Laying of 690.8 m for 450 mm diameter completed. • Laying of 1043 m for 400 mm diameter completed. • Laying of 3703m for 350 mm diameter completed. • Laying of 5,874m for 300 mm diameter Completed. • Laying of 1,263 m for 250 mm diameter Completed. • Laying of 939 m for 200mm diameter Completed. **GSW Pipes** • Laying of 110 m laying of 250 mm pipe completed. • Laying of 39,883 m laying of 200 mm GSW pipe completed. • Laying of 9,692 m laying of 150 mm pipe completed. **uPVC Pipes**		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
						• Laying of 281 m laying of 200 mm pipe completed. • Laying of 14 m laying of 250 mm pipe completed. **DWC Pipes** • Laying of 59376.5 m laying of 200 mm pipe completed. • Laying of 137.6m laying of 250 mm pipe completed. **Total for pipeline** • Total of 1,25,226.9m of pipe line completed. **Manholes** • Installation of 4,355 No of manholes completed. **House service Connection** • Laying of 67011 m of House service connection of 110mm diameter completed. • 5795 Chamber completed. **Other works** • Construction drawings issued for 151.76 Km as per new Condition survey to the Contractor.		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
Davangere	**01DVG01A**	Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP	28.09.2015	24 months	27.09.2017 (Extended – upto 30.04.2018)	5 MLD STP SBR TYPE • Pump House- Finishing works under progress • Chlorine Contact Tank- Finishing works under progress • Toner Room- - Finishing works under progress. • Centrifuge Room- Finishing works under progress • SBR- Finishing works under progress • Admin Building/Blower room- Finishing works under progress. • PTU- Finishing works under progress. • Staff quarters- Finishing works under progress. • Construction of Nallah protection wall completed for 72m and finishing works under progress. • Watchman Cabin- Finishing works under progress. • Sludge Treatment Unit Finishing works under progress.	**97.06%**	No

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
						• Compound Wall- Finishing and painting work under progress. • Box Culvert- Finishing work under progress. • Road works- Finishing works under progress. <u>20 MLD STP SBR TYPE</u> • Blower Room- Finishing works under progress. • Toner Room- Finishing works under progress. • Centrifuge Room- Finishing works under progress. • SBR- Finishing works under progress. • Chlorine Contact Tank- Finishing works under progress. • PTU- Finishing works under progress. • Sludge Treatment Unit- Finishing works under progress. • Compound Wall- Finishing works under progress. • Road Works- Finishing works under progress.		

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
Davangere	**01WS01**	Design, Build and Operate (i) Improvement of Bulk Water Supply for 24x7 Water supply to Davanagere city – AND (ii) Operation and Maintenance of the Bulk Water Supply System for a period of three (3) months for Davanagere City Corporation in Karnataka. • Construction of 120 MLD capacity Intake well and Jack well at Rajanahalli. • Raw water transmission pipeline for 13.4 km of 1100mm diameter. • Construction of new 40 MLD capacity Water	01.08.2017	30 months	30.01.2020	• Supply of 13.43 km DI pipes has been received at site. • Pipeline laying completed for 3.40 km. • Excavation works started at WTP.	**16.82%**	No

Town	Package No.	Component	Start Date	Number of Days/Months to Complete Work	Schedule Completion date	Works completed/ under execution	% Physical Progress against total Quantity as of 31st December 2017	Package Completed as of 31st December 2017
		treatment plant. • Pure water pumping main from New WTP to break pressure tank at Bathi Hillock.						

9. Other remaining Water supply package to be implemented under Tranche 1 program and status of IEE is as follows.

Sr. No.	Packages	Status of implementation as of 30 December 2017	Status of IEE
6	24 x 7 Water Supply Distribution System to Davanagere City. Package no.**01WS05** • Clear water transmission pipeline for 59.65 km ranging from 200mm diameter to 1000mm diameter. • Construction of 19 New OHTs. • Distribution pipeline of 1,162 km ranging from 75mm diameter to 500mm diameter (DI & HDPE) • Providing 97,777 number of House service connections. • Rehabilitation of Head works (Intake & Jackwell) & WTP-3 nos. , OHT-30 nos.	The IFB issued on 21.06.2017. Price BID submitted to ADB for their concurrence	Updated IEE report accepted by ADB and disclosed in KUIDFC website.

B. Compliance to Safeguard Loan Covenants

10. The loan agreement for KIUWMIP Project 1 was signed on 30th December 2014 and available in ADB website (http://www.adb.org/sites/default/files/project-document/153027/43253-025-lbj.pdf). **Table 2** provides a summary of compliance to the loan covenants related to environmental safeguards.

Table 2: Compliance to Loan Agreements (Environmental Safeguards)

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
Schedule 4 Item 9	**Procurement of Goods, Works and Consulting Services** **<u>Conditions for Award of the Contract</u>** The Borrower shall ensure or cause the EA **to not award any Works contract** for a Subproject which **involves environmental impacts** until the EA has: a)Obtained the final approval of the IEE from the relevant environment authority of the Borrower and the State, and ADB; and b) Incorporated the relevant provisions from the EMP into the Works contract.	a) Obtained concurrence from ADB for Updated IEE sewerage packages of Davangere, Byadgi & Harihar. b) Incorporated EMP into the works contract of Davangere, Harihara and Byadgi sewerage works. Also obtained concurrence from ADB for Updated IEEs for new water supply packages for Davangere, Harihar and Byadgi
Schedule 5 Item 10	**Safeguards -Environment** The Borrower shall ensure or cause the EA to ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project, and all projects' facilities comply with (i) all applicable laws and regulations of the Borrower and the State relating to environment, health, and safety; (ii) the Environmental Safeguards; (iii) the EARF; and (iv) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	**Under compliance** Document is prepared by complying all relevant State and National Laws, Safeguard Policy Statement (SPS 2009) of ADB, Environment Assessment Review Framework (EARF) for Tranche-1 program. Same will be followed for subsequent Tranches. For **Tranche 1** project Initial Environmental Examination (IEE), Environment Management Plan (EMP) report prepared and approved by ADB. IEE has been updated for Byadgi sewage package due to change in scope and treatment technology. Updated

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
		Byadgi sewerage IEE report submitted to ADB on 16 December 2016 was accepted by ADB on 16 January 2016.Further review will be conducted at implementation phase. Final design for Harihar UGD and STP package, Davangere sewerage package and Davangere STP package have been reviewed. IEE and EMP have been updated as per final design and scope at implementation stage. Updated Davangere sewerage package and Harihar sewerage package IEE/EMP accepted by ADB on December 2016 and January 2017 respectively. All updated reports already disclosed in ADB website. Further updation of IEE done for Davangere sewerage package, due to change in scope. That report will be submitted to ADB IEE has been prepared for water supply packages at Davangere, Harihar and Byadgi and all the reports accepted by ADB and disclosed during November 2016 to January 2017. All safeguard measures and requirements as prescribed in IEE/EIA and EMP being considered during implementation. Corrective or preventive action plans including personal protection will be reflected in Environment Monitoring Report and project implementation authority will be taken care.
Schedule 5 Item 14	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 required.	**Complied** Budgetary provisions have been included in EMP of Tranche 1 sub projects. Environment Engineer (Asst. Executive Engineer) is placed in PMU Human resource (project consultant, i.e Environmental Specialist of PMDCSC) for implementation of EMPs is in place for regular compliance.
Schedule 5 Item 15	The Borrower shall ensure, or cause the EA to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures and requirements relevant to the contractor set forth in the IEE, the EMP, the RP and the IPP (to the extent they concern impacts on affected people during construction), and any corrective or preventative actions set out in a Safeguards Monitoring Report;	**Under compliance** (a) Approved IEE, EMP for Tranche 1 project is attached in Bidding documents. This process will be followed for all the sub projects within the present Tranche and subsequent Tranche. In case of any change of scope, revised IEEs, EMPs will be prepared and corrective measures will be disclosed to contractor and

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
		same will be reflected in the "Environment Monitoring Report" For **Tranche 1** project Initial Environmental Examination (IEE), Environment Management Plan (EMP) report prepared and approved by ADB. IEE has been updated for Byadgi sewage package due to change in scope and treatment technology. Updated Byadgi sewerage IEE report submitted to ADB on 16 December 2016 was accepted by ADB on 16 January 2016. Further review will be conducted at implementation phase. Final design for Harihar UGD and STP package, Davangere sewerage package and Davangere STP package have been reviewed. IEE and EMP have been updated as per final design and scope at implementation stage. Updated IEE for Harihar UGD and STP accepted by ADB on 13th January 2017 Updated IEE for Davangere and STP accepted by ADB on 16th December 2016. All updated reports already disclosed in ADB website. Further updation of IEE done for Davangere sewerage package, due to change in scope. That report will be submitted to ADB IEE has been prepared for water supply packages at Davangere, Harihar and Byadgi and all the reports accepted by ADB and disclosed during November 2016 to January 2017. Corrective actions were taken on the contractor regarding 1) To ensure PPE at all ongoing sites, 2) arrangement of public safety and 4) camp site management
	(b) make available a budget for all such environmental measures;	(b) IEE indicates budgetary provisions for implementation of EMP **Appendix 2** shows budgetary provision for safeguard implementation under different packages
	(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, the EMP, the RP or the IPP;	(c) With the development of sub project and implementation, in case of additional impacts/risks due to change in scope/area, that will be reflected in the revised IEEs, EMPs and Environment Monitoring Report and accordingly project Executing Agency will inform the Construction Agency for taking relevant corrective measures.

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
	(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and (e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	Till date no unanticipated environmental risks or impacts reported (d) Haul roads will be marked properly (by avoiding residences and agricultural land) before commencement of transportation of materials. (e) Pathways, land which are likely to be affected for a short period during implementation of the sub project will be restored by concerned construction agency before acceptance of the work. Restoration status will be reflected in post construction monitoring report
Schedule 5 Item 16	Safeguards Monitoring and Reporting The Borrower shall 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 IEEs, the EMPs, 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 EMPs, promptly after becoming aware of the breach.	**Under compliance** (a) This is 6th semi-annual Safeguards Monitoring Report is prepared for the period July to December 2017, Updated 5th SEMR for the period January to June 2017 was submitted to ADB on October 2017, which not yet disclosed in ADB website. Report will be disclosed on KUIDFC website and respective ULB websites shortly after approval of updated report (b) With the development of project and implementation, in case of additional impacts/risks due to change in scope/area, will be reflected in revised IEEs, EMPs and accordingly Executing Agency (EA) will inform the ADB along with corrective action plan which will be reflected in the Monitoring Report. (c) in case of any breach of compliance with the measures and requirements set forth in the EMP; EA will promptly inform ADB and suitable corrective action plan will be planned.
Schedule 5 Item 17	**Prohibited List of Investments** The Borrower shall ensure or cause the State to ensure that no proceeds of the Loan are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.	**Complied** Under Tranche -1, there is no violation of prohibited investment activities as per ADB SPS (2009) Appendix 5. Same will be followed in subsequent Tranches

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
Schedule 5 Item 18	**Other Social Measures** The EA shall ensure that 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: (i) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; and (ii) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions. Such contracts will also include clauses for termination in case of any breach of the stated provisions by the contractors.	**Complied in document and during implementation** Provision are included (as per EMP & BID document) to carry out HIV/AIDS awareness programs for construction contractor, application of all relevant labour laws for health and safety including child labour law and engagement of local labours (preferably from economically backward group) covering women labours. In case of any breach of provision, necessary corrective measures as per contract clauses shall be taken. All activities including awareness program will be reflected in “Monitoring Report”.

C. Implementation Arrangement

11. Overall Implementation Arrangement. Karnataka Urban Infrastructure Development & Finance Corporation (KUIDFC) is the Executing Agency (EA) responsible for implementing the Investment Program. Investment Program implementation activities is monitored by KUIDFC through a separate Investment Program Management Unit (PMU) for the IWRM Project, which setup within KUIDFC.

12. At the Executing Agency (i.e. KUIDFC), environmental issues will be coordinated centrally by an Environmental Specialist (Designated as Assistant Executive Engineer–Environment), reporting to the Task Manager, Assistant Executive Engineer– Environment will ensure that all subprojects comply with environmental safe guards. The IEE/ EIA reports prepared by the Consultant, and will be reviewed by the Assistant Executive Engineer–Environment as per the ADB’s Environmental Guidelines and forwarded to ADB for review and approval.

13. The consultant team includes an Environmental Specialist to supervise the implementation of environmental safeguards at the divisional level. The consultant team also includes a Construction Supervisor at each ULB/CMC/TMC responsible for the supervision of project implementation including environmental safeguards at the ULB/CMC/TMC level.

14. The contractor shall appoint one supervisor (environment & safety officer)who will be responsible on a day-to day basis for i) ensuring implementation of EMP ii) Coordinating the CS Engineer and environment specialists(all levels) iii) community liaison, consultation with interested/affected parties and grievance redressal and iv) reporting.

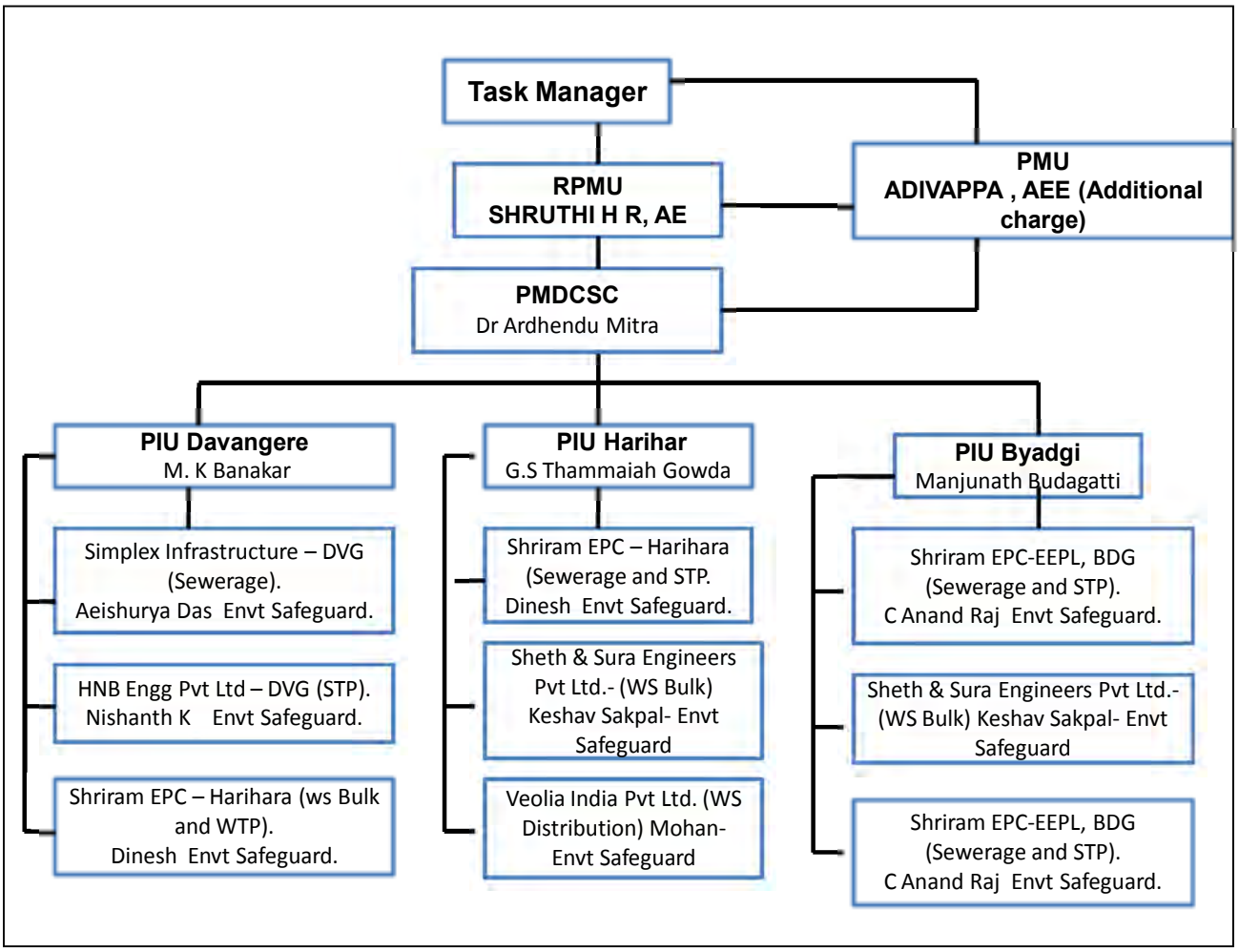
15. **Reporting arrangement**. Construction contractor monitoring safeguard implementation daily basis, while construction Supervisor (Resident Engineer) reviewed safeguard implementation weekly. After review they advised construction contractor for corrective

measures. Monthly report summarizing observation, compliance & corrective measures is prepared by Environment Specialist of consultant on monthly basis. Then reports are forwarded from PIU to PMU for their observation and record. Based on monthly reports and site observations, Assistant Executive Engineer (Environment) of PMU, will review and consolidated the semi annual environment monitoring report for onward submission to ADB. **Table 3** shows activity and responsibility on safeguard implementation.

Table 3: Activity, Roles and Responsibility – Safeguard Implementation

Investment Program Phase	Activity	Details	Responsible Agency
Pre construction phase	Investment Program Categorization	Conduct Rapid Environmental Assessment (REA) for each subcomponents using REA checklists	ULB
		Reviewing the REA and assigning Investment Program category (A/B/C) based on KIUWMIP Environmental Assessment Guidelines and ADB Guidelines	PMU
	Conducting EA	Conducting IEE / EIA based on the Investment Program categorization Conducting Public Consultation and information disclosure Preparation of IEE / EIA	PMDCS consultant
	Investment program clearances	Fulfilling GoK/GoI requirement such as clearances from other Government Agencies	ULB
	Review of EIA/IEE	Reviewing the EIA/IEE Reports to ensure compliance thereof as per ADB Guidelines and approval of the same	PMU
	Disclosure of EIA/IEE	Information disclosure - IEE/EIA reports should be made available to the public, and on request IEE/EIA also made available.	ULB
	Incorporation of mitigation measures into Investment Program design	Incorporation of necessary mitigation measures identified in IEE/EIA in Investment Program design and in contract documents.	PMDCS consultant
	Review of design documents	Review of design and contractual documents for compliance of mitigation measures	PMDCS consultant
Construction Phase	Implementation of mitigation measures	Implementation of necessary mitigation measures	Contractor
	Environmental Monitoring	Environmental monitoring as specified in monitoring plan during construction stage; Monitoring of implementation of mitigation measures	PMDCS consultant
	Preparation of progress reports	Preparation of monthly progress reports to be submitted to PMU including a section on implementation of the mitigation measures	PMDCS consultant
	Review of progress reports	PMU to review the progress reports, consolidate and send to ADB review	PMU
Operation Stage	Environmental Monitoring	Conducting environmental monitoring, as specified in the environmental monitoring plan.	ULB/ Contractor
	Compliance Monitoring	Compliance monitoring to review the environmental performance of sub-project component, if required and as specified in Monitoring Plan.	KSPCB

16. **Figure 2** shows the implementation arrangement for environment safeguard. PMU includes a full-time Assistant Executive Engineer (Environment). As on 31st December 2017 position of Assistant Executive Engineer (Environment) is filled up and also Environment Specialist of PMDCSC (Program Consultant) has been placed.



, AEE: Assistant Executive Engineer, PIU: Project Implementation Unit, PMDCSC: Project Management & Design Supervision Consultant, PMU: Project Management Unit, RPMU: Regional Project Management Unit

Figure 2: KIUWMIP Safeguards Implementation Arrangement

17. **Table 4** shows detail of environment safeguard team for KIUWMIP. Environment Specialist of PMDCSC and Asst. Executive Engineer (Environment) KIUWMIP-KUIDFC visit to project site almost every month to review EMP implementation.

Table 4: Details of KIUWMIP Environmental Safeguard Team

Designation	Name and Contact Details
Asst. Executive Engineer (Environment) KIUWMIP-KUIDFC Project Management Unit (PMU)	**Name:** Mr. Adivappa (Additional charge) **Office Address** Karnataka Urban Infrastructure Development & Finance Corporation Ltd Urban Infrastructure Bhavan Building, #22, 17 'F' Cross Binnamangala, 2nd Stage, Old Madras Road Indiranagar, Bangalore – 560 038. **Phone**: 080-22232021,, 8105161833

Designation	Name and Contact Details
	Email: Adivappa@kuidfc.com
Assistant Executive Engineer, AEE, PIU, Davangere, Package 01DVG01	Name: Mr. Ravikumar D L **Office Address**: KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 **Phone:** 07676190997 **Email:** piukiuwmip.dvg@gmail.com
Assistant Engineer, AE, PIU, Davangere, Package 01DVG01 In-charge Environment safeguard compliance	Name: Mr. M K Banakar **Office Address**: KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 Ph: 9591705661
Assistant Executive Engineer, AEE, PIU, Davangere, Package 01DVG01A	Name: Mr. Manjunath Rao N R **Office Address**: KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 **Phone:** 09535077449 **Email:** piukiuwmip.dvg@gmail.com
Assistant Engineer, AE, PIU, Davangere, Package 01DVG01A In-charge Environment safeguard compliance	Name: Mr. M K Banakar **Office Address**: KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 Ph: 9591705661
Assistant Executive Engineer, AEE, PIU, Harihar, Package 01HRA01	Name: Mr. G S Thammaiah Gowda (In charge) **Office Address**: KUIDFC-KIUWMIP Harihara City municipal Council **Phone:** 9448019202 **Email:** gstgowda@gmail.com
Assistant Engineer, AE, PIU, Harihar, Package 01HRA01 In-charge Environment safeguard compliance	Name: Mr. G S Thammaiah Gowda **Office Address**: KUIDFC-KIUWMIP Harihara City municipal Council **Phone:** 9448019202
Assistant Executive Engineer,, AEE, PIU, Byadgi, Package 01BDG01	Name: Mr. Naveen Kumar H V **Office Address**: KUIDFC-KIUWMIP #Town Municipal Council, Byadgi, Haveri District **Phone:** 9986542126 **Email:** aeekiuwmipbyadgi@gmail.com
Assistant Engineer,, AE, PIU, Byadgi, Package 01BDG01 In-charge Environment safeguard compliance	Name: Mr. Manjunath Budagatti **Office Address**: KUIDFC-KIUWMIP #Town Municipal Council, Byadgi, Haveri District **Phone:** 9880174404
PMDCSC, Environment Specialist	**Name**: Dr. Ardhendu Mitra **Office Address**: PMDCSC, KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 **Phone:** 09830415953 **Email:**ardhendumitra@gmail.com , gkw.Davangere@gmail.com

Designation	Name and Contact Details
PMDCSC, Support staff – Environment monitoring	Name: Mr. Vishal Shenoy **Office Address**: PMDCSC, KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 **Phone:** 09886775454 **Email:** ranjalshenoy.vishal@gmail.com gkw.davanagere@gmail.com
Simplex Infrastructure Ltd. Contractor – Package 01DVG01 Environment Safety Officer	**Name**: Mr. A. Das **Office Address**: Door No. 314, 3rd Main, 1 st cross S. Nijjalinguppa layout, Davangere **Phone:** 7978152229 **Email:** md.eunush@simplexinfra.com
HNB Engineers Pvt. Ltd Contractor – Package DVG01A Environment Safety Officer	**Name:** Mr. Nishant C Kolambkar **Office Address**: #3370/11-12, 1st Cross MCC "B" Block, Shamanur Road, Near Lakshmi Flour Mill Davangere-577 004, State Karnataka **Phone:** 9448282479 **Email:** davanageresite@hnbc.in
Shriram EPC Ltd. Contractor – Package 01WS01 Environment Safety Engineer	**Name:** Mr. Dinesh **Office Address:** 54 B Block, Amaravati Housing Board Colony, Harihar 577601, Davangere Dist. **Phone:** 9789920690, **Email:** vigneshwara@shriramepc.com
Sheth and Sura Engineers Pvt Ltd Contractor – Package 01HRA02 Environment Safety Engineer	**Name:** Mr.Keshav Sapkal **Office Address:** Veeresha krupa, Kodiyal po, Ranebennur Taluq, Haveri Dist. **Phone:** 9449011642 **Email:** keshavsapkal2014@gmail.com
Shriram EPC Ltd. Contractor – Package 01HRA01 Environment Safety Engineer	**Name:** Mr. Dinesh **Office Address:** 54 B Block, Amaravati Housing Board Colony, Harihar 577601, Davangere Dist. **Phone:** 9789920690, **Email:** vigneshwara@shriramepc.com
Veolia India Pvt Ltd Contractor – Package 01WS04 Environment Safety Engineer	**Name:** Mr. Mohan T **Office Address:** HIG-100, Behind new court, Amaravathi colony, Harihara **Phone:** 7619555562 **Email:** mohan.kumar@veolia.com
Shriram EPC Ltd- Eurotek Environment Pvt Ltd (JV) Contractor – Package 01BDG01 Environment Safety Engineer	**Name:** Mr. Anand Raj **Office Address:** #37, 4th cross, 4 th ward, Nehru Nagara, Byadgi, Haveri Dist, Karnataka- 581106 **Phone:** 9148976809 **Email:** anandtkvl@gmail.com.com
Sheth and Sura Engineers Pvt Ltd Contractor – Package 01BDG02 Environment Safety Engineer	**Name:** Mr.Keshav Sapkal **Office Address:** Veeresha krupa, Kodiyal po, Ranebennur Taluq, Haveri Dist. **Phone:** 9449011642 **Email:** keshavsapkal2014@gmail.com
Shriram EPC Ltd- Contractor – Package 01WS03 Environment Safety Engineer	**Name:** Mr. Anand Raj **Office Address:** #37, 4th cross, 4 th ward, Nehru Nagara, Byadgi, Haveri Dist, Karnataka- 581106 **Phone:** 9148976809 **Email:** anandtkvl@gmail.com.com

18. Contractor team carried out regular environment monitoring. Budget for environment monitoring is disclosed in **Appendix 2.**

III. ENVIRONMENTAL PROCEDURE REVIEW

A. Environmental Legal Requirement

19. **Table 5** provides a list of national and state laws, rules, policies and regulations applicable to KIUWMIP Project 1.

Table 5: Environmental Legal Requirements Applicable to KIUWMIP Project 1

Component	Applicable Legislation	Compliance	Action Required for Project 1 Subprojects
1. Tree felling – if required	Karnataka Preservation of Trees Act, 1976 and Karnataka Preservation of Trees Rules, 1977	This Act has put restriction on felling of trees in the State unless until permitted by the Forest Officer. None of the components of this sub project require cutting of trees as per present design. If required permission will be taken.	Compensatory plantation as per rule
2. Sewage Treatment Plant (STP)	Water (Prevention and Control of Pollution)Act 1974 Air (Prevention and Control of Pollution) Act of 1981, Rules of 1982 and amendments.	Consent for Establish (CFE) and Consent for Operate (CFO) from Karnataka State Pollution Control Board (KSPCB), Government of Karnataka In addition for the project, the following will require CFE and CFO from KSPCB: (i) diesel generators; (ii) hot mix plants; and (iii) stone crushers, if installed for construction.	Based on project review and site inspection, KSPCB provides CFE before construction, and stipulates the disposal standards to be met during operation. After completion of construction, CFO is issued confirming compliance with the CFE conditions, if any Compliance against CFE condition is attached as **Appendix 3**
		Renewal of CFO during operation of STP	Based on the performance of the STP and its compliance with the disposal standards CFO to be renewed every year.

B. Compliance with Environmental Legal Requirements (Consents & Statutory clearances)

20. **Table 6** provides the status of compliance of subprojects to national and state laws, rules, policies and regulations applicable to KIUWMIP Project 1.

Table 6: Status of Compliance with National and State Legal Requirements (31st December 2017)

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
Harihar	**01HRA01**	Expansion of the sewerage network (72.16 km sewers, 2640 nos. manholes, 4 nos. pumping stations, 18 MLD Sewage Treatment Plant)	Water (Prevention and Control of Pollution) Act 1974 Consent for Establish (CFE) from Karnataka State Pollution Control Board (KSPCB), Government of Karnataka for expansion of STP from 8.84 MLD to 18 MLD	CFE for expansion of STP received on 22 January 2015 validity period – 5 years	Compliance against CEF condition is attached in **Appendix 3**
			Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	During implementation of project compliance with Air Act, Noise Rules and Water Act will be required For acoustic type of Generator - not required	
			Statutory permission from State Highways Authority for road cutting	NA	-
			Statutory permission from Irrigation Dept. – work under jurisdiction of Irrigation	NA	-
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Approved on 15 June 2015 and is valid for one year. Renewal has been done on 14.06.2017 and which valid upto 14.06.2018	Labour licence enclosed as **Appendix 4**
			Labour compensation insurance	Received. Insurance renewed and Validity upto 25.06.2018	Labour compensation insurance certificate attached as **Appendix 5**
Harihar	**01HRA02**	Improvement of water supply system (bulk) in Harihara City	Water (Prevention and Control of Pollution) Act. 1974	During implementation of project compliance	

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
			The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	with Air Act, Noise Rules and Water Act will be required For acoustic type of Generator - not required	
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Labour license available. Valid upto 17.11.2018	Labour licence enclosed as **Appendix 4**
			Labour compensation insurance	Received. and validity upto 28.05.2018	Labour insurance certificated attached as **Appendix 5**
Harihar	**01WS04**	Construction of Distribution Network-Operator assisted in Harihara including 8 Years O & M of 24 x 7 Harihara Water Supply	Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	During implementation of project compliance with Air Act, Noise Rules and Water Act will be required For acoustic type of Generator - not required	
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Applied for labour license, not yet received	
			Labour compensation insurance	Received and valid upto 23.11.2018	Labour insurance certificated attached as **Appendix 5**
Davangere	**01DVG01**	Expansion of sewerage system (District 1 & 3) for Davangere - 203.46 km sewers, 7581. Manholes and 46981HSC	Statutory permission from Indian Railways - work on the land under their Jurisdiction	Concurrence obtained in January 2015	Supervision charges remitted
			Statutory permission from National Highways Authority for road cutting	Concurrence obtained in Feb 2015	Supervision charges paid to National Highways Authority

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
			Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	During implementation of project compliance with Air Act, Noise Rules and Water Act will be required For acoustic type of Generator - not required	
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Approved on 24 Feb 2015 and is valid for one year. Renewal has been done on 23.02.2017 and which valid upto 23.02.2018	Labour licence enclosed as **Appendix 4**
			Labour compensation insurance	Received. Renewed and validity upto 29.01.2018	Labour insurance certificated attached as **Appendix 5**
Davangere	**01DVG01A**	Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP at Shiva nagar, DavangereTaluk & DBO for 5 MLD SBR STP at Avaragere village at Davangere Taluk	Water (Prevention and Control of Pollution)Act 1974 Consent for Establish (CFE) from Karnataka State Pollution Control Board (KSPCB), Government of Karnataka for establishment of 20 and 5 MLD STP Also requirement of CFE for Batching plant	CFE for both 20 MLD and 5 MLD received on 25th February 2015 and validity period of CFE – 5 years i.e 25th February 2020 CFE needs to be collected from Pollution Control Board for setting up Batching plant. For getting consent for 2 Batching plants online application submitted to pollution control board.	Compliance against CEF condition is attached in **Appendix 3** Batching plant is already closed.

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
				Consent received on 24.06.2016, which valid for 2 years	
			Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	During implementation of project compliance with Air Act, Noise Rules and Water Act will be required For acoustic type of Generator - not required	
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Renewal has been done for the package and which valid upto 04.11.2018	Labour licence enclosed as **Appendix 4**
			Labour compensation insurance	Received on 03.10.2017 and valid upto 02.10.2018	Labour insurance certificated attached as **Appendix 5**
Davangere	**01WS01**	Design, Build and Operate (i) Improvement of Bulk Water Supply for 24x7 Water supply to Davanagere city – AND (ii) Operation and Maintenance of the Bulk Water Supply System for a period of three (3) months for Davanagere City Corporation in Karnataka.	Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	During implementation of project compliance with Air Act, Noise Rules and Water Act will be required For acoustic type of Generator - not required	
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Received and which valid upto 01.07.2018	Labour licence enclosed as **Appendix 4**
			Labour compensation insurance	Received and valid upto 25.06.2018	Labour insurance certificated attached as **Appendix 5**

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
Byadgi	**01BDG01**	Design, Build, Operate & Maintain for 6 years for Byadgi comprehensive scheme covering SBR type STP (5 MLD), Sewerage Network 82.20 km, 3202 manholes, construction of one septic tank (275 users, 0.03 ML) and provision of 6,206 nos HSCs	Water (Prevention and Control of Pollution) Act 1974 Consent for Establish (CFE) from Karnataka State Pollution Control Board (KSPCB), Government of Karnataka for 5MLD SBR Type STP from	CFE for 5 MLD STP obtained from KSPCB on 12.07.2016 and valid for 5 years	Compliance against CEF condition is attached in **Appendix 3**
			Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	During implementation of project compliance with Air Act, Noise Rules and Water Act will be required For acoustic type of Generator - not required	
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Approved on 16.04.2017 and is valid for one year, i.e 16.04.2018	Labour licence enclosed as **Appendix 4**
			Labour compensation insurance	Received and which effective from December 2016 for one year New insurance in name of JV has been done on 24.03.2016 and which valid upto 23.12.2018	Labour insurance certificated attached as **Appendix 5**
Byadgi	**01BDG02**	Improvement of Water Supply System (bulk) in Byadgi Town -. Laying of 8.7 km water supply pipeline of 400mm Diameter.	Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to	During implementation of project compliance with Air Act, Noise Rules and Water Act will be required For acoustic type of	

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
			Establish (CTE) and Consent to Operate (CTO)	Generator - not required	
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Less than 10 labourers are involved in the package. Not required.	
			Labour compensation insurance	Received and which valid upto 28.05.2018	Labour insurance certificated attached as **Appendix 5**
Byadgi	**01WS03**	Construction of Distribution Network-Operator assisted in Byadgi including 8 Years O & M of 24 x 7	Water (Prevention and Control of Pollution) Act. 1974 The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987 Also for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)	During implementation of project compliance with Air Act, Noise Rules and Water Act will be required For acoustic type of Generator - not required	
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Applied but not yet received	
			Labour compensation insurance	Under process. Not yet received.	

Note: Permissions will be obtained on utilities like BSNL, BESCOM as & when required

IV. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

21. Civil works (mainly pipe laying and construction work) continued for all the UGD and STP awarded packages. Site-specific EMP was prepared by the contractor and submitted to PMDCSC for approval. Sample site specific EMPs are attached as **Appendix 6.**

22. Monitoring will be started shortly for newly awarded packages of Harihar and Byadgi water supply network packages. Preliminary work continued for those packages at present.

23. Daily, weekly and monthly monitoring is continued for all the running packages. The overall compliance status for all the 7 packages during report period is satisfactory. Improvement is noted for all the running packages. Compliance status of mitigation measures against impact field is given in **Table 7 to 13.**

24. There are few partial compliance status has been noted for the running packages.

- Advance information to the locals and shopkeepers at pipe laying area of Davangere, Harihar and Byadgi is not always provided. Time period for construction work for particular area and contact details of PIU, consultant in project display board for any grievances or suggestion should be included
- Need to improve use of PPE by contractor's workers. Use of PPE should be at all times as per site condition and work type. Particularly use of shoes, hand gloves and safety belt (when working at height)
- Disposal of excess earth/ spoil not done on regular basis from working sites and drains particularly for Davangere UGD and Byadgi UGD packages. Disposal of scrap and construction materials needed from Byadgi UGD and STP package
- Temporary placement of caution tape is noted for all the packages. Improvement/ complete use of caution tape at working areas required
- Improvement is required for Harihar STP camp site – Toilet facility and housekeeping
- Improvement of housekeeping is required for Davangere UGD camp and store yard
- Arrangement of tie up with hospital and medical examination of workers necessary for Davangere UGD, Davangere, Harihar & Byadgi bulk water supply packages,

Table 7: Compliance to EMP of the Package- Sewerage System in Davangere City, (District 1 & 3), Package No. 01DVG01

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Design & Pre Construction phase								
Design: Drinking water supply lines may be contaminated due to leakage from sewers	• Limit the sewer depth where possible. • Sewers shall be laid away from water supply lines and drains(at least 1m, wherever possible)	Design report	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer PIU	Continuous	Complied as and when required
Disturbance/ damage to existing utilities on the sites (Telephone lines, electric poles and wires, water lines within proposed project sites)	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions • In case of disruption of water supply, alternative supply ,through tankers shall be provided	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist/ PIU	Before start of physical work & Continuous	Complied in design and as & when required Utility services are being restored on the same day or least possible time.
Construction work camps, stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	• Planning for setting up worker camps, hot mix plant, stockpile area, storage and disposal areas • Prioritize areas within or nearest possible vacant space in the sub project location • Non use of residential area • Arrangement of toilet and drinking water facility • No disposal of waste in water	List of selected location for construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas	Proposed camp site	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Mostly Complied. Labour camp construction – done Stockpile and storage areas selected within camp area and construction locations. Toilet facility provided properly. Housekeeping needs to be improved at labour camp. No hot mix plant is required
Emergencies such as leaks, overflows, bursts	• Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst	• Emergency response plan	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment	Before start of physical work & Continuous	Not required now

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
						Specialist / PIU		
Construction								
Impacts due to excess excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to workers and public during work.	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDCSC's Environment Specialist and Construction supervisor	Daily by construction supervisor-Resident Engineer Weekly / bi weekly by Construction Manager. Verification by Environment Specialist of PMDCSC and Asst .Executive Engineer (Environment) KIUWMIP-KUIDFC On monthly basis	Complied mostly Excess excavated soil after back filling is reused to fill trenches if any or shifted from the sites.
Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and water logging, and	• Contractor should obtain material from existing mines approved / licensed by Mines and Geology Department /Revenue Department. • Verify suitability of all material sources and obtain approval of implementing agency • No new quarry sites shall be developed for the sub project purpose • Submit a monthly statement of construction material	• List of approved quarry sites and sources of materials • Bid document to include requirement for verification of suitability of sources and permit for additional quarry sites if	Quarries and material source areas	Contractor	• Checking of records • visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Under Compliance. All materials procurement certified by implementation agency

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
water pollution	procured indicating material type, source and quantity.	necessary • Construction Contractor documentation						
Dust and emissions from construction activity may degrade the air quality	• Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; • Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather; • Bring materials (aggregates, sand, etc gravel) as and when required; • Use tarpaulins to cover sand and other loose material when transported by vehicles; • Clean wheels and undercarriage of vehicles prior to leaving construction site • Ensure valid Pollution Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity	• Location of stockpiles • Complaints from sensitive receptors • Monitoring data • Heavy equipment and machinery with air pollution control • Water sprinkling arrangement • Cover materials	All construction site, stockpile areas	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Excavated earth is used to refill the trench. Materials are brought to the site whenever necessary covered by tarpaulin. Water sprinkling done as and when required Air quality monitoring done during the report period. Complete result certificates available in PIU and PMDCSC office as back up paper. Location map of sampling stations attached as **Appendix 7** PUC certificates for vehicles are obtained
High noisy construction activities may have adverse impacts on sensitive	• Plan activities in consultation with the PIU so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in	• Complaints from sensitive receptors • Use of silencers in noise-producing	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly Prior information is not always provided to locals. Instruction has been given to contractor for more

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
receptors and structures	least disturbance; • Construction work shall be limited to day light hours (6 AM to 6 PM) for all the works located within the town;. • Provide prior information to the local public about the work schedule; • Ensure that there are no old and sensitive buildings that may come under risk due to the use of pneumatic drills; if there is risk, • Cut the rocks manually by chiselling; • Maintain maximum sound levels not exceeding 80 decibels (db) when measured at a distance of 10 m or more from the vehicle/s	equipment and sound barriers • Monitoring data						active awareness No such noise producing machinery mobilized at site Noise quality monitoring is done during the report period Complete result certificates available in PIU and PMDCSC office as back up paper. Location map of sampling stations attached as **Appendix 7**
Impacts on surface drainage and water quality due to contaminated runoff from construction areas in monsoon	• Avoid stock piling of earth file specially during the monsoon season unless covered by tarpaulins or plastic sheets • Stock piles shall be provided with temporary bunds • Prioritize re-use of excess spoils and materials in the construction works. • Place storage are as for fuels and lubricants away from any drainage leading to water bodies • Dispose any wastes generated by construction activities in designated sites	• Areas for stockpiles, storage of fuels and lubricants and waste materials • Number of silt traps installed along drainages (in slope) leading to water bodies • Utilization of spoils	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Stockpiling avoided as far as possible Fuel and lubricants stored separately Wastes dispose as per advice of engineer. No water bodies nearby the present construction sites
Impacts on landscape and aesthetics due to	• Prepare and implement Waste Management Plan–it should present how the	• Waste Management List	All construction sites	Contractor	• Checking of records • Visual	PMDCSC's Environment Specialist	Do	Complied mostly Excess earth removed at earliest.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
construction activity	surplus waste generated will temporarily stocked at the site, transported and disposed properly. The Waste Management Plan will be part of the Construction Management Plan. • Avoid stock piling of excess excavated soils as far as possible • Coordinate with PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas	• Complaints from sensitive receptors • PMU/PIU/PMDCSC to report in writing that the necessary environmental restoration work has been done			inspection of sites	and Construction supervisor		Spoil management plan will be applied as per EMP (sample spoil management plan Attached as **Appendix 8)**
Damage to protected structures due to construction along the areas near to protected monuments	• All necessary and adequate care should be taken to minimize the impact on protected properties. If articles such as fabrics, coins, artefacts, structures or other geologically or archeologically important materials are discovered, the excavation should be stopped and the Archaeological Department should be intimated at the earliest and all the articles received during the sewer laying should be handed over to ASI • PMDCSC should include the above instruction in the contract document.	Chance find protocol	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Not yet arise. Action will be taken as per requirement Instruction has been given to all workers on chance find
Hindrance to traffic movement/ accessibility	• Plan pipeline (sewer lines) work in consultation with the traffic police • Plan work such that trench excavation, pipe laying, and	• Traffic Management Strategy • Complaints from sensitive	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction	Do	Complied. partially Construction works are completing in least possible time.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	refilling including compacting, at a stretch is completed in a minimum possible time; • Provide for immediate consolidation of back filling material to desired compaction- this will allow immediate road restoration and therefore will minimised is turbance to the traffic movement; • Do not close the road completely, ensure that work is conducted on to edge of the road; allow traffic to move on one line; • In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions;	receptors • Number of signage's placed at subproject location.				supervisor		Sign board and Traffic diversion boards are placed mostly. Partial use of caution tape – noted at working locations. Instruction has been given for improvement Alternative routes provided in case of road closure Sample Traffic Management plan is attached as **Appendix 9.** Site photo attached as **Appendix 1**
Impact on sensitive receptors- Schools, hospitals and religious places	• No material should be stocked in this area; material shall be brought to the site as and when required • Conduct work manually with small group of workers and less noise; minimize use of equipment and vehicles • No work should be conducted near the religious places during religious congregations • Material transport to the site should be arranged considering school timings; material should be in place before school starts; • Notify concerned schools,	• Materials storage strategy • Complaints from sensitive receptors • Construction strategy near sensitive areas	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied Schools, Hospitals and religious places were notified before the work.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	hospitals etc 2 weeks prior to the work; • conduct a 30 minutes awareness program at on nature of work, likely disturbances and risks and construction work, mitigation measures in place, entry restrictions and dos and don'ts • Implement all measures suggested elsewhere in this report – dust and noise control, public safety, traffic management, strictly at the sites.							
Socio-Economic: Livelihood Impediment of access to houses and business	• Leave space for access between mounds of excavated soil • Provide wooden planks / foot bridges for pedestrians and metal sheets for vehicles to allow access across trenches to premises where required • Consult affected business people; inform hem in advance when work will occur • Address livelihood issues; implement the Resettlement Plan(RP) to address these issues • Provide sign/ caution/ warning boards at work site indicating work schedule and traffic information; prevent public entry into work sites through barricading and security; and • Provide sign boards for pedestrians to inform nature and duration of construction	• Safety arrangement • Complaint from sensitive receptors • Sign board/ caution board availability with required information	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied partially Advance information are not always given to the shopkeepers. Instruction has been given for more awareness Sign board provided at most of the working locations. Emergency contact no. and time of construction not informed in the board Site photo in **Appendix 1**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	works and contact numbers for concerns / complaints.							
Socio-Economic: Employment generation	Employ at least 50%of the labour force, or to the maximum extent, local persons if man power is available Procure construction materials from local market.	Employment record	All construction sites	Contractor	Checking of records	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Mostly local people are employed where ever possible.
Workers occupational health &safety	(i) Develop and implement site-specific Health and Safety (H&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, gum boot, gloves, nose mask and earplugs; (c) H&S Training for all site personnel; (d) documented procedures to be followed for all site activities; and (e) documentation of work-related accidents; (ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU; (iii) Ensure H&S plan is easily understandable to workers and labourers. Keep in mind that this plan will be used on-site and workers/labourers may not always understand highly technical terms; (iv)Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours; (v)Provide specific guidance for suitable PPE for every on-site	• Site-specific Health and Safety (H&S) Plan • Equipped first-aid stations; • Medical insurance coverage for workers • Number of accidents • Supplies of potable drinking water; • Record of H&S orientation trainings • Personal protective equipments • Sign boards for hazardous areas such as energized electrical devices and lines, service rooms	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Partially Complied. Health and safety measures are followed. PPEs are given to the workers but used partially. Instruction has been given to contractor for improvement First aid box available at working locations Tool box training for workers done Drinking water available at working sites Site photo attached in **Appendix 1** Internal training document sample copy attached in **Appendix 10** Insurance arranged for the labourer. Attached as **Appendix 5** Tie up with local hospital in case of

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	work assignment (vi) Ensure that qualified first- aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site; (vii) Provide medical insurance coverage for workers; (viii) Secure all installations from unauthorized intrusion and accident risks; (ix) Provide supplies of potable drinking water at working sites; (x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and (xi) 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; (xii) 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; (xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas; (xiv) Ensure moving equipment is out fitted with audible back- up alarms; (xv) Mark and provide sign boards for hazardous areas such as							emergency and immediate arrangement of health camp for workers necessary.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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; and (xvi) Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8hours per day without hearing protection. The use of hearing protection shall be enforced actively.							
Community Health & safety	• Provide wooden bracing for all deep excavations (>2m); identify buildings at risk prior to start of excavation work and take necessary precautions for safe work • Plan material and waste routes to avoid times of peak-pedestrian activities • Liaise with Davangere CMC in identifying risk areas on route cards/maps; identify buildings at risk prior to start of excavation work and take necessary precautions for safe conduct of work • Maintain regularly the vehicles and use of manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure	• Traffic Management Strategy • Complaints from sensitive receptors	All construction sites	Contractor	Visual inspection	PMDCSC's Environment Specialist and Construction supervisor	Do	Caution tape provided at excavation areas, but partial use of caution tape noted Instruction is given to contractor for improvement Road signage noted Transportation of materials done as per convenient time without disturbing locals

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	• Provide road signs and flag persons to warn of dangerous conditions, for all the sites along the roads • Overall, the contractor should comply with IFC EHS Guidelines on Community Health and Safety							
Temporary worker camps	• Establishment of temporary camps with drinking water, sanitary and solid waste management arrangement • Train employees in the storage and handling of materials • Remove all wreckage, rubbish, or temporary structures	• Complaints from sensitive Receptors • Water and sanitation facilities for employees • Housekeeping – regular disposal of solid waste	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Camps established with toilet (gender specific), drinking water facility, first aid box available. Improvement of housekeeping is required

Table 8: Compliance to EMP of the Package- Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP, Package No. 01DVG01A

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Design & Pre Construction phase								
Design: Drinking water supply lines may be contaminated due to leakage from sewers	• Limit the sewer depth where possible. • Sewers shall be laid away from water supply lines and drains(at least 1m, wherever possible)	Design report	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer PIU	-	Not applicable as per nature of work
Disturbance/ damage to existing utilities on the sites (Telephone lines, electric poles and wires, water lines	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions • In case of disruption of	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist/ PIU	-	Work at isolated area. Not applicable as per nature of work

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
within proposed project sites)	water supply, alternative supply ,through tankers shall be provided	for service interruptions						
Construction work camps, stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	• Planning for setting up worker camps, hot mix plant, stockpile area, storage and disposal areas • Prioritize areas within or nearest possible vacant space in the sub project location • Non use of residential area • Arrangement of toilet and drinking water facility • No disposal of waste in water	List of selected location for construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas	Propose d camp site	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Complied. Labour camp under closing stage since work almost completed. No hot mix plant is required Concrete batching plant was established with NOC from Pollution Control Board. But presently batching plant closed since civil work completed
Emergencies such as leaks, overflows, bursts	• Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst	• Emergency response plan	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Not required now
For STP- Design Nuisance due to location of the site in a developing area	• Select a treatment process that is compact, aesthetically good, and generates no or fewer odours. • Provide a green buffer zone of 10-15 m wide around the STP • Screen around the facility and will improve the aesthetic appearance. • Regulate the surrounding land use in strict compliance with Davangere Master Plan. And declared no development zone around the STP sites.	Review& Check the inclusion/ provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer	Before start of physical work & as per requirement	Design has been developed accordingly To be comply at operation phase

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	• Design the layout plan of the facility such that potential odour generating units – inlet and primary treatment units and sludge thickener, are located away as far as possible from the nearest development, and be provided with green buffer zone. • Provide backup power facilities for continuous and uninterrupted operation							
For STP- Design and development of Treatment plans as per disposal standards set by CPCB (Pollution of surface water, ground water and land resources)	The Treatment Plants should be designed for following treated water disposal standards	Review & Check the inclusion/ provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer and Environment Specialist	Before start of physical work & as per requirement	Design is developed considering discharge standard of CPCB
For STP- Emergencies Events like release of bad odours	Develop an emergency response system for events like release of bad odours	Review & Check the inclusion/ provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer and Environment Specialist	Before start of physical work & as per requirement	To be comply at operation phase
Construction								
Impacts due to excess excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDCSC's Environment Specialist and Construction supervisor	Daily by construction supervisor Weekly / bi weekly by Constructio n Manager. Verification	Excess earth utilized within STP for development of land

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
workers and public during work.							by Environment Specialist of PMDCSC and Asst. Executive Engineer (Environment) KIUWMIP-KUIDFC On monthly basis	
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	• Contractor should obtain material from existing mines approved / licensed by Mines and Geology Department /Revenue Department. • Verify suitability of all material sources and obtain approval of implementing agency • No new quarry sites shall be developed for the sub project purpose • Submit a monthly statement of construction material procured indicating material type, source and quantity.	• List of approved quarry sites and sources of materials • Bid document to include requirement for verification of suitability of sources and permit for additional quarry sites if necessary • Construction Contractor documentation	Quarries and material source areas	Contractor	• Checking of records • visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Under Compliance. All materials procurement certified by implementation agency Presently construction work almost completed.
Dust and emissions from construction activity may degrade the air quality	• Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; • Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather;	• Location of stockpiles • Complaints from sensitive receptors • Monitoring data • Heavy equipment and machinery with air pollution	All construction site, stockpile areas	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Excavation and construction going on Excavated earth utilized locally Materials transportation is end Water sprinkling is

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	• Bring materials (aggregates, sand, etc gravel) as and when required; • Use tarpaulins to cover sand and other loose material when transported by vehicles; • Clean wheels and undercarriage of vehicles prior to leaving construction site • Ensure valid Pollution Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity	control • Water sprinkling arrangement • Cover materials						done as and when required During construction Air quality monitoring – done Complete result certificates available in PIU and PMDCSC office as back up paper**.** Location of sampling stations shown in **Appendix 7** PUC certificates obtained for vehicles and equipments. All back up papers are available with PMDCSC and PIU
High noisy construction activities may have adverse impacts on sensitive receptors and structures	• Plan activities in consultation with the PIU so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance; • Construction work shall be limited to day light hours (6 AM to 6 PM) for all the works located within the town;. • Provide prior information to the local public about the work schedule; • Ensure that there are no old and sensitive buildings that may come under risk due to the use of	• Complaints from sensitive receptors • Use of silencers in noise-producing equipment and sound barriers • Monitoring data	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied Construction work almost completed and limited to day time only No such noise producing machinery mobilized at site During construction Noise quality monitoring – done Complete result certificates available in PIU and PMDCSC office as back up paper**.** Monitoring locations shown in **Appendix 7.**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	pneumatic drills; if there is risk, • Cut the rocks manually by chiselling; • Maintain maximum sound levels not exceeding 80 decibels (db) when measured at a distance of 10 m or more from the vehicle/s							
Impacts on surface drainage and water quality due to contaminated runoff from construction areas in monsoon	• Avoid stock piling of earth file specially during the monsoon season unless covered by tarpaulins or plastic sheets • Stock piles shall be provided with temporary bunds • Prioritize re-use of excess spoils and materials in the construction works. • Place storage are as for fuels and lubricants away from any drainage leading to water bodies • Dispose any wastes generated by construction activities in designated sites	• Areas for stockpiles, storage of fuels and lubricants and waste materials • Number of silt traps installed along drainages (in slope) leading to water bodies • Utilization of spoils	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Stockpiling avoided as far as possible. Fuel and lubricants stored separately Wastes dispose as per advice of engineer No water bodies nearby the present construction sites
Impacts on landscape and aesthetics due to construction activity	• Prepare and implement Waste Management Plan–it should present how the surplus waste generated will temporarily stocked at the site, transported and disposed properly. The Waste Management Plan will be part of the Construction Management Plan. • Avoid stock piling of	• Waste Management List • Complaints from sensitive receptors • PMU/PIU/PMDCSC to report in writing that the necessary environmental restoration work has been done	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Under Compliance Excess earth utilized within the plant. Since work at completion stage disposal/utilization of construction waste is required. **Appendix 1** photo illustration Spoil management

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	excess excavated soils as far as possible • Coordinate with PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas							plan will be applied as per EMP (sample attached as **Appendix 8)**
Damage to protected structures due to construction along the areas near to protected monuments	• All necessary and adequate care should be taken to minimize the impact on protected properties. If articles such as fabrics, coins, artefacts, structures or other geologically or archeologically important materials are discovered, the excavation should be stopped and the Archaeological Department should be intimated at the earliest and all the articles received during the sewer laying should be handed **over to** ASI • PMDCSC should include the above instruction in the contract document.	Chance find protocol	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Not yet arise. Action will be taken as per requirement Instruction has been given to all workers on chance find Work almost completed
Hindrance to traffic movement/ accessibility	• Plan pipeline (sewer lines) work in consultation with the traffic police • Plan work such that trench excavation, pipe laying, and refilling including compacting, at a stretch is completed in a minimum possible time; • Provide for immediate consolidation of back filling material to desired	• Traffic Management Strategy • Complaints from sensitive receptors • Number of signage's placed at subproject location.	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Isolated location no needs for traffic management at site. Only during transportation of materials necessary mitigation measures applied. Presently transportation of materials completed.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	compaction- this will allow immediate road restoration and therefore will minimised is turbance to the traffic movement; • Do not close the road completely, ensure that work is conducted on to edge of the road; allow traffic to move on one line; • In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions;							
Impact on sensitive receptors- Schools, hospitals and religious places	• No material should be stocked in this area; material shall be brought to the site as and when required • Conduct work manually with small group of workers and less noise; minimize use of equipment and vehicles • No work should be conducted near the religious places during religious congregations • Material transport to the site should be arranged considering school timings; material should be in place before school starts; • Notify concerned schools, hospitals etc 2 weeks prior to the work; • conduct a 30 minutes	• Materials storage strategy • Complaints from sensitive receptors • Construction strategy near sensitive areas	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	No Schools, Hospitals and religious places nearby

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	awareness program at on nature of work, likely disturbances and risks and construction work, mitigation measures in place, entry restrictions and dos and don'ts • Implement all measures suggested elsewhere in this report – dust and noise control, public safety, traffic management, strictly at the sites.							
Socio-Economic: Livelihood Impediment of access to houses and business	• Leave space for access between mounds of excavated soil • Provide wooden planks / foot bridges for pedestrians and metal sheets for vehicles to allow access across trenches to premises where required • Consult affected business people; inform hem in advance when work will occur • Address livelihood issues; implement the Resettlement Plan(RP) to address these issues • Provide sign/ caution/ warning boards at work site indicating work schedule and traffic information; prevent public entry into work sites through barricading and security; and • Provide sign boards for pedestrians to inform	• Safety arrangement • Complaint from sensitive receptors • Sign board/ caution board availability with required information	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied No impact expected as per nature of work Sign boards are provided

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	nature and duration of construction works and contact numbers for concerns / complaints.							
Socio-Economic: Employment generation	Employ at least 50%of the labour force, or to the maximum extent, local persons if man power is available Procure construction materials from local market.	Employment record	All construction sites	Contractor	Checking of records	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Mostly local people are employed where ever possible.
Workers occupational health &safety	(i) Develop and implement site-specific Health and Safety (H&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, gum boot, gloves, nose mask and earplugs; (c) H&S Training for all site personnel; (d) documented procedures to be followed for all site activities; and (e) documentation of work-related accidents; (ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU; (iii) Ensure H&S plan is easily understandable to workers and labourers. Keep in mind that this plan will be used on-site and workers/labourers may not always understand highly technical terms;	• Site-specific Health and Safety (H&S) Plan • Equipped first-aid stations; • Medical insurance coverage for workers • Number of accidents • Supplies of potable drinking water; • Record of H&S orientation trainings • Personal protective equipments • Sign boards for hazardous areas such as energized electrical devices and lines, service rooms	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Health and safety measures are followed. PPEs are given to the workers. They used mostly First aid box available Tool box training for workers arranged and recorded. (**Appendix 10,** sample copy) Drinking water available at working sites Site photo attached in **Appendix 1.** Labour compensation insurance attached as **Appendix 5.**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	(iv)Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours; (v)Provide specific guidance for suitable PPE for every on-site work assignment (vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site; (vii) Provide medical insurance coverage for workers; (viii) Secure all installations from unauthorized intrusion and accident risks; (ix) Provide supplies of potable drinking water at working sites; (x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and (xi) 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; (xii) 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; (xiii) Ensure the visibility of workers through their use of							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	high visibility vests when working in or walking through heavy equipment operating areas; (xiv) Ensure moving equipment is out fitted with audible back- up alarms; (xv) 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; and (xvi) Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8hours per day without hearing protection. The use of hearing protection shall be enforced actively.							
Community Health & safety	• Provide wooden bracing for all deep excavations (>2m); identify buildings at risk prior to start of excavation work and take necessary precautions for safe work • Plan material and waste routes to avoid times of peak-pedestrian activities • Liaise with Davangere CMC in identifying risk areas on route cards/maps; identify buildings at risk	• Traffic Management Strategy • Complaints from sensitive receptors	All construction sites	Contractor	Visual inspection	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied Project site at isolated location. Construction work almost completed. Transportation of materials done as per convenient time without disturbing locals Site photo attached in **Appendix 1.**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	prior to start of excavation work and take necessary precautions for safe conduct of work • 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 dangerous conditions, for all the sites along the roads • Overall, the contractor should comply with IFC EHS Guidelines on Community Health and Safety							
Temporary worker camps	• Establishment of temporary camps with drinking water, sanitary and solid waste management arrangement • Train employees in the storage and handling of materials • Remove all wreckage, rubbish, or temporary structures	• Complaints from sensitive Receptors • Water and sanitation facilities for employees • Housekeeping – regular disposal of solid waste	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Labour camp mostly closed since work almost completed. Toilet and Drinking water facility, first aid box available Removal of scrap and unused construction material done. Site photo attached in **Appendix 1.**

Table 9: Compliance to EMP of the Package- Bulk Water Supply System in Davangere City, Package No. 01WS01

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Design & Pre Construction phase								
Design: Drinking water supply lines may be contaminated due to leakage from sewers	• Limit the sewer depth where possible. • Sewers shall be laid away from water supply lines and drains(at least 1m, wherever possible)	Design report	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer PIU	Continuous	Complied as and when required Work just started.
Disturbance/ damage to existing utilities on the sites (Telephone lines, electric poles and wires, water lines within proposed project sites)	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions • In case of disruption of water supply, alternative supply ,through tankers shall be provided	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist/ PIU	Before start of physical work & Continuous	Complied in design and as & when required Utility services are being restored on the same day or least possible time.
Construction work camps, stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	• Planning for setting up worker camps, hot mix plant, stockpile area, storage and disposal areas • Prioritize areas within or nearest possible vacant space in the sub project location • Non use of residential area • Arrangement of toilet and drinking water facility • No disposal of waste in water	List of selected location for construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas	Proposed camp site	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Complied. Labour camp construction to be done. Work just started No hot mix plant is required
Emergencies such as leaks, overflows, bursts	• Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst	• Emergency response plan	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Not required now

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Construction								
Impacts due to excess excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to workers and public during work.	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDCSC's Environment Specialist and Construction supervisor	Daily by construction supervisor-Resident Engineer Weekly / bi weekly by Construction Manager. Verification by Environment Specialist of PMDCSC and Asst .Executive Engineer (Environment) KIUWMIP-KUIDFC On monthly basis	Complied mostly Excavation just started. Excess soil after back filling will be reused to fill trenches if any or shifted from the sites. .
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	• Contractor should obtain material from existing mines approved / licensed by Mines and Geology Department /Revenue Department. • Verify suitability of all material sources and obtain approval of implementing agency • No new quarry sites shall be developed for the sub project purpose • Submit a monthly statement of construction material procured indicating material type, source and quantity.	• List of approved quarry sites and sources of materials • Bid document to include requirement for verification of suitability of sources and permit for additional quarry sites if necessary • Construction	Quarries and material source areas	Contractor	• Checking of records • visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Under Compliance. All materials procurement certified by implementation agency

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
		Contractor documentation						
Dust and emissions from construction activity may degrade the air quality	• Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; • Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather; • Bring materials (aggregates, sand, etc gravel) as and when required; • Use tarpaulins to cover sand and other loose material when transported by vehicles; • Clean wheels and undercarriage of vehicles prior to leaving construction site • Ensure valid Pollution Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity	• Location of stockpiles • Complaints from sensitive receptors • Monitoring data • Heavy equipment and machinery with air pollution control • Water sprinkling arrangement • Cover materials	All construction site, stockpile areas	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Excavated earth to be used to refill the trench. Materials are brought to the site whenever necessary covered by tarpaulin. Water sprinkling done as and when required Base line air quality monitoring done during the report period. Complete result certificates available in PIU and PMDCSC office as back up paper. Location map of sampling stations attached as **Appendix 7** PUC certificates to be obtained
High noisy construction activities may have adverse impacts on sensitive receptors and structures	• Plan activities in consultation with the PIU so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance; • Construction work shall be limited to day light hours (6 AM to 6 PM) for all the works	• Complaints from sensitive receptors • Use of silencers in noise-producing equipment and sound barriers • Monitoring data	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Work just stated will be complied. Prior information needs to be provided to locals. Instruction has been given to contractor for active awareness No such noise

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	located within the town;. • Provide prior information to the local public about the work schedule; • Ensure that there are no old and sensitive buildings that may come under risk due to the use of pneumatic drills; if there is risk, • Cut the rocks manually by chiselling; • Maintain maximum sound levels not exceeding 80 decibels (db) when measured at a distance of 10 m or more from the vehicle/s							producing machinery mobilized at site Base line Noise quality monitoring is done during the report period Complete result certificates available in PIU and PMDCSC office as back up paper. Location map of sampling stations attached as **Appendix 7**
Impacts on surface drainage and water quality due to contaminated runoff from construction areas in monsoon	• Avoid stock piling of earth file specially during the monsoon season unless covered by tarpaulins or plastic sheets • Stock piles shall be provided with temporary bunds • Prioritize re-use of excess spoils and materials in the construction works. • Place storage are as for fuels and lubricants away from any drainage leading to water bodies • Dispose any wastes generated by construction activities in designated sites	• Areas for stockpiles, storage of fuels and lubricants and waste materials • Number of silt traps installed along drainages (in slope) leading to water bodies • Utilization of spoils	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Stockpiling avoided as far as possible Fuel and lubricants will be stored separately Wastes to be dispose as per advice of engineer. No water bodies nearby the present construction sites. Work just started.
Impacts on landscape and aesthetics due to construction activity	• Prepare and implement Waste Management Plan–it should present how the surplus waste generated will temporarily stocked at the site, transported and	• Waste Management List • Complaints from sensitive receptors	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Work just started. Excess earth needs to be removed at earliest. Spoil management plan will be applied as

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	disposed properly. The Waste Management Plan will be part of the Construction Management Plan. • Avoid stock piling of excess excavated soils as far as possible • Coordinate with PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas	• PMU/PIU/PMDCSC to report in writing that the necessary environmental restoration work has been done						per EMP (Sample spoil management plan Attached as **Appendix 8)**
Damage to protected structures due to construction along the areas near to protected monuments	• All necessary and adequate care should be taken to minimize the impact on protected properties. If articles such as fabrics, coins, artefacts, structures or other geologically or archeologically important materials are discovered, the excavation should be stopped and the Archaeological Department should be intimated at the earliest and all the articles received during the sewer laying should be handed **over to** ASI • PMDCSC should include the above instruction in the contract document.	Chance find protocol	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Not yet arise. Action will be taken as per requirement Instruction has been given to all workers on chance find
Hindrance to traffic movement/ accessibility	• Plan pipeline (sewer lines) work in consultation with the traffic police • Plan work such that trench excavation, pipe laying, and refilling including compacting, at a stretch is completed in a minimum possible time;	• Traffic Management Strategy • Complaints from sensitive receptors • Number of signage's	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Under compliance. Construction works are to be completed in least possible time. Work just started. Sign board and Traffic diversion

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	• Provide for immediate consolidation of back filling material to desired compaction- this will allow immediate road restoration and therefore will minimised is turbance to the traffic movement; • Do not close the road completely, ensure that work is conducted on to edge of the road; allow traffic to move on one line; • In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions;	placed at subproject location.						boards to be arranged. Caution tape needs to be placed as per requirement. Traffic Management plan developed and to be apply soon
Impact on sensitive receptors- Schools, hospitals and religious places	• No material should be stocked in this area; material shall be brought to the site as and when required • Conduct work manually with small group of workers and less noise; minimize use of equipment and vehicles • No work should be conducted near the religious places during religious congregations • Material transport to the site should be arranged considering school timings; material should be in place before school starts; • Notify concerned schools, hospitals etc 2 weeks prior to the work; • conduct a 30 minutes	• Materials storage strategy • Complaints from sensitive receptors • Construction strategy near sensitive areas	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	To be comply. Schools, Hospitals and religious places will be notified before the work.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	awareness program at on nature of work, likely disturbances and risks and construction work, mitigation measures in place, entry restrictions and dos and don'ts • Implement all measures suggested elsewhere in this report – dust and noise control, public safety, traffic management, strictly at the sites.							
Socio-Economic: Livelihood Impediment of access to houses and business	• Leave space for access between mounds of excavated soil • Provide wooden planks / foot bridges for pedestrians and metal sheets for vehicles to allow access across trenches to premises where required • Consult affected business people; inform hem in advance when work will occur • Address livelihood issues; implement the Resettlement Plan(RP) to address these issues • Provide sign/ caution/ warning boards at work site indicating work schedule and traffic information; prevent public entry into work sites through barricading and security; and • Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns / complaints.	• Safety arrangement • Complaint from sensitive receptors • Sign board/ caution board availability with required information	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Instruction has been given for awareness to locals regarding work schedule in advance Sign and caution boards need to be arranged at all working places. Work just started
Socio-	Employ at least 50%of the labour	Employment record	All	Contractor	Checking of	PMDCSC's	Do	Complied.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Economic: Employment generation	force, or to the maximum extent, local persons if man power is available Procure construction materials from local market.		construction sites		records	Environment Specialist and Construction supervisor		Mostly local people are employed where ever possible.
Workers occupational health &safety	(i) Develop and implement site-specific Health and Safety (H&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, gum boot, gloves, nose mask and earplugs; (c) H&S Training for all site personnel; (d) documented procedures to be followed for all site activities; and (e) documentation of work-related accidents; (ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU; (iii) Ensure H&S plan is easily understandable to workers and labourers. Keep in mind that this plan will be used on-site and workers/labourers may not always understand highly technical terms; (iv)Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours; (v)Provide specific guidance for suitable PPE for every on-site work assignment (vi) Ensure that qualified first- aid can be provided at all times. Equipped first-aid stations shall be	• Site-specific Health and Safety (H&S) Plan • Equipped first-aid stations; • Medical insurance coverage for workers • Number of accidents • Supplies of potable drinking water; • Record of H&S orientation trainings • Personal protective equipments • Sign boards for hazardous areas such as energized electrical devices and lines, service rooms	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Under compliance PPEs are given to the workers for complete use. First aid box available at working locations Induction and Tool box training arranged for workers (**Appendix 10,** sample copy) Insurance arranged for the labourer. Attached as **Appendix 5**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	easily accessible throughout the project site; (vii) Provide medical insurance coverage for workers; (viii) Secure all installations from unauthorized intrusion and accident risks; (ix) Provide supplies of potable drinking water at working sites; (x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and (xi) 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; (xii) 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; (xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas; (xiv) Ensure moving equipment is out fitted with audible back- up alarms; (xv) 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							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	shall be in accordance with international standards and be well known to, and easily understood by workers, visitors, and the general public as appropriate; and (xvi) Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8hours per day without hearing protection. The use of hearing protection shall be enforced actively.							
Community Health & safety	• Provide wooden bracing for all deep excavations (>2m); identify buildings at risk prior to start of excavation work and take necessary precautions for safe work • Plan material and waste routes to avoid times of peak-pedestrian activities • Liaise with Davangere CMC in identifying risk areas on route cards/maps; identify buildings at risk prior to start of excavation work and take necessary precautions for safe conduct of work • 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 dangerous conditions, for all the sites along the roads	• Traffic Management Strategy • Complaints from sensitive receptors	All construction sites	Contractor	Visual inspection	PMDCSC's Environment Specialist and Construction supervisor	Do	Caution tape provided at excavation areas, Road signage to be placed. Transportation of materials done as per convenient time without disturbing locals

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	• Overall, the contractor should comply with IFC EHS Guidelines on Community Health and Safety							
Temporary worker camps	• Establishment of temporary camps with drinking water, sanitary and solid waste management arrangement • Train employees in the storage and handling of materials • Remove all wreckage, rubbish, or temporary structures	• Complaints from sensitive Receptors • Water and sanitation facilities for employees • Housekeeping – regular disposal of solid waste	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Work just started. Camp to be established.

Table 10: Compliance to EMP of the Package- Providing expansion of sewage system in Harihar city – Package No. 01HRA01

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Design & Pre Construction phase								
Design: Drinking water supply lines may be contaminated due to leakage from sewers	• Limit the sewer depth where possible. • Sewers shall be laid away from water supply lines and drains (at least1m, wherever possible)	Design report	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer / PIU	Continuous	Complied as and when required
Disturbance/ damage to existing utilities on the sites (Telephone lines, electric poles and wires, water lines within proposed project sites)	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions • In case of disruption of water supply, alternative supply, through tankers, shall be provided	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Complied in design and as & when required Utility services are being restored on the same day or least possible time.
Construction work camps,	• Planning for setting up worker camps, hot mix	List of selected location for	Proposed camp	PIU / Design Consultant	Observation and document	PMDCSC's Resident	Before start of physical	Partially Complied. Labour camp

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	plant, stockpile area, storage and disposal areas • Prioritize areas within or nearest possible vacant space in the sub project location • Non use of residential area • Arrangement of toilet and drinking water facility • No disposal of waste in water	construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas	site		checking	Engineer & Environment Specialist / PIU	work & Continuous	construction – done at STP site. Presently labouers stay at rented house. Work site/ STP camp site toilet needs to be improved Stockpile and storage areas selected nearby camp area and construction locations. No hot mix plant is required Site photo attached as **Appendix 1.**
Emergencies such as leaks, overflows, bursts	• Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst	• Emergency response plan	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Not required now
For STP- Design Nuisance due to location of the site in a developing area	• Select a treatment process that is compact, aesthetically good, and generates no or fewer odours. • Provide a green buffer zone of 10-15 m wide around the STP • Screen around the facility and will improve the aesthetic appearance. • Regulate the surrounding land use in strict compliance with Master Plan. And declared no development zone around the STP sites. • Design the layout plan of the facility such that	Review& Check the inclusion/ provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer	Before start of physical work & as per requirement	Design has been developed accordingly. To be comply at operation phase

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	potential odour generating units – inlet and primary treatment units ands ludge thickener, are located away as far as possible from the nearest development, and be provided with green buffer zone. • Provide backup power facilities for continuous and uninterrupted operation							
For STP- Design and development of Treatment plans as per disposal standards set by CPCB (Pollution of surface water, ground water and land resources)	The Treatment Plants should be designed for following treated water disposal standards	Review& Check the inclusion/ provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer and Environment Specialist	Before start of physical work & as per requirement	Design is developed considering discharge standard of CPCB
For STP- Emergencies Events like release of bad odours	Develop an emergency response system for events like release of bad odours	Review & Check the inclusion/ provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer and Environment Specialist	Before start of physical work & as per requirement	To be comply at operation phase
Construction								
Impacts due to excess excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDCSC's Environment Specialist and Construction supervisor	Daily by construction supervisor Weekly / bi weekly by Constructio n Manager. Verification by Environmen	Complied. Mostly. Excess excavated soil after backfilling is reused to fill trenches if any or shifted from the sites. Disposal as per permission from PIU. **Appendix 12** shows further instruction from project management

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
workers and public during work.							t Specialist of PMDCSC and Asst. Executive Engineer (Environment) KIUWMIP-PMU On monthly basis	authority for disposal of excess earth at low laying areas and utilization for road construction. Excess earth from pipe laying is also used in STP
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	• Contractor should obtain material from existing mines approved/ licensed by Mines and Geology Department / Revenue Department. • Verify suitability of all material sources and obtain approval of implementing agency • No new quarry sites shall be developed for the sub project purpose • Submit a monthly statement of construction material procured indicating material type, source and quantity.	• List of approved quarry sites and sources of materials • Bid document to include requirement for verification of suitability of sources and permit for additional quarry sites if necessary • Construction Contractor documentation	Quarries and material source areas	Contractor	• Checking of records • visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Under Compliance. All materials procurement certified by implementation agency
Dust and emissions from construction activity may degrade the air quality	• Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; • Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather; • Bring materials (aggregates, sand, etc	• Location of stockpiles • Complaints from sensitive receptors • Monitoring data • Heavy equipment and machinery with air pollution control • Water sprinkling	All construction site, stockpile areas	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Mostly Excavated earth is used to refill the trench, Improvement noted. Materials are brought to the site whenever necessary covered by tarpaulin, not always. Water sprinkling is not done on continuation basis. Air quality monitoring

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	gravel) as and when required; • Use tarpaulins to cover sand and other loose material when transported by vehicles; • Clean wheels and undercarriage of vehicles prior to leaving construction site • Ensure valid Pollution Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity	arrangement • Cover materials						has been done during the report period. Complete result certificates available in PIU and PMDCSC office as back up paper. Sampling locations are shown in **Appendix 7.** PUC certificates submitted
High noisy construction activities may have adverse impacts on sensitive receptors and structures	• Plan activities in consultation with the PIU so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance; • Construction work shall be limited to day light hours (6 AM to 6 PM) for all the works located within the town;. • Provide prior information to the local public about the work schedule; • Ensure that there are no old and sensitive buildings that may come under risk due to the use of pneumatic drills; if there is risk, • Cut the rocks manually by chiselling; • Maintain maximum sound levels not exceeding 80 decibels (db) when	• Complaints from sensitive receptors • Use of silencers in noise-producing equipment and sound barriers • Monitoring data	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied Construction work limited to day time only During construction noise monitoring done. Complete result certificates available in PIU and PMDCSC office as back up paper. Sampling locations are shown in **Appendix 7**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	measured at a distance of 10 m or more from the vehicle/s							
Impacts on surface drainage and water quality due to contaminated runoff from construction areas in monsoon	• Avoid stock piling of earth specially during the monsoon season unless covered by tarpaulins or plastic sheets • Stock piles shall be provided with temporary bunds • Prioritize re-use of excess spoils and materials in the construction works. • Place storage areas for fuels and lubricants away from any drainage leading to water bodies • Dispose any wastes generated by construction activities in designated sites	• Areas for stockpiles, storage of fuels and lubricants and waste materials • Number of silt traps installed along drainages (in slope) leading to water bodies • Utilization of spoils	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Stockpiling avoided as far as possible Fuel and lubricants stored separately Wastes dispose as per advice of engineer No water bodies nearby the present construction sites
Impacts on landscape and aesthetics due to construction activity	• Prepare and implement Waste Management Plan – it should present how the surplus waste generated will temporarily stocked at the site, transported and disposed properly. The Waste Management Plan will be part of the Construction Management Plan. • Avoid stockpiling of excess excavated soils as far as possible • Coordinate with PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas	• Waste Management List • Complaints from sensitive receptors • PMU/PIU/PMDCSC to report in writing that the necessary environmental restoration work has been done	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly Excess earth stockpiled and reused. Excess earth from pipe laying is also used in STP Improvement noted. Housekeeping needs to be improve at STP working site Spoil management plan will be applied as per EMP (sample Attached as **Appendix 8)**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Damage to protected structures due to construction along the areas near to protected monuments	• All necessary and adequate care should be taken to minimize the impact on protected properties. If articles such as fabrics, coins, artifacts, structures or other geologically or archeologically important materials are discovered, the excavation should be stopped and the Archaeological Department should be intimated at the earliest and all the articles received during the sewer laying should be handed over to ASI • PMDCSC should include the above instruction in the contract document.	Chance find protocol	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Not yet arise. Action will be taken as per requirement Instruction has been given to all workers on chance find
Hindrance to traffic movement/ accessibility	• Plan pipeline (sewer lines) work in consultation with the traffic police • Plan work such that trench excavation, pipe laying, and refilling including compacting, at a stretch is completed in a minimum possible time; • Provide for immediate consolidation of back filling material to desired compaction-this will allow immediate road restoration and therefore will minimise disturbance to the traffic movement; • Do not close the road completely, ensure that work is conducted on to edge of the road; allow	• Traffic Management Strategy • Complaints from sensitive receptors • Number of signages placed at subproject location.	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly. Construction works are completing in least possible time. Road closure board placed. Alternative routes provided in case of road closure Caution tape provided at closure site. Sample Traffic Management plan is attached as **Appendix 9.** Site photo attached as **Appendix 1.**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	traffic to move on oneline; • In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions;							
Impact on sensitive receptors- Schools, hospitals and religious places	• No material should be stocked in this area; material shall be brought to the site as and when required • Conduct work manually with small group of workers and less noise; minimize use of equipment and vehicles • No work should be conducted near the religious places during religious congregations • Material transport to the site should be arranged considering school timings; material should be in place before school starts; • Notify concerned schools, hospitals etc 2 weeks prior to the work; • conduct a 30 minutes awareness program at on nature of work, likely disturbances and risks and construction work, mitigation measures in place, entry restrictions and dos and don'ts • Implement all measures suggested elsewhere in this report – dust and noise control, public safety, traffic	• Materials storage strategy • Complaints from sensitive receptors • Construction strategy near sensitive areas	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Not required now Schools, Hospitals and religious places are notified before the work.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	management, strictly at the sites.							
Socio-Economic: Livelihood Impediment of access to houses and business	• Leave space for access between mounds of excavated soil • Provide wooden planks / foot bridges for pedestrians and metal sheets for vehicles to allow access across trenches to premises where required • Consult affected business people; inform them in advance when work will occur • Address livelihood issues; implement the Resettlement Plan (RP) to address these issues • Provide sign /caution/ warning boards at work site indicating work schedule and traffic information; prevent public entry into work sites through barricading and security ;and • Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns / complaints.	• Safety arrangement • Complaint from sensitive receptors • Sign board/ caution board availability with required information	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly Advance information is given to the shopkeepers and locals Sign board provided. But caution and time of construction not always informed in the board Site photo in **Appendix 1.** Instruction has been given to the contractor for improvement
Socio-Economic: Employment generation	Employ atleast 50% of the labour force, or to the maximum extent, local persons if manpower is available Procure construction materials from local market.	Employment record	All construction sites	Contractor	Checking of records	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Local people are mostly employed
Workers occupational	(i) Develop and implement site-specific Health and Safety(H&S)	• Site-specific Health and	All construct	Contractor	• Checking of records	PMDCSC's Environment	Do	Complied mostly. Health and safety

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
health &safety	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, gloves, nose mask and earplugs; (c) H&S Training for all site personnel; (d) Documented procedures to be followed for all site activities ; and (e) Documentation of work-related accidents; (ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU; (iii) Ensure H&S plan is easily understandable to workers and labourers. Keep in mind that this plan will be used on-site and workers/labourers may not always understand highly technical terms; (iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours; (v)Provide specific guidance for suitable PPE for every on-site work assignment (vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site; (vii) Provide medical insurance	Safety (H&S) Plan • Equipped first-aid stations; • Medical insurance coverage for workers • Number of accidents • Supplies of potable drinking water; • Record of H&S orientation trainings • Personal protective equipments • Sign boards for hazardous areas such as energized electrical devices and lines, service rooms	ion sites		• Visual inspectio n of sites	Specialist and Construction supervisor		measures are followed. PPEs are given to the workers. Used mostly. First aid box available Tool box training for workers arranged Drinking water available at working sites Site photo attached in **Appendix 1.** Internal training document sample copy attached in **Appendix 10** Insurance arranged for the labourer. Attached as **Appendix 5** Tie up letter with nearby health center in case of emergency arranged and medical checkup for workers done. Copy attached as **Appendix 11**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	coverage for workers; (viii) Secure all installations from unauthorized intrusion and accident risks; (ix) Provide supplies of potable drinking water at working sites; (x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and (xi) Provide H&S orientation training to all new workers to ensure that they are apprised of the basics rules of work at the site, personal protective protection, and preventing injuring to fellow workers; (xii) 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; (xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas; (xiv) Ensure moving equipment is out fitted with audible back- up alarms; (xv) 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,							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	and easily understood by workers, visitors, and the general public as appropriate; and (xvi) Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.							
Community Health & safety	• Provide wooden bracing for all deep excavations(>2m); identify buildings at risk prior to start of excavation work and take necessary precautions for safe work • Plan material and waste routes to avoid times of peak-pedestrian activities • Liaise with Davangere CMC in identifying risk areas on route cards/maps; identify buildings at risk prior to start of excavation work and take necessary precautions for safe conduct of work • 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 dangerous conditions, for all the sites along the roads • Overall, the contractor should comply with IFC EHS Guidelines on Community	• Traffic Management Strategy • Complaints from sensitive receptors	All construction sites	Contractor	Visual inspection	PMDCSC's Environment Specialist and Construction supervisor	Do	Partially Complied Caution tape provided at excavated areas, improvement required. Transportation of materials done as per convenient time without disturbing locals

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	Health and Safety							
Temporary worker camps	• Establishment of temporary camps with drinking water, sanitary and solid waste management arrangement • Train employees in the storage and handling of materials • Remove all wreckage, rubbish, or temporary structures	• Complaints from sensitive Receptors • Water and sanitation facilities for employees • Housekeeping – regular disposal of solid waste	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Partially Complied. Labour camp construction – done at STP site with toilet and drinking water facility.. Presently labourers stay at rented house. Improvement of toilet and housekeeping are required. Stockpile and storage areas selected nearby camp area and construction locations. No hot mix plant is required

Table 11 Compliance to EMP of the Package- Bulk water supply system in Harihar city – Package No. 01HRA02

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Design & Pre Construction phase								
Design: Drinking water supply lines may be contaminated due to leakage from sewers	• Limit the sewer depth where possible. • Sewers shall be laid away from water supply lines and drains (at least1m, wherever possible)	Design report	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer / PIU	Continuous	Complied as and when required
Disturbance/ damage to existing utilities on the sites (Telephone lines, electric poles and wires, water lines within proposed project sites)	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions • In case of disruption of water supply, alternative supply, through tankers, shall be provided	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Complied in design and as & when required Utility services are being restored on the same day or least possible time.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Construction work camps, stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	• Planning for setting up worker camps, hot mix plant, stockpile area, storage and disposal areas • Prioritize areas within or nearest possible vacant space in the sub project location • Non use of residential area • Arrangement of toilet and drinking water facility • No disposal of waste in water	List of selected location for construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas	Proposed camp site	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Complied. Labour camp construction – done at Reservoir construction site Stockpile and storage areas selected nearby camp area and construction locations. No hot mix plant is required
Emergencies such as leaks, overflows, bursts	• Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst	• Emergency response plan	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Not required now
Construction								
Impacts due to excess excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to workers and public during work.	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDCSC's Environment Specialist and Construction supervisor	Daily by construction supervisor Weekly / bi weekly by Construction Manager. Verification by Environment Specialist of PMDCSC and Asst. Executive Engineer (Environment) KIUWMIP-PMU On monthly	Complied. Mostly. Excess excavated soil after backfilling is reused to fill trenches if any or shifted from the sites. Disposal as per permission from PIU.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
							basis	
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	• Contractor should obtain material from existing mines approved/ licensed by Mines and Geology Department / Revenue Department. • Verify suitability of all material sources and obtain approval of implementing agency • No new quarry sites shall be developed for the sub project purpose • Submit a monthly statement of construction material procured indicating material type, source and quantity.	• List of approved quarry sites and sources of materials • Bid document to include requirement for verification of suitability of sources and permit for additional quarry sites if necessary • Construction Contractor documentation	Quarries and material source areas	Contractor	• Checking of records • visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Under Compliance. All materials procurement certified by implementation agency
Dust and emissions from construction activity may degrade the air quality	• Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; • Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather; • Bring materials (aggregates, sand, etc gravel) as and when required; • Use tarpaulins to cover sand and other loose material when transported by vehicles; • Clean wheels and undercarriage of vehicles prior to leaving construction site	• Location of stockpiles • Complaints from sensitive receptors • Monitoring data • Heavy equipment and machinery with air pollution control • Water sprinkling arrangement • Cover materials	All construction site, stockpile areas	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Mostly Excavated earth is used to refill the trench,. Materials are brought to the site whenever necessary covered by tarpaulin, not always. Water sprinkling is not done on continuation basis. Air quality monitoring has been done during the report period. Complete result certificates available in PIU and PMDCSC office as back up paper. Sampling locations are shown in **Appendix 7.**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	• Ensure valid Pollution Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity							PUC certificates for vehicle and equipments submitted
High noisy construction activities may have adverse impacts on sensitive receptors and structures	• Plan activities in consultation with the PIU so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance; • Construction work shall be limited to day light hours (6 AM to 6 PM) for all the works located within the town;. • Provide prior information to the local public about the work schedule; • Ensure that there are no old and sensitive buildings that may come under risk due to the use of pneumatic drills; if there is risk, • Cut the rocks manually by chiselling; • Maintain maximum sound levels not exceeding 80 decibels (db) when measured at a distance of 10 m or more from the vehicle/s	• Complaints from sensitive receptors • Use of silencers in noise-producing equipment and sound barriers • Monitoring data	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied Construction work limited to day time only During construction noise monitoring done. Complete result certificates available in PIU and PMDCSC office as back up paper. Sampling locations are shown in **Appendix 7**
Impacts on surface drainage and water quality due to contaminated runoff from	• Avoid stock piling of earth specially during the monsoon season unless covered by tarpaulins or plastic sheets • Stock piles shall be provided with temporary	• Areas for stockpiles, storage of fuels and lubricants and waste materials • Number of silt	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Stockpiling avoided as far as possible Fuel and lubricants stored separately Wastes dispose as per advice of engineer

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
construction areas in monsoon	bunds • Prioritize re-use of excess spoils and materials in the construction works. • Place storage areas for fuels and lubricants away from any drainage leading to water bodies • Dispose any wastes generated by construction activities in designated sites	traps installed along drainages (in slope) leading to water bodies • Utilization of spoils						No water bodies nearby the present construction sites
Impacts on landscape and aesthetics due to construction activity	• Prepare and implement Waste Management Plan – it should present how the surplus waste generated will temporarily stocked at the site, transported and disposed properly. The Waste Management Plan will be part of the Construction Management Plan. • Avoid stockpiling of excess excavated soils as far as possible • Coordinate with PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas	• Waste Management List • Complaints from sensitive receptors • PMU/PIU/PMDCSC to report in writing that the necessary environmental restoration work has been done	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly Excess earth stockpiled and reused. Excess earth from pipe laying is used for filling low laying area Improvement noted. Spoil management plan will be applied as per EMP (Sample attached as **Appendix 8)**
Damage to protected structures due to construction along the areas near to protected monuments	• All necessary and adequate care should be taken to minimize the impact on protected properties. If articles such as fabrics, coins, artifacts, structures or other geologically or archeologically important materials are discovered, the excavation should be	Chance find protocol	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Not yet arise. Action will be taken as per requirement Instruction has been given to all workers on chance find

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	stopped and the Archaeological Department should be intimated at the earliest and all the articles received during the sewer laying should be handed over to ASI • PMDCSC should include the above instruction in the contract document.							
Hindrance to traffic movement/ accessibility	• Plan pipeline (sewer lines) work in consultation with the traffic police • Plan work such that trench excavation, pipe laying, and refilling including compacting, at a stretch is completed in a minimum possible time; • Provide for immediate consolidation of back filling material to desired compaction-this will allow immediate road restoration and therefore will minimise disturbance to the traffic movement; • Do not close the road completely, ensure that work is conducted on to edge of the road; allow traffic to move on oneline; • In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions;	• Traffic Management Strategy • Complaints from sensitive receptors • Number of signages placed at subproject location.	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly. Construction works are completing in least possible time. Road closure and diversion board placed. Alternative routes provided in case of road closure Caution tape provided at closure site. **Appendix 1** shows site photo Traffic Management Plan needs to be developed. Sample Traffic Management plan is attached as **Appendix 9**
Impact on sensitive receptors-	• No material should be stocked in this area; material shall be brought to	• Materials storage strategy • Complaints from	All construction sites	Contractor	• Checking of records • Visual	PMDCSC's Environment Specialist	Do	Not required now Schools, Hospitals and religious places are

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Schools, hospitals and religious places	the site as and when required • Conduct work manually with small group of workers and less noise; minimize use of equipment and vehicles • No work should be conducted near the religious places during religious congregations • Material transport to the site should be arranged considering school timings; material should be in place before school starts; • Notify concerned schools, hospitals etc 2 weeks prior to the work; • conduct a 30 minutes awareness program at on nature of work, likely disturbances and risks and construction work, mitigation measures in place, entry restrictions and dos and don'ts • Implement all measures suggested elsewhere in this report – dust and noise control, public safety, traffic management, strictly at the sites.	sensitive receptors • Construction strategy near sensitive areas			inspectio n of sites	and Construction supervisor		notified before the work.
Socio-Economic: Livelihood Impediment of access to houses and business	• Leave space for access between mounds of excavated soil • Provide wooden planks / foot bridges for pedestrians and metal sheets for vehicles to allow access across trenches to	• Safety arrangement • Complaint from sensitive receptors • Sign board/ caution board availability with	All construct ion sites	Contractor	• Checking of records • Visual inspectio n of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly Advance information is given to the shopkeepers and locals Sign board provided. But caution and time of construction not always informed in the board

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	premises where required • Consult affected business people; inform them in advance when work will occur • Address livelihood issues; implement the Resettlement Plan (RP) to address these issues • Provide sign /caution/ warning boards at work site indicating work schedule and traffic information; prevent public entry into work sites through barricading and security ;and • Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns / complaints.	required information						Site photo in **Appendix 1.** Instruction has been given to the contractor for improvement
Socio-Economic: Employment generation	Employ atleast 50% of the labour force, or to the maximum extent, local persons if manpower is available Procure construction materials from local market.	Employment record	All construction sites	Contractor	Checking of records	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Local people are mostly employed
Workers occupational health &safety	(i) Develop and implement site-specific Health and Safety(H&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, gloves, nose mask and earplugs;	• Site-specific Health and Safety (H&S) Plan • Equipped first-aid stations; • Medical insurance coverage for workers • Number of accidents	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly. Health and safety measures are followed. PPEs are given to the workers. Used mostly. First aid box available Tool box training for workers arranged

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	(c) H&S Training for all site personnel; (d) Documented procedures to be followed for all site activities ; and (e) Documentation of work-related accidents; (ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU; (iii) Ensure H&S plan is easily understandable to workers and labourers. Keep in mind that this plan will be used on-site and workers/labourers may not always understand highly technical terms; (iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours; (v)Provide specific guidance for suitable PPE for every on-site work assignment (vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site; (vii) Provide medical insurance coverage for workers; (viii) Secure all installations from unauthorized intrusion and accident risks; (ix) Provide supplies of potable drinking water at working sites; (x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and	• Supplies of potable drinking water; • Record of H&S orientation trainings • Personal protective equipments • Sign boards for hazardous areas such as energized electrical devices and lines, service rooms						Drinking water available at working sites Site photo attached in **Appendix 1.** Internal training document sample copy attached in **Appendix 10.** Insurance arranged for the labourer. Attached as **Appendix 5** Tie up letter with nearby health center in case of emergency attached as **Appendix 11.** Medical examination of workers needs to be done.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	(xi) Provide H&S orientation training to all new workers to ensure that they are apprised of the basics rules of work at the site, personal protective protection, and preventing injuring to fellow workers; (xii) 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; (xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas; (xiv) Ensure moving equipment is out fitted with audible back- up alarms; (xv) 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; and (xvi) Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	actively.							
Community Health & safety	• Provide wooden bracing for all deep excavations(>2m); identify buildings at risk prior to start of excavation work and take necessary precautions for safe work • Plan material and waste routes to avoid times of peak-pedestrian activities • Liaise with Davangere CMC in identifying risk areas on route cards/maps; identify buildings at risk prior to start of excavation work and take necessary precautions for safe conduct of work • 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 dangerous conditions, for all the sites along the roads • Overall, the contractor should comply with IFC EHS Guidelines on Community Health and Safety	• Traffic Management Strategy • Complaints from sensitive receptors	All construction sites	Contractor	Visual inspection	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Caution tape provided at excavated areas Transportation of materials done as per convenient time without disturbing locals
Temporary worker camps	• Establishment of temporary camps with drinking water, sanitary and solid waste management arrangement • Train employees in the storage and handling of materials • Remove all wreckage, rubbish, or temporary	• Complaints from sensitive Receptors • Water and sanitation facilities for employees • Housekeeping – regular disposal	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Labour camp construction – done at water reservoir site with toilet and drinking water facility.. Stockpile and storage areas selected nearby

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	structures	of solid waste						camp area and construction locations. No hot mix plant is required

Table 12: Compliance to EMP of the Package- Providing expansion of sewage system in Byadgi Town – Package No. 01BDG01

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Design & Pre Construction phase								
Design: Drinking water supply lines may be contaminated due to leakage from sewers	• Limit the sewer depth where possible. • Sewers shall be laid away from water supply lines and drains (at least1m, wherever possible)	Design report	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer / PIU	Continuous	Complied as and when required
Disturbance/ damage to existing utilities on the sites (Telephone lines, electric poles and wires, water lines within proposed project sites)	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions • In case of disruption of water supply, alternative supply, through tankers, shall be provided	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Complied in design and as & when required Utility services will be restored on the same day or least possible time.
Construction work camps, stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	• Planning for setting up worker camps, hot mix plant, stockpile area, storage and disposal areas • Prioritize areas within or nearest possible vacant space in the sub project location • Non use of residential area • Arrangement of toilet and drinking water facility • No disposal of waste in water	List of selected location for construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas	Proposed camp site	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Rented house arranged for workers At STP site toilet and drinking water facility available

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Emergencies such as leaks, overflows, bursts	• Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst	• Emergency response plan	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Not required now
For STP- Design Nuisance due to location of the site in a developing area	• Select a treatment process that is compact, aesthetically good, and generates no or fewer odours. • Provide a green buffer zone of 10-15 m wide around the STP • Screen around the facility and will improve the aesthetic appearance. • Regulate the surrounding land use in strict compliance with Master Plan. And declared no development zone around the STP sites. • Design the layout plan of the facility such that potential odour generating units – inlet and primary treatment units ands ludge thickener, are located away as far as possible from the nearest development, and be provided with green buffer zone. • Provide backup power facilities for continuous and uninterrupted operation	Review& Check the inclusion/ provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer	Before start of physical work & as per requirement	Design to be developed accordingly. To be comply at operation phase
For STP- Design and development of Treatment plans	The Treatment Plants should be designed for following treated water disposal standards	Review& Check the inclusion/ provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer	Before start of physical work & as per	Design under finalization considering discharge standard of CPCB

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
as per disposal standards set by CPCB (Pollution of surface water, ground water and land resources)						and Environment Specialist	requirement	
For STP-Emergencies Events like release of bad odours	Develop an emergency response system for events like release of bad odours	Review & Check the inclusion/ provision in DPR, as appropriate	STP site	PIU / Design Consultant	Observation and document checking	PMU/ PIU/ PMDCSC's Resident Engineer and Environment Specialist	Before start of physical work & as per requirement	To be comply at operation phase
Construction								
Impacts due to excess excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to workers and public during work.	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDCSC's Environment Specialist and Construction supervisor	Daily by construction supervisor Weekly / bi weekly by Constructio n Manager. Verification by Environmen t Specialist of PMDCSC and Asst.. Executive Engineer (Environme nt) KIUWMIP-KUIDFC on monthly basis	Partially complied. Excess excavated soil after backfilling will be reused to fill trenches if any or shifted from the sites. Disposal as per permission from PIU. Removal of excess earth from main Ratihalli road is required. **Appendix 12** shows further instruction from project management authority for disposal of excess earth at low laying areas and utilization for road construction. Excess earth from pipe laying will also be used in STP. Instruction has already been given.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
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	• Contractor should obtain material from existing mines approved/ licensed by Mines and Geology Department / Revenue Department. • Verify suitability of all material sources and obtain approval of implementing agency • No new quarry sites shall be developed for the sub project purpose • Submit a monthly statement of construction material procured indicating material type, source and quantity.	• List of approved quarry sites and sources of materials • Bid document to include requirement for verification of suitability of sources and permit for additional quarry sites if necessary • Construction Contractor documentation	Quarries and material source areas	Contractor	• Checking of records • visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Under Compliance. All materials procurement certified by implementation agency
Dust and emissions from construction activity may degrade the air quality	• Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; • Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather; • Bring materials (aggregates, sand, etc gravel) as and when required; • Use tarpaulins to cover sand and other loose material when transported by vehicles; • Clean wheels and undercarriage of vehicles prior to leaving construction site • Ensure valid Pollution	• Location of stockpiles • Complaints from sensitive receptors • Monitoring data • Heavy equipment and machinery with air pollution control • Water sprinkling arrangement • Cover materials	All construction site, stockpile areas	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Excavated earth is used to refill the trench Materials are brought to the site whenever necessary covered by tarpaulin, not always. Water sprinkling is not required now, but will be done as per site and weather condition. During construction air quality monitoring done during the report period. Complete result certificates available in PIU and PMDCSC office as back up paper. Sampling locations are shown in **Appendix 7.**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity							PUC certificates for vehicle and equipments submitted
High noisy construction activities may have adverse impacts on sensitive receptors and structures	• Plan activities in consultation with the PIU so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance; • Construction work shall be limited to day light hours (6 AM to 6 PM) for all the works located within the town;. • Provide prior information to the local public about the work schedule; • Ensure that there are no old and sensitive buildings that may come under risk due to the use of pneumatic drills; if there is risk, • Cut the rocks manually by chiselling; • Maintain maximum sound levels not exceeding 80 decibels (db) when measured at a distance of 10 m or more from the vehicle/s	• Complaints from sensitive receptors • Use of silencers in noise-producing equipment and sound barriers • Monitoring data	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied Construction work limited to day time only Prior information is provided to locals Complete result certificates available in PIU and PMDCSC office as back up paper. Sampling locations are shown in **Appendix 7**
Impacts on surface drainage and water quality due to contaminated runoff from construction	• Avoid stock piling of earth specially during the monsoon season unless covered by tarpaulins or plastic sheets • Stock piles shall be provided with temporary bunds	• Areas for stockpiles, storage of fuels and lubricants and waste materials • Number of silt traps installed	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Mostly Complied.-disposal of waste Stockpiling avoided as far as possible Fuel and lubricants stored properly No water bodies nearby the present construction

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
areas in monsoon	• Prioritize re-use of excess spoils and materials in the construction works. • Place storage areas for fuels and lubricants away from any drainage leading to water bodies • Dispose any wastes generated by construction activities in designated sites	along drainages (in slope) leading to water bodies • Utilization of spoils						sites
Impacts on landscape and aesthetics due to construction activity	• Prepare and implement Waste Management Plan – it should present how the surplus waste generated will temporarily stocked at the site, transported and disposed properly. The Waste Management Plan will be part of the Construction Management Plan. • Avoid stockpiling of excess excavated soils as far as possible • Coordinate with PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas	• Waste Management List • Complaints from sensitive receptors • PMU/PIU/PMDCSC to report in writing that the necessary environmental restoration work has been done	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Excess earth stockpiled and reused. Sometime disposal of excess earth needed from main road nearby the pipe laying site. Spoil management plan will be applied as per EMP (Sample attached as **Appendix 8)**
Damage to protected structures due to construction along the areas near to protected monuments	• All necessary and adequate care should be taken to minimize the impact on protected properties. If articles such as fabrics, coins, artifacts, structures or other geologically or archeologically important materials are discovered, the excavation should be stopped and the	Chance find protocol	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Action will be taken as per requirement Instruction has been given to all workers on chance find

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	Archaeological Department should be intimated at the earliest and all the articles received during the sewer laying should be handed over to ASI • PMDCSC should include the above instruction in the contract document.							
Hindrance to traffic movement/ accessibility	• Plan pipeline (sewer lines) work in consultation with the traffic police • Plan work such that trench excavation, pipe laying, and refilling including compacting, at a stretch is completed in a minimum possible time; • Provide for immediate consolidation of back filling material to desired compaction-this will allow immediate road restoration and therefore will minimise disturbance to the traffic movement; • Do not close the road completely, ensure that work is conducted on to edge of the road; allow traffic to move on oneline; • In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions;	• Traffic Management Strategy • Complaints from sensitive receptors • Number of signages placed at subproject location.	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Construction works are completing in least possible time. Road closure board placed. Emergency contact no available. Alternative routes provided in case of road closure Caution tape provided partially at closure site. Improvement is required. Hard barricading needs to be provided at the UGD network site Sample Traffic Management plan is attached as **Appendix 9.** **Appendix 1** shows site photographs.
Impact on sensitive receptors- Schools,	• No material should be stocked in this area; material shall be brought to the site as and when	• Materials storage strategy • Complaints from sensitive	All construction sites	Contractor	• Checking of records • Visual inspectio	PMDCSC's Environment Specialist and	Do	Not required now Schools, Hospitals and religious places are notified before the work.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
hospitals and religious places	required • Conduct work manually with small group of workers and less noise; minimize use of equipment and vehicles • No work should be conducted near the religious places during religious congregations • Material transport to the site should be arranged considering school timings; material should be in place before school starts; • Notify concerned schools, hospitals etc 2 weeks prior to the work; • conduct a 30 minutes awareness program at on nature of work, likely disturbances and risks and construction work, mitigation measures in place, entry restrictions and dos and don'ts • Implement all measures suggested elsewhere in this report – dust and noise control, public safety, traffic management, strictly at the sites.	receptors • Construction strategy near sensitive areas			n of sites	Construction supervisor		
Socio-Economic: Livelihood Impediment of access to houses and business	• Leave space for access between mounds of excavated soil • Provide wooden planks / foot bridges for pedestrians and metal sheets for vehicles to allow access across trenches to premises where required	• Safety arrangement • Complaint from sensitive receptors • Sign board/ caution board availability with required	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly Advance information is given to the shopkeepers and locals Sign board provided. But caution and time of construction not always informed in the board Site photo in **Appendix**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	• Consult affected business people; inform them in advance when work will occur • Address livelihood issues; implement the Resettlement Plan (RP) to address these issues • Provide sign /caution/ warning boards at work site indicating work schedule and traffic information; prevent public entry into work sites through barricading and security ;and • Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns / complaints.	information						**1**
Socio-Economic: Employment generation	Employ atleast 50% of the labour force, or to the maximum extent, local persons if manpower is available Procure construction materials from local market.	Employment record	All construction sites	Contractor	Checking of records	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Local people are mostly employed
Workers occupational health &safety	(i) Develop and implement site-specific Health and Safety(H&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, gloves, nose mask and earplugs; (c) H&S Training for all site	• Site-specific Health and Safety (H&S) Plan • Equipped first-aid stations; • Medical insurance coverage for workers • Number of accidents • Supplies of	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. mostly Health and safety measures are followed. PPEs are given to the workers. They using mostly First aid box available Tool box training for workers arranged

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	personnel; (d) Documented procedures to be followed for all site activities ; and (e) Documentation of work-related accidents; (ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU; (iii) Ensure H&S plan is easily understandable to workers and labourers. Keep in mind that this plan will be used on-site and workers/labourers may not always understand highly technical terms; (iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours; (v)Provide specific guidance for suitable PPE for every on-site work assignment (vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site; (vii) Provide medical insurance coverage for workers; (viii) Secure all installations from unauthorized intrusion and accident risks; (ix) Provide supplies of potable drinking water at working sites; (x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and (xi) Provide H&S orientation	potable drinking water; • Record of H&S orientation trainings • Personal protective equipments • Sign boards for hazardous areas such as energized electrical devices and lines, service rooms						Drinking water available at working sites Site photo attached in **Appendix 1.** Internal training document sample copy attached in **Appendix 10** Workman compensation insurance has been collected Attached as **Appendix 5** Tie up letter with nearby health center in case of emergency attached as **Appendix 11** Medical examination of workers done – shown in **Appendix 11**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	training to all new workers to ensure that they are apprised of the basics rules of work at the site, personal protective protection, and preventing injuring to fellow workers; (xii) 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; (xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas; (xiv) Ensure moving equipment is out fitted with audible back- up alarms; (xv) 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; and (xvi) Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Community Health & safety	• Provide wooden bracing for all deep excavations(>2m); identify buildings at risk prior to start of excavation work and take necessary precautions for safe work • Plan material and waste routes to avoid times of peak-pedestrian activities • Liaise with Davangere CMC in identifying risk areas on route cards/maps; identify buildings at risk prior to start of excavation work and take necessary precautions for safe conduct of work • 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 dangerous conditions, for all the sites along the roads • Overall, the contractor should comply with IFC EHS Guidelines on Community Health and Safety	• Traffic Management Strategy • Complaints from sensitive receptors	All construction sites	Contractor	Visual inspection	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied Caution tape provided at most of the excavation areas., but improvement is required Transportation of materials done as per convenient time without disturbing locals
Temporary worker camps	• Establishment of temporary camps with drinking water, sanitary and solid waste management arrangement • Train employees in the storage and handling of materials • Remove all wreckage, rubbish, or temporary structures	• Complaints from sensitive Receptors • Water and sanitation facilities for employees • Housekeeping – regular disposal of solid waste	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Rented house arranged for workers

Table 13: Compliance to EMP of the Package- Bulk water supply system in Byadgi Town – Package No. 01BDG02

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Design & Pre Construction phase								
Design: Drinking water supply lines may be contaminated due to leakage from sewers	• Limit the sewer depth where possible. • Sewers shall be laid away from water supply lines and drains (at least1m, wherever possible)	Design report	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer / PIU	Continuous	Complied as and when required
Disturbance/ damage to existing utilities on the sites (Telephone lines, electric poles and wires, water lines within proposed project sites)	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions • In case of disruption of water supply, alternative supply, through tankers, shall be provided	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Complied in design and as & when required Utility services are being restored on the same day or least possible time.
Construction work camps, stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	• Planning for setting up worker camps, hot mix plant, stockpile area, storage and disposal areas • Prioritize areas within or nearest possible vacant space in the sub project location • Non use of residential area • Arrangement of toilet and drinking water facility • No disposal of waste in water	List of selected location for construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas	Proposed camp site	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Complied. Rented house arranged for labourer Stockpile and storage areas selected near construction locations. No hot mix plant is required
Emergencies such as leaks, overflows, bursts	• Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst	• Emergency response plan	-	PIU / Design Consultant	Observation and document checking	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Not required now
Construction								

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Impacts due to excess excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to workers and public during work.	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDCSC's Environment Specialist and Construction supervisor	Daily by construction supervisor Weekly / bi weekly by Constructio n Manager. Verification by Environmen t Specialist of PMDCSC and Asst. Executive Engineer (Environme nt) KIUWMIP-PMU On monthly basis	Complied. Mostly. Excess excavated soil after backfilling is reused to fill trenches if any or shifted from the sites. Disposal as per permission from PIU.
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	• Contractor should obtain material from existing mines approved/ licensed by Mines and Geology Department / Revenue Department. • Verify suitability of all material sources and obtain approval of implementing agency • No new quarry sites shall be developed for the sub project purpose • Submit a monthly statement of construction material procured indicating material type, source and quantity.	• List of approved quarry sites and sources of materials • Bid document to include requirement for verification of suitability of sources and permit for additional quarry sites if necessary • Construction Contractor documentation	Quarries and material source areas	Contractor	• Checking of records • visual inspectio n of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Under Compliance. All materials procurement certified by implementation agency
Dust and emissions from	• Consult with PIU on the designated areas for	• Location of stockpiles	All construct	Contractor	• Checking of records	PMDCSC's Environment	Do	Complied. Mostly Excavated earth is used

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
construction activity may degrade the air quality	stockpiling of clay, soils, gravel, and other construction materials; • Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather; • Bring materials (aggregates, sand, etc gravel) as and when required; • Use tarpaulins to cover sand and other loose material when transported by vehicles; • Clean wheels and undercarriage of vehicles prior to leaving construction site • Ensure valid Pollution Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity	• Complaints from sensitive receptors • Monitoring data • Heavy equipment and machinery with air pollution control • Water sprinkling arrangement • Cover materials	ion site, stockpile areas		• Visual inspectio n of sites	Specialist and Construction supervisor		to refill the trench.. Materials are brought to the site whenever necessary covered by tarpaulin, not always. Water sprinkling is not done on continuation basis. Air quality monitoring has been done during the report period. Complete result certificates available in PIU and PMDCSC office as back up paper. Sampling locations are shown in **Appendix 7.** PUC certificates for vehicle and equipments submitted
High noisy construction activities may have adverse impacts on sensitive receptors and structures	• Plan activities in consultation with the PIU so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance; • Construction work shall be limited to day light hours (6 AM to 6 PM) for all the works located within the town;. • Provide prior information to the local public about the work schedule;	• Complaints from sensitive receptors • Use of silencers in noise-producing equipment and sound barriers • Monitoring data	All construct ion sites	Contractor	• Checking of records • Visual inspectio n of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied Construction work limited to day time only During construction noise monitoring done. Complete result certificates available in PIU and PMDCSC office as back up paper. Sampling locations are shown in **Appendix 7**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	• Ensure that there are no old and sensitive buildings that may come under risk due to the use of pneumatic drills; if there is risk, • Cut the rocks manually by chiselling; • Maintain maximum sound levels not exceeding 80 decibels (db) when measured at a distance of 10 m or more from the vehicle/s							
Impacts on surface drainage and water quality due to contaminated runoff from construction areas in monsoon	• Avoid stock piling of earth specially during the monsoon season unless covered by tarpaulins or plastic sheets • Stock piles shall be provided with temporary bunds • Prioritize re-use of excess spoils and materials in the construction works. • Place storage areas for fuels and lubricants away from any drainage leading to water bodies • Dispose any wastes generated by construction activities in designated sites	• Areas for stockpiles, storage of fuels and lubricants and waste materials • Number of silt traps installed along drainages (in slope) leading to water bodies • Utilization of spoils	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Stockpiling avoided as far as possible Fuel and lubricants stored separately Wastes dispose as per advice of engineer No water bodies nearby the present construction sites
Impacts on landscape and aesthetics due to construction activity	• Prepare and implement Waste Management Plan – it should present how the surplus waste generated will temporarily stocked at the site, transported and disposed properly. The Waste Management Plan will be part of the	• Waste Management List • Complaints from sensitive receptors • PMU/PIU/PMDCSC to report in writing that the necessary	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly Excess earth stockpiled and reused. Excess earth from pipe laying is used for filling low laying area Improvement noted. Spoil management plan will be applied as per

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	Construction Management Plan. • Avoid stockpiling of excess excavated soils as far as possible • Coordinate with PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas	environmental restoration work has been done						EMP (Sample attached as **Appendix 8)**
Damage to protected structures due to construction along the areas near to protected monuments	• All necessary and adequate care should be taken to minimize the impact on protected properties. If articles such as fabrics, coins, artifacts, structures or other geologically or archeologically important materials are discovered, the excavation should be stopped and the Archaeological Department should be intimated at the earliest and all the articles received during the sewer laying should be handed over to ASI • PMDCSC should include the above instruction in the contract document.	Chance find protocol	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Not yet arise. Action will be taken as per requirement Instruction has been given to all workers on chance find
Hindrance to traffic movement/ accessibility	• Plan pipeline (sewer lines) work in consultation with the traffic police • Plan work such that trench excavation, pipe laying, and refilling including compacting, at a stretch is completed in a minimum possible time; • Provide for immediate consolidation of back filling	• Traffic Management Strategy • Complaints from sensitive receptors • Number of signages placed at subproject location.	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly. Construction works are completing in least possible time. Road closure and diversion board placed. Caution tape and caution board provided

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	material to desired compaction-this will allow immediate road restoration and therefore will minimise disturbance to the traffic movement; • Do not close the road completely, ensure that work is conducted on to edge of the road; allow traffic to move on oneline; • In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions;							at construction site. Flag man is posted . **Appendix 1** shows site photo Traffic Management Plan needs to be developed. Sample Traffic Management plan is attached as **Appendix 9**
Impact on sensitive receptors-Schools, hospitals and religious places	• No material should be stocked in this area; material shall be brought to the site as and when required • Conduct work manually with small group of workers and less noise; minimize use of equipment and vehicles • No work should be conducted near the religious places during religious congregations • Material transport to the site should be arranged considering school timings; material should be in place before school starts; • Notify concerned schools, hospitals etc 2 weeks prior to the work; • conduct a 30 minutes awareness program at on	• Materials storage strategy • Complaints from sensitive receptors • Construction strategy near sensitive areas	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Not required now Schools, Hospitals and religious places are notified before the work.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	nature of work, likely disturbances and risks and construction work, mitigation measures in place, entry restrictions and dos and don'ts • Implement all measures suggested elsewhere in this report – dust and noise control, public safety, traffic management, strictly at the sites.							
Socio-Economic: Livelihood Impediment of access to houses and business	• Leave space for access between mounds of excavated soil • Provide wooden planks / foot bridges for pedestrians and metal sheets for vehicles to allow access across trenches to premises where required • Consult affected business people; inform them in advance when work will occur • Address livelihood issues; implement the Resettlement Plan (RP) to address these issues • Provide sign /caution/ warning boards at work site indicating work schedule and traffic information; prevent public entry into work sites through barricading and security ;and • Provide sign boards for pedestrians to inform nature and duration of construction works and	• Safety arrangement • Complaint from sensitive receptors • Sign board/ caution board availability with required information	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly Advance information is given to the shopkeepers and locals Sign board provided. But caution and time of construction not always informed in the board Site photo in **Appendix 1.** Instruction has been given to the contractor for improvement

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	contact numbers for concerns / complaints.							
Socio-Economic: Employment generation	Employ atleast 50% of the labour force, or to the maximum extent, local persons if manpower is available Procure construction materials from local market.	Employment record	All construction sites	Contractor	Checking of records	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Local people are mostly employed
Workers occupational health &safety	(i) Develop and implement site-specific Health and Safety(H&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, gloves, nose mask and earplugs; (c) H&S Training for all site personnel; (d) Documented procedures to be followed for all site activities ; and (e) Documentation of work-related accidents; (ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU; (iii) Ensure H&S plan is easily understandable to workers and labourers. Keep in mind that this plan will be used on-site and workers/labourers may not always understand highly technical terms; (iv) Strict compliance of H&S plan and requirements of wearing personal protective	• Site-specific Health and Safety (H&S) Plan • Equipped first-aid stations; • Medical insurance coverage for workers • Number of accidents • Supplies of potable drinking water; • Record of H&S orientation trainings • Personal protective equipments • Sign boards for hazardous areas such as energized electrical devices and lines, service rooms	All construction sites	Contractor	• Checking of records • Visual inspection of sites	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied mostly. Health and safety measures are followed. PPEs are given to the workers. Used mostly. First aid box available Tool box training for workers arranged Drinking water available at working sites Site photo attached in **Appendix 1.** Internal training document sample copy attached in **Appendix 10.** Insurance arranged for the labourer. Attached as **Appendix 5** Tie up letter with nearby health center in case of emergency attached as **Appendix 11.**

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	equipment (PPE) during work hours; (v)Provide specific guidance for suitable PPE for every on-site work assignment (vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site; (vii) Provide medical insurance coverage for workers; (viii) Secure all installations from unauthorized intrusion and accident risks; (ix) Provide supplies of potable drinking water at working sites; (x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and (xi) Provide H&S orientation training to all new workers to ensure that they are apprised of the basics rules of work at the site, personal protective protection, and preventing injuring to fellow workers; (xii) 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; (xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas; (xiv) Ensure moving equipment							Medical examination of workers need to be done.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	is out fitted with audible back- up alarms; (xv) 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; and (xvi) Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.							
Community Health & safety	• Provide wooden bracing for all deep excavations(>2m); identify buildings at risk prior to start of excavation work and take necessary precautions for safe work • Plan material and waste routes to avoid times of peak-pedestrian activities • Liaise with Davangere CMC in identifying risk areas on route cards/maps; identify buildings at risk prior to start of excavation work and take necessary precautions for safe conduct of work • Maintain regularly the vehicles and use of manufacturer-approved	• Traffic Management Strategy • Complaints from sensitive receptors	All construction sites	Contractor	Visual inspection	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Caution tape provided at excavated areas Transportation of materials done as per convenient time without disturbing locals

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	parts to minimize potentially serious accidents caused by equipment malfunction or premature failure • Provide road signs and flag persons to warn of dangerous conditions, for all the sites along the roads • Overall, the contractor should comply with IFC EHS Guidelines on Community Health and Safety							
Temporary worker camps	• Establishment of temporary camps with drinking water, sanitary and solid waste management arrangement • Train employees in the storage and handling of materials • Remove all wreckage, rubbish, or temporary structures	• Complaints from sensitive Receptors • Water and sanitation facilities for employees • Housekeeping – regular disposal of solid waste	All construction sites	Contractor	Site observation	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Rented house arranged for labourer Stockpile and storage areas selected nearby construction locations. No hot mix plant is required

V. ENVIRONMENTAL MONITORING AND EVALUATION

25. In addition to desk reviews and site inspections, monitoring of selected environmental parameters have been conducted during the reporting period. The frequencies of the environmental monitoring activities are commensurate to the type and significance of the impacts. For Project 1 subprojects, the parameters to be monitored are ambient air quality and noise levels.

26. The ambient air quality monitoring results are presented in **Table 14**. Results indicate that concentrations of parameters as measured "during construction" at all the UGD and STP packages are within the CPCB limit. There is marginal increase in "during concentration" SO_2 and NO_2 in compared to base line concentration level at Davangere underground drainage package working locations. Both PM_{10} and $PM_{2.5}$ concentration levels marginally increased "during construction" stage for that package. For Davangere STP package during construction monitoring has been done. Concentrations of all parameters are within the standard. There is no as such variation of concentration of SO_2 and NO_2, but concentration of both PM_{10} and $PM_{2.5}$ are decreased in compared to base line level. That indicates maintaining of dust suppression at closure stage of the package. Similarly there is no as such variation of concentration of SO_2 and NO_2 at Harihar pipe laying and STP location. There is marginal decrease in average concentration of PM_{10} and $PM_{2.5}$ during construction phase, which indicates improvement of application of mitigation measures during construction. At Harihar project sites concentrations of all parameters are within the standard. At Byadgi project sites (UGD and STP) concentration of SO_2, NO_2, PM_{10} and $PM_{2.5}$ are within the standard. There is marginal variation of SO_2 and NO_2 concentration levels and concentration of PM_{10} and $PM_{2.5}$ are marginally increased in compared to average base line concentrations. Application of mitigation measures i.e suppression of dust is required. Average concentration of PM_{10} and $PM_{2.5}$ are above the standard for Byadgi and Harihar bulk water supply project work locations. Therefore application of mitigation measures like dust suppression is required at all the construction sites. In the report period (July tyo December 2017) base line monitoring has been conducted for Davangere bulk water supply, Harihar and Byadgi water supply distribution network project locations. Concentration of SO_2, NO_2, PM_{10} and $PM_{2.5}$ are within the standard at Davangere bulk water and Byadgi water supply distribution packages. Base line concentration of PM_{10} and $PM_{2.5}$ are very high and above the standard at Harihar water distribution network locations. Complete test result certificates are available as back up papers with PMDCSC and PIU**. Appendix 7** shows monitoring locations. Mitigation measures, like dust suppression will be applied as per EMP. Instruction has been given to the contractor for improvement of application of mitigation measures.

Table 14: Ambient Air Quality Monitoring at Sites of construction

Town	Phase	Sampling Locations	Date of Monitoring	Parameters			
				SO_2 µg/m^3	NO_2 µg/m^3	$PM_{2.5}$ µg/m^3	PM_{10} µg/m^3
Davangere UGD (Package no. 01DVG01)	Base line	Ashraya valley Near NH 4	20.05.2015	4.24	9.33	48.23	78.97
		SPS Nagar	20.05.2015	4.34	9.08	50.26	81.32
		Pune Bangalore Road near Sagar Motors	20.05.2015	4.25	9.37	51.18	90.72

Town	Phase	Sampling Locations	Date of Monitoring	Parameters			
				SO_2 µg/m^3	NO_2 µg/m^3	$PM_{2.5}$ µg/m^3	PM_{10} µg/m^3
	Average Baseline			**4.28**	**9.26**	**49.9**	**83.67**
	During Construction	Pre casting yard near Kendagi Road	23.12.2015	5.93	14.02	52.28	96.24
		Ward 1 Ashok nagar	23.12.2015	5.08	13.38	44.62	86.60
		Ward 36 (part 1) Shivkumar Badavane	23.12.2015	5.52	13.74	58.72	99..51
	Average During construction			**5.51**	**13.7**	**51.9**	**91.4**
	During Construction	2nd Main Vinoba nagar	24.06.2016	4.66	9.95	38.34	66.93
		P B Road near Avaragere bus stop	24.06.2016	4.65	9.94	41.34	72.84
		Jaynagar B block , Opposite to Church	24.06.2016	4.61	9.63	39.73	68.72
	Average During construction			**4.64**	**9.84**	**39.80**	**69.50**
	During Construction	Ward no. 4 SSM Nagar	30.12.2016	5.99	12.68	59.90	96.57
		Ward no. 8 SMK Nagar	30.12.2016	5.50	15.40	43.65	87.60
		Ward no. 36 Shivakumar Badavane	30.12.2016	6.50	12.72	57.70	98.45
	Average During construction			**5.99**	**13.6**	**53.75**	**94.21**
	During Construction	Shiv Kumar Swami Badavane	13.05.2017	6.22	11.68	58.45	95.86
		Shankar Layout	13.05.2017	5.89	12.64	59.40	97.30
		Jaya Nagar B Block	13.05.2017	6.10	11.99	57.43	96.45
	Average During construction			**6.07**	**12.10**	**58.42**	**96.53**
	During Construction*	**NH Crossing near (Near SS HI-TECH Hospital)**	14.11.2017	5.99	12.68	59.90	96.57
		Ward 35- Railway crossing (Shakti nagar)	14.11.2017	6.50	12.72	57.50	98.45
		P J Extension	14.11.2017	5.50	15.40	43.60	87.60
	Average During construction*			**6.00**	**13.60**	**53.67**	**94.20**
Davangere STP	Base line	20 MLD STP	08.12.2015	4.34	10.16	37.8	84.2
		5 MLD STP	08.12.2015	4.03	10.03	33.95	78.79

Town	Phase	Sampling Locations	Date of Monitoring	Parameters			
				SO_2 µg/m^3	NO_2 µg/m^3	$PM_{2.5}$ µg/m^3	PM_{10} µg/m^3
(Package No. 01DVG01A)	**Average Baseline**			**4.18**	**10.1**	**35.9**	**81.5**
	During Construction	20 MLD STP	16.03.2016	5.07	11.12	44.26	80.64
		5 MLD STP	16.03.2016	5.48	11.45	48.66	88.96
	Average During construction			**5.27**	**11.28**	**46.46**	**84.80**
	During Construction	20 MLD STP	21.06.2016	4.66	9.63	29.86	57.33
		5 MLD STP	21.06.2016	4.91	9.77	32.73	60.10
	Average During construction			**4.78**	**9.7**	**31.29**	**58.71**
	During Construction	20 MLD STP	13.09.2016	4.28	9.28	41.76	70.85
		5 MLD STP	13.09.2016	4.22	9.17	38.43	67.92
	Average During construction			**4.25**	**9.22**	**40.09**	**69.38**
	During Construction	20 MLD STP	03.12.2016	4.48	9.58	55.23	94.64
		5 MLD STP	03.12.2016	4.45	9.52	51.88	90.23
	Average During construction			**4.46**	**9.55**	**53.55**	**92.43**
	During Construction	20 MLD STP	04.03.2017	4.54	9.75	57.78	96.57
		5 MLD STP	04.03.2017	4.49	9.65	51.22	89.76
	Average During construction			**4.51**	**9.7**	**54.5**	**93.16**
	During Construction*	**20 MLD STP**	06.09.2017	4.83	9.60	30.67	56.86
		5 MLD STP	06.09.2017	4.85	9.64	33.54	58.93
	Average During construction*			**4.84**	**9.62**	**32.10**	**57.89**
Davangere Bulk water supply (Package no. 01WS01)	**Base Line***	**Rajanahalli Jack well location**	31.12.2017	4.17	9.25	45.17	85.23
		WTP site Bhathi	31.12.2017	4.77	9.62	46.21	85.27
		Vidhya nagar C Block pipe route Harihar	31.12.2017	4.83	9.75	46.71	82.21
	Average Base Line*			**4.59**	**9.54**	**46.03**	**84.24**
Harihar UGD and STP (Package no. 01HRA01)	Base line	Guttur Colony Near Panchyat office	05.05.2015	4.26	9.21	52.41	72.48
		Keshavapura Near Railway Station	05.05.2015	4.24	9.12	68.48	108.54
		Vidyanagar Extension “C” Block	05.05.2015	4.14	9.25	48.15	86.76
	Average Baseline			**4.2**	**9.2**	**56.3**	**89.3**

Town	Phase	Sampling Locations	Date of Monitoring	Parameters			
				SO_2 µg/m^3	NO_2 µg/m^3	$PM_{2.5}$ µg/m^3	PM_{10} µg/m^3
	During Construction	Gutur colony near Panchyat office	15.12.2015	4.22	9.80	53.26	73.45
		STP site near Kirloskar factory	15.12.2015	4.40	9.35	49.21	87.76
		Near Anjaneya Temple Amaravathi	15.12.2015	4.30	9.50	49.25	89.25
	Average During construction			**4.30**	**9.55**	**50.6**	**83.5**
	During Construction	Vidyanagar	28.06.2016	4.29	9.48	48.18	87.34
		STP site near Kirloskar factory	28.06.2016	4.20	9.27	51.17	85.26
		Guttur near Govt. School	28.06.2016	4.21	9.78	53.26	72.37
	Average During construction			**4.23**	**9.51**	**50.87**	**81.65**
	During Construction	Prasanth Nagar	24.10.2016	4.10	9.48	52.18	85.56
		STP site near Kirloskar factory	24.10.2016	5.21	9.10	50.17	80.16
		A K Colony, Guttur	24.10.2016	3.21	9.18	42.26	77.37
	Average During construction			**4.17**	**9.25**	**48.20**	**81.03**
	During Construction	Benki Nagar	06.01.2017	5.50	10.95	53.15	88.35
		Keshava Nagar	06.01.2017	3.21	9.18	42.26	77.37
		STP site	06.01.2017	5.25	9.95	51.36	81.50
	Average During Construction			**4.65**	**10.02**	**48.92**	**82.40**
	During Construction*	**Guttur Colony near Panchyat office**	31.12.2017	4.80	9.99	55.15	74.25
		Near Anjaneya Temple Amaravathi	31.12.2017	4.85	9.66	49.30	89.15
		STP site near Kirloskar factory	31.12.2017	4.80	9.88	49.35	87.77
	Average During Construction*			**4.81**	**9.84**	**51.26**	**83.72**
Harihar Bulk WS (01HRA02)	**Base line**	Near Indian Oil Petrol pump, Kumar Pattan	26.06.2017	4.93	9.95	94.86	148.73
		WTP site, Harihar	26.06.2017	4.75	9.81	84.32	116.24
		OHT site near Gajanan Temple, Amaravathi colony	26.06.2017	4.72	9.74	58.93	95.47
	Average Base line			**4.8**	**9.83**	**79.37**	**120.14**

Town	Phase	Sampling Locations	Date of Monitoring	Parameters			
				SO_2 µg/m^3	NO_2 µg/m^3	$PM_{2.5}$ µg/m^3	PM_{10} µg/m^3
	During Construction*	**Near Indian Oil Petrol pump, Kumar Pattan**	18.12.2017	4.95	9.96	110.11	157.68
		WTP site, Harihar	18.12.2017	4.86	9.81	88.48	122.74
		OHT site near Gajanan Temple, Amaravathi colony	18.12.2017	4.80	9.70	53.78	91.23
	Average During Construction*			**4.87**	**9.82**	**84.12**	**123.88**
Harihar water distribution network (01WS04)	**Base Line***	**Church Road**	02.12.2017	4.26	9.67	100.77	163.70
		Harapanhalli Circle, near Bus stand	02.12.2017	4.74	9.73	148.86	240.21
		Near Vidhyanagar, Shivamogga main road	02.12.2017	4.83	9.14	110.24	170.92
		Guttur Road, Harihar	02.12.2017	4.86	9.96	95.63	160.11
	Average Base Line*			**4.62**	**9.62**	**113.87**	**183.73**
Byadgi UGD & STP (01BDG01)	Base Line monitoring	Bettaad Malleshwar Social Welfare Office (Ashray Colony)	16.09.2016	4.04	9.06	35.78	61.53
		Old Police station	16.09.2016	4.13	9.13	42.56	68.49
		STP land	16.09.2016	4.17	9.16	46.93	73.71
		Near Nehru Chawak (KSRTC Bus stand)	16.09.2016	4.15	9.11	38.27	63.94
		Near Town Municipal office	16.09.2016	4.22	9.21	48.61	76.19
	Average Base line			**4.14**	**9.13**	**42.43**	**68.77**
	During Construction	Near Shivapur Badavane	09.06.2017	4.20	9.39	49.18	88.24
		Vinayak Nagar	09.06.2017	4.18	9.34	46.37	85.22
		Agasanalli Plot(Melagiri Plot)	09.06.2017	4.52	9.61	52.98	92.54
		Someshawar Nagar	09.06.2017	4.25	9.50	51.22	90.82
		Sangameshwar Nagar	09.06.2017	4.16	9.30	45.96	84.25
	Average During Construction			**4.26**	**9.43**	**49.14**	**88.21**
	During Construction*	**Neheru Nagar**	31.12.2017	4.16	9.41	46.25	89.25
		Ashray Badavane	31.12.2017	4.16	9.32	42.57	68.49
		Islampur	31.12.2017	4.15	9.16	46.32	73.52
		Hallepet	31.12.2017	4.23	9.22	48.21	76.18

Town	Phase	Sampling Locations	Date of Monitoring	Parameters			
				SO_2 µg/m^3	NO_2 µg/m^3	$PM_{2.5}$ µg/m^3	PM_{10} µg/m^3
	Average During Construction*			**4.17**	**9.27**	**45.83**	**76.86**
Byadgi Bulk WS (01BDG02)	**Base line**	Near Kadaramandalgi Japping point and existing MS pipeline	26.06.2017	4.61	9.71	57.98	96.12
		Near Asundi	26.06.2017	4.58	9.65	51.26	90.91
		Near Jinning mill, Ranebenur bypass	26.06.2017	4.85	9.88	103.77	162.38
	Average Base line			**4.68**	**9.74**	**71.0**	**116.4**
	During Construction*	**Near Kadaramandalgi Japping point and existing MS pipeline**	18.12.2017	4.86	9.84	59.10	98.43
		Near Asundi	18.12.2017	4.75	9.68	54.98	93.26
		Near Jinning mill, Ranebenur bypass	18.12.2017	4.93	9.91	101.81	153.73
	Average During Construction*			**4.84**	**9.81**	**71.96**	**115.14**
Byadgi Water distribution network (01WS03)	**Base Line***	**Subash nagar**	02.01.2018	4.16	9.41	44.25	88.25
		Gandhi nagar	02.01.2018	4.16	9.32	41.57	67.49
		Vidya nagar	02.01.2018	4.15	9.16	46.32	73.52
		Valmuki nagar	02.01.2018	4.23	9.22	45.21	74.18
	Average Base Line*			**4.17**	**9.27**	**44.33**	**75.86**
		Standard as per CPCB		**80.0**	**80.0**	**60.0**	**100.0**

Note: CPCB - Central Pollution Control Board, BDL - below detection limit

* Monitoring conducted during report period July to December 2017 shaded gray in the Table

Package no. 01DVG01= 3 samples on 14.11.2017
Package no. 01DVG01A= 2 samples on 06.09.2017
Package no. 01WS01= 3 samples on 31.12.2017

Package no. 01HRA01= 3 samples on 31.12.2017
Package no. 01HRA02= 3 samples on 18.12.2017
Package no. 01WS04= 4 samples on 02.12.2017

Package no. 01BDG01 = 4 samples on 31.12.2017
Package no. 01BDG02= 3 samples on 18.12.2017
Package no. 01WS03= 4 samples on 02.01.2018

27. The noise level monitoring has also been carried out for construction sites. **Table 15** shows noise level data. Complete test result certificates for 9 packages are available as back up papers with PMDCSC and PIU. **Appendix 7** shows monitoring locations. It is noted from the

results that night time noise levels at Davangere underground sewerage project location is above the standard for commercial and residential areas. There is marginal variation of noise level at Davangere pipe laying sites in compared to base line value. At most of the cases noise level at Davangere STP is within the standard. There is marginal decrease of noise level during construction. Day time noise level at Harihar project area is within the standard when comparing with commercial standard but above the limit when compared with residential area noise limit. Night time noise is always above the standard. Noise level is above the standard at Harihar bulk water supply package locations. During construction Noise level above the standard at Byadgi UGD and STP construction sites. Noise levels at Harihar and Byadgi bulk water supply package working locations are also above the standard. Base line noise level monitoring is also conducted for Davangere bulk water supply, Byadgi and Harihar water distribution network packages. Except Davangere bulk water supply locations, base line noise levels above the standard as prescribed for residential and commercial areas. Noise level monitoring to be continued as per environment monitoring program throughout the construction period for understanding increase or decrease trend of noise level at project locations. To mitigate high noise levels contractor to apply mitigation measures like control use of noise producing equipment, maintenance of equipments and finally use of PPE by worker or mitigation measures as prescribed in EMP.

28. The next environmental monitoring activities will be conducted within January to June 2018 to measure concentrations of parameters as done earlier and covering all running construction sites. The cost of the environmental monitoring is arranged from contractor budget (Ref. **Appendix 2**).

Table 15: Noise Level Monitoring at project sites of Davangere, Harihar and Byadgi

Town	Phase	Sampling Locations	Date of Monitoring	Day Time			Night Time Leq dB(A)			Noise Zone
				L Min dB(A)	L Max dB(A)	Leq dB(A)	L Min dB(A)	L Max dB(A)	Leq dB(A)	
Davangere UGD (Package no. 01DVG01)	Base line	Ashraya valley Near NH 4	20.05.2015	62.2	73.3	70.3	51.4	62.5	59.5	R
		Near SPS Nagar school	20.05.2015	65.4	69.0	67.6	53.5	64.6	61.6	S
		Pune Bangalore Road near Sagar Motors	20.05.2015	63.1	74.2	71.2	54.1	65.2	62.2	C
	Average Base line			**63.5**	**72.2**	**69.7**	**53.0**	**64.1**	**61.1**	
	During Construction	Pre casting yard near Kendagi Road (near DG set room)	23.12.2015	71.9	74.5	73.9	58.8	69.9	66.9	I
		Ward 1 Ashok nagar	23.12.2015	56.8	67.9	64.9	55.3	58.2	56.4	R
		Ward 36 (part 1) Shivkumar Badavane	23.12.2015	69.1	70.8	69.9	57.3	68.4	65.4	R

Town	Phase	Sampling Locations	Date of Monitoring	Day Time			Night Time Leq dB(A)			Noise Zone
				L Min dB(A)	L Max dB(A)	Leq dB(A)	L Min dB(A)	L Max dB(A)	Leq dB(A)	
	Average During construction			**65.9**	**71.0**	**69.6**	**57.1**	**65.5**	**62.9**	
	During Construction	2nd Main Vinoba nagar	24.06.2016	72.6	75.6	74.0	58.2	63.0	59.6	R
		P B Road near Avaragere bus stop	24.06.2016	68.2	80.3	72.9	55.3	68.3	61.1	R
		Jaynagar B block , Opposite to Church	24.06.2016	69.8	74.5	71.5	58.3	65.3	61.6	S
	Average During construction			**70.2**	**76.8**	**72.8**	**57.3**	**65.5**	**60.8**	
	During Construction	Ward no. 4 SSM Nagar (day time work)	30.12.2016	65.4	69.0	67.6	-	-	-	R
		Ward no. 8 SMK Nagar (day time work)	30.12.2016	53.5	64.6	61.6	-	-	-	R
		Ward no. 36 Shivakumar Badavane (night time work)	30.12.2016	-	-	-	54.1	65.2	62.2	R
		Pre - Casting Yard DG Shed Room	30.12.2016	58.8	69.9	66.9	71.9	74.5	73.9	I
	Average During construction			**59.2**	**67.8**	**65.3**	**63.0**	**69.8**	**68.0**	
	During Construction	Shiv Kumar Swami Badavane(night time work)	13.05.2017	-	-	-	70.9	73.6	72.5	R
		Shankar Layout(night time work)	13.05.2017	-	-	-	58.1	67.3	64.2	R
		Jaya Nagar B Block(night time work)	13.05.2017	-	-	-	65.5	69.2	67.3	R
	Average During construction						**64.83**	**70.03**	**68.0**	
	During Construction*	**NH Crossing near (Near S S HI-TECH Hospital)**	14.11.2017	-	-	-	71.9	74.5	73.9	R

Town	Phase	Sampling Locations	Date of Monitoring	Day Time			Night Time Leq dB(A)			Noise Zone
				L Min dB(A)	L Max dB(A)	Leq dB(A)	L Min dB(A)	L Max dB(A)	Leq dB(A)	
		Ward 35-Railway crossing (Shakti nagar)	14.11.2017	-	-	--	54.1	65.2	62.2	R
		P J Extension	14.11.2017	58.8	69.9	66.9	-	-	-	R
	Average During construction*			**58.8**	**69.9**	**66.9**	**63.0**	**69.8**	**68.0**	
Davangere STP (Package No. 01DVG01A)	Base line	20 MLD STP	08.12.2015	49.4	55.6	53.5	-	-	-	I
		5 MLD S|TP	08.12.2015	60.8	70.1	65.7	-	-	-	I
	Average Base line			**55.1**	**62.8**	**59.6**	-	-	-	
	During Construction	20 MLD STP	16.03.2016	62.4	68.9	68.1	-	-	-	I
		5 MLD S|TP	16.03.2016	62.1	69.8	68.6	-	-	-	I
	Average During construction			**62.2**	**69.3**	**68.3**	-	-	-	
	During Construction	20 MLD STP	21.06.2016	53.8	57.8	55.3	-	-	-	I
		5 MLD S|TP	21.06.2016	50.3	56.0	52.1	-	-	-	I
	Average During construction			**52.0**	**56.9**	**53.7**	-	-	-	
	During Construction	20 MLD STP	13.09.2016	66.7	70.0	68.5	-	-	-	I
		5 MLD S|TP	13.09.2016	68.8	72.5	70.4	-	-	-	I
	Average During construction			**67.7**	**71.2**	**69.4**				
	During Construction	20 MLD STP	03.12.2016	64.2	74.0	70.7	-	-	-	I
		5 MLD S|TP	03.12.2016	68.5	74.0	71.2	-	-	-	I
	Average During construction			**66.3**	**74.0**	**70.9**				
	During Construction	20 MLD STP	04.03.2017	62.7	66.0	64.0	-	-	-	I
		5 MLD S|TP	04.03.2017	65.0	72.8	66.2	-	-	-	I
	Average During construction			**63.85**	**69.4**	**65.1**				
	During Construction*	**20 MLD STP**	06.09.2017	55.5	59.0	56.2	-	-	-	I
		5 MLD STP	06.09.2017	51.2	52.8	52.3	-	-	-	I
	Average During construction*			**53.3**	**55.9**	**54.2**				
Davangere Bulk water supply	**Base Line***	**Rajanahalli Jack well location**	31.12.2017	55.23	65.40	59.32	52.12	61.35	56.74	I
		WTP site Bhathi	31.12.2017	52.35	63.45	57.90	47.70	58.21	52.96	I

Town	Phase	Sampling Locations	Date of Monitoring	Day Time			Night Time Leq dB(A)			Noise Zone
				L Min dB(A)	L Max dB(A)	Leq dB(A)	L Min dB(A)	L Max dB(A)	Leq dB(A)	
(Package no. 01WS01)		**Vidhya nagar C Block pipe route Harihar**	31.12.2017	58.23	68.15	63.19	50.15	59.23	54.69	R
	Average Base Line*			**55.27**	**65.66**	**60.13**	**50.00**	**59.60**	**54.79**	
Harihar UGD and STP (Package no. 01HRA01)	Base line	Near STP site Kirloskar Factory	05.05.2015	60.0	68.6	63,0	54.3	65.4	62.4	I
		Near Anjaneya Temple Amaravathi	05.05.2015	49.3	61.6	61.1	50.4	61.5	58.5	S
		Guttur Colony Near Panchyat office	05.05.2015	58.9	69.7	62.7	53.6	64.7	61.7	R
	Average Base line			**56.0**	**66.6**	**61.9**	**52.8**	**63.9**	**60.9**	
	During Construction	Near STP site Kirloskar Factory	15.12.2015	58.0	67.5	62.75	52.3	62.5	57.40	I
		Near Anjaneya Temple Amaravathi	15.12.2015	51.2	63.5	57.35	47.85	59.25	53.55	S
		Guttur Colony Near Panchyat office	15.12.2015	57.5	68.6	63.05	54.5	68.8	59.15	R
	Average During construction			**55.6**	**66.5**	**61.05**	**51.5**	**63.5**	**56.7**	
	During Construction	Near STP site Kirloskar Factory	28.06.2016	58.0	67.5	62.75	53.28	61.47	58.30	I
		Vidyanagar	28.06.2016	51.20	63.50	57.35	47.74	58.35	53.46	R
		Guttur near Govt. School	28.06.2016	57.40	69.10	63.05	54.38	63.70	59.28	S
	Average During construction			**55.5**	**66.7**	**61.0**	**51.8**	**61.7**	**57.0**	
	During Construction	Prasanth Nagar	24.10.2016	41.20	53.50	47.35	40.74	51.23	45.98	R
		STP site near Kirloskar factory	24.10.2016	55.0	62.50	58.75	50.28	59.47	54.88	I
		A K Colony, Guttur	24.10.2016	57.40	69.10	63.05	54.38	63.70	59.28	R
	Average During construction			**51.2**	**61.7**	**56.4**	**48.5**	**58.1**	**53.4**	
	During Construction	Benki Nagar	06.01.2017	42.53	54.30	48.42	41.35	52.25	46.80	R
		Keshava Nagar	06.01.2017	55.65	68.60	62.13	54.27	63.18	58.73	R
		STP site	06.01.2017	55.20	63.21	59.21	50.35	60.29	55.32	I
	Average During construction			**51.12**	**62.03**	**56.58**	**48.65**	**58.57**	**53.61**	
		Keshava Nagar	31.12.2017	51.35	64.50	57.80	47.85	59.25	53.55	R

Town	Phase	Sampling Locations	Date of Monitoring	Day Time			Night Time Leq dB(A)			Noise Zone
				L Min dB(A)	L Max dB(A)	Leq dB(A)	L Min dB(A)	L Max dB(A)	Leq dB(A)	
	During Construction*	**North Dist – 4A Benki Nagar**	31.12.2017	56.40	68.60	63.04	54.30	62.15	58.10	R
		STP site near Kirloskar factory	31.12.2017	57.50	67.45	62.75	51.40	63.50	57.40	I
	Average During Construction*			**55.08**	**66.85**	**61.19**	**51.18**	**61.63**	**56.35**	
Harihar Bulk WS (01HRA02)	**Base line**	WTP site, Harihar	26.06.2017	68.5	73.3	72.4				I
		OHT site near Gajanan Temple, Amaravathi colony	26.06.2017	67.1	73.8	69.7				R
	Average Base line			**67.8**	**73.55**	**71.05**				
	During Construction*	**Near Indian Oil Petrol pump, Kumar Pattan**	18.12.2017	70.1	76.4	73.8				R
		WTP site, Harihar	18.12.2017	68.9	74.8	73.2				I
		OHT site near Gajanan Temple, Amaravathi colony	18.12.2017	71.2	77.3	74.2				R
	Average During Construction*			**70.1**	**76.1**	**73.7**				
Harihar water distribution network (01WS04)	**Base Line***	**Church Road**	02.12.2017	89.2	95.9	91.5				
		Harapanhalli Circle, near Bus stand	02.12.2017	76.6	89.0	88.0				
		Near Vidhyanagar, Shivamogga main road	02.12.2017	86.3	98.9	96.9				
		Guttur Road, Harihar	02.12.2017	79.1	88.4	87.9				
	Average Base Line*			**82.8**	**93.0**	**91.0**				
Byadgi UGD 01BDG01	Base Line monitoring	Bettaad Malleshwar Social Welfare Office (Ashray Colony)	16.09.2016	66.8	70.3	69.5	-	-	-	R
		Old Police station	16.09.2016	69.4	75.8	72.7	-	-	-	R

Town	Phase	Sampling Locations	Date of Monitoring	Day Time			Night Time Leq dB(A)			Noise Zone
				L Min dB(A)	L Max dB(A)	Leq dB(A)	L Min dB(A)	L Max dB(A)	Leq dB(A)	
		STP land	16.09.2016	67.3	71.0	69.5	-	-	-	I
		Near Nehru Chawak (KSRTC Bus stand)	16.09.2016	70.3	75.6	74.5	-	-	-	R
		Near Town Municipal office	16.09.2016	69.4	74.8	72.4	-	-	-	C
	Average Base line			**68.6**	**73.5**	**71.7**				
	During Construction*	Near Shivapur Badavane	10.06.2017	68.4	72.7	70.8	-	-	-	R
		Vinayak Nagar	10.06.2017	62.5	71.4	64.7	-	-	-	R
		Agasanalli Plot(Melagiri Plot)	10.06.2017	60.1	72.1	67.7	-	-	-	R
		Someshawar Nagar	10.06.2017	60.4	73.3	68.3	-	-	-	R
		Sangameshwar Nagar	09.06.2017	61.6	68.4	66.4	-	-	-	R
	Average During Construction*			**62.6**	**71.58**	**67.58**				
	During Construction*	**Neheru Nagar**	31.12.2017	60.30	72.50	67.40	-	-	-	R
		Ashray Badavane	31.12.2017	69.30	74.50	72.40	-	-	-	R
		Islampur	31.12.2017	69.40	74.50	68.40	-	-	-	R
		Hallepet	31.12.2017	61.30	71.50	66.50	-	-	-	R
	Average During Construction*			**65.07**	**73.25**	**68.67**				
Byadgi Bulk WS (01BDG02)	**Base line**	Near Kadaramandalgi Japping point and existing MS pipeline	26.06.2017	69.9	73.3	72.3	-	-	-	R
		Near Asundi	26.06.2017	70.1	76.8	73.4	-	-	-	R
		Near Jinning mill, Ranebenur bypass	26.06.2017	72.2	76.2	74.5				C
	Average Base line			**70.73**	**75.43**	**73.4**				
	During Construction*	**Near Kadaramandalgi Japping point and existing MS pipeline**	18.12.2017	70.8	77.3	74.4	-	-	-	R
		Near Asundi	18.12.2017	71.3	75.8	73.9	-	-	-	R
		Near Jinning mill, Ranebenur bypass	18.12.2017	72.1	78.6	74.6	-	-	-	C

Town	Phase	Sampling Locations	Date of Monitoring	Day Time			Night Time Leq dB(A)			Noise Zone
				L Min dB(A)	L Max dB(A)	Leq dB(A)	L Min dB(A)	L Max dB(A)	Leq dB(A)	
	Average During Construction*			**71.4**	**77.2**	**74.3**				
Byadgi Water distribution network (01WS03)	**Base Line***	**Subash nagar**	02.01.2018	61.30	72.50	66.40	-	-	-	R
		Gandhi nagar	02.01.2018	69.30	74.50	72.40	-	-	-	R
		Vidya nagar	02.01.2018	69.40	74.50	68.40	-	-	-	R
		Valmuki nagar	02.01.2018	62.30	71.50	66.50	-	-	-	R
	Average Base Line*			**65.57**	**73.25**	**68.42**				

* Monitoring conducted during report period July to December 2017, shaded gray in Table

Package no. 01DVG01= 3 samples on 14.11.2017
Package no. 01DVG01A= 2 samples on 06.09.2017
Package no. **01WS01=** 3 samples on 31.12.2017

Package no. 01HRA01= 3 samples on 31.12.2017
Package no. 01HRA02= 3 samples on 18.12.2017
Package no. 01WS04= 4 samples on 02.12.2017

Package no. 01BDG01 = 4 samples on 31.12.2017
Package no. 01BDG02= 3 samples on 18.12.2017
Package no. 01WS03= 4 samples on 02.01.2018

CPCB Limits for Industrial area (I): Day Time= 75 dB(A), Night Time (9 PM to 6 AM)= 70 dB(A)
Commercial (C)area: Day Time= 65 dB(A), Night Time (9 PM to 6 AM)= 55 dB(A)
Residential (R) area :Day Time= 55 dB(A), Night Time (9 PM to 6 AM)= 45 dB(A)
Silence Zone (S): Day Time= 50 dB(A), Night Time (9 PM to 6 AM)= 40 dB(A)

29. For Davangere STP package monitoring has been conducted for drinking water and bore well water. All concentrations are within the limit. Result certificates are available with PIU and PMDCSC.

30. A performance monitoring fact sheet has been prepared to facilitate tracking and quick reference on environmental monitoring of Project 1 subproject packages (**Tables 16 and 17**).

Table 16: Performance Fact Sheet for Required Environmental Consents/Clearances of KIUWMIP Project 1 (Package-wise)

	Package	Name of Contractor	EMP Part of contract Document(Yes / No)	Environmental Consents / Clearances Required					
				Tree Cutting	Crusher	Batching Plant	Hot Mix Plant	Diesel Generator Set	Pollution Under Control (PUC) Certificates for Contractor's Vehicles
1	Providing expansion of sewage system in Harihar city – **Package No. 01HRH01**	SHRIRAM EPC Ltd.	Yes	Not required till date	Not required	Not required as per present work	Not required as per present work	Not required as per present work	Obtained
2	Improvement of water supply system (bulk) in Harihara City.- **Package No. 01HRA02**	M/s Sheth & Sura Engineers Pvt. Ltd.	Yes	Not required till date	Not required	Not required as per present work	Not required as per present work	Not required as per present work	Obtained
3	Expansion of Sewage System in Davangere City (District 1 & 3) – **Package No. 01DVG01**	SIMPLEX Infrastructure Limited	Yes	Not required till date	Not required	Not required as per present work	Not required as per present work	Not required as per present work	Obtained
4	Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP, **Package No. 01DVG01A**	HNB Engineers Pvt. Ltd.	Yes	Not required till date	Not required	Established Consent to Operate received	Not required	Not functioning Work completed	Obtained for contractor's vehicle & equipment
5	Design, Build and Operate (i) Improvement of Bulk Water Supply for 24x7 Water supply to Davanagere city – AND (ii) Operation and Maintenance of the Bulk Water Supply System for a period of three (3) months for Davanagere City Corporation in Karnataka. **Package No. 01WS01**	M/s. SEPC-DRS ITPL JV	Yes	Not required till date	Not required	Not required as per present work	Not required as per present work	Not required as per present work	To be obtained

	Package	Name of Contractor	EMP Part of contract Document(Yes / No)	Environmental Consents / Clearances Required					
				Tree Cutting	**Crusher**	**Batching Plant**	**Hot Mix Plant**	**Diesel Generator Set**	**Pollution Under Control (PUC) Certificates for Contractor's Vehicles**
6	Design, Build, Operate & Maintain for 6 years for Byadgi comprehensive scheme from covering SBR STP (5 MLD), network and manholes, construction of one septic tank and provision of HSCs, **Package No. 01BDG01**	Shriram EPC-Eurotek Environmental Private Limited - JV	Yes	Not required till date	Not required	Not required till date	Not required	Not required	Obtained
7	Improvement of Water Supply System (bulk) in Byadgi Town **Package No. 01BDG02**	M/s Sheth & Sura Engineers Pvt. Ltd.	Yes	Not required till date	Not required	Not required till date	Not required	Not required	Obtained

Table 17: Performance Fact Sheet for EMP Implementation of KIUWMIP Project 1 (Package-wise)

	Package Number	Name of Contractor	EMP Part of contract Document(Yes / No)	Contractor Social/ Environment Person[1]	Overall Status of EMP Implementation	Field to be Monitored as per EMP												
						Source of Materials	Camp Sites	Landscape and Aesthetics	Air Quality	Noise Level	Traffic	Ecological Resources – Terrestrial	Accessibility	Water Quality	Occupational Health & safety	Community Health & safety	Socio cultural resources	Employment generation
					In compliance (2) / Partial Compliance (1) / Not in compliance (0) / Not applicable (n/a)													
1	Providing expansion of sewage system in Harihar city – **Package No. 01HRA01**	SHRIRAM EPC Ltd.	Yes	Nominated	Complied	2	1	1	2	2	2	NA	2	NA	2	1	2	2

[1]Nomination of Environmental & Social Safeguard Officer by Contractor(Nominated / Yet to be Nominated)

	Package Number	Name of Contractor	EMP Part of contract Document(Yes / No)	Contractor Social/ Environment Person[1]	Overall Status of EMP Implementation	Field to be Monitored as per EMP												
						Source of Materials	Camp Sites	Landscape and Aesthetics	Air Quality	Noise Level	Traffic	Ecological Resources – Terrestrial	Accessibility	Water Quality	Occupational Health & safety	Community Health & safety	Socio cultural resources	Employment generation
					In compliance (2) / Partial Compliance (1) / Not in compliance (0) / Not applicable (n/a)													
2	Improvement of water supply system (bulk) in Harihara City.- **Package No. 01HRA02**	M/s Sheth & Sura Engineers Pvt. Ltd.	Yes	Nominated	Complied	2	2	2	2	2	2	NA	2	NA	2	1	2	2
3	Expansion of Sewage System in Davangere City (District 1 & 3) – **Package No. 01DVG01**	SIMPLEX Infrastructure Limited	Yes	Nominated	Complied	2	1	1	2	2	2	NA	2	NA	1	1	2	2
4	Improvements to sewerage system in Davangere (STP)-DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP, **Package No. 01DVG01A**	HNB Engineers Pvt. Ltd.	Yes	Nominated	Complied	2	2	2	2	2	NA	NA	2	NA	2	2	NA	2
5	Design, Build and Operate (i) Improvement of Bulk Water Supply for 24x7 Water supply to Davanagere city – AND (ii) Operation and Maintenance of the Bulk Water Supply System for a period of three (3) months for Davanagere City Corporation in Karnataka. **Package No. 01WS01**	M/s. SEPC-DRS ITPL JV	Yes	Nominated	Complied	2	2	2	2	2	1	NA	2	1	2	2	NA	2
6	Design, Build, Operate & Maintain for 6 years for Byadgi comprehensive scheme from covering SBR STP (5 MLD), network and manholes, construction of one septic tank and provision of HSCs, **Package No. 01BDG01**	Shriram EPC-Eurotek Environmental Private Limited - JV	Yes	Nominated	Complied	2	2	2	2	2	2	NA	2	NA	2	1	2	2

	Package Number	Name of Contractor	EMP Part of contract Document(Yes / No)	Contractor Social/ Environment Person[1]	Overall Status of EMP Implementation	Field to be Monitored as per EMP												
						Source of Materials	Camp Sites	Landscape and Aesthetics	Air Quality	Noise Level	Traffic	Ecological Resources – Terrestrial	Accessibility	Water Quality	Occupational Health & safety	Community Health & safety	Socio cultural resources	Employment generation
					In compliance (2) / Partial Compliance (1) / Not in compliance (0) / Not applicable (n/a)													
7	Improvement of Water Supply System (bulk) in Byadgi Town **Package No. 01BDG02**	M/s Sheth & Sura Engineers Pvt. Ltd.	Yes	Nominated	Complied	2	2	2	2	2	2	NA	2	NA	2	2	2	2

Note calculation of numerical value for determining performance status- Calculation is based on addition of numerical value like below-
Package No. 01HRA01= Total score- 2+1+1+2+2+2+2+2+1+2+2= 19. Number of operated field=11, **Then- 19/11=1.72≈ 2, More than 1.5, Complied**
Package No. 01HRA02= Total score- 2+2+2+2+2+2+2+2+1+2+2= 21. Number of operated field=11, **Then- 21/11=1.90≈ 2, More than 1.5, Complied**

Package No. 01DVG01= Total score- 2+1+1+2+2+2+2+1+1+2+2= 19. Number of operated field= 11. **Then – 18/11=1.63≈ 2, More than 1.5, Complied**
Package No. 01DVG01A= Total score- 2+2+2+2+2+2+2 +2+2= 18. Number of operated field= 9. **Then – 18/9= 2, More than 1.5, Complied**
Package No. 01WS01= Total score- 2+2+2+2+2+1+2 +1+2+2+2= 20. Number of operated field= 11. **Then – 20/11= 1.81≈ 2, More than 1.5, Complied**
Package No. 01BDG01= Total score- 2+2+2+2+2+2+2+2+1+2+2= 21, Number of operated field= 11. **Then – 21/11=1.91 ≈ 2, More than 1.5, Complied**
Package No. 01BDG02= Total score- 2+2+2+2+2+2+2+2+2+2+2= 22 Number of operated field= 11. **Then – 22/11=2, More than 1.5, Complied**

(Partial impact on landscape and aesthetic s due to incomplete disposal of excess earth/ waste, Partial compliance of community health and safety due to partial use of caution tape and unsatisfactory camp site management)

VI. CONSULTATIONS AND DISCLOSURES CONDUCTED

31. As per approved IEE, consultations and disclosure will be a continuous process throughout Project 1 implementation involving public consultations and focus group discussions. Field level consultation has been done at Davangere, Harihar and Byadgi during the report period. Sample filled public consultation format is attached as **Appendix 13.**

32. During implementation of project general discussion has been done with the local public at Davangere, Harihar and Byadgi along pipe laying locations of impact zone. Such consultation is basically one to one discussion with public and generally to be continued throughout the construction period. The issues like requirement of restoration of utility services, removal of overburden soil, road restoration done or not, dust and noise pollution during implementation of the project, community safety arrangement, availability of public access have been discussed and views has been tabulated.

33. Outcome of consultation as follows,

- ✓ There is no issue on impact of utility services like PHE line etc.
- ✓ Excess earth removed in most of the cases. Public have no complaint on that
- ✓ Road restoration done without affecting the public
- ✓ There is minimum impact due to generation of dust and noise from project activity
- ✓ Arrangement of caution tape is done in most of the cases. No public complaint
- ✓ Local movement of public is not affected. Alternate access provided

34. The indicative schedule for consultations and disclosure is presented in **Table 18.**

Table 18: Indicative Schedule for Consultations and Disclosure

Type of Consultation/Disclosure	Target Date	Location	Target Participants	Responsible Person and Source of Funds
Local level consultation	Weekly – to be continued	At all construction locations	General public, shop keepers, pedestrian population	Construction supervisor, Environment & safety officer of contractor Project budget – continuous process
Consultation – safety issues, implementation of EMP	By-monthly	Davangere, Byadgi and Harihar	Supervisor Engineer, PIU Engineer, all safety and environment staff of contractors	Resident Engineer, Environment specialist of PMDCSC, Asst Executive Engineer (Environment) PMU

35. During the report period safeguard orientation program on safety and environment has been arranged for contractor, supervisor's engineers of PMDCSC, engineers of PIU at Davangere. Training details is attached as **Appendix 14.**

VII. GRIEVANCE REDRESS MECHANISM

36. As per approved IEE, a project-specific grievance redress mechanism (GRM) has been established to receive, evaluate and facilitate the resolution of affected people'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 voice and resolve social and environmental concerns linked to the project. The project-specific GRM is not intended to bypass the government's own redress process; rather it is intended to

address affected people's concerns and complaints promptly, making it readily accessible to all segments of the affected people and is scaled to the risks and impacts of the project.

37. The GRC/SC for the project will be headed by Dy. Commissioner (DC) of the district with members as followed: (1) ULB Commissioners of project towns, (2) Revenue Department (Registrar) official, (3) RPMU Social safeguard/ R&R Officer of KIUWMIP, (4) ULB officer who will convene the periodic meeting of GRC and will shoulder responsibility of keeping records of grievances/ complaints in details with help from resettlement NGO. Other members, such as, NGO/CBO representatives, wards council representatives, DPs' representatives will be selected by the ULB Commissioner to represent in the GRC/SC meeting. NGO should also deploy one person in the team who will be responsible for coordinating with all GRC members and the DPs for grievance redress.

38. In the event when the established GRM is not in a position to resolve the issue, Affected Person also can use the ADB Accountability Mechanism (AM) through directly contact (in writing) to the Complaint Receiving Officer (CRO) at ADB headquarters or to ADB Indian 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. A Grievance Redress Mechanism is shown in the **Figure 3.**

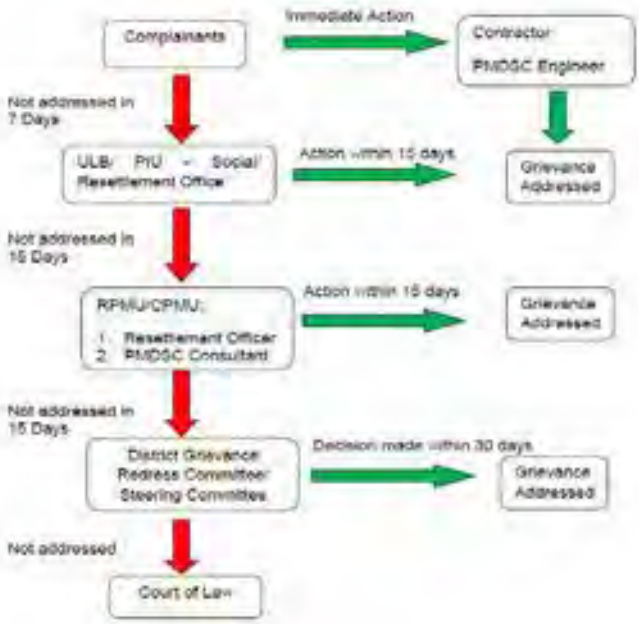


Figure 3: Grievance Redress Process

39. The PIUs will make the public aware of the GRM through public awareness campaigns. Grievances can be filed in writing using the Complaint Register and Complaint Form or by phone with any member of the PIU. The contact phone number of the respective PIUs and the RPMU will serve as a hotline for complaints and will be publicized through the media and placed on notice boards outside their offices and at construction sites.

40. Project level GRC has been set up on 7th August 2015. Office memorandum is attached as **Appendix 15.**

41. Already complaint register and accident register open at contractor level. Sample copy of registration of grievances and addressing of grievances is attached as **Appendix 16.** Till date all grievances are resolved at contractor level. Accident record is available with the contractor. There is no as such accident record from working locations during the report period.

VIII. FINDINGS AND RECOMMENDATIONS

42. Based on environmental monitoring conducted during July to December 2017, KIUWMIP Project 1 is in mixed (partial to fully complied) compliance level of environmental safeguards. The main partial non-compliances include:

- Advance information to the locals and shopkeepers at pipe laying area of Davangere, Harihar and Byadgi is not always provided. Time period for construction work for particular area and contact details of PIU, consultant in project display board for any grievances or suggestion should be included
- Need to improve use of PPE by contractor's workers. Use of PPE should be at all times as per site condition and work type. Particularly use of shoes, hand gloves and safety belt (when working at height)
- Disposal of excess earth/ spoil not done on regular basis from working sites and drains particularly for Davangere UGD and Byadgi UGD packages. Disposal of scrap and construction materials needed from Byadgi UGD and STP package
- Temporary placement of caution tape is noted for all the packages. Improvement/ complete use of caution tape at working areas required
- Requirement of Improvement is required for Harihar STP camp site – Toilet facility and housekeeping
- Requirement of improvement of housekeeping is required for Davangere UGD camp and store yard
- Requirement of arrangement of tie up with hospital and medical examination of workers necessary for Davangere UGD, Davangere, Harihar & Byadgi bulk water supply packages

43. **Table 19** provides the recommended corrective action plan to address the non-compliances and partially compliances..

Table 19: Corrective Action Plan

	Non-compliance Issues	Action Required	Responsible	Target Date	Indicator of Compliance
1	Advance information to the locals and shopkeepers at pipe laying area of Davangere, Harihar and Byadgi is not always provided. Time period for construction work for particular area and contact details of PIU, consultant in project display board for any grievances or suggestion should be included	Arrangement of display board with all information. Advance information for locals including shopkeepers before starting of the work	Contractor	28th February 2018	Information disclosure Public consultation
2	Need to improve use of PPE by contractor's workers. Use of PPE	Use of PPE should be at all times as per	Contractor	Immediate and on	Availability and use of PPE

	Non-compliance Issues	Action Required	Responsible	Target Date	Indicator of Compliance
	should be at all times as per site condition and work type. Particularly use of shoes, hand gloves and safety belt (when working at height)	site condition and work type.		regular basis with record	
3	Disposal of excess earth/ spoil not done on regular basis from working sites and drains particularly for Davangere UGD and Byadgi UGD packages. Disposal of scrap and construction materials needed from Byadgi UGD and STP package	Disposal or utilization of excess earth/ spoil on regular basis	Contractor	Immediate and on regular basis with record	Improvement of site aesthetic condition
4	Temporary placement of caution tape is noted for all the packages. Improvement/ complete use of caution tape at working areas required	Complete use of caution tape and barricade at construction site	Contractor	28th February 2018	Site observation
5	Harihar STP camp site – Toilet facility and housekeeping need attention	Improvement of toilet facility and stay arrangement	Contractor	28th February 2018	Site observation
6	Housekeeping is required for Davangere UGD camp and store yard	Improvement of environment for camp and store yard	Contractor	28th February 2018	Site observation
7	Arrangement of tie up with hospital and medical examination of workers necessary for Davangere UGD, Davangere, Harihar & Byadgi bulk water supply packages	Arrangement as per Health and safety requirement	Contractor	Immediate	Observation of record

Appendix 1: Photo Illustration

Pipe laying work at Budyal village- Davangere UGD

Worker without proper shoes Davangere UGD project location

First aid box available at working site- Davangere UGD working location

No use of shoes by workers – Davangere UGD

Partial use of caution tape noted - Durga Ambika school Davangere UGD site

Work board provided but without emergency contact number and contact numbers of contractor, PIU and PMDCSC- Davangere project site

Road restoration continued after pipe laying.

Partial use of PPEs by workers. No hand gloves provided

Almost completed 20 MLD STP at Davangere

Almost completed 20 MLD STP at Davangere

Almost completed 20 MLD STP at Davangere

Excess earth to be utilized within STP. Plantation done

Almost completed 5 MLD STP at Davangere

Final stage cleaning process continued at 5 MLD STP - Davangere

STP construction work under progress at Harihar

Arrangement of caution tape near excavated area on the way to toilet, after necessary instruction

First aid box at Harihar STP location

Immediate arrangement of hand gloves during bar bending after necessary instruction

Broken toilet at STP, Harihar

Water available at STP construction site

Road restoration done after pipe laying at Vidyanagar- Harihar. Excess earth removed

Proper bed not provided to labourers

Water sprinkling for dust suppression

Use of PPE noted at STP site work - Harihar

Project display board Benki nagar, Harihar

Tool box training at STP site, Harihar

Clearance work continued at WTP area of Harihar WS package

First aid box available at WTP site of Harihar

Caution tape noted around excavated area of OHT at Amaravathi colony, Harihar

Proper storage of construction materials noted at OHT construction site

Proper electrical installation noted at labour camp set up at OHT site

Labour camp at OHT site- Harihar water supply package

Use of PPEs by worker is noted

Use of caution tape at Harihar WS package - noted

Proper use of PPEs by workers noted at Ratthalli road near stadium , Byadgi UGD location

Use of hand gloves – noted – Byadgi UGD package

Excess earth near main road needs to be disposed at Byadgi UGD

Caution board noted at Ratthalli road manhole construction site, Byadgi

Temporary arrangement of caution tape noted at Beta Mahadebeshwara manhole construction site- Byadgi

Use of PPEs by workers noted at Byadgi STP location

Project display board noted at entry point of STP

Proper use of PPEs noted at Byadgi UGD package location

Temporary arrangement of caution tape is noted near Banashankari temple main road, Byadgi

First aid box available at that site

Scrap materials are marked but separate enclosure not arranged- Byadgi STP site

Caution board noted with emergency number, but contact number missing for Byadgi UGD package

Pipe laying work going on at Asundi area. Use of PPEs by workers – noted for Byadgi bulk water supply package

First aid box available at working site of bulk Water supply package

Caution board noted but no contact number of contractor, PIU and PMDCSC for registering any complaint

Road restoration done after pipe laying. Excess earth removed from the site – Byadgi WS package

Flag man present during movement of equipment for transportation of pipes, Byadgi

Proper placement of caution tape – noted at pipe laying area of Byadgi

Water transmission pipe laying work just started at Hullihalli near Arch (NH 4). Demarcation of working area of pipe laying done- Byadgi WS package

Use of PPE by workers – noted for Byadgi WS package

Appendix 2

Monitoring Budget

Sr. no.	Package	Tentative Monitoring budget (in Rs.)
1	Providing expansion of sewage system in Harihar city – **Package No. 01HRA01**	**10,000,00.00**
2	Improvement of water supply system (bulk) in Harihara City.- **Package No. 01HRA02**	**7,72,000.00**
3	Expansion of Sewage System in Davangere City (District 1 & 3) – **Package No. 01DVG01**	**3,40,000.00**
4	Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP, **Package No. 01DVG01A**	**1,00,000.00**
5	Design, Build and Operate (i) Improvement of Bulk Water Supply for 24x7 Water supply to Davanagere city – AND (ii) Operation and Maintenance of the Bulk Water Supply System for a period of three (3) months for Davanagere City Corporation in Karnataka. **Package No. 01WS01**	**9,80,000.00**
6	Design, Build, Operate & Maintain for 6 years for Byadgi comprehensive scheme from covering SBR STP (5 MLD), network and manholes, construction of one septic tank and provision of HSCs, **Package No. 01BDG01**	**11,00,000.00**
7	Improvement of Water Supply System (bulk) in Byadgi Town **Package No. 01BDG02**	**5,02,000.00**

Appendix 3

Compliance against CFE condition

Davangere- Sewage Treatment Plant – 20 MLD STP (Package: 01DVG01A)

Sl. No	CFE Conditions	Compliance
1	This Consent for Establishment is valid for five years from date of issue.	As per plan establishment work will be completed within 5 years (issue date- 25th February 2015, Date of expiry – 25th February 2020)
2	This consent is related only to the pollution aspects of said project with respect to said location and this consent is in no way construed to give any right in any nature to the applicant what so ever in this regard, and shall obtain all statutory clearances before commencement of the project.	All statutory clearances will be obtained before commissioning of the treatment plant- Green belt plantation commitment from concerned city corporation Land allotment letter -Land Possession Certificate Industry certificate
3	The CC shall not undertake expansion/ diversification/ modernization/ change of sites etc., without prior clearance from this Board.	In case of expansion/ diversification/ modernization/ change of sites etc. prior clearance will be obtained from pollution control board
4	The CC shall obtain necessary license/ clearance from other relevant statutory agencies before taking up construction.	Necessary license/ clearance like land possession certification, design approval, public works dept. from other relevant statutory agencies will be obtained before starting up construction
5	There shall not be any complaints against the establishment of STP from surrounding public in respect of any kind of pollution	Before establishment of STP consultation has been done with surrounding public and assured local people on application of mitigation measures for non pollution of environment from treatment plant
6	The applicant shall submit the land documents of the proposed site to the Board, before commissioning the establishment work of the proposed STP.	Project authority (City Corporation Davangere) submitted land documents of the proposed site to the Board before getting consent for establishment
7	The applicant shall not discharge treated sewage into nala/river.	Treated water will be utilized for irrigation purpose Local crops like cotton, wheat, paddy, chilli will be irrigated Waste water utilization will be followed the proved technology (ref. http://www.igep.in/live/hrdpmp/hrdpmaster/igep/content/e48745/e57806/e61054/e61055/AgricultureWastewaterReuseBackgroundReview.pdf
I.	**Specific Conditions**	
1	The CC shall up-grade the STP system including advanced technologies after 5 years from the date of commissioning of the present STP system.	City Corporation Davangere would up-grade the STP system including advanced technologies after 5 years from the date of commissioning of the present STP system
2	The CC shall provide UGD facility for the entire City Corporation and report to the Board	Under the separate project CC already taken up UGD facility for the entire City Corporation (work ongoing) and informed to Board during consent application UGD project under progress and will be completed by 2018 end
3	The CC shall maintain 100 mts buffer zone around the Sewage Treatment Plant area.	CC already keep 100m buffer zone around the Sewage Treatment Plant area Google map attached end of the Table

Sl. No	CFE Conditions	Compliance
4	The CC shall take adequate measures to avoid any entry to treated /untreated sewage into nearby nalla	The CC took adequate measures in design to avoid any entry to treated /untreated sewage into nearby nalla
5	The responsibility to execute, commission, operation and maintenance of the STP will be taken *by* CC authorities only.	City Corporation Davangere have already taken responsibility to execute, commission, operation and maintenance of the STP
6	The CC shall ensure that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt shall be developed around the STP site	The CC ensured that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt (3700 m^2) will be developed around the STP site Green belt will be developed by concerned City corporation within STP boundary. Final map preparation will be done before commissioning of the project
7	The consent is issued without prejudice to the Court Cases pending in any Hon'ble Court	Noted
8	The CC shall pay balance cess under The Water (Prevention and Control of Pollution) Cess Act 1977 within three months.	CC would pay balance cess under The Water (Prevention and Control of Pollution) Cess Act 1977
II.	**Water Pollution Control**	
1	The treatment plant shall be used for the treatment of sewage only, at any point of time.	The treatment plant will be used for the treatment of city sewage
2	The treatment plant shall be used for the treatment of sewage not exceed 20 MLD	The treatment plant will be used for the treatment of sewage upto 20 MLD
3	The CC shall treat the sewage in the STP as per the proposals submitted to the Board.	The CC will treat the sewage in the STP as per the proposals submitted to the Board
4	The CC shall utilize the treated sewage for irrigation purpose after treating the same to the stipulated standards	As per design the CC will utilize the treated sewage for irrigation purpose after treating the same upto the stipulated standards (standard provided in CFE, shown below the Table)
5	All the treatment units shall be made totally impervious	Considered in the design
6	The CC is liable to reinstate/ restore, damaged or destroyed elements of environment at its cost, failing which the applicant/ occupier as the case may be/shall he liable in pay the entire cost of remediation or restoration and pay in advance an amount equal to the cost estimated by competent agency or committee.	Agreed.
7	The separate flow meter shall be installed to record hourly inflow & outflow of domestic effluent into the STP and maintain logbooks for hourly recording for verification of inspecting officers.	The separate flow meter will be installed to record hourly inflow & outflow of domestic effluent into the STP and logbooks will be maintained for hourly recording for verification
III.	**Solid Waste (other than Hazardous waste) disposal**	
	The solid wastes collected in the treatment plant premises in the form of general garbage shall be disposed off	Dried sludge from STP will be used as soil conditioner as manure and mixing with compost at compost yard. Periodic testing of dried sludge will

Sl. No	CFE Conditions	Compliance
	sufficiently to the satisfaction of the Board so as not to cause fugitive emissions, dust problems or water pollution through leaching etc. of any kind	be conducted to ensure that it does not contain heavy metals that make it unsuitable for food crops. No fugitive emissions, dust problems expected.
IV.	**General**	
1	The authority shall immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities shall immediately take appropriate corrective and preventive actions under intimation	CC Davangere will immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities will immediately taken up appropriate corrective and preventive actions under intimation
2	Exact date of commissioning of the Sewage Treatment Plant shall be informed to this Board 45 days in advance so as to make necessary inspection of the plant and the pollution control measures provided by the authorities	Date of commissioning of the Sewage Treatment Plant will be informed to the Board 45 days in advance
3	The applicant shall comply with all the rules and guidelines issued from time to time	CC Davangere will comply with all the rules and guidelines issued from time to time
4	The Board reserves right to review and impose additional condition or conditions revoke, change or alter the terms and conditions	Agreed
5	The CFE does not give any right to the Party/ Project Authority/ Industry to forego any requirement that is necessary for starting operation of the plant	Noted

Under CFE Condition

ON LAND FOR IRRIGATION

Sl. No.	Characteristics	Tolerance limits
1.	Colour and Odour	See Note
2.	Suspended Solids, mg/L max	30
3.	pH value.	5.5 to 9.0
4.	Oil and Grease, mg/L Max	10
5.	Bio-chemical Oxygen Demand, mg/l. (5 days at 20°C max)	20

Davangere- Sewage Treatment Plant – 5 MLD STP (Package: 01DVG01A)

Sl. No	CFE Conditions	Compliance
1	This Consent for Establishment is valid for five years from date of issue.	As per plan establishment work will be completed within 5 years (issue date- 25th February 2015, Date of expiry – 25th February 2020)
2	This consent is related only to the pollution aspects of said project with respect to said location and this consent is in no way construed to give any right in any nature to the applicant what so ever in this regard, and shall obtain all statutory clearances before commencement of the project.	All statutory clearances will be obtained before commissioning of the treatment plant- Green belt plantation commitment from concerned city corporation Land allotment letter -Land Possession Certificate Industry certificate
3	The CC shall not undertake expansion/ diversification/ modernization/ change of sites etc., without prior clearance from this Board.	In case of expansion/ diversification/ modernization/ change of sites etc. prior clearance will be obtained from pollution control board
4	The CC shall obtain necessary license/ clearance from other relevant statutory agencies before taking up construction.	Necessary license/ clearance like land possession certification, design approval, public works dept. from other relevant statutory agencies will be obtained before starting up construction
5	There shall not be any complaints against the establishment of STP from surrounding public in respect of any kind of pollution	Before establishment of STP consultation has been done with surrounding public and assured local people on application of mitigation measures for non pollution of environment from treatment plant
6	The applicant shall submit the land documents of the proposed site to the Board, before commissioning the establishment work of the proposed STP.	Project authority (City Corporation Davangere) submitted land documents of the proposed site to the Board before getting consent for establishment
7	The applicant shall not discharge treated sewage into nala/river.	Treated water will be utilized for irrigation purpose Local crops like cotton, wheat, paddy, chilli will be irrigated Waste water utilization will be followed the proved technology (ref. http://www.igep.in/live/hrdpmp/hrdpmaster/igep/content/e48745/e57806/e61054/e61055/AgricultureWastewaterReuseBackgroundReview.pdf
I.	**Specific Conditions**	
1	The CC shall up-grade the STP system including advanced technologies after 5 years from the date of commissioning of the present STP system.	City Corporation Davangere would up-grade the STP system including advanced technologies after 5 years from the date of commissioning of the present STP system
2	The CC shall provide UGD facility for the entire City Corporation and report to the Board	Under the separate project CC already taken up UGD facility for the entire City Corporation (work ongoing) and informed to Board during consent application UGD project under progress and will be completed by 2018 end
3	The CC shall maintain 100 mts buffer zone around the Sewage Treatment Plant area.	CC already keep 100m buffer zone around the Sewage Treatment Plant area Google map attached end of the Table
4	The CC shall take adequate measures to avoid any entry to treated /untreated sewage into nearby nalla	The CC took adequate measures in design to avoid any entry to treated /untreated sewage into nearby nalla
5	The responsibility to execute, commission, operation and maintenance of the STP will be taken *by* CC authorities only.	City Corporation Davangere have already taken responsibility to execute, commission, operation and maintenance of the STP

Sl. No	CFE Conditions	Compliance
6	The CC shall ensure that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt shall be developed around the STP site	The CC ensured that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt (2300 m^2) will be developed around the STP site Green belt will be developed by concerned City corporation within STP boundary. Final map preparation will be done before commissioning of the project
7	The consent is issued without prejudice to the Court Cases pending in any Hon'ble Court	Noted
8	The CC shall pay balance cess under The Water (Prevention and Control of Pollution) Cess Act 1977 within three months.	CC would pay balance cess under The Water (Prevention and Control of Pollution) Cess Act 1977
II.	**Water Pollution Control**	
1	The treatment plant shall be used for the treatment of sewage only, at any point of time.	The treatment plant will be used for the treatment of city sewage
2	The treatment plant shall be used for the treatment of sewage not exceed 5 MLD	The treatment plant will he used for the treatment of sewage upto 5 MLD
3	The CC shall treat the sewage in the STP as per the proposals submitted to the Board.	The CC will treat the sewage in the STP as per the proposals submitted to the Board
4	The CC shall utilize the treated sewage for irrigation purpose after treating the same to the stipulated standards	As per design the CC will utilize the treated sewage for irrigation purpose after treating the same upto the stipulated standards (standard provided in CFE, shown in Table above)
5	All the treatment units shall be made totally impervious	Considered in the design
6	The CC is liable to reinstate/ restore, damaged or destroyed elements of environment at its cost, failing which the applicant/ occupier as the case may be/shall he liable in pay the entire cost of remediation or restoration and pay in advance an amount equal to the cost estimated by competent agency or committee.	Agreed
7	The separate flow meter shall be installed to record hourly inflow & outflow of domestic effluent into the STP and maintain logbooks for hourly recording for verification of inspecting officers.	The separate flow meter will be installed to record hourly inflow & outflow of domestic effluent into the STP and logbooks will be maintained for hourly recording for verification
III.	**Solid Waste (other than Hazardous waste) disposal**	
	The solid wastes collected in the treatment plant premises in the form of general garbage shall be disposed off sufficiently to the satisfaction of the Board so as not to cause fugitive emissions, dust problems or water pollution through leaching etc. of any kind	Dried sludge from STP will be used as soil conditioner as manure and mixing with compost at compost yard. Periodic testing of dried sludge will be conducted to ensure that it does not contain heavy metals that make it unsuitable for food crops
IV.	**General**	
1	The authority shall immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the	CC Davangere will immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities will immediately taken up

Sl. No	CFE Conditions	Compliance
	authorities shall immediately take appropriate corrective and preventive actions under intimation	appropriate corrective and preventive actions under intimation
2	Exact date of commissioning of the Sewage Treatment Plant shall be informed to this Board 45 days in advance so as to make necessary inspection of the plant and the pollution control measures provided by the authorities	Date of commissioning of the Sewage Treatment Plant will be informed to the Board 45 days in advance
3	The applicant shall comply with all the rules and guidelines issued from time to time	CC Davangere will comply with all the rules and guidelines issued from time to time
4	The Board reserves right to review and impose additional condition or conditions revoke, change or alter the terms and conditions	Agreed
5	The CFE does not give any right to the Party/ Project Authority/ Industry to forego any requirement that is necessary for starting operation of the plant	Noted

5 MLD STP Boundary
100m Buffer Zone
Google Earth

Harihara Sewage Treatment Plant – 18 MLD STP (Package: 01HRA01)

Sl. No	CFE Conditions	Compliance
1	This Consent for Establishment is valid for five years from date of issue.	As per plan establishment work will be completed within 5 years (issue date- 22nd January 2015, Date of expiry – 22nd January 2020)
2	This consent is related only to the pollution aspects of said project with respect to said location and this consent is in no way construed to give any right in any nature to the applicant what so ever in this regard, and shall obtain all statutory clearances before commencement of the project.	All statutory clearances will be obtained before commissioning of the treatment plant- Green belt plantation commitment from concerned city corporation Land allotment letter -Land Possession Certificate Industry certificate
3	The CMC shall not undertake expansion/ diversification/ modernization/ change of sites etc., without prior clearance from this Board.	In case of expansion/ diversification/ modernization/ change of sites etc. prior clearance will be obtained from pollution control board
4	The CMC shall obtain necessary license/ clearance from other relevant statutory agencies before taking up construction.	Necessary license/ clearance like land possession certification, design approval, public works dept. from other relevant statutory agencies will be obtained before starting up construction
5	There shall not be any complaints against the establishment of STP from surrounding public in respect of any kind of pollution	Before establishment of STP consultation has been done with surrounding public and assured local people on application of mitigation measures for non pollution of environment from treatment plant
6	The applicant shall submit the land documents of the proposed site to the Board, before commissioning the establishment work of the proposed STP.	Project authority (City Municipal Council Harihara) submitted land documents of the proposed site to the Board before getting consent for establishment
7	The applicant shall not discharge treated sewage into nala/river.	Treated water will be utilized for irrigation purpose Local crops like cotton, wheat, paddy, chilli will be irrigated Waste water utilization will be followed the proved technology (ref. http://www.igep.in/live/hrdpmp/hrdpmaster/igep/content/e48745/e57806/e61054/e61055/AgricultureWastewaterReuseBackgroundReview.pdf
I.	**Specific Conditions**	
1	The CMC shall up-grade the STP system including advanced technologies after 5 years from the date of commissioning of the present STP system.	City Municipal Council Harihara would up-grade the STP system including advanced technologies after 5 years from the date of commissioning of the present STP system
2	The CMC shall provide UGD facility for the entire City Council area and report to the Board	Under the separate project CMC already taken up UGD facility for the entire City Municipal Corporation (work ongoing) and informed to Board during consent application UGD project under progress and will be completed by 2018 end
3	The CMC shall maintain 100 mts buffer zone around the Sewage Treatment Plant area.	CMC already keep 100m buffer zone around the Sewage Treatment Plant area Google map attached end of the Table
4	The CMC shall take adequate measures to avoid any entry to treated /untreated sewage into nearby nalla	The CMC took adequate measures in design to avoid any entry to treated /untreated sewage into nearby nalla
5	The responsibility to execute, commission, operation and maintenance of the STP will be taken *by* CMC authorities only.	City Municipal Council Harihara have already taken responsibility to execute, commission, operation and maintenance of the STP

Sl. No	CFE Conditions	Compliance
6	The CMC shall ensure that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt shall be developed around the STP site	The CMC ensured that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt (5538 m^2) will be developed around the STP site Green belt will be developed by concerned City Municipal corporation within STP boundary. Final map preparation will be done before commissioning of the project
7	The consent is issued without prejudice to the Court Cases pending in any Hon'ble Court	Noted
8	The CMC shall pay balance cess under The Water (Prevention and Control of Pollution) Cess Act 1977 within three months.	CMC would pay balance cess under The Water (Prevention and Control of Pollution) Cess Act 1977
II.	**Water Pollution Control**	
1	The treatment plant shall be used for the treatment of sewage only, at any point of time.	The treatment plant will be used for the treatment of city sewage
2	The treatment plant shall be used for the treatment of sewage not exceed 18 MLD	The treatment plant will he used for the treatment of sewage upto 18 MLD
3	The CMC shall treat the sewage in the STP as per the proposals submitted to the Board.	The CMC will treat the sewage in the STP as per the proposals submitted to the Board
4	The CMC shall utilize the treated sewage for irrigation purpose after treating the same to the stipulated standards	As per design the CMC will utilize the treated sewage for irrigation purpose after treating the same upto the stipulated standards (standard provided in CFE, shown in Table below)
5	All the treatment units shall be made totally impervious	Considered in the design
6	The CMC is liable to reinstate/ restore, damaged or destroyed elements of environment at its cost, failing which the applicant/ occupier as the case may be/shall he liable in pay the entire cost of remediation or restoration and pay in advance an amount equal to the cost estimated by competent agency or committee.	Agreed
7	The separate flow meter shall be installed to record hourly inflow & outflow of domestic effluent into the STP and maintain logbooks for hourly recording for verification of inspecting officers.	The separate flow meter will be installed to record hourly inflow & outflow of domestic effluent into the STP and logbooks will be maintained for hourly recording for verification
III.	**Solid Waste (other than Hazardous waste) disposal**	
	The solid wastes collected in the treatment plant premises in the form of general garbage shall be disposed off sufficiently to the satisfaction of the Board so as not to cause fugitive emissions, dust problems or water pollution through leaching etc. of any kind	As per the recommendations of CPHEEO Manual, November 2013 (Central Public Health and Environmental Engineering Organization), section 5, page 81, the sludge from Facultative aerated lagoon will be used as good agriculture soil filler. No emission and dust expected. Periodic testing of dried sludge will be conducted to ensure that it does not contain heavy metals that make it unsuitable for food crops
IV.	**General**	
1	The authority shall immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities shall immediately take appropriate	City Municipal Council Harihara will immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities will

Sl. No	CFE Conditions	Compliance
	corrective and preventive actions under intimation	immediately taken up appropriate corrective and preventive actions under intimation
2	Exact date of commissioning of the Sewage Treatment Plant shall be informed to this Board 45 days in advance so as to make necessary inspection of the plant and the pollution control measures provided by the authorities	Date of commissioning of the Sewage Treatment Plant will be informed to the Board 45 days in advance
3	The applicant shall comply with all the rules and guidelines issued from time to time	City Municipal Council Harihara will comply with all the rules and guidelines issued from time to time
4	The Board reserves right to review and impose additional condition or conditions revoke, change or alter the terms and conditions	Agreed
5	The CFE does not give any right to the Party/ Project Authority/ Industry to forego any requirement that is necessary for starting operation of the plant	Noted

Under CFE Condition

ON LAND FOR IRRIGATION

Sl. No.	Characteristics	Tolerance limits
1.	Colour and Odour	See Note
2.	Suspended Solids, mg/L max	30
3.	pH value	5.5 to 9.0
4.	Oil and Grease, mg/L Max	10
5.	Bio-chemical Oxygen Demand, mg/L (5 days at 20°C max)	20

Kumaracoilam
Google Earth

Byadgi- Sewage Treatment Plant –5 MLD STP (Package: 01BDG02)

Sl. No	CFE Conditions	Compliance
1	This Consent for Establishment is valid for five years from date of issue.	As per plan establishment work will be completed within 5 years (issue date- 12th July 2016, Date of expiry – 12th July 2021)
2	The applicant shall not undertake expansion/ diversification/ without the prior consent from this Board.	In case of expansion/ diversification/. prior consent will be obtained from pollution control board
3	The applicant shall obtain necessary license/ clearance from other relevant statutory agencies before taking up construction.	Necessary license/ clearance like land possession certification, design approval, public works dept. from other relevant statutory agencies will be obtained before starting up construction
I	**Specific Conditions**	
1	The TMC shall provide UGD facility for the entire Town municipal Corporation and report to the Board	Under the separate project TMC already taken up UGD facility for the entire Town Municipal Corporation (work ongoing) and informed to Board during consent application UGD project under progress and will be completed by 2019 mid
2	The TMC shall maintain 100 m buffer zone around the Sewage Treatment Plant area.	CMC already keep 100m buffer zone around the Sewage Treatment Plant area Google map attached end of the Table
3	The responsibility of execute, commission, operation and maintenance of STP will be taken by TMC authorities only	Town Municipal Corporation Byadgi have already taken responsibility to execute, commission, operation and maintenance of the STP
4	The consent is issued without prejudice to the Court Cases pending in any Hon'ble Court	Noted
5	The TMC shall pay balance cess under The Water (Prevention and Control of Pollution) Cess Act 1977 within three months.	TMC would pay balance cess under The Water (Prevention and Control of Pollution) Cess Act 1977
II	**Water Pollution Control System**	
1	The treatment plant shall be used for the treatment of sewage only, at any point of time.	Noted
2	The TMC shall treat the sewage in the STP as per the proposals submitted to the Board.	The TMC will treat the sewage in the STP as per the proposals submitted to the Board
3	TMC shall treat the sewage to the standards stipulated in Annexure I and after treatment utilize the treated sewage for irrigation purpose	As per design the CMC will utilize the treated sewage for irrigation purpose after treating the same upto the stipulated standards (standard provided in CFE, shown in Table below)
4	All the treatment units shall be made totally impervious	Considered in the design
5	The TMC is liable to reinstate/ restore, damaged or destroyed elements of environment at its cost, failing which the applicant/ occupier as the case may be/shall he liable in pay the entire cost of remediation or restoration and pay in advance an amount equal to the cost estimated by competent agency or committee.	Agreed
6	The TMC shall take adequate measures to avoid any entry to treated /untreated sewage into nearby nalla	The TMC took adequate measures in design to avoid any entry to treated /untreated sewage into nearby nalla
7	The separate flow meter shall be installed to record hourly inflow & outflow of domestic effluent	The separate flow meter will be installed to record hourly inflow & outflow of domestic

Sl. No	CFE Conditions	Compliance
	into the STP and maintain logbooks for hourly recording for verification of inspecting officers.	effluent into the STP and logbooks will be maintained for hourly recording for verification
8	The TMC shall ensure that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt shall be developed around the STP site	The TMC ensured that there shall not be any odour nuisance in the surrounding area due to the operation of the STP. Sufficient green belt (1800 m^2) will be developed around the STP site Green belt will be developed by concerned Town Municipal corporation within STP boundary. Final map preparation will be done before commissioning of the project
9	The applicant shall install DG set with prior permission of the board for continuous operation of STP during power failure	Will be done as per requirement
III	**Air Pollution Control System**	
	There shall be DG set of 250 KVA as an alternative power supply for STP, for pollution control measures are stipulated in Annexure II	Will be done as per requirement
IV	**Solid Waste (other than Hazardous waste) disposal**	
	The solid wastes collected in the treatment plant premises in the form of general garbage shall be disposed off sufficiently to the satisfaction of the Board so as not to cause fugitive emissions, dust problems or water pollution through leaching etc. of any kind	The sludge in the form of a wet cake from the centrifuge will be collected in tractor trolley directly placed below the centrifuge room, and transported to the municipal solid waste compost plant in Byadgi. This sludge will be further dried and blended with the other compost and will be sold in the market for use as soil conditioner in agriculture. No fugitive emission and dust problems expected
V.	**General**	
1	The authority shall immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities shall immediately take appropriate corrective and preventive actions under intimation	TMC Byadgi will immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of effluents or emissions or solid wastes etc., in excess of standards stipulated and the authorities will immediately taken up appropriate corrective and preventive actions under intimation
2	Exact date of commissioning of the Sewage Treatment Plant shall be informed to this Board 45 days in advance so as to make necessary inspection of the plant and the pollution control measures provided by the authorities	Date of commissioning of the Sewage Treatment Plant will be informed to the Board 45 days in advance
3	The applicant shall comply with all the rules and guidelines issued from time to time	TMC Byadgi will comply with all the rules and guidelines issued from time to time
4	The Board reserves right to review and impose additional condition or conditions revoke, change or alter the terms and conditions	Agreed
5	The CFE does not give any right to the Party/ Project Authority/ Industry to forego any requirement that is necessary for starting operation of the plant	Noted

ON LAND FOR IRRIGATION

Sl No	Parameters	Parameters Limit(Standards for new STPs Design after notification date)
1	pH	5.5-9.0
2	Bio-chemical Oxygen Demand mg/L (3 days at 27° C max)	Not more than 10
3	Chemical Oxygen demand (mg/l)	Not more than 50
4	Total suspended solid (mg/l)	Not more than 20
5	NH4-N(mg/l)	Not more than 5
6	N-Total (mg/l)	Not more than 10
7	Faecal Coliform(MPN/100ml)	Less than 100

Note: All efforts should be made to remove colour and unpleasant odour as far as practicable.

5 MLD STP Boundary
Outlet Chamber
Google Earth

Appendix 4

Labour license

Davangere- Sewerage (Package no.: 01DVG01)

GOVERNMENT OF KARNATAKA

DEPARTMENT OF LABOUR

License No. : ALC/DCLA/LL/LN-1436/2014-16

License Date: 24-02-2016

Assistant Labour Commissioner, Bellary Division, Davangere
Davangere Harihara Urban Development Authority Building, Near Devaraja Urs Layout, Commercial Tax Office, Davangere-577006

FORM-VI

[See Rule25(1)]

1. Licence is here by granted to **Simplex Infrastructures Limited,No.314, 3rd Main, 1st Cross, Backside of Mozz Shop, S. Nijalingappa Layout, Davangere** Under Section [21(1)] of the Contract Labour [Regulation and Abolition] Act-1970, subject to the conditions specified in annexure.

2. This Licence is for doing the work **Expansion of Sewerage System in Davangere City** in the establishment of **Commissioner Davangere City Corporation,P.B. Road, Davangere**

3. The Licence shall remain in force till 23/02/2018

Renewal
[Rule 29]

Sl no.	Date of Licence Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	01-03-2017	23-02-2017	LICENCE FEE 1500, PENALTY 375	23/02/2018

Please verify authenticity of by visiting www.labourcpmc.kar.nic.in & entering certificate number

Assistant Labour Commissioner,
Bellary Division, Davangere
ಸಹಾಯಕ ಕಾರ್ಮಿಕ ಆಯುಕ್ತರು
ಬಳ್ಳಾರಿ ವಿಭಾಗ, ದಾವಣಗೆರೆ

Davangere- Sewage Treatment Plant (Package no.: 01DVG01A)

LD1521000021025

GOVERNMENT OF KARNATAKA

DEPARTMENT OF LABOUR

Licence No : ALCD/CLA/LCN-1518/2015-16

Registration No: ALCD/CLA/RGN-173/2012-13

Assistant Labour Commissioner, Bellary Divison, Davangere Davangere Harihara Urban Development Authority Building, Near Devaraja Urs Layout, Commiercial Tax Office, Davangere-577006

Licence Date: Jan 2 2018

FORM-VI

[See Rule25(1)]

1. Licence is here by granted to **HNB Engineers Pvt Ltd,20 MLD-STP, Davanagere City Corporation Sr.No.11, Ashraya Colony, Shivanagara, Doddabudihala Road, R** Under Section 12[1] of the Contract Labour [Regulation and Abolition] Act-1970, subject to the conditions specified in annexure.

2. This Licence is for doing the work **STP Plant Works** in the establishment of **Commissioner Davanagere City Corporation,P.B. Road, Davanagere**

3. The Licence shall remain in force till :04/11/2018

Renewal
[Rule 29]

Sl no.	Date of Licence Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	04-01-2018	04-11-2017	LICENCE FEE:1000 PENALTY:250	04/11/2018

Please verify authenticity of by visiting www.labouronline.kar.nic.in & entering certificate Number

4/1/18

Assistant Labour Commissioner
Bellary Divison, Davangere
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ಬಳ್ಳಾರಿ ವಿಭಾಗ, ದಾವಣಗೆರೆ

ANNEXURE

The license is subject to the following conditions:-

1. The license shall be non-transferable.
2. The number of workmen employed as contract labour in the establishment shall not, on any day, exceeds **30 workers**.
3. Expect as provided in the rules and fees paid for the grant or as the case may be, for renewal of the license shall be non-refundable
4. The rates of wages payable to the workmen by the contractor shall not be less than the rates prescribed for the schedule of employment under the Minimum Wages Act, 1948, where applicable and where the rates have been fixed by agreement settlement or award, not less than the rates, fixed.
5. In cases where the workmen employed by the contractor perform the same or similar kind of work as the workmen directly employed by the Principal Employer of the Establishment, the wage rates, holidays, hours of work and other conditions of service of the workmen of contractor shall be the same as applicable to the workmen directly employed by the Principal Employer of the Establishment on the same or similar kind of work, provided that in the case of disagreement with regards to the type of work the same shall be decided by the Commissioner of Labour whose decision shall be final.
6. In other cases the wage rates, holidays, hours of work and conditions of service of the workmen of the contractor shall be such as may be specified in this behalf by the Commissioner of Labour.
7. In every establishment where 20 or more women are ordinarily employed as contract labour shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One of such rooms would be used as play room for the children and the other as bed room for the children. For this purpose the contract shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the sleeping in this behalf by the Commissioner of Labour.
8. The licenses shall notify any change in the number of workmen or the conditions of work to the licensing officer.
9. A copy of license shall be displayed prominently at the premises where the contract work is being carried on.
10. The contract labourers shall be provided the lunch/dinner, coffee tea and breakfast, snacks free of cost during the working hours, if such facilities are extended to regular workmen employed by the principal employer.
11. The contract labourers shall be paid the minimum wages fixed under the minimum wages act.
12. The contract labourers shall be paid with the same rate of Bonus and Ex-gratia payable to the regular workmen employed by the principal employer.
13. The contract labouers shall be provided with free uniforms and shoes, with such facilities are extended to the regular workmen employed by the principal employer.
14. Employment of Child Labour below 14 years is prohibited.

4.7.18

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Davangere Bulk water supply (Package no: 01DVG01A)

LD1321100013297

GOVERNMENT OF KARNATAKA

DEPARTMENT OF LABOUR

Licence No : ALC-BAL/CLA/C-100013297/2017-18

Assistant Labour Commissioner, Bellary Divison, Davangere
Davangere Harihara Urban Development Authority Building, Near Devaraja Urs Layout, Commercial Tax Office, Davangere-577006

Registration No: ALCD/CLA/RGN-173/2012-13

Nov 9 2017
3:07PM

Security Deposite : 1250

FORM-VI
[See Rule 25(1)]

1. Licence is here by granted to M/s SEPC - DRS ITPL - JV, 1st Floor, (Northern Wing) Rajah Annamalai Building, No.18/3,
Rukmani Lakshmipathi Salai,
Egmore Chennai C/o Amaravathi Colony, Harihar, Davanagere Dist Under Section 12(1)
of the Contract Labour [Regulation And Abolition] Act-1970, subject to the conditions specified in annexure

2. This Licence is for doing the work Design, Build and Operate Water Supply in the establishment of Commissioner Davanagere City Corporation,P.B. Road, Davanagere.

3 The Licence shall remain in force till 01/07/2018

Licence

[Rule-29(

Sl. NO	Date Of Licence	Fee Paid for Licence	Date Of Expiry
1	01-07-2017	Rs.1000	01/07/2018

Please, verify authenticity of by visiting www.labouronline.kar.nic.in & entering certificate Number

Assistant Labour Commissioner, Bellary Divison, Davangere

ANNEXURE

The license is subject to the following conditions:-

1. The license shall be non-transferable.
2. The number of workmen employed as contract labour in the establishment shall not, on any day, exceed **50 workers**.
3. Except as provided in the rules and fees paid for the grant or as the case may be, for renewal of the license shall be non-refundable
4. The rates of wages payable to the workmen by the contractor shall not be less than the rates prescribed for the schedule of employment under the Minimum Wages Act, 1948, where applicable and where the rates have been fixed by agreement settlement or award, not less than the rates, fixed.
5. In cases where the workmen employed by the contractor perform the same or similar kind of work as the workmen directly employed by the Principal Employer of the Establishment, the wage rates, holidays, hours of work and other conditions of service of the workmen of contractor shall be the same as applicable to the workmen directly employed by the Principal Employer of the Establishment on the same or similar kind of work; provided that in the case of disagreement with regards to the type of work the same shall be decided by the Commissioner of Labour whose decision shall be final.
6. In other cases the wage rates, holidays, hours of work and conditions of service of the workmen of the contractor shall be such as may be specified in this behalf by the Commissioner of Labour.
7. In every establishment where 20 or more women are ordinarily employed as contract labour shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One of such rooms would be used as play room for the children and the other as bed room for the children. For this purpose the contract shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the sleeping in this behalf by the Commissioner of Labour.
8. The licenses shall notify any change in the number of workmen or the conditions of work to the licensing officer.
9. A copy of license shall be displayed prominently at the premises where the contract work is being carried on.
10. The contract labourers shall be provided the lunch/dinner, coffee/tea and breakfast, snacks free of cost during the working hours, if such facilities are extended to regular workmen employed by the principal employer.
11. The contract labourers shall be paid the minimum wages fixed under the minimum wages act.
12. The contract labourers shall be paid with the same rate of Bonus and Ex-gratia payable to the regular workmen employed by the principal employer.
13. The contract labouers shall be provided with free uniforms and shoes, with such facilities are extended to the regular workmen employed by the principal employer.
14. Employment of Child Labour below 14 years is prohibited.

ಸಹಾಯಕ ಕಾರ್ಮಿಕ ಆಯುಕ್ತರು
ಬಳ್ಳಾರಿ ವಿಭಾಗ, ಬಳ್ಳಾರಿ

Harihar – Sewerage and Sewage Treatment Plant (Package no: 01HRA01)

LD1521000011069

GOVERNMENT OF KARNATAKA

DEPARTMENT OF LABOUR

Licence No : ALCD/CLA/LCN-1464/2015-16

Licence Date: 15-06-2015

Assistant Labour Commissioner, Bellary Divison, Davangere Davangere Harihara Urban Development Authority Building, Near Devaraja Urs Layout, Commiercial Tax Office, Davangere-577006

FORM-VI

[See Rule25(1)]

1. Licence is here by granted to **Shriram EPC Limited,D.No.50, B Block, Amaravathi Colony, Harihar** Under Section 12[1] of the Contract Labour [Regulation and Abolition] Act-1970, subject to the conditions specified in annexure.

2. This Licence is for doing the work **Expansion of Sewerage System** in the establishment of **City Municipal Council Harihar,Harihar**

3. The Licence shall remain in force till :14/06/2018

Renewal
[Rule 29]

Sl no.	Date of Licence Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	24-06-2017	14-06-2017	LICENCE FEE:1500, PENALTY:375	14/06/2018

24-6-17

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Assistant Labour Commissioner,
Bellary Divison, Davangere
ಸಹಾಯಕ ಕಾರ್ಮಿಕ ಆಯುಕ್ತರು
ಬಳ್ಳಾರಿ ವಿಭಾಗ, ದಾವಣಗೆರೆ

ANNEXURE

The license is subject to the following conditions:-

1. The license shall be non-transferable.
2. The number of workmen employed as contract labour in the establishment shall not, on any day, exceeds **100 workers**.

3. Expect as provided in the rules and fees paid for the grant or as the case may be, for renewal of the license shall be non-refundable
4. The rates of wages payable to the workmen by the contractor shall not be less than the rates prescribed for the schedule of employment under the Minimum Wages Act, 1948, where applicable and where the rates have been fixed by agreement settlement or award, not less than the rates, fixed.
5. In cases where the workmen employed by the contractor perform the same or similar kind of work as the workmen directly employed by the Principal Employer of the Establishment, the wage rates, holidays, hours of work and other conditions of service of the workmen of contractor shall be the same as applicable to the workmen directly employed by the Principal Employer of the Establishment on the same or similar kind of work; provided that in the case of disagreement with regards to the type of work the same shall be decided by the Commissioner of Labour whose decision shall be final.
6. In other cases the wage rates, holidays, hours of work and conditions of service of the workmen of the contractor shall be such as may be specified in this behalf by the Commissioner of Labour.
7. In every establishment where 20 or more women are ordinarily employed as contract labour shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One of such rooms would be used as play room for the children and the other as bed room for the children. For this purpose the contract shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the sleeping in this behalf by the Commissioner of Labour.
8. The licenses shall notify any change in the number of workmen or the conditions of work to the licensing officer.
9. A copy of license shall be displayed prominently at the premises where the contract work is being carried on.
10. The contract labourers shall be provided the lunch/dinner, coffee/tea and breakfast, snacks free of cost during the working hours, if such facilities are extended to regular workmen employed by the principal employer.
11. The contract labourers shall be paid the minimum wages fixed under the minimum wages act.
12. The contract labourers shall be paid with the same rate of Bonus and Ex-gratia payable to the regular workmen employed by the principal employer.
13. The contract labouers shall be provided with free uniforms and shoes, with such facilities are extended to the regular workmen employed by the principal employer.
14. Employment of Child Labour below 14 years is prohibited.

24-6-13

ಸಹಾಯಕ ಕಾರ್ಮಿಕ ಆಯುಕ್ತರು
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Harihar Bulk Water supply (Package no. 01HRA02)

FORM-II
(See Sub-rule(1) of rule 16)

GOVERNMENT OF KARNATAKA
OFFICE OF THE REGISTERING OFFICER

LICENCE NO: LOD/CWWB/DVG-CR-02/2017-18 **Dt: 04-08-2017**

Receipt No :- 001
Fee Paid :- Rs.1,000/-

A Certificate of Registration is hereby granted under sub-section (3) of Section 7 of the Building and Other Construction Workers Regulation of Employment and Conditions of Service Act 1996 and the Rules made there under to **M/s Sheth and Sura Engineers Pvt. Ltd.**, having the following particulars subject to conditions laid down in the annexure;

1	Postal Address/location where building or other construction work is to be carried on by the employer:	M/s Sheth and Sura Engineers Pvt. Ltd., C/o Karnataka Integrated Urban Water Management and Investment Programme, Slice No.1- Improvement of Water Supply System (Bulk), Harihar City
2	Name and address of employer including location of the building and other construction work:	Kiran Mangasule, M/s Sheth and Sura Engineers Pvt. Ltd., Dr. Aradhya House, P.B. Road, Kumarpattanam Post, Ranebennur Tq, Haveri Dist.
3	Name and permanent address of the establishment	M/s Sheth and Sura Engineers Pvt. Ltd., 437-C, Shurpalaya Shantiniketan, behind Sura College, BO Koppa, Hubli.
4	Nature of work in which building workers or are to be employed:	Construction of Water Treatment Plant, Construction of Over Head Tank, DI Pipeline Work and Allied Works
5	Maximum number of building workers to be employed on any day by the employer	18
6	Probable date of commencement and completion of work:	18-05-2017 to 17-11-2018
7	Other particulars relevant to the employment of building workers	—

ANNEXURE

The registration granted herein above is subject to the following conditions namely:-

a) The Certificate of registration shall be non transferable;
b) The number of workmen employed or building workers in the establishment shall not on any day exceed the maximum number specified in the certificate of registration;
c) Save or provided in these rules the fees paid for the grant of registration certificate shall be non-refundable;
d) The rates of wages payable to building workers by the employer shall not be less than rates prescribed under the Minimum Wages Act 1948 (2 of 1948) for such employment where applicable and where the rates have been fixed by agreement, settlement of award not less than the rates so fixed; and
e) The employer shall comply with the provision the act and the rules made there under.

Byadgi– Sewerage and Sewage Treatment Plant (Package no: 01BDG01)

GOVERNMENT OF KARNATAKA

DEPARTMENT OF LABOUR

Licence No : ALC-DH/CLA/C-100004821/2016-17

Licence Date: Feb 8 2017

Assistant Labour Commissioner, DharwadDivision, Hubli Srinath Complex, New Cotton Market, Neeligen Road, Hubli

FORM-VI

[See Rule25(1)]

1. Licence is here by granted to **Shriram EPC Ltd,Sigapi Achi Building, IVth Floor, 18/3, Rukmani Lakshmipathi Salai, Egmore, Chennai - 600 008** Under Section 12[1] of the Contract Labour [Regulation and Abolition] Act-1970, subject to the conditions specified in annexure

2. This Licence is for doing the work **Construction of sewerage network & 5 MLD STP Plant** in the establishment of **TOWN MUNICIPAL COUNCIL,BYADGI TMC,HAVERI DISTRICT**

3. The Licence shall remain in force till : 16/04/2018

Renewal
[Rule 29]

Sl no.	Date of Licence Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	21-04-2017	15-04-2017	LICENCE FEE:1500, PENALTY:375	16/04/2018

ANNEXURE

The license is subject to the following conditions:-

1. The license shall be non-transferable.
2. The number of workmen employed as contract labour in the establishment shall not, on any day, exceeds **100 workers**.

3. Expect as provided in the rules and fees paid for the grant or as the case may be, for renewal of the license shall be non-refundable.
4. The rates of wages payable to the workmen by the contractor shall not be less than the rates prescribed for the schedule of employment under the Minimum Wages Act, 1948, where applicable and where the rates have been fixed by agreement settlement or award, not less than the rates, fixed.
5. In cases where the workmen employed by the contractor perform the same or similar kind of work as the workmen directly employed by the Principal Employer of the Establishment, the wage rates, holidays, hours of work and other conditions of service of the workmen of contractor shall be the same as applicable to the workmen directly employed by the Principal Employer of the Establishment on the same or similar kind of work; provided that in the case of disagreement with regards to the type of work the same shall be decided by the Commissioner of Labour whose decision shall be final.
6. In other cases the wage rates, holidays, hours of work and conditions of service of the workmen of the contractor shall be such as may be specified in this behalf by the Commissioner of Labour.
7. In every establishment where 20 or more women are ordinarily employed as contract labour shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One of such rooms would be used as play room for the children and the other as bed room for the children. For this purpose the contract shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the sleeping in this behalf by the Commissioner of Labour.
8. The licenses shall notify any change in the number of workmen or the conditions of work to the licensing officer.
9. A copy of license shall be displayed prominently at the premises where the contract work is being carried on.
10. The contract labourers shall be provided the lunch/dinner, coffee/tea and breakfast, snacks free of cost during the working hours, if such facilities are extended to regular workmen employed by the principal employer.
11. The contract labourers shall be paid the minimum wages fixed under the minimum wages act.
12. The contract labourers shall be paid with the same rate of Bonus and Ex-gratia payable to the regular workmen employed by the principal employer.
13. The contract labouers shall be provided with free uniforms and shoes, with such facilities are extended to the regular workmen employed by the principal employer.
14. Employment of Child Labour below 14 years is prohibited.

Appendix 5

Labour compensation Insurance

Davangere UGD (Package: 01DVG01)

RELIANCE
General Insurance

reliancegeneral.co.in
1800 3009

Employees Compensation Insurance Policy Schedule

Policy Number : [illegible]

Proposal No : [illegible]

Insured : M/S SIMPLEX INFRASTRUCTURES LTD

Period Of Insurance :
From 30/01/2017 to 29/01/2018 (both days inclusive)

Address : 27, SIMPLEX HOUSE, SHAKESPEARE SARANI, KOLKATA, KOLKATA, WEST BENGAL, 700017,

Policy issuing office address :
RELIANCE CENTRE
SOUTH WING,4TH FLOOR,OFF WESTERN EXPRESS HIGHWAY,SANTACRUZ(EAST),MUMBAI -400 055

Business : CIVIL ENGINEERING

Policy issuing servicing address :
HIMALAYA HOUSE 5TH FLOOR,36 B J L NEHRU ROAD KOLKATA KOLKATA KOLKATA WEST BENGAL 700071

Date of proposal & declaration : 27/01/2017

Email ID :

Mobile No :

Risk Locations : Anywhere in KARNATAKA State

Laws : The Policy covers Liability of the Insured under the following Law(s) shown as covered, subject to claim being otherwise admissible as per terms, conditions and exclusions of the Policy and subject to Limit of Indemnity as stipulated against each Law

Law / Act	Limit of Indemnity	Coverage
(a) Employee's Compensation Act, 1923 and subsequent amendments thereof prior to the date of issue of this Policy	Subject otherwise to the terms, conditions & Exclusions of the Policy, the amount of liability incurred by the insured as per act for any death/PTD/TTD/PTD arising out of an accident	Yes

Premium Details	Amount (₹)
Net Premium	[illegible]
Service Tax*	5549.54
Swachh Bharat Cess	198.20
Krishi Kalyan Cess	198.20
Total Premium	[illegible]

* Not Applicable for the State of Jammu & Kashmir
Service Tax Regn. No : AAGCR0747GSD001

Details of Employees Covered

Description of work done by Employees		Declared Number of Employees	Declared Wages during the Period of Insurance	Cnt No.	Class No.
Occupancy	Designation				
Diakers :All employees engaged in shop or yard or in construction/ demolition of buildings and other civil construction like dams, bridges etc. incl. excavation Excl. blasting and tunnelling	Workers - Expansion of sewerage system in Davanagere city in Karnataka (District 1 & 3) – Package no. 01DVG01 – City Corporation Davanagere	100	720/206		88
Total		100	720/206		

Intermediary Code/Name | Intermediary Contact No. | Intermediary E-mail ID

Subject to following clauses
Conditions:

Page 2 of 3

RELIANCE

General Insurance

reliancegeneral.co.in
1800 3009

- Occupational Diseases stand excluded.
- The workman under the influence of liquor or drugs is excluded.
- The willful disobedience by the workman of orders and rules expressly given to secure the safety of the workmen is excluded.
- Workers to follow all safety measures as per industry standards at all times.
- Onus of proof lies with the insured for employees and coverage under the policy for the person on behalf of whom the claim is made, to furnish the total number of employees/workers working on site at the time of accident.
- Endorsement no. NA
- This policy would be governed by
  1. The Employee's Compensation Act, 1923 and subsequent amendments of the said Act prior to the date of issue of the Policy.
- Medical Extension: Not provided.
- Condition of Average is waived subject to adjustment of wages within 1 Month from the date of expiry of policy. Losses / damage due to war, Civil war, Nuclear energy and radio active effects are not covered.
- Policy is subject to No past insurance claims history.
- Including Cover for Contractors & sub Contractors workers - subject to submission of details at the time of claim.
- Previous Loss History Nil.
- Warranted that attendance and wage register is maintained at the place of employment by the Insured as per statutory requirements/ compliance and to be submitted when required by insurer.
- The change in place or nature of employment as when if any during the policy period to be informed to the insurer mandatorily so that the same shall be covered at the sole discretion of Insurer and if additional premium is required the same shall be charged.
- The total number of employees/workers mentioned against each job description and occupation should not exceed at any time and if it is exceeding the same should be informed to the insurer and premium should be paid accordingly and in case of any violation claim shall not be admissible.
- Warranted that no tunneling work/ underground work and/ or blasting is carried out at the work site.

Exclusion :

- Losses suffered in the course of manufacturing and / or supplying and / or processing, storing, filling, breaking down, transporting
  a.-Fireworks, ammunitions, fuses, cartridges, powder, nitro-glycerine, or any explosives
  b.-Gases and or air under pressure in containers
  c.-Petrochemicals and also chemicals of a "toxic" (as defined under Indian Public Liability act 1991), massive, explosive and or highly flammable nature.
  d.-Asbestos and or asbestos products other than
  The storage, Transport and / handling of any of the hazardous above mentioned other than (a) which is merely incidental to the operations and/or trade of the insured not otherwise excluded, is hereby covered.
- Losses suffered in the course of the construction, maintenance and demolition of towers, steeples, bridges, flyovers and other railways and rail bridges not longer than 200 meters and road bridges with unsupported span longer than 100 meters.
- Losses suffered in the course of shipbuilding, ship repairing and ship breaking other than pleasure crafts, steevedoring and or harbour / long shore work and hub-aquatics work.
- Service in any kind of armed forces (including, but not limited to military, police, security services).
- Workers engaged in underground and/or underwater mines and underground services.
- Submarine work.
- Business where explosives are used.
- Employees stationed outside India.

In witness whereof this policy has been signed at Mumbai on 31/01/2017
Warranted that in case of dishonor of premium cheque(s) the company shall not be liable under the policy and the contract shall be void ab-initio.

For Reliance General Insurance Co Ltd.

Authorised Signatory

Reliance General Insurance Company Limited, IRDAI Registration No. 103.
Registered Office: H Block, 1st Floor, Dhirubhai Ambani Knowledge City, Navi Mumbai 400710 Corporate Office: Reliance Centre, South Wing, 4th Floor, Off. Western Express Highway, Santacruz (East), Mumbai - 400 055.
CIN No.: IRDA/NL/F&L/R/GI/WC
Corporate Identity No.U66603MH2000PLC128300. RGI/MCOMM/-01/POLICY-SCHEDULE/Ver. 1.0/110615
Trade Logo displayed above belongs to Anil Dhirubhai Ambani Ventures Private Limited and used by Reliance General Insurance Company Limited under License.
An ISO 9001:2008 Certified Company
PAN No. AABCR6717E

Page 3 Of 1

Davangere- Sewage Treatment Plant (Package: 01DVG01A)

Royal Sundaram
General Insurance

Royal Sundaram General Insurance Co. Limited
Office No: 201, 2nd Floor, Zenith Complex, K.M. Gandhi Marg,
Opp Khadi Bhavan, Shivaji Nagar, Pune - 411 005.
Tel. No: 020-73[illegible]/72/73/75 ; Toll Free: 1860 425 0000
E-mail: [illegible]
Website: www.royalsundaram.in
Registered Office: 21, Patullos Road, Chennai - 600 002.
IRDAI Registration Number - 102 ; CIN:U67200TN2000PLC[illegible]

WORKMEN'S COMPENSATION POLICY SCHEDULE

IntermediaryCode	**BR500658**
IntermediaryName	**Damika Insurance Broking Co Pvt Ltd**
Contact	

Policy No. : LW00006965000101

Insured Name & Address : HNB Engineers Pvt. Ltd.
: 1326, Shukrawar Peth,
Off. Bajirao Road, Pune - 4110
PUNE
411002

Business : Turnkey Erection of Sewage Treatment Plants.

Law(s)
The Policy will provide coverage under the following Law(s)
- Workmen's Compensation Act, 1923 and subsequent amendments of the said Act prior to the issuance of this policy.
- Fatal Accidents Act, 1855
  and
- Common Law

Period of Insurance: (a) From 00:00:00 on 03/10/2017 to 23:59:00 on 02/10/2018
(b) Any subsequent period for which the Insured shall pay and the Company shall agree to accept a renewal premium

Premium	Rs.	172,000.00
Add: SGST	Rs.	15,480.00
Add: CGST	Rs.	15,480.00
Total Premium	Rs.	202,960.00

Subject to adjustment in the terms of Condition 6 the estimated amount of wages salaries and other earnings on which Premium is based.

Estimated Number of Employees (A)	Occupation of Employees (B)	Estimated Total Salaries Wages and other money earnings per employee (C) (In Rs.)	Estimated Total Earnings (D=A*C) (In Rs.)	Place or Places of Employment (E)
As per the Specification attached				

Date of signature of Proposal and Declaration – 03/10/2017

Royal Sundaram General Insurance Co. Pune

Royal Sundaram
General Insurance

Royal Sundaram General Insurance Co. Limited
(Formerly known as Royal Sundaram Alliance Insurance Company Limited)
Office No : 201, 2nd Floor, Zenith Complex, K.M. Gandhi Marg,
Opp.Kranti Bhavan, Shivaji Nagar, Pune - 411 005.
Tel. No.: 020-25530671/72/73/75 | Toll No.: 1860 425 0000
E-mail: customer.services@royalsundaram.in
Website: www.royalsundaram.in
Registered Office: 21, Patullos Road, Chennai - 600 002.
IRDAI Registration Number - 102 | CIN-U67200TN2000PLC045611

Memoranda

The Policy is subject to following clauses, conditions & warranties

- **Proper register recording the attendance and wage disbursement must be maintained at all times and to be produced as and when required by the Company.**

- Classification Number 630
  Endorsement Number 38;177

- Liability of the Company under this policy is applicable only in respect of claims occurred during the policy period and reported within 60 days from the date of expiry of the policy.

- The maximum liability of the Company under Common Law is 100 times the monthly salary/wages/earnings of the worker/employee covered under this policy. The Onus of proof that the worker/employee is covered under this policy is upon the Insured.

- If the amount of Wages declared for this insurance for all the Employees is less than the actual Wages paid until date of accident, the Company shall be liable to indemnify on any claim only in proportion that the Wages declared bears to the Wages paid. For the purpose of this clause, the Wages declared shall be calculated proportionately for the period from commencement of Policy until date of accident for comparison with the actual Wages paid during such period to determine applicability of this clause.

- **The insurance granted hereunder excludes:**
  - Any interest and/or penalty imposed on the Insured on account of his/their failure to comply with the requirements laid down under WC Act 1923,
  - Occupational diseases
  - Compressed Air Diseases listed in Part A of the Schedule III of the Act unless specifically covered by an endorsement to the policy,

- **Exclusions as per annexure I**

Royal Sundaram General Insurance Co. Ltd. Pune

Royal Sundaram
General Insurance

Royal Sundaram General Insurance Co. Limited
[illegible]
Office No. 701, 2nd Floor, Zenith Complex, R.M. Gandhi Marg
Opp Kendra Bhawan, Mahaul Nagar, Pune - 411 026
Tel. No.: [illegible] | Toll Free No.: [illegible]
Email: [illegible]
Website: www.royalsundaram.in
(Registered Office: 21, Patullos Road, Chennai - 600 002
IRDAI Registration Number - 102 | CIN:U67200TN2000PLC045041

Policy No. LW00006965000101

Estimated Number of Employees (A)	Occupation of Employees (B)	Estimated Total Salaries Wages and other money earnings per employee (C)	Estimated Total Earnings (D=A*C)	Place or Places of Employment: (E)
10	Engineers	Rs. 34,375	Rs. 11,000,000	Anywhere in India other than excluded risk locations mentioned in Quote / Policy
20	Supervisors			
10	Admin. Staff			
10	Operators			
10	Watchman's			
10	Drivers			
250	Skilled & Unskilled Workers Direct and Under Petty Contractors			

Particulars of Work :-

Business : Construction, commissioning, equipping, testing and trail run of the waste water treatment plant including allied works such as laying of sewers, construction of chambers necessary excavation for the same but without blasting, trenchless laying and chambers of sewers and misc. buildings, roads etc. including operations and maintenance of waste water treatment plant and sewers lines.

Endorsement Wording for Medical Expenses:

In consideration of the payment of an additional premium it is hereby understood and agreed that this Policy subject to its terms provisions and conditions is extended to indemnify the Insured in respect of the reasonable, medical surgical and hospital expenses (including cost of conveyance to hospital) incurred by the Insured in connection with any case of injury to which the indemnity granted under this policy applies or would have applied had disablement exceeded three days.

Provided always that the liability of the Company under this endorsement shall be limited to Rs. 25,000/- in respect of any one insured person during the Period of Insurance.

Endorsement No. 179

It is hereby understood and agreed that the indemnity herein granted is extended to cover the legal liability of the insured to workmen in the employment of Contractors performing work for the insured while engaged in the business and occupations in respect of which the within policy is granted, but only so far as regard claims under Workmen's Compensation Act, 1923, and subsequent amendments of said Act prior to the date of the issue of this Policy, the premium in respect of such extended insurance to be calculated at the rate as agreed on the total sum paid to such Contractors by the Insured in respect of work executed during each period of Insurance.

Designation Basis Cover:

The Policy being issued on Designation Basis, the cover under this Policy shall apply to an estimated 320 **(As per schedule) employees** on the rolls of the Insured during the Period of Insurance.

Davangere Bulk Water supply (Package: 01WS01)

CIN No. U66010RJ2006PLC029979

SHRIRAM EMPLOYEES COMPENSTATION INSURANCE - POLICY SCHEDULE

Shriram Employees Compensation Insurance Policy - CIN NO: 66DAN1379999PLC000000

Policy No:	**: 421010/48/18/004780**	**Prev. Policy No.**	**: 421010/48/17/004124**
Cover Note No.	-	Cover Note Date	-
Insured's Code	0/170726	Issue Office code	421010
Insured's Name	M/S Shriram EPC Limited	Issue Office Name	CHENNAI
Address	HIG 4th Floor, Sigappi Achi Building, Rukmini Lakshmipathi Salai (Marshalls Road) Egmore CHENNAI TAMIL NADU 600008	Address	2ND FLOOR, MOOKAMBIKA COMPLEX NO 4, LADY DESIKA ROAD MYLAPORE CHENNAI TAMIL NADU 600004
Tel./Fax/Email	044 434 19700 / -	Tel./Fax/Email	044-66000490/290 / - sgi.chennai@shriramgi.com
Dev Officer	—	Broker Details	LB0000000002 M/S BHARAT RE INSURANCE BROKERS PVT. LTD Contact No

Period of Insurance: From 00.00 on 26/06/2017 To Midnight of 25/06/2018 (Both days Inclusive)

Collection No. & Dt: CHQ 103002310 - 23/06/2017

Gross Premium: 209,300 S.Tax: 29002 GST: 0 Cess 2094 ST Duty: 105 Total: 240,606

Co-insurance Details: NIL

Business: Engineers not otherwise classified - incl. work away from shop or yard upto 9 mtrs height

Laws: The Policy covers Liability of the Insured under the following Law(s) shown as covered, subject to claim being otherwise admissible as per terms, conditions and exclusions of the Policy and subject to Limit of Indemnity as stipulated against each Law

LAW	LIMIT OF INDEMNITY	COVERAGE
Employee's Compensation Act, 1923 and subsequent amendments thereof prior to the date of issue of this Policy	Subject otherwise, to the terms, conditions & Exclusions of the Policy, the amount of Liability incurred by the Insured	Yes

SCHEDULE OF PREMIUM

Cover Description	Premium
TOTAL PREMIUM	2,09,300.00
ADD: Swachh Bharat Cess	1,047.00
ADD: Krishi Kalyan Cess	1,047.00
ADD: SERVICE TAX	29,302.00
TOTAL AMOUNT	2,40,696.00

Place: CHENNAI

Date: 23/06/2017

All the amounts mentioned in this policy are in Indian Rupees

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD

Authorised Signatory

Service Tax Reg. No. AAKCS2509KST001

Page 1 of 2

Attached to and forming part of policy number 421010/48/18/004780

Details of the Employees Covered

Description of Work done by Employees	Declared Number of Employees	Declared Wages during Period of Insurance	Place of Employment
Engineers not otherwise classified - Incl. work away from shop or yard upto 9 mtrs height	2200	34,32,00,000	Various Cities In India

The Insurance under this policy is subject to Warranties & Clauses(as per forms attached).

Subject to adjustment in the terms of Condition 6. The estimated amount of wages/salaries & other earnings on which premium is based

- Excess/Deductible - Rs.8,00,000/- per accident.
- This policy covers 2200 Company Employees drawing salary @ of Rs.13,000/- per month
- Contractors & Sub Contractors and all other persons engaged on project site including all manufacturing units, godowns & other locations anywhere in India who are not specifically covered under any other workmen compensation policy.
- Nature of Work - All workers are engaged in Engineering related works
- Warranted that Medical expenses are not covered
- Classification Code No.- 157

Warranted that in case of dishonour of premium cheque(s) the Company shall not be liable under the policy and the policy shall be void ab-initio (from inception).

In witness whereof the undersigned being authorised by and on behalf of the Company has/have hereon to set his/their hands at CHENNAI on 25th Day of April 2017

Entered by VARUN VERMA

Approved by

Place CHENNAI

Date 23/06/2017

All the amounts mentioned in this policy are in Indian Rupees

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD

Authorised Signatory

Service Tax Reg. No. AAKCS2505KST001

Haribar UGD & STP (Package: 01HRA01))

CIN No. U66010R2006PLC029879

SHRIRAM EMPLOYEES COMPENSTATION INSURANCE - POLICY SCHEDULE

Shriram Employee Compensation Insurance Policy , UIN NO. IRDA/NL/CPG/005/V01/0506

Policy No.	: **421010/48/18/004780**	**Prev. Policy No.**	: **421010/48/17/004124**
Cover Note No.		Cover Note Date	:
Insured's Code	: 657078	Issue Office code	: 421010
Insured's Name	: M/S Shriram EPC Limited	Issue Office Name	: CHENNAI
Address	: 18/3, 4th Floor, Sigappi Achi Building, Rukmani Lakshmipathy Salai (Marshalls Road), Egmore CHENNAI TAMIL NADU 600008	Address	: 2ND FLOOR, MOOKAMBIKA COMPLEX, NO 4, LADY DESIKA ROAD MYLAPORE CHENNAI TAMIL NADU 600004
Tel./Fax/Email	: 044 434 16700 / /	Tel./Fax/Email	: 044-69000100/200 / / sgi.chennai@shriramgi.com
Dev Office	: —	Broker Details	: LB0000000002 M/S BHARAT RE INSURANCE BROKERS PVT. LTD. Contact No

Period of Insurance : From 00.00 on 26/06/2017 To Midnight of 25/06/2018 (Both days inclusive)

Collection No. & Dt. : CHQ 103/0002310 - 23/06/2017

Gross Premium : 209,300 S.Tax : 29302 GST : 0 Cess : 2094 ST Duty : 105 Total : 240,696

Co-Insurance Details : Nil.

Business : Engineers not otherwise classified - Incl. work away from shop or yard upto 9 mtrs height.

Laws : The Policy covers Liability of the Insured under the following Law(s) shown as covered, subject to claim being otherwise admissible as per terms, conditions and exclusions of the Policy and subject to Limit of Indemnity as stipulated against each Law :

LAW	LIMIT OF INDEMNITY	COVERAGE
Employee's Compensation Act, 1923 and subsequent amendments thereof prior to the date of issue of this Policy	Subject otherwise, to the terms, conditions & Exclusions of the Policy, the amount of Liability incurred by the Insured	Yes

SCHEDULE OF PREMIUM

Cover Description	Premium
TOTAL PREMIUM	2,09,300.00
ADD: Swachh Bharat Cess	1,047.00
ADD: Krishi Kalyan Cess	1,047.00
ADD: SERVICE TAX	29,302.00
TOTAL AMOUNT	2,40,696.00

Place : CHENNAI

Date : 26/06/2017

All the amounts mentioned in this policy are in Indian Rupees

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD

Authorised Signatory

Service Tax Reg. No. AAKCS2509KST001

Page 1 of 2

Attached to and forming part of policy number 421010/48/18/004780

Details of the Employees Covered

Description of Work done by Employees	Declared Number of Employees	Declared Wages during Period of Insurance	Place of Employment
Engineers not otherwise classified - Incl. work away from shop or yard upto 6 mths freight	2200	34,32,00,000	Various Cities in India

The Insurance under this policy is subject to Warranties & Clauses(as per forms attached).

Subject to adjustment in the terms of Condition 6 The estimated amount of wages/salaries & other earnings on which premium is based

- Excess/Deductible :- Rs.6,00,000/- per accident
- This policy covers 2200 Company Employees drawing salary @ of Rs.13,000/- per month
- Contractors & Sub Contractors and all other persons engaged on project site including all manufacturing units, godowns & other locations anywhere in India who are not specifically covered under any other workmen compensation policy
- Nature of Work :- All workers are engaged in Engineering related works
- Warranted that Medical expenses are not covered
- Classification Code No :- 157

Warranted that in case of dishonour of premium cheque(s) the Company shall not be liable under the policy and the policy shall be void abinitio (from inception).

In witness whereof the undersigned being authorised by and on behalf of the Company has/have hereto set his/their hands at CHENNAI on 25th Day of April 2017

Entered by VARUN VERMA

Approved by

CIN No. U66010TN2000PLC045679

Harihar Bulk Water supply (Package: 01HRA02)

THE NEW INDIA ASSURANCE CO. दि न्यू इन्डिया एश्योरेन्स कंपनी लिमिटेड
(Wholly owned by the Govt. of India)

POLICY SCHEDULE FOR EMPLOYEES COMPENSATION INSURANCE

Insured's Name	:	SHETH & SURA [illegible]			
Insured's Details			Issuing Office Details		
Customer ID	:	P0249[illegible]	Office Code	:	DIVISIONAL OFFICE - 150400(150400)
Address	:	AQUA HOUSE, 26/1, SINHGAD ROAD NR PARWATI OVERBRIDGE, PUNE MAHARASHTRA, 411030	Address	:	COMMONWEALTH BUILDING LAXMI ROAD,PUNE-411030 411030
Phone No	:		Phone No	:	02024458143 / 02024452240
E-mail/Fax	:	/	E-mail/Fax	:	nia.150400@newindia.co.in / 02024452236
PAN No	:		S.Tax Regn. No	:	AAACN4165CST178

Policy Details

Policy Number	:	150400311701000117	Business Source Code		
Period of Insurance	:	[illegible]	Dev.Off level/Broker/Corp. Agent	:	A K RANA (242) - (2D7551409)
Date of Proposal	:	29-May-17	Agent/Bank/Association	:	Mrs. SAVITA SATISH MEHTA (NIA2D7551455) AGENT_SITE_73039 (2D7552029)
Prev. Policy no.	:		Phone No	:	9122507625 / NA
Client Type	:	Non-Corporate	E-mail/Fax	:	/ /

Premium(₹)	Service Tax(₹)	Total (₹)	The sum (₹ in words)	Receipt No. & Date
105355	15804	121159	RUPEES ONE LAC TWENTY-ONE THOUSAND ONE HUNDRED FIFTY-NINE ONLY	150400111700000113 7 - 31/05/17

Details of Employees with monthly wages upto ₹ 8000

Categories	Sub Categories	No of Employee	Cash Total Wages

Details of Employees with monthly wages above ₹ 8000

Categories	Sub Categories	No of Employee	Cash Total Wages
Builders All employees engaged in shop or yard or in construction/ demolition of buildings and other civil construction like dams, bridges etc. incl. excavation	Excl. blasting and tunneling-EXCHEEF	7	450000
Builders All employees engaged in shop or yard or in construction/ demolition of buildings and other civil construction like dams, bridges etc. incl. excavation	Excl. blasting and tunneling-SUPERVISORS	3	504000
Builders All employees engaged in shop or yard or in construction/ demolition of buildings and other civil construction like dams, bridges etc. incl. excavation	Excl. blasting and tunneling-SKILLED LABOURS	6	864000
Builders All employees engaged in shop or yard or in construction/ demolition of buildings and other civil construction like dams, bridges etc. incl. excavation	Excl. blasting and tunneling-UNSKILLED LABOURS	20	2520000

Trade Description	Particular of Works	Location Details	Included All Sub - Contractors
Improvement of water supply system (Bulk) - Municipal commissioner, City municipal council, Harihara,Karnataka	KARNATAKA INTEGRATED URBAN WATER MGT & INVESTMENT PROGRAM(KIUWMP) SLICE NO-1), CONTRACT PACKAGE NO 01HRA02	IMPROVEMENT OF WATER SUPPLY SYS (BULK) IN HARIHARA CITY, KARNATAKA	Yes

<<HIDDEN START_contractor Details>>Contractor/Sub-Contractor Details:

Serial No	Name of Contractor	Description	Category	No. of Workers			Amount Wages
				Skilled	Unskilled	Others	

प्रधान कार्यालय : दि न्यू इन्डिया एश्योरेन्स बिल्डिंग, 87, मेन्स्टीम रोड, मुंबई - 400001

Harihar water distribution network (Package: 01WS04)

IFFCO-TOKIO GENERAL INSURANCE

Muskurate Raho

IFFCO - TOKIO GENERAL INSURANCE CO. LTD

Regd. Office: IFFCO SADAN,C1 Distt Centre,Saket,New Delhi- 110017

Workmen's Compensation Policy Schedule
Cum Tax Invoice
ORIGINAL FOR RECIPIENT

GST

Servicing Office :

IFFCO-TOKIO General Ins. Co. Ltd.
2nd Floor,FAI HOUSE, 10,Shaheed jeet Singh Marg, Qutub Institutional Area,
New Delhi - 110067
State Code: 07 , GSTIN: 07AAACI7573H1ZE
Central Insurance Services 9971

Insured's Address:	Veolia India Pvt. Ltd. & The Municipal Commissioner,Harihara B-1 MARBLE ARCH 9 PRITHVIRAJ , ROAD, NEW DELHI NDMC (PART) DELHI		Unique Invoice No. 43153940 Policy No. 43153940 Date of Issuance 29/11/2017 Period Of Insurance From 0001 24/11/2017 To Mid Night 23/11/2018
State Code :	07 Country Name India	PinCode 110011 GSTIN 07AABCV7389R1Z9	
Phone	C.I.N. No :	Agent No 23000054 23	

Premium		Name	Type
Taxable Value	33820.56	Co-insurance Details	
Service Tax	0.00		
Swachh Bharat Cess(Rs.)	0.00		
Krishi Kalyan Cess(Rs.)	0.00		
Total Value (Rs.)	39908		

	CGST	SGST/UTGST	IGST	CESS
Percentage	9.00	9.00	0.00	
Amount	3043.85	3043.85	0.00	

Trade or Business Place of Employment(s)	As mentioned below FIG-100,KHSC,Amaravathi,Harihara- 577601,Karnataka

Sr. No.	Category of Employee	Estimated Total Wages,Salaries and other	Rate (%)	Premium without Service Tax (Rs.)
1	99 Workers Upto-8000	9504000.00	0.3424	32541.70
2	Above-8000	5976000.00	0.0214	1278.86
		Overall Total Wages 15480000		

Additional Clauses /Endorsements / Other details ,if any

Notwithstanding anything stated to contrary, it is hereby agreed and declared that premium paid on the basis of estimated wages/salary and the number of workers shall be reconciled at the time of claim. In case the Pro-rata Sum Insured is less than the actual wages/salary paid at the time by more than 10%, suitable penalty shall be applied at the time of claim settlement.
It is also hereby declared that the Policy Premium must be compulsorily reconciled at the expiry of the Policy period with Chartered Accountant certified statement of actual wages/salary paid to the actual number of workers with the estimated wages/salary declared at the inception of Policy.

IFFCO-TOKIO GENERAL INSURANCE COMPANY LIMITED
Telephone No: MARSH INDIA INSU BROKERS PVT LTD 022-66512900
Regd. Office : " IFFCO Sadan ", C-1, District Centre, Saket, New Delhi - 110017
Delhi Commercial - FAI - Broker: 2nd Floor, FAI House, 10, Shaheed Jeet Singh Marg, Qutub Institutional Area, New Delhi-110067
Corporate Identity No. (CIN) : U74899DL2000PLC107621, IRDA Regn. No. 108

Page No.1

TOKIOMARINE

Policy Schedule

IFFCO-TOKIO GENERAL INSURANCE

The Policy is subject to following endorsement(s) - Endorsement No / Endorsement Wording

Muskurate Rahe

The Policy is subject to the following Warranties / Conditional Definitions

1. Coverage of Employees should be as per The Indian Employee's Compensation Act, 1923.
2. Wage & Attendance register must be maintained.
3. At the time of claim if it is found that

a) the difference of Pro-rate Sum Insured and the actual wages/ salary paid is less than 15% of actual amount, the difference of premium based on the actual wages/salary paid will be charged.

b) the difference of Pro-rata Sum insured and actual wages/ salary paid is more than 15% of actual amount, penalty equivalent to 3 times of the difference in premium will be charged subject to a maximum of 50% of the claim amount, in addition to the difference in premium based on the actual wages/salary.

The Coverage is as per Policy Wordings / Endorsements / Clauses attached with the Policy Schedule. Please go through Workmen's Compensation Policy and in case of discrepancy, Please inform us.

Service Tax No.: AAACI7573HST001 Corporate Identification Number (CIN)

Toll Free : 1-800-103-5499 ; Other : (0124) 428-5499 ; SMS

Policy Issuing Office: Delhi

Consolidated Stamp Duty deposited as per the order of Government of National Capital

For IFFCO-TOKIO General Insurance Co.

Name Of Signatory:- Sujata Mondal
Description:- Executive Vice President

IFFCO-TOKIO GENERAL INSURANCE COMPANY LIMITED

IFFCO 50

43153940

Regd. Office : " IFFCO Sadan ", C-1, District Centre, Saket, New Delhi - 110017

Delhi Commercial - FAI - Broker 2nd Floor, FAI House, 10, Shaheed Jeet Singh Marg, Qutub Institutional Area, New Delhi-110067

Corporate Identity No. (CIN) : U74899DL2000PLC107621, IRDA Regn. No. 108

Version No 2

TOKIO MARINE

IFFCO-TOKIO

Muskurate Rahe

Annexure "A" forming policy no – 43153940

Veolia India Pvt. Ltd. & The Municipal Commissioner,Harihara

Classification No.-630

Risk Location:- HIG-100,KHBC,Amaravathi,Harihara- 577601,Karnataka.

Nature of Work:- Design, laying of pipeline, supply & installation of electromechanical Equipments Construction of water treatment plant.

Medical Extension-Rs 50000 per Case

In consideration of the payment of an additional premium it is hereby understood and agreed that this Policy subject to its terms provisions and conditions is extended to indemnify the Insured in respect of the reasonable medical surgical and hospital expenses (including cost of conveyance to hospital) incurred by the Insured for treatment of Injury to which the indemnity granted under this Policy applies or would have applied had disablement exceeded three days.

Provided always that the liability of the Company under this endorsement shall be limited to Rs.50000/-.in respect of each Employee per accident.

Subject to otherwise to the terms, provisions and conditions of the Policy.

Employees Details:-

S.N.	Description	No. of workers	Monthly Wages INR
1.	Veolia staffs & Network Assistants	24	22,500
2.	Sub Contractor's Labours	75	10,000

Workers of contractors/subcontractors also covered.

Byadgi UGD & STP (Package: 01BDG01)

IRDA Registration Number - 137

EAR SUM INSURED LESS THAN 100 CRORES - ENDORSEMENT SCHEDULE

Attached to and forming part of Policy No : 421010/44/16/000126

Endorsement No : 001

Endorsement Date : 20/05/2016

Endorsement Effective From 00:00 On 24/03/2016 To Midnight Of 23/12/2016

Insured's Code : 12168982

Issue Office Code : 421010

Insured's Name : M/S.Shriram EPC Ltd. - Eurotek Environmental Pvt. Ltd. JV and Employer Name as Byadgi, Town Municipal Council

Issue Office Name : CHENNAI

Address : Northern Wing, Raja Annamalai Building, No.16/3, Rukmini Lakshmipathi (Marshalls) Road, Egmore, CHENNAI TAMIL NADU 600008

Address : 2ND FLOOR, MOOKAMBIKA COMPLEX, NO.4, LADY DESIKA ROAD MYLAPORE CHENNAI TAMIL NADU 600004

Dev Officer : -

Broker Details : LB0000000002 M/S.BHARAT RE-INSURANCE BROKERS PVT. LTD. Contact No:

Total Premium : 0

Type of Endorsement : Change in Name and Address of the Insured

Collection No & Dt :

Co Insurance Details :

ENDORSEMENT

Notwithstanding anything contained herein to the contrary in the within mentioned policy it is hereby declared and agreed that at the request of the insured the name of the insured stands corrected as indicated below with effect from the date mentioned above and not as stated in the policy.

Corrected Insured Name :- "Shriram EPC Ltd- Eurotek Environmental Pvt Ltd JV and Employer Name as Byadgi, Town Municipal Council".

Subject otherwise to the terms, conditions, exceptions, exclusions and limitations of the policy.

SCHEDULEOF PREMIUM

Cover Description	Original Sum Insured	Endorsement Sum Insured	Revised Sum Insured	Endorsement Premium

Total Amount in figures and words : Rs 0 (INDIAN RUPEES only)

The Insurance under this policy / endorsement is subject to following terms,conditions,warranties & clauses specified in the policy / endorsement:

All other terms/conditions/warranties/clauses in the policy remain unaltered

Place : CHENNAI

Date : 20/05/2016

All the Amounts mentioned in this policy are in INDIAN RUPEES

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD

Authorised Signatory

Service Tax Reg. No. AAKCS2509KST001

Page 1 of 2

RAHEJA QBE

RAHEJA QBE GENERAL INSURANCE CO. LTD.

GROUP PERSONAL ACCIDENT INSURANCE POLICY

Schedule attached to and forming part of Policy No.15- A0000642-PAD

Name of Policy Holder	: M/s. Shriram EPC - Eurotek Environmental Private Limited - JN	
Mailing Address	: (M/s. Shriram EPC Ltd and Eurotek Environmental Private Limited) 4th Floor, Sigappi Achi Building, 18/3, Rukmani Lakshmipathi Salai (Marshal Road), Egmore, Chennai - 600008	
Location Address	: Byadgi Town Municipality, Karnataka	
Profession / Occupancy / Business	: Activities related to construction & erection of Sewage Treatment Plant	
Period of Insurance	: From: **00.00 AM of 20th Jan 2017**	To: **midnight of 19th Jan 2018**
No. of Workers Insured	: **20** (Unnamed Basis) (Per Person INR 300,000)	

SCOPE OF COVER

Benefit	**Sum Insured**
Basic Cover (Death only cover)	**INR.** 60,00,000
Permanent Total Disability & Permanent Partial Disability	**INR.** 60,00,000
Temporary Total Disablement:	Opted
Medical Expenses Extension:	Opted
Hospital Confinement Allowance extension:	Not Opted
Terrorism Extension:	Opted
Premium Amount:	**INR. 9,861**
Service Tax @ 14% of premium	INR. 1,381
SB Cess @ 0.5% of premium	INR 49
Krishi Kalyan Cess@0.5% of premium	INR 49
Total Amount:	**INR. 11,340**
Stamp Duty	**INR. 160**

Renewal Clause:

The Company shall not be bound to accept any renewal premium nor give notice that such is due. Every renewal premium (which shall be paid and accepted in respect of this policy) shall be so paid and accepted upon the distinct understanding that no alteration has taken place in the facts contained in the proposal or declaration herein before mentioned and that nothing is known to the Policy Holder that may result to enhance the risk of the Company under the insurance. Nothing herein or otherwise shall oblige the Company to offer renewal terms or restrict any renewal terms as to premium or otherwise.

•**Note:** Nominee details as per records of "M/s Eurotek Environmental Pvt Ltd."

Raheja QBE General Insurance Company Limited
[illegible] CST Road, Kalina Santacruz (E), Mumbai 400 098

RAHEJA QBE GENERAL INSURANCE COMPANY LIMITED

Workmen's Compensation Insurance Policy

Schedule attached to and forming part of Policy No. 15- W0000266-WCA

(This Policy is issued based on the information disclosed by the Insured to the Company. In case of any material changes during the Period of Insurance mentioned above, the Insured must inform the Company.)

Date of proposal & declaration: 20th January 2017 **Policy No:** 15- W0000266-WCA

Name of the Insured: M/s. Shriram EPC - Eurotek Environmental Private Limited - JV

Address: (M/s. Shriram EPC Ltd and Eurotek Environmental Private Limited)

4th Floor, Sigappi Achi Building, 18/3, Rukmani Lakshmipathi Salai (Marshalls Road), Egmore, Chennai - 600008

Trade/ Business/ Occupation : Design, Supply, Engineering,Construction, Installation, Testing, Commissioning of Sewage Treatment Plant based on SBR technology of 5 MLD capacity STP with one Baffled septic tank in Byadgi TMC (LOA attached)

Law(s): (1) Employee's Compensation Act 1923 (2) Fatal Accidents Act 1855 (3) Common Law

Territory/Jurisdiction : India

Period of Insurance: From: 00.00 Hrs on 20th January 2017 To: Midnight of 19th January 2018

Net Premium:	**INR 24,219**
Service Tax (As applicable):	INR 3,391
SB Cess @ 0.5% of premium	INR 121
Krishi Kalyan Cess@0.5% of premium	INR 121
Total Premium:	**INR 27,852**

Estimated number of employees	Occupation of Employees	Estimated Total Wages/ Earnings. (Rs.)	Place of Employment
20	As per Annexure A	Rs. 42,00,000	Byadgi Town Municipality, Karnataka

Intermediary's Name:	**Excellent Insurance Broking Services Ltd.**
Intermediary's Code :	**01000108**
Intermediary's Contact No:	**(040)44552525 (040)44552545**

Raheja QBE General Insurance Company Limited
5th Floor, Windsor House, CST Road, Kalina,Santacruz (E), Mumbai 400 098
Telephone: +91 22 4231 3888, Fax: +91 22 4231 3777, Toll Free No. 1800-102-7723
Website: www.rahejaqbe.com Email: info@rahejaqbe.com
Corporate Identity Number: U66030MH2007PLC173129, IRDA Reg. No. 141
SERVICE TAX REGISTRATION NUMBER: AADCR7145RST001

RAHEJA QBE

RAHEJA QBE GENERAL INSURANCE COMPANY LIMITED

Workmen's Compensation Insurance Policy

Schedule attached to and forming part of Policy No. 15- W0000266-WCA

(This Policy is issued based on the information disclosed by the Insured to the Company. In case of any material changes during the Period of Insurance mentioned above, the Insured must inform the Company.)

Date of proposal & declaration: 20th January 2017 **Policy No:** 15- W0000266-WCA

Name of the Insured: M/s. Shriram EPC - Eurotek Environmental Private Limited - JV

Address: (M/s. Shriram EPC Ltd and Eurotek Environmental Private Limited)

4th Floor, Sigappi Achi Building, 18/3, Rukmani Lakshmipathi Salai (Marshalls Road), Egmore, Chennai - 600008

Trade/ Business/ Occupation : Design, Supply, Engineering,Construction, Installation, Testing, Commissioning of Sewage Treatment Plant based on SBR technology of 5 MLD capacity STP with one Baffled seplic tank in Byadgi TMC (LOA attached)

Law(s): (1) Employee's Compensation Act 1923 (2) Fatal Accidents Act 1855 (3) Common Law

Territory/Jurisdiction : India

Period of Insurance: From: 00.00 Hrs on 20th January 2017 To: Midnight of 19th January 2018

Net Premium:	**INR 24,219**
Service Tax (As applicable):	INR 3,391
SB Cess @ 0.5% of premium:	INR 121
Krishi Kalyan Cess@0.5% of premium	INR 121
Total Premium:	**INR 27,852**

Estimated number of employees	Occupation of Employees	Estimated Total Wages/ Earnings. (Rs.)	Place of Employment
20	As per Annexure A	Rs. 42,00,000	Byadgi Town Municipality, Karnataka

Intermediary's Name:	Excellent Insurance Broking Services Ltd.
Intermediary's Code :	01000108
Intermediary's Contact No:	(040)44552525 (040)44552545

Raheja QBE General Insurance Company Limited
5th Floor, Windsor House, CST Road, Kalina,Santacruz (E), Mumbai 400 098
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RAHEJA QBE

RAHEJA QBE GENERAL INSURANCE COMPANY LIMITED

Additional Terms/ Conditions/Clauses/ Endorsements:

1. Coverage For Employees Of Contractors
2. Medical Expenses Coverage - limited to **Rs 50,000** per person
3. Average Clause
4. Terrorism Exclusion
5. Sanctions Limitation And Exclusion Clause

*The Premium is subject to adjustment of the estimated amount of wages, salaries and other earnings on which the premium is based, in terms of Condition No.8 of the Policy.

In witness whereof the undersigned acting on behalf and under the authority of the Company has hereunder set his hand at **Mumbai** on this **30th** day of **January 2017.**

Signed for and on behalf of the Company

ANIRUDH SINGH
2017.01.30 12:53:44
+05'30'

Authorized Signatory
Raheja QBE General Insurance Co. Ltd.

This document is digitally signed, hence counter signature is not required

The contract will be cancelled ab initio in case, the consideration under the policy is not realized.

The Stamp duty of Rs. 1/- (One Rupee only) paid by GRAS Deface No. 0000772857201617, Dated 19/05/2016 as prescribed in Government Notification Revenue and Forest Department No. Mudrank 2004/4125/CR/690/M-1, Dt.31/12/2004

Raheja QBE General Insurance Company Limited
5th Floor, Windsor House, CST Road, Kalina,Santacruz (E), Mumbai 400 098
Telephone: +91 22 4231 3888, Fax: +91 22 4231 3777, Toll Free No. 1800-102-7723
Website: www.rahejaqbe.com Email: info@rahejaqbe.com
Corporate Identity Number: U66030MH2007PLC173129, IRDA Reg. No. 141
SERVICE TAX REGISTRATION NUMBER: AADCR7145RST001

RAHEJA QBE

RAHEJA QBE GENERAL INSURANCE COMPANY LIMITED

Annexure A - Occupation of Employees

Sr. No.	Category	No. of Employees	Estimated Total Wages (in Rs.)
1	Insured Staff	15	27,00,000
2	Principles's Staff	5	15,00,000
	Total	**20**	**42,00,000**

Raheja QBE General Insurance Company Limited
5th Floor, Windsor House, CST Road, Kalina,Santacruz (E), Mumbai-400 098
Telephone: +91 22 4231 3888, Fax: +91 22 4231 3777, Toll Free No. 1800-102-7723
Website: www.rahejaqbe.com Email: info@rahejaqbe.com
Corporate Identity Number: U66030MH2007PLC173129, IRDA Reg. No. 141
SERVICE TAX REGISTRATION NUMBER: AADCR7145RST001

RAHEJA QBE

RAHEJA QBE GENERAL INSURANCE COMPANY LIMITED

Policy Endorsement

Insured:	M/s. Eurotek Environmental Pvt Ltd
Period of Insurance:	20th January 2017 to 19th January 2018
Effective Date:	1st December 2016
Policy No.:	15-W0000266-WCA
Date of Issue:	30th January 2017

1. **Coverage For Employees Of Contractors**

It is hereby understood and agreed that the **Exception 2** of the policy is waived & the indemnity herein granted is extended to cover the legal liability of the Insured to workmen in the employment of Contractors performing work for the Insured while engaged in the business and occupations in respect of which the within Policy is granted, but only so far as regard claims under the Workmen's Compensation Act, 1923, and subsequent amendments of said Act prior to the date of the issue of this Policy.

Subject otherwise to the terms, provisions and conditions of the within Policy.

Raheja QBE General Insurance Company Limited
5th Floor, Windsor House, CST Road, Kalina,Santacruz (E), Mumbai 400 098
Telephone: +91 22 4231 3888, Fax: +91 22 4231 3777, Toll Free No. 1800-102-7723
Website: www.rahejaqbe.com Email: info@rahejaqbe.com
Corporate Identity Number: U66030MH2007PLC173129, IRDA Reg. No. 141
SERVICE TAX REGISTRATION NUMBER: AADCR7145RST001

CIN No. U66010KA2006PLC039876

SHRIRAM EMPLOYEES COMPENSTATION INSURANCE - POLICY SCHEDULE

Shriram Employees Compensation Insurance Policy - UIN No: IRDA/NL/CP/P/GIC/V1/2006/0

Policy No.	: **421010/48/18/004780**	**Prev. Policy No.**	: **421010/48/17/004124**
Cover Note No	:	Cover Note Date	
Insured's Code	6570708	Issue Office code	421010
Insured's Name	M/S Shriram EPC Limited	Issue Office Name	CHENNAI
Address	16/3, 4th Floor, Sigappi Achi Building, Rukmini Lakshmipathi Salai (Marshalls Road), Egmore CHENNAI TAMIL NADU 600008	Address	2ND FLOOR, MOOKAMBIKA COMPLEX, NO.4, LADY DESIKA ROAD MYLAPORE CHENNAI TAMIL NADU 600004
Tel /Fax/Email	044 434 18700 / /	Tel /Fax/Email	044-65000190/200 / / sgi.chennai@shriramgi.com
Dev Office	—	Broker Details	LB0000000002 M/S BHARAT RE-INSURANCE BROKERS PVT. LTD Contact No:

Period of Insurance From 00:00 on 26/06/2017 To Midnight of 25/06/2018 (Both days Inclusive)

Collection No. & Dt. CHQ 1033002310 - 23/06/2017

Gross Premium 209,300 S Tax 29302 GST 0 Cess 2094 ST Duty 105 Total 240,696

Co-insurance Details : NIL

Business : Engineers not otherwise classified - Incl. work away from shop or yard upto 9 mtrs height

Laws : The Policy covers Liability of the Insured under the following Law(s) shown as covered, subject to claim being otherwise admissible as per terms, conditions and exclusions of the Policy and subject to Limit of Indemnity as stipulated against each Law :

LAW	LIMIT OF INDEMNITY	COVERAGE
Employee's Compensation Act, 1923 and subsequent amendments thereof prior to the date of issue of this Policy	Subject otherwise, to the terms, conditions & Exclusions of the Policy, the amount of Liability incurred by the Insured	Yes

SCHEDULE OF PREMIUM

Cover Description	Premium
TOTAL PREMIUM	209,300.00
ADD: Swachh Bharat Cess	1,047.00
ADD: Krishi Kalyan Cess	1,047.00
ADD: SERVICE TAX	29,302.00
TOTAL AMOUNT	240,696.00

Place : CHENNAI

Date : 23/06/2017

All the amounts mentioned in this policy are in Indian Rupees

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD

Authorised Signatory

Service Tax Reg. No. AAKCS2509KST001

Page 1 of 2

Attached to and forming part of policy number 421010/48/18/004780

Details of the Employees Covered

Description of Work done by Employees	Declared Number of Employees	Declared Wages during Period of Insurance	Place of Employment
Engineers not otherwise classified - Incl. work away from shop or yard upto 6 mths freight	2200	34,32,00,000	Various Cities in India

The Insurance under this policy is subject to Warranties & Clauses(as per forms attached).

Subject to adjustment in the terms of Condition 6 The estimated amount of wages/salaries & other earnings on which premium is based

- Excess/Deductible :- Rs.5,00,000/- per accident
- This policy covers 2200 Company Employees drawing salary @ of Rs.13,000/- per month
- Contractors & Sub Contractors and all other persons engaged on project site including all manufacturing units, godowns & other locations anywhere in India who are not specifically covered under any other workmen compensation policy
- Nature of Work :- All workers are engaged in Engineering related works
- Warranted that Medical expenses are not covered
- Classification Code No :- 157

Warranted that in case of dishonour of premium cheque(s) the Company shall not be liable under the policy and the policy shall be void abinitio (from inception).

In witness whereof the undersigned being authorised by and on behalf of the Company has/have hereto set his/their hands at CHENNAI on 25th Day of April 2017

Entered by VARUN VERMA

Approved by

CIN No. U66010TN2000PLC045679

Byadgi Bulk Water Supply package (01BDG02)

THE NEW INDIA ASSURANCE CO. न्यू इन्डिया एश्योरेन्स कंपनी लिमिटेड
(Wholly owned by the Govt. of India)

POLICY SCHEDULE FOR EMPLOYEES COMPENSATION INSURANCE

Insured's Name	: SHETH & SURA ENGINEERS PVT LTD		
Insured's Details		Issuing Office Details	
Customer ID	: P0024559292	Office Code	: DIVISIONAL OFFICE - 150400 (150400)
Address	: AQUA HOUSE, 283/1, SINHGAD ROAD NR PARWATI OVERBRIDGE, PUNE MAHARASHTRA 411030	Address	: COMMONWEALTH BUILDING LAXMI ROAD PUNE-411030 411030
Phone No	:	Phone No	: 02024458143 / 02024452890
E-mail/Fax	: /	E-mail/Fax	: nia 150400@newindia.co.in / 02024452730
PAN No	:	S.Tax Regn. No	: AAACN6165CST176

Policy Details			
Policy Number	: 150400061701000001 10	Business Source Code	
Period of Insurance	: From: 29/05/2017 06:00:00 PM To 29/05/2018 11:59:59 PM	Dev.Off level/BrokerCorp Agent	: A K RAJA (242) - (207551406)
Date of Proposal	: 29-May-17	Agent/Bancassurance	: Mrs. SAVITA SATISH MEHTA (NIAZD/7551455) AGENT_DTE_73839 (207552026)
Prev. Policy no.	:	Phone No.	: 9422206625 / NA
Client Type	: Non-Corporate	E-mail/Fax	: / / /

Premium(₹)	Service Tax(₹)	Total (₹)	Total (₹ in words)	Receipt No. & Date
56152	8423	64575	RUPEES SIXTY-FOUR THOUSAND FIVE HUNDRED SEVENTY-FIVE ONLY	150400811700000051 3 - 31/05/17

Details of Employees with monthly wages upto ₹ 8000:

Categories	Sub Categories	No of Employee	Cash Total Wages

Details of Employees with monthly wages above ₹ 8000:

Categories	Sub Categories	No of Employee	Cash Total Wages
Builders All employees engaged in shop or yard or in construction/ demolition of buildings and other civil construction like dams, bridges etc. incl. excavation	Excl. blasting and tunnelling-ENGINEER	1	740000
Builders All employees engaged in shop or yard or in construction/ demolition of buildings and other civil construction like dams, bridges etc. incl. excavation	Excl. blasting and tunnelling-SUPERVISORS	2	252000
Builders All employees engaged in shop or yard or in construction/ demolition of buildings and other civil construction like dams, bridges etc. incl. excavation	Excl. blasting and tunnelling-SKILLED LABOURS	4	276000
Builders All employees engaged in shop or yard or in construction/ demolition of buildings and other civil construction like dams, bridges etc. incl. excavation	Excl. blasting and tunnelling-UNSKILLED LABOURS	20	1360000

Trade Description	Particular of Works	Location Details	Included All Sub-Contractors
Improvement of water supply system (Bulk) - Chief Engineer, Town Municipal Council, Byadgi, Karnataka	Chief Engineer, Town Municipal Council, Byadgi, Karnataka-Integrated urban water management & Investment Programme (IUWMIP) SCICE NO 2/CONTRACT PACKAGE NO 01BDG02	Chief Engineer, Town Municipal Council, Byadgi, Karnataka	Yes

<<HIDDEN START contract_Details>>Contractor/Sub-Contractor Details:

Serial No	Name of Contractor	Description	Category	No. of Workers			Amount Wages
				Skilled	Unskilled	Others	

प्रधान कार्यालय : दि न्यू इंडिया एश्योरेन्स लिमिटेड, 87, महात्मा गांधी रोड, फोर्ट, मुंबई - 400001

Appendix 6

Sample Site Specific Environment Management Plan

Package: **Davangere- Sewerage (Package: 01DVG01)**

Site Specific Environmental Management Plan

DECEMBER 2017

SIMPLEX INFRASTRUCTURES LIMITED

DAVANGERE SEWERAGE PROJECT

Construction phase Site Specific Environmental Management Plan

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
Climate	The nature and intensity of rainfall events in an area, has implications for storm water management. Smoke from burning activities could be wider spread on windy days especially when dust could be blown off site.	Seasonal climatic variations during scheduling of construction activities in the area will be followed. Any excavation work will be done during dry season Storm water will be controlled as per method approved by PMU.	HSE work permit system of the company followed.
Air Quality	Sensitive receptors (e.g. hospitals, schools, churches) may be affected temporarily by increased traffic and related impacts during the construction phase (from the proposed detour). Fugitive dust can also impact on roadside air quality during construction. Exhaust fumes from construction machinery, and potential smoke from cooking fires. Burning of waste and cleared vegetation Odours from use of toilet 'facilities' other than provided facilities.	Guidelines that deal with the control of air pollution and dusts as per Environmental Management Plan (EMP) have been followed Compliance with the Air Act. has been submitted. Compliance with emission standards have been conducted and report submitted to PMDCSC. Air quality monitoring report for base line environment and during construction period is already submitted to PMDCSC. Which will be continued during entire construction period Covering or damp down sand/ earth stockpiled at site will be maintained as per site condition Materials carrying vehicle suitably cover. Covering of materials carrying vehicles-reducing dust hazard Construction equipment and vehicles will be maintained regularly. Pollution Under Control Certificates have been collected and submitted to PMDCSC for the vehicles presently engaged in project activity Open fires will be fully avoided at working sites Maintaining toilet in a clean state.	Air quality Monitoring data has been included in Environmental Monitoring Report
Geology and soil	Strong water flows into open excavations below the water table will occur, causing micro-tunnel collapse. Layers of mixed fill cover natural ground surface in many places. Contamination from spillage of petroleum products, spent engine oil and oil leaks from construction vehicle maintenance taking place on site.	That drainage system shall be check regularly to control runoff from the open areas in line with topographical features of the site Rehabilitation at all sites during construction including stockpile area, temporary access and hauling routes, as soon as possible after the disturbance has ceased. Company to exercise strict care in the disposal of construction waste, with proof of disposal at an approved site provided after offloading each waste load and this logged/registered. Solid waste will be managed according to the following preference hierarchy: reuse, recycling and disposal to designated areas. If oil spills occur, contaminated soil will be dispose at a disposal site in consultation with KUDIFC	Maintaining our company's policy for Waste Management & also follow up the requirement of bid documents.

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
		Stockpile subsoil and overburden in all construction and lay down areas.	
Drainage and hydrology	The proposed development is situated within an existing built up area. Due to the nature and locality of the subproject there is unlikely any significant impacts on water resources within the immediate area.	The site surface has been engineered and shaped in such a way that rapid and efficient evacuation of runoff is achieved. Pipe line is at a depth of 1.5m to 6.0m from ground level as indicated in tender. No major ground disturbance has been observed till now Waste management practices will be maintained Transport, storage, handling and disposal of hazardous substances will be done as per prevailing laws and approval of concerned authority	
Biodiversity Fauna and Flora	The proposed development is situated within an existing built up area. No areas of ecological diversity occur within the subproject location. Due to the nature and locality of the subproject there is unlikely to any significant impacts on biodiversity within the area The pipe laying for the transmission mains may however affect existing roadside trees.	Permission will be obtained from the Division Forest Office for the cutting/ felling of trees if required Landscaping will be undertaken with locally indigenous species and low maintenance requirements.	
Land Uses	Due to the location and nature of the subproject, there will be interference with access Existing public transport facilities and operations will be affected by the road closure and detours. Shops and establishments are located along the transmission mains alignment therefore will need to be relocated during construction. This may impact on livelihoods. There will be disruptions to health services, education services, local businesses, transport services, pedestrian movements, due to traffic and construction related noise, visual, and air pollution.	Project executing agency and consultant have consulted with various organizations, departments, etc within the area and will be continued during the construction phase. Caution board has been display at all site location to aware people Walkways and metal sheets provided if required to maintain access across for people and vehicles. Workforce will be increased in front of critical areas such as institutions, place of worship, business establishment, hospitals, and schools. Businesses and institutions consulted regarding operating hours and factoring this in work schedules. Sign boards provided for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.	
Infrastructure and Services	There is likely to have temporary disruption of infrastructure and services during the pipe laying of the transmission mains. There are a number of existing infrastructure and services (roads, railway lines,	Utility shifting will be done by utility agency prior to commencing pipe laying at new location. Keep construction-related disturbances to a minimum. Affected service providers will be consulted regarding impacts on access to infrastructure and services and alternatives.	

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
	telecommunication lines, power lines and various pipelines within the vicinity of the subproject.	Affected communities or businesses will be consulted prior to foreseeable disruptions, for example notifying residents of a temporary severance of water supply. Executing agency and consultant have consulted with various organizations, departments, to provide access points for infrastructures and services. Regular monitoring and resolving the complaints by the public will be done by company/ KUIDFC	
Traffic	Increased volume of construction vehicles on the roads may lead to increased wear and tear of roads in the vicinity of the subproject site. Road safety concerns due to slow moving construction vehicles. Traffic flow within the vicinity will be affected. The temporary road closure will result in a decrease in overall network performance in terms of queuing delay, travel times/speeds. The road closure will impact on a public transport operations and routing. On street parking and loading bays will be affected by the proposed road closure. Pedestrian movements will be affected by the road closure.	Traffic Management Plan is prepared and permission is obtained from Traffic Police Dept. TMP ensured safety of all the road-users along the work zone and to address: (i) protection of work crews from hazards associated with moving traffic; (ii) mitigation of the adverse impact to the road capacity and delays to the road-users; (iii) maintenance of access to adjoining properties; and (iv) issues that may delay the subproject works. Schedule transport and hauling activities will be plan during non-peak hours Site will be free from all unnecessary obstructions. Affected sensitive receptors if any will be notified by providing sign boards informing nature and duration of construction works Privately-owned public transport operators will be negotiated regarding the affected public transport facilities and routing. Business owners and social service operations will be negotiated regarding the loss of parking and loading bays. Clear roads signs has been arranged and to be maintained for the full length of the construction period. City Traffic Police will be available on site (as per requirement). All working sites barricaded Communicate will be done for road closure/diversion together with the proposed detour via advertising, pamphlets, road signage, etc. The implementation of the road detour is also dependent on advance road signage indicating the road detour and alternative routes. Construction area clearly defined Deliveries during peak traffic hours will be not allowed	Before starting of any particular project site on the road TMP needs to be approved from KUIDFC and Traffic Police Dept.
Health and Safety	Danger of construction related injuries. Open fires in construction camp can result in accidents Safety of workers and general public must be ensured.	Implement good housekeeping practices at the site office, working area. Strictly implemented health and safety measures and audit on a regular basis.	Company's health and safety guidelines will be followed

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
	Poor waste management practices and unhygienic conditions at temporary ablution facilities can breed diseases. Standing water due to inadequate storm water drainage systems, inadequate waste management practices, pose a health hazard to providing breeding grounds for disease vectors such as mosquitoes, flies and snails. The use of hazardous chemicals in the micro-tunnelling and restoration of roads can pose potential environmental, health and safety risks. Road safety may be affected during construction, especially when traffic is detoured.	Construction site – particularly excavated area already barricaded . Warning signs has been proved at hazardous working areas. Working area clearly demarcated, barricaded to protect pedestrians from open areas like trial trench Thoroughly trained workers assigned to dangerous equipment. Waste management practices will be well undertaken Speed and movement of construction vehicles restricted Personal Protective Equipment are provided to all workers Visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas have been ensured First Aid system available at working sites Medical insurance provided to workers Drinking water arranged at working sites Mark and provide sign boards for hazardous areas Signage has been in well known to, and easily understood by workers, visitors, and the general public as appropriate. Maintain regularly the vehicles and use of manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure.	
Noise and Vibrations	Sensitive receptors (hospitals, schools, religious places) may be affected temporarily by increased traffic and related impacts Use of heavy vehicles and equipment may generate high levels of noise. Vibrations resulting from bulk earthworks, and compaction may create significant disturbances to nearby people and businesses. Disturbance from afterhours work.	Construction activities to be restricted at reasonable working hours near any sensitive receptors. Adjacent landowners will be informed about noisy activities Ensured that machinery in a good state of maintenance. Maintenance of silencers to all machinery is ensured Base line and during construction noise level monitoring has been conducted near project sites	Noise level Monitoring have been done
Aesthetics, Landscape Character, and Sense of Place	The presence of heavy duty vehicles and equipment, temporary structures at site office, stockpiles, may result in impacts on aesthetics and landscape character	Storage areas fenced properly. Solid waste will be manage according to the following preference hierarchy: reuse, recycling and disposal to designated areas Removal of all wreckage, rubbish from the sites done at earliest Waste dispose at suitable location after taken permission from KUIDFC Except few cases mature trees on and around the site remain untouched Unwanted material and litter will be remove at certain intervals	Excavated soils are utilized for filling purpose.

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
Construction camps	Affect local environment – soil, air, noise and impact on vegetation	Labour camp established at near RTO office area nearby Kondaji road Davangere Toilet, drinking water facility arranged	
Workers Conduct	Construction workers on site disrupting adjacent land uses by creating noise, generating litter, and possible loitering.	Ensured strict control of labourers Working hours fixed as per rules Littering at project sites is being avoided Overnight accommodation will be provided as per requirement.	Company policy followed
Employment Generation	The subproject will provide employment opportunities for local people during construction. Expectations regarding new employment will be high especially among the unemployed individuals in the area. Labor gathering at the site for work can be a safety and security issue, and must be avoided. The training of unskilled or previously unemployed persons will add to the skills base of the area.	Local Workers/labourers are mostly engaged at site Construction materials will be procured from local market	
Archaeological and Cultural Characteristics	The proposed development will not require demolition of ASI- or state-protected monuments and buildings	There is no Heritage or archaeological protected sites. Construction staff members would be aware of the likelihood of heritage resources being unearthed and of the scientific importance of such discoveries.	
Social Impacts	Impact on local social environment	Restrict activities and movement of staff to designated construction areas. Company will assist in locating DSC Environment Specialist and/or PMU Environment Coordinator in the event construction staffs is approached by members of the public or other stakeholders.	
Security and Safety	Affect project activity and impact on workforce	Lighting on site is provided maximum security and to enable easier policing of the site, without creating a visual nuisance to local residents or businesses. Material stockpiles or stacks, such as, pipes be stable and well secured to avoid collapse and possible injury to site workers / local residents. Flammable materials stored as far as possible from adjacent residents / businesses.	

Package- Byadgi UGD and STP (Package no. 01BDG01)

SITE SPECIFIC ENVIRONMENTAL MANAGEMENT PLAN

2017 - 2018

PROJECT: KARNATAKA INTEGRATED URBAN WATER MANAGEMENT AND INVESTMENT PROGRAMME

Contract No: TMC/BDG/KUIDFC - KIUWMIP/01/2015-16

PROGRAM: PACKAGE NO: 01BDG01 DESIGN, BUILD AND OPERATE COMPREHENSIVE SEWERAGE SYSTEM (SEWERAGE NETWORK), 5 MLD SEQUENTIAL BATCH REACTORS STP, BYADGI.

EMPLOYER: TOWN MUNICIPAL COUNCIL (TMC) BYADGI-581106.

CONTRACTOR: SHRIRAM EPC LTD.

Prepared by

SHRIRAM EPC LTD.

SITE SPECIFIC ENVIRONMENTAL MANAGEMENT PLAN

2017 - 2018

Construction phase Site Specific Environmental Management Plan

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
Climate	The nature and intensity of rainfall events in an area, has implications for storm water management. Smoke from burning activities could be wider spread on windy days especially when dust could be blown off site.	Seasonal climatic variations during scheduling of construction activities in the area will be followed.	HSE work permit system of the company followed.
Air Quality	Sensitive receptors (e.g. hospitals, schools, churches) may be affected temporarily by increased traffic and related impacts during the construction phase (from the proposed detour). Fugitive dust can also impact on roadside air quality during construction. Exhaust fumes from construction machinery, and potential smoke from cooking fires. Burning of waste and cleared vegetation Odours from use of toilet 'facilities' other than provided facilities.	Guidelines that deal with the control of air pollution and dusts as per Environmental Management Plan (EMP) have been followed Compliance with the Air Act. has been submitted. Compliance with emission standards have been conducted and report submitted to TMC . Air quality monitoring report for base line environment and during construction period is already submitted to TMC. Which will be continued during entire construction period Covering or damp down sand/ earth stockpiled at site will be maintained as per site condition Materials carrying vehicle suitably cover. Covering of materials carrying vehicles-reducing dust hazard Construction equipment and vehicles will be maintained regularly. Pollution Under Control Certificates have been collected and submitted to TMC for the vehicles presently engaged in project activity Open fires will be fully avoided at working sites Maintaining toilet in a clean state.	Air quality Monitoring data has been included in Environmental Monitoring Report
Geology and soil	Strong water flows into open excavations below the water table will occur, causing micro-tunnel collapse. Layers of mixed fill cover natural ground surface in many places. Contamination from spillage of petroleum products, spent engine oil and oil leaks from	That drainage system shall be check regularly to control runoff from the open areas in line with topographical features of the site Rehabilitation at all sites during construction including stockpile area, temporary access and hauling routes, as soon as possible after the disturbance has ceased. Company to exercise strict care in the disposal of construction waste, with proof of disposal at an approved site provided after	

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
	construction vehicle maintenance taking place on site.	offloading each waste load and this logged/registered. Solid waste will be managed according to the following preference hierarchy: reuse, recycling and disposal to designated areas. If oil spills occur, contaminated soil will be dispose at a disposal site. Stockpile subsoil and overburden in all construction and lay down areas.	
Drainage and hydrology	The proposed development is situated within an existing built up area. Due to the nature and locality of the subproject there is unlikely any significant impacts on water resources within the immediate area.	The site surface has been engineered and shaped in such a way that rapid and efficient evacuation of runoff is achieved. Pipe line is at a depth of 1.5m to 6.0m from ground level as indicated in tender. No major ground disturbance has been observed till now Waste management practices will be maintained Transport, storage, handling and disposal of hazardous substances will be done as per prevailing laws and approval of concerned authority	
Biodiversity Fauna and Flora	The proposed development is situated within an existing built up area. No areas of ecological diversity occur within the subproject location. Due to the nature and locality of the subproject there is unlikely to any significant impacts on biodiversity within the area The pipe laying for the transmission mains may however affect existing roadside trees.	Permission will be obtained from the Division Forest Office for the cutting/ felling of trees if required Landscaping will be undertaken with locally indigenous species and low maintenance requirements.	
Land Uses	Due to the location and nature of the subproject, there will be interference with access Existing public transport facilities and operations will be affected by the road closure and detours. Shops and establishments are located along the transmission mains alignment therefore will need to be relocated during construction. This may impact on livelihoods. There will be disruptions to health services, education services, local businesses, transport services, pedestrian movements, due to traffic and construction related noise,	Project executing agency and consultant have consulted with various organizations, departments, etc within the area and will be continued during the construction phase. Caution board has been display at all site location to aware people Walkways and metal sheets provided if required to maintain access across for people and vehicles. Workforce will be increased in front of critical areas such as institutions, place of worship, business establishment, hospitals, and schools. Businesses and institutions consulted regarding operating hours and factoring this in work schedules. Sign boards provided for pedestrians to inform nature and duration of construction works and contact numbers for	

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
	visual, and air pollution.	concerns/complaints.	
Infrastructure and Services	There is likely to have temporary disruption of infrastructure and services during the pipe laying of the transmission mains. There are a number of existing infrastructure and services (roads, railway lines, telecommunication lines, power lines and various pipelines within the vicinity of the subproject.	Utility shifting will be done by utility agency prior to commencing pipe laying at new location. Keep construction-related disturbances to a minimum. Affected service providers will be consulted regarding impacts on access to infrastructure and services and alternatives. Affected communities or businesses will be consulted prior to foreseeable disruptions, for example notifying residents of a temporary severance of water supply. Executing agency and consultant have consulted with various organizations, departments, to provide access points for infrastructures and services. Regular monitoring and resolving the complaints by the public will be done by company/TMC/ GKW	
Traffic	Increased volume of construction vehicles on the roads may lead to increased wear and tear of roads in the vicinity of the subproject site. Road safety concerns due to slow moving construction vehicles. Traffic flow within the vicinity will be affected. The temporary road closure will result in a decrease in overall network performance in terms of queuing delay, travel times/speeds. The road closure will impact on a public transport operations and routing. On street parking and loading bays will be affected by the proposed road closure. Pedestrian movements will be affected by the road closure.	Traffic Management Plan is prepared. TMP ensured safety of all the road-users along the work zone and to address: (i) protection of work crews from hazards associated with moving traffic; (ii) mitigation of the adverse impact to the road capacity and delays to the road-users; (iii) maintenance of access to adjoining properties; and (iv) issues that may delay the subproject works. Schedule transport and hauling activities will be plan during non-peak hours Site will be free from all unnecessary obstructions. Affected sensitive receptors if any will be notified by providing sign boards informing nature and duration of construction works Privately-owned public transport operators will be negotiated regarding the affected public transport facilities and routing. Business owners and social service operations will be negotiated regarding the loss of parking and loading bays. Clear roads signs have been arranged and to be maintained for the full length of the construction period. City Traffic Police will be available on site (as per requirement). All working sites barricaded Communicate will be done for road closure/diversion together with the proposed detour via advertising, pamphlets, road signage, etc. The implementation of the road detour is also dependent on advance road signage indicating the road detour and alternative routes. Construction area clearly defined	Before starting of any particular project site on the road TMP needs to be approved from TMC/ GKW and Traffic Police Dept.

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
		Deliveries during peak traffic hours will be not allowed	
Health and Safety	Danger of construction related injuries. Open fires in construction camp can result in accidents Safety of workers and general public must be ensured. Poor waste management practices and unhygienic conditions at temporary ablution facilities can breed diseases. Standing water due to inadequate storm water drainage systems, inadequate waste management practices, pose a health hazard to providing breeding grounds for disease vectors such as mosquitoes, flies and snails. The use of hazardous chemicals in the micro-tunneling and restoration of roads can pose potential environmental, health and safety risks. Road safety may be affected during construction, especially when traffic is detoured.	Implement good housekeeping practices at the site office, working area. Strictly implemented health and safety measures and audit on a regular basis. Construction site – particularly excavated area already barricaded . Warning signs has been proved at hazardous working areas. Working area clearly demarcated, barricaded to protect pedestrians from open areas like trial trench Thoroughly trained workers assigned to dangerous equipment. Waste management practices will be well undertaken Speed and movement of construction vehicles restricted Personal Protective Equipment are provided to all workers Visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas have been ensured First Aid system available at working sites Medical insurance provided to workers Drinking water arranged at working sites Mark and provide sign boards for hazardous areas Signage has been in well-known to, and easily understood by workers, visitors, and the general public as appropriate. Maintain regularly the vehicles and use of manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure.	Company's health and safety guidelines will be followed
Noise and Vibrations	Sensitive receptors (hospitals, schools, religious places) may be affected temporarily by increased traffic and related impacts Use of heavy vehicles and equipment may generate high levels of noise. Vibrations resulting from bulk earthworks, and compaction may create significant disturbances to nearby people and businesses. Disturbance from afterhours work.	Construction activities to be restricted at reasonable working hours near any sensitive receptors. Adjacent landowners will be informed about noisy activities Ensured that machinery in a good state of maintenance. Maintenance of silencers to all machinery is ensured Base line and during construction noise level monitoring has been conducted near project sites	Noise level Monitoring have been done
Aesthetics, Landscape Character, and	The presence of heavy duty vehicles and equipment, temporary structures at site office, stockpiles, may result in impacts on aesthetics	Storage areas fenced properly. Solid waste will be managing according to the following preference hierarchy: reuse, recycling and disposal to	Excavated soils are utilized for filling purpose.

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
Sense of Place	and landscape character	designated areas Removal of all wreckage, rubbish from the sites done at earliest Waste dispose at suitable location after taken permission from TMC/ GKW Except few cases mature trees on and around the site remain untouched Unwanted material and litter will be remove at certain intervals	
Construction camps	Affect local environment – soil, air, noise and impact on vegetation	Toilet, drinking water facility arranged	
Workers Conduct	Construction workers on site disrupting adjacent land uses by creating noise, generating litter, and possible loitering.	Ensured strict control of laborers Working hours fixed as per rules Littering at project sites is being avoided Overnight accommodation will be provided as per requirement.	Company policy followed
Employment Generation	The subproject will provide employment opportunities for local people during construction. Expectations regarding new employment will be high especially among the unemployed individuals in the area. Labor gathering at the site for work can be a safety and security issue, and must be avoided. The training of unskilled or previously unemployed persons will add to the skills base of the area.	Local Workers/laborers are mostly engaged at site Construction materials will be procured from local market	
Archaeological and Cultural Characteristics	The proposed development will not require demolition of ASI- or state-protected monuments and buildings	There is no Heritage or archaeological protected sites. Construction staff members would be aware of the likelihood of heritage resources being unearthed and of the scientific importance of such discoveries.	
Social Impacts	Impact on local social environment	Restrict activities and movement of staff to designated construction areas.	
Security and Safety	Affect project activity and impact on workforce	Lighting on site is provided maximum security and to enable easier policing of the site, without creating a visual nuisance to local residents or businesses. Material stockpiles or stacks, such as, pipes be stable and well secured to avoid collapse and possible injury to site workers / local residents.	

Appendix 7

Google Map shows sampling stations

Ambient Air Quality Monitoring at Sites of construction

Package	Locations	GPS Coordinate
Davangere UGD (Package no. 01DVG01)	NH Crossing near (Near SS HI-TECH Hospital) (A1)	14°25'58.95"N 75°56'23.44"E
	Ward 35- Railway crossing (Shakti nagar)(A2)	14°26'48.54"N 75°56'27.63"E
	P J Extension (A3)	14°27'43.48"N 75°54'52.25"E
Davangere STP (Package No. 01DVG01A)	20 MLD STP (A4)	14°29'44.21"N 75°55'11.87"E
	5 MLD STP (A5)	14°27'16.82"N 75°57'4.04"E
Davangere Bulk water supply (Package no. 01WS01)	Rajanahalli Jack well location (A6)	14°30'25.45"N 75°45'5.71"E
	WTP site Bhathi(A7)	14°28'58.24"N 75°50'42.99"E
	Vidhya nagar C Block pipe route Harihar(A8)	14°29'57.60"N 75°48'34.16"E
Harihar UGD & STP (Package no. 01HRA01)	Guttur Colony near Panchyat office (A9)	14°32'13.13"N 75°48'48.68"E
	Near Anjaneya Temple Amaravathi (A10)	14°30'37.60"N 75°49'43.08"E
	STP site near Kirloskar factory(A11)	14°31'44.71"N 75°48'20.55"E
Harihar Bulk WS (01HRA02)	Near Indian Oil Petrol pump, Kumar Pattan (A12)	14°31'40.91"N 75°46'38.19"E
	WTP site, Harihar (A13)	14°31'7.11"N 75°48'5.26"E
	OHT site near Gajanan Temple, Amaravathi colony (A14)	14°30'37.53"N 75°49'42.98"E
Harihar water distribution network (01WS04)	Church Road(A15)	14°30'42.43"N 75°48'37.54"E
	Harapanhalli Circle, near Bus stand (A16)	14°30'54.01"N 75°48'27.14"E
	Near Vidhyanagar, Shivamogga main road (A17)	14°30'8.11"N 75°48'23.85"E
	Guttur Road, Harihar (A18)	14°32'0.63"N 75°48'46.60"E
Byadgi UGD (Package no. 01BDG01)	Neheru Nagar(A19)	14°41'0.35"N 75°29'35.40"E
	Ashray Badavane(A20)	14°39'43.56"N 75°29'24.38"E
	Islampur(A21)	14°40'17.83"N 75°29'35.17"E
	Hallepet (A22)	14°40'26.32"N 75°29'19.93"E

Byadgi bulk WS (01BDG02)	Near Kadaramandalgi Japping point and existing MS pipeline (A23)	14°37'27.60"N 75°36'2.06"E
	Near Asundi (A24)	14°38'2.18"N 75°32'40.87"E
	Near Jinning mill, Ranebenur bypass (A25)	14°37'43.41"N 75°35'34.48"E
Byadgi water distribution (01WS03)	Subash nagar (A26)	14°40'36.57"N 75°29'38.84"E
	Gandhi nagar (A27)	14°40'12.03"N 75°29'12.52"E
	Vidya nagar (A28)	14°39'54.21"N 75°29'7.32"E
	Balmuki nagar (A 29)	14°40'32.66"N 75°29'4.77"E

Noise Level Monitoring at Sites of construction

Package	Locations	GPS Coordinate
Davangere UGD (Package no. 01DVG01)	NH Crossing near (Near SS HI-TECH Hospital) (N1)	14°25'58.95"N 75°56'23.44"E
	Ward 35- Railway crossing (Shakti nagar)(N2)	14°26'48.54"N 75°56'27.63"E
	P J Extension (N3)	14°27'43.48"N 75°54'52.25"E
Davangere STP (Package No. 01DVG01A)	20 MLD STP (N4)	14°29'44.21"N 75°55'11.87"E
	5 MLD STP (N5)	14°27'16.82"N 75°57'4.04"E
Davangere Bulk water supply (Package no. 01WS01)	Rajanahalli Jack well location (N6)	14°30'25.45"N 75°45'5.71"E
	WTP site Bhathi(N7)	14°28'58.24"N 75°50'42.99"E
	Vidhya nagar C Block pipe route Harihar(N8)	14°29'57.60"N 75°48'34.16"E
Harihar UGD & STP (Package no. 01HRA01)	Keshava Nagar (N9)	14°31'0.36"N 75°48'48.41"E
	North Dist – 4A Benki Nagar (N10)	14°30'16.64"N 75°48'48.75"E
	STP site near Kirloskar factory(N11)	14°31'44.71"N 75°48'20.55"E
Harihar Bulk WS (01HRA02)	Near Indian Oil Petrol pump, Kumar Pattan (N12)	14°31'40.91"N 75°46'38.19"E
	WTP site, Harihar (N13)	14°31'7.11"N 75°48'5.26"E
	OHT site near Gajanan Temple, Amaravathi colony (N14)	14°30'37.53"N 75°49'42.98"E
Harihar water distribution network (01WS04)	Church Road(N15)	14°30'42.43"N 75°48'37.54"E

	Harapanhalli Circle, near Bus stand (N16)	14°30'54.01"N 75°48'27.14"E
	Near Vidhyanagar, Shivamogga main road (N17)	14°30'8.11"N 75°48'23.85"E
	Guttur Road, Harihar (N18)	14°32'0.63"N 75°48'46.60"E
Byadgi UGD (Package no. 01BDG01)	Neheru Nagar(N19)	14°41'0.35"N 75°29'35.40"E
	Ashray Badavane(N20)	14°39'43.56"N 75°29'24.38"E
	Islampur(N21)	14°40'17.83"N 75°29'35.17"E
	Hallepet (N22)	14°40'26.32"N 75°29'19.93"E
Byadgi bulk WS (01BDG02)	Near Kadaramandalgi Japping point and existing MS pipeline (N23)	14°37'27.60"N 75°36'2.06"E
	Near Asundi (N24)	14°38'2.18"N 75°32'40.87"E
	Near Jinning mill, Ranebenur bypass (N25)	14°37'43.41"N 75°35'34.48"E
Byadgi water distribution (01WS03)	Subash nagar (A26)	14°40'36.57"N 75°29'38.84"E
	Gandhi nagar (N27)	14°40'12.03"N 75°29'12.52"E
	Vidya nagar (N28)	14°39'54.21"N 75°29'7.32"E
	Balmuki nagar (N29)	14°40'32.66"N 75°29'4.77"E

Air and Noise stations- Davangere UGD project (Package 01DVG01) and Davangere STP project (Package 01DVG01A)

Air and Noise stations- Davangere bulk water supply (Package 01WS01)

Air and Noise stations- Harihar UGD & STP project (Package 01HRA01)

Air and Noise stations- Harihar Bulk Water Supply project (Package 01HRA02)

Air and Noise stations- Harihar water supply distribution network (Package 01WS04)

Air and Noise stations- Byadgi UGD & STP project (Package 01BDG01)

Air and Noise stations- Byadgi Bulk Water supply project (Package 01BDG02)

Air and Noise stations- Byadgi Water supply distribution network project (Package 01WS03)

Appendix 8

Spoil Management Plan

SPOIL MANAGEMENT PLAN
M/S – SIMPLEX INFRASTRUCTURES LIMITED
Package: Davangere- Sewerage (Package: 01DVG01)

- **INTRODUCTION OF SMP**

SMP is to describe how the project will manage the spoil generated and reuse related to design and construction works. This is an integral part of EMP. The objective of SMP is to reuse of spoil from works.

- **LEGAL AND OTHER REQUIRMENTS**

In this project, there is no legal litigation at site for land and working area or site. Disposal of spoil will confirming the Environmental Protection Rules and Regulations of Govt. of India and The state Govt.

- **ROLES AND RESPONSIBILITY**

In this project, there are major roles and responsibilities are followings

- Extra excavated earth should be removed from site
- Traffic movement should not be obstructed by dumping soil during the work
- No low land, pond, ditch etc will be filled up by extra soil
- No accident occurs during rainy season by excavated earth during or finished the work
- All the drains, outlet should be free from our excavated earth

- **SPOIL VOLUMES,CHARACTERISTICS AND MINIMIZATION**

In this project, generation of excavated excess earth will be no plan to reuse in the project. As per report from soil expert excavated earth is clayey in nature. Generation of excavated earth would be minimize as per design

- **SPOIL REUSES OPPORTUNITIES,IDENTIFICATION AND ASSESMENT**

In this project, there is no opportunity to reuse of excavated earth; total excavated earth would be dispose as per plan. As required level and dressing to be done at the both work site and balance excess to be dispose as planned.

- **ON SITE SPOIL MANAGEMENT APPROACH**

In this project, the approach is ready where soils to be dispose

- **SPOIL TRANSPORTATION METHODOLOGY**

Extra excavated earth will be shifted by truck & Tractor Trolley from working site to disposal area if required after level and dressing.

- **MONITORING,REPORTING,REVIEW,AND IMPROVEMENTS**

Monitoring, Reporting and all necessary improvements will be done as per requirement.

SPOIL MANAGEMENT PLAN
M/S –Shriram EPC.Ltd

Package: Harihar Sewerage (01HRA01)

1. **INTRODUCTION OF SMP**
   SMP is to describe how the project will manage the spoil generated and reuse related to design and construction works. This is an integral part of EMP. The objective of SMP is to reuse of spoil from works.
2. **LEGAL AND OTHER REQUIRMENTS**
   In this project, there is no legal litigation at site for land and working area or site. Disposal of spoil will confirming the Environmental Protection Rules and Regulations of Govt. of India and The state Govt.
3. **ROLES AND RESPONSIBILITY**
   In this project, there are major roles and responsibilities are followings
   1) Extra excavated earth should be removed from site
   2) Traffic movement should not be obstructed by dumping soil during the work
   3) No low land, pond, ditch etc will be filled up by extra soil
   4) No accident occurs during rainy season by excavated earth during or finished the work
   5) All the drains, outlet should be free from our excavated earth

4. **SPOIL VOLUMES,CHARACTERISTICS AND MINIMIZATION**
   In this project, generation of excavated excess earth will be no plan to reuse in the project. As per report from soil expert excavated earth is clayey in nature. Generation of excavated earth would be minimize as per design
5. **SPOIL REUSES OPPORTUNITIES,IDENTIFICATION AND ASSESMENT**
   In this project, there is no opportunity to reuse of excavated earth; total excavated earth would be dispose as per plan. As required level and dressing to be done at the both work site and balance excess to be dispose as planned.
6. **ON SITE SPOIL MANAGEMENT APPROACH**
   In this project, the approach is ready where soils to be dispose

7. **SPOIL TRANSPORTATION METHODOLOGY**
   Extra **47.72 cum** excavated earth will be shifted by truck from working site to disposal area at STP if required after leveling and dressing.

8. **MONITORING,REPORTING,REVIEW,AND IMPROVEMENTS**
   Monitoring, Reporting and all necessary improvements will be done as per requirement.

SPOIL MANAGEMENT PLAN
HNB Engineers

Name of Project: **DESIGN, SUPPLY, INSTALLATION & COMMISSIONING OF SEWAGE TREATMENT PLANTS –SEQUENTIAL BATCH REACTORS (SBR/CASP) OF 20 MLD CAPACITY IN DISTRICT 1 & 5 MLD CAPACITY IN DISTRICT 3 OF DAVANAGERE CITY CORPORATION INCLUDING OPERATION AND MAINTENANCE FOR THREE YEARS.**

1.0	**Purpose**
	To describe how the project will manage the spoil generated and reuse related to design and construction works.
2.0	**Scope**
	The procedure is applicable to HNB Engineers Pvt. Ltd., Davangere.
3.1	**Responsibility**
	Project In charge is responsible for its implementation. Corporate Head EHS is responsible for its review and modification.
3.2	**RESPONSIBILITY AND AUTHORITY FOR EHS MANAGEMENT**
	RESPONSIBILITY Project In charge (PI) • Ascertain that all plants and machinery utilized at the project site meets the safety standard and are safe for use. • Ensure that all personnel are aware of commitment to environmental protection and worker safety; 1. Ensure that safe system of work are implemented and maintained by the project Engineers / Supervisors / Foreman and employees at the work site. 2. Ensure that sufficient induction training for all employees and workers is given before commencement of work at site and subsequently for new inductees; 3. Undertake program of regular EHS Inspection at site. 4. Arrange Site EHS Management Review Meeting. **Site Engineers/Supervisors** • Maintain safe working conditions and good housekeeping in all areas under his supervision. • Enforce use of PPE as requested by Project Specific Rules and regulations. • Immediately Inform & report to the EHS-Officer while any accident, near misses, dangerous occurrence, occupational poisoning or diseases shall be noticed within the project sites. • Plan safety in accordance with the approved work methodology for daily work activities. • Establish and maintain proper communication with all workers with regard to EHS; and
4	Procedure- Spoil Management Plan
	☞ 1) Spoil volume calculations: Estimate the volumes of spoils produced from each of the construction sites. ☞ 2) Characterization of spoil: Based on the type of spoil; characterization is done (sand stone, mud mix materials, reusable materials) ☞ 3) Adopt Spoil Reduce, Reuse Opportunities ☞ 4) Identification of possible safe disposal sites for spoil: Those spoils which can't be reuse shall be properly disposed in designated areas, such disposal areas should be identified in project locations. Such disposal areas should be safe from environmental aspects and there should be any legal and resettlement related issues. Such areas need to be identified and prior cliental approval should be obtained to use it as spoil disposal area. The local administration must be consulted and if required permission should be obtained from them.
5	**Spoil Volumes, Characteristics and Minimization**

	• Volumes 10,000Cu.M approx. • Characteristics Normal earth basically clay types • Minimization Excavation of earth to be done as per requirements only. No extra earth shall be excavated.
6	**Spoil Reuses Opportunities, Identification and Assessment**
	• All quantity of spoils will be re used for new road. • Balance spoils will be removed.
7	**Monitoring, Reporting, Review and Improvements**
	• Monitoring, Reporting and all necessary improvements will be as required.
8	**Related other Procedures** The key aspects of potential impacts are listed in table below

Aspects	Potential Impacts
Air Quality	Potential for high winds generating airborne dust from the stock piles
Sedimentation	Potential for sediment laden site runoff from spoil stockpiles and potential for spillage of spoil from truck on roads
Surface and Groundwater	Contamination of water (surface and ground water)
Noise	Associated with spoil handling and haulage and storage
Traffic	Impacts associated with spoil haulage
Land Use	Potential for spoil to be transported to a receivable site that doesn't have permission for storage/disposal
Design specifications	Limitations on opportunities to minimize spoil generation
Sustainability	Limited sites for storage, reuse opportunities

SPOIL MANAGEMENT PLAN
M/S –SHRIRAM EPC LTD,

01BDG01 Package

1. INTRODUCTION OF SMP

SMP is to describe how the project will manage the spoil generated and reuse related to design and construction works. This is an integral part of EMP. The objective of SMP is to reuse of spoil from works.

2. LEGAL AND OTHER REQUIRMENTS

In this project, there is no legal litigation at site for land and working area or site. Disposal of spoil will be confirming the Environmental Protection Rules and Regulations of Govt. of India and The State Govt.

3. ROLES AND RESPONSIBILITY

In this project, there are major roles and responsibilities are followings

1) Extra excavated earth should be removed from site
2) Traffic movement should not be obstructed by dumping soil during the work
3) No low land, pond, ditch etc will be filled up by extra soil
4) No accident occurs during rainy season by excavated earth during or finished the work
5) All the drains, outlet should be free from our excavated earth

4. SPOIL VOLUMES, CHARACTERISTICS AND MINIMIZATION

In this project, generation of excavated excess earth will be no plan to reuse in the project. As per report from soil expert excavated earth is clayey in nature. Generation of excavated earth would be minimizing as per design

SPOIL MANAGEMENT PLAN
M/S –SHRIRAM EPC LTD,

5. SPOIL REUSES OPPORTUNITIES, IDENTIFICATION AND ASSESMENT

In this project, there is no opportunity to reuse of excavated earth; total excavated earth would be dispose as per plan. As required level and dressing to be done at the both work site and balance excess to be dispose as planned.

6. ON SITE SPOIL MANAGEMENT APPROACH

The end of day we have disposed surplus earth after completion of backfilling work as per Site condition. In wherever conservation area we have arranged to dispose surplus earth.

7. SPOIL TRANSPORTATION METHODOLOGY

Disposal and utilization of excess excavated earth at pipe laying area and stone from STP. The end of day we have disposed surplus earth after completion of backfilling work as per Site condition. In wherever conservation area we have arranged to dispose surplus earth.

8. MONITORING, REPORTING, REVIEW, AND IMPROVEMENTS

Monitoring, Reporting and all necessary improvements will be done as per requirement.

Appendix 9

Traffic Management Plan

Davangere UGD Package

Traffic Management Plan

DECEMBER 2017

SIMPLEX INFRASTRUCTURES LIMITED
DAVANGERE SEWERAGE PROJECT

Location (As on 17TH DECEMBER 2017)
Traffic Diversion: HITECH HOSPITAL Road of Ward no- 36 ,DAVANGERE SEWERAGE PROJECT for RCC Pipe Laying Work

1.0	Purpose
	To provide a clear and simply worded procedure to be understood by most employees on preventing injury to persons and damage to property arising from site traffic and site transport.
2.0	Scope
	The procedure is applicable to DAVANGERE SEWERAGE PROJECT
3.0	Responsibility
	It is the responsibility of the Project In charge and Depot Head to implement this procedure and ensure that delegated staff under their supervision carries it out.
4.0	Definitions
	Project In charge: Person responsible for the execution of the project.
5.0	Legal Requirement
	The Building and Other Construction Workers (Regulations of Employment and Conditions of Service) Act 1996 and Central Rule 1998 Rule 48, 88 and 95, Motor Vehicle Act 1988
6.0	Requirements
6.1	General
	• All road works create inconvenience and are a potential hazard to the safety of all road users and those employed in carrying out the work. • All the effects should be mitigated or reduced to the minimum, and to ensure that the works are properly guarded, lighted and signed. • A clear and early warning of any obstruction to all road users should be provided. • All areas where work is going on should be clearly demarcated by barricading and entry into these areas should be restricted to only authorized personnel.
6.2	Planning stage
	• The client and DSC's Engineer should be consulted as regards the execution of the works and the safety measures which would be put in place. • Particular attention should be given to : o traffic signs; o cones; o barriers; o road hazard warning lights; o information boards; and o site lighting

	• Consider necessity of traffic control systems such as temporary Stop/Go boards. • Access should be planned to eliminate dangerous movements of site traffic (e.g. reversing of vehicles) and personnel (e.g. crossing dual carriageways). • Provision of adequate lighting.
6.3	On site
	• The working area in the live road/footway is defined. • The working space is defined – this includes the area of storage of tools and equipment and space to move around the job. • Provision of safety zone- it is kept clear of all work, material storage and people and is clear of working radius of all plant.
6.4	**Operators / Drivers**
	• **Experienced operators and drivers with valid licensed has been appointed.** • **One copy of license has been collected by Safety Department.**
6.5	Equipment
	• Drivers are made a daily inspection of their vehicles include steering, brakes, mirrors, lights, horn, tyres and windshield wipers. • Safety Department along with Plant department has been checking the vehicles monthly basis • All vehicles have reverse horns and it is in working properly. • All vehicles, periodical maintenance has conducted.
6.6	**Roads**
	For safe operation we are following the bellow safety measure: • Safe width has been provided. • Speed limit is varied as per the site. • Safe walkway with proper guard has been provided. • Caution board has been placed in every location within the site. • During night alert light has been provided. • Conducting Toolbox training as regular basis. • Road will be closed with proper permission (if required). • Reflective type Diversion board has been placed in required places. • Road diversion drawing has been submitted (Ref. Attached drawing)
6.7	**Loading and unloading**
	• Only authorised persons were engage for loading / unloading. • Materials loaded within the permitted safe weigh limit for the truck, • Dimensions of loads carried on a vehicle in strict accordance with relevant provisions. • A red flag is being used at the rear extremity of an overhanging load. • During the hours of darkness or in poor visibility conditions, a white light showing ahead at each side of the front extremity and a red light showing to the rear extremity of the hanging load are has been provided. • During Toolbox talks Intimation has been delivered to all drivers/operators that when the driver leaves the driving seat, the engine of the truck shall be switched off, the gear engaged and parking brakes applied. On slopes, wheel blocks shall be applied. • Helper has been provided with all vehicles.
6.8	**Working Area** • The working area in the live road/footway has defined and barricaded. • The working area has been restricted from unauthorized entry. • The working space has been defined – this includes the area of storage of tools and equipment and space to move around the job. • Particular attention has been taken in working area : o traffic signs; o cones; o barriers; o road hazard warning lights; o information boards; and o site lighting • Adequate lighting has been provided.

TRAFFIC MANAGEMENT PLAN

JUL -2017 TO DEC- 2017

PROJECT: **KARNATAKA INTEGRATED URBAN WATER MANAGEMENT AND INVESTMENT PROGRAMME**

Contract No: TMC/BDG/KUIDFC - KIUWMIP/01/2015-16

PROGRAM: PACKAGE NO: 01BDG01 DESIGN, BUILD AND OPERATE COMPREHENSIVE SEWERAGE SYSTEM (SEWERAGE NETWORK), 5 MLD SEQUENTIAL BATCH REACTORS STP, BYADGI.

EMPLOYER: TOWN MUNICIPAL COUNCIL (TMC) BYADGI-581106,

CONTRACTOR: SHRIRAM EPC LTD.

Prepared by

SHRIRAM EPC LTD.

TRAFFIC MANAGEMENT PLAN

JUL -2017 TO DEC- 2017

1.0	PURPOSE
	To preventing injury to persons and damage to property arising from site traffic and site transport.
2.0	SCOPE
	The procedure is applicable to Shriram EPC Ltd. Sites.
3.0	RESPONSIBILITY
	It is the responsibility of the Project in charge and Depot Head & safety officer implement this procedure and ensure that delegated staff under their supervision carries it out. • Responsible for ensuring that material movement to and from the workface does not cause damage to the works, the workforce or the public. • There is a primary duty to provide a safe workplace environment that minimises the risk of injury to workers within, or adjacent to, the work area.
4.0	DEFINITIONS
	Project In charge: Person responsible for the execution of the project.
5.0	LEGAL REQUIREMENT
	The Building and Other Construction Workers (Regulations of Employment and Conditions of Service) Act 1996and Central Rule 1998 Rule 48, 88 and 95, Motor Vehicle Act 1988
6.0	REQUIREMENTS
6.1	General
	• All road works create inconvenience and are a potential hazard to the

TRAFFIC MANAGEMENT PLAN

JUL -2017 TO DEC- 2017

	safety of all road users and those employed in carrying out the work. • All the effects should be mitigated or reduced to the minimum, and to ensure that the works are properly guarded, lighted and signed. • A clear and early warning of any obstruction to all road users should be provided. • All areas where work is going on should be clearly demarcated by barricading and entry into these areas should be restricted to only authorized personnel.
6.2	Planning stage
	• The client and GKW's consultant Engineer should be consulted as regards the execution of the works and the safety measures which would be put in place. • Particular attention should be given to: ◊ traffic signs; ◊ cones; ◊ barriers; ◊ road hazard warning lights; ◊ information boards; and ◊ site lighting • Consider necessity of traffic control systems such as temporary Stop/Go boards. • Access should be planned to eliminate dangerous movements of site traffic (e.g. reversing of vehicles) and personnel (e.g. crossing dual carriageways). • Provision of adequate lighting.

TRAFFIC MANAGEMENT PLAN

JUL -2017 TO DEC- 2017

6.3	On site
	• The working area in the live road/footway shall be defined. • The working space shall be defined – this includes the area of storage of tools and equipment and space to move around the job. • Provision of safety zone- it shall be kept clear of all work, material storage and people and shall be clear of working radius of all plant.
6.4	**Operators / Drivers**
	• Experienced operators and drivers with valid licensed has been appointed. • One copy of license has been collected by Safety Department.
6.5	**Equipment**
	• Drivers are made a daily inspection of their vehicles include steering, brakes, mirrors, lights, horn, tires and windshield wipers. • Safety Department along with Plant department has been checking the vehicles monthly basis • All vehicles have reverse horns and it is in working properly. • All vehicles, periodical maintenance has conducted.
6.6	**Roads**
	For safe operation we are following the below safety measure: • Safe width has been provided. • Speed limit will be varied as per the site. • Safe walkway with proper guard has been provided. • Caution board has been placed in every location within the site. • During night Traffic light has been provided. • Conducting Toolbox training as regular basis. • Road will be closed with proper permission (if required).

TRAFFIC MANAGEMENT PLAN

JUL -2017 TO DEC- 2017

	• Reflective type Diversion board has been placed in required places. • Red and green Flag we have used in day time.
6.7	**Loading and unloading**
	• Only authorized persons were engage for loading / unloading. • Materials loaded within the permitted safe weigh limit for the truck, • Dimensions of loads carried on a vehicle in strict accordance with relevant provisions. • A red flag is being used at the rear extremity of an overhanging load. • During the hours of darkness or in poor visibility conditions, a white light showing ahead at each side of the front extremity and a red light showing to the rear extremity of the hanging load are has been provided. • During Toolbox Talks Intimation has been delivered to all drivers/operators that when the driver leaves the driving seat, the engine of the truck shall be switched off, the gear engaged and parking brakes applied. On slopes, wheel blocks shall be applied. • Helper has been provided with all vehicles.
6.8	**Working Area** • The working area in the live road/footway has defined and barricaded. • The working area has been restricted from unauthorized entry. • The working space has been defined – this includes the area of storage of tools and equipment and space to move around the job. • Particular attention has been taken in working area: ○ traffic signs; ○ cones; ○ barriers;

	○ road hazard warning lights; ○ information boards; and ○ site lighting • Adequate lighting has been provided.
6.9	**Signage:** • Ensure that signage and signage symbols used are internationally recognised. • Ensure additional languages are used in signage to ensure messages are understood.
7.0	**Safety:** • Ensuring the organisation's safety policies are followed • Creating of site-specific safety manual, ensure first aid cover and equipment is present • Responsible for ensuring that material movement to and from the workface does not cause damage to the works, the workforce or the public. • Manage and maintain visitor PPE stocks to an agreed number. • Produce method statements, risk assessments ensure lifting plans are produced. • Safeguard vulnerable road users from traffic and transport created by the site.

Appendix 10

Sample Internal Training document- Contractor

Davangere UGD

(10)

SIMPLEX INFRASTRUCTURE LIMITED

DAVANGERE SEWARAGE PROJECT(KARNATAKA) C-3014

TOOL BOX TALK

DATE: 29 AUGUST 2017

TIME: 9:30 AM

VENUE: CASTING YARD

CONDUCT BY: AESHURYA DAS

TOPIC DISCUSSED: ROAD SAFETY & DEFENSIVE DRIVING

Sl No	NAME OF WORKER	DESIGNATION	GATE PASS	SIGNATURE
1	DHARMENDRA YADAV	HYDRA - OPERATOR		D. YADAV
2	GUDDU	"		Guddu
3	RAJABAXI	TRUCK DRIVER		Rajabaxi
4	ARVIND KUMAR	HYDRA-OPERATOR		
5	KUMAR	TRACTOR-OPE		
6	PARSURAM	"		Parsuram
7	RANGA	"		Ranga
8	PRABHU DEVA	"		P. Deva
9	HALESH	"		
10	HARADAN SARKAR	MECHANIC		
11	BIDYUT BISWAS	MECHANIC		B. Biswas
12	SAIKAT BHOMICK	MECH/ASST		Saikat
13	RAJU	JCB OPERATOR		Raju
14				
15				
16				
17				
18				
19				

SIGNATURE OF SAFETY OFFICER | SIGNATURE OF SITE ENGINEER | SIGNATURE OF CLIENT

SIMPLEX INFRASTRUCTURES LIMITED
DAVANGERE SEWERAGE PROJECT
SAFETY - INDUCTION RECORDS

DATE : 5th NOVEMBER
LOCATION: SHAKTI NAGAR
UNDER GROUND RALWAY JACK-PUSHING SITE

TOPIC DISCUSSED :
SAFETY POLICY, GENERAL SAFETY RULES, BENIFITS OF PPES, WORK AT HEIGHT, Confined Space Entry, First-Aid, TRAFFIC RULES & ROAD SAFETY MEASURES, EXCAVATION SAFETY, MATERIAL HANDLING, HouseKeeping etc.

SL NO	NAME OF THE WORKER	DESIGNATION	EMERGENCY CONTACT NO	REMARKS
01.	SHAMSUL	SUPERVISOR	9454885158	
02.	SHAILESH	WELDER	7393958773	
03.	RAMESH MARSIT	HELPER	7019445508	
04.	SUBHOJIT MONDAL	HELPER	9593702342	
05.	BARUN DAS	HELPER	9004047965	
06.	GOPAL DAS	HELPER	9004047965	
07.	TAPAS MARSIT	HELPER	9635291589	
08.	SURAL MARSIT	HELPER	7508693448	
09.	BIJOY MARSIT	HELPER	7586089071	
10.	SUJON MARSIT	HELPER	9481840856	

TRAINING GIVEN BY -
AISHWARYA - HSAS
OFFICER - SAFETY 1/11/2017

Davangere STP

HNB ENGINEERS PVT.LTD

DAVANAGERE-:- SEWAGE TREATMENT PLANT, DODDA BOODHIAL, NEAR SHIVNAGARA (KARNATAKA)

TOOL BOX TALK

Date:- 14/12/2017

Time:- 9-00 AM

Venue:- Pump House Unit Room STP D.V.G. Shivnagar site zone

Conduct By Nishant Kalambkar

Topic discussed Environmental Health and Safety Issues.

Sr. No	Name of employee	Designation	Emp.Code Nos	Signature
1	Gurraj T	JE	1714	
2	Lokanikant Anal	JE	1430	
3	manoj Kalburgi	JE	1905	
4	Prasanth Rao	JE	5209	
5	Rahul G	Store keeper	1130	
6	Basavaraj B	Office Asst	1930	
7	Manishkumar	Hyder opr	1813	
8	Satish NaiTP	Lab Asst	1315	
9	Rajesh N	Lab Asst	3701	
10	Vinayak Naik	Store Helper	1903	
11	Kirankumar	Chemest	3607	
12	Naveenkumar P	Helper	1902	
13	Sushma D	Store Asst	1903	
14	Jaisingh	Personal Asst	1906	

Signature of Safety officer. 14/12/17

Signature of Safety Engineer.

Signature of Client

HNB ENGINEERS PVT.LTD

DAVANAGERE-:- SEWAGE TREATMENT PLANT, DODDA BOODHIAL, NEAR SHIVNAGARA (KARNATAKA)

TOOL BOX TALK

Date:- 14/12/2017

Time:- 3:00 pm

Venue:- Site Office SMCPSTP Hammeum - SMCP

Conduct By Mr. Kiran Kalakkeri

Topic discussed Communicated - Health and Safety Issue

Sr. No	Name of employee	Designation	Emp.Code Nos	Signature
1	P. S. Hire	PM	1018	
2	Naveen Kumar	Clerk	1701	
3	Mahesh naik	Store Asst	1901	
4	Kiran naik	Store helper	1903	
5	Ramraj chung	Driver	1305	
6	Kishan naik	Driver	1307	
7	Linganna	Watchman	3031	
8	Kiran. P.	Store Asst	1705	
9	Parshinaik	Helper	1309	
10	Hanumappa	Helper	1403	
11	Ganesh H.	Agent Ant	1013	
12	Deepak. R.	Lab Asst	1091	
13	Sameer N	Asst-lab	3019	
14	Basavarajappa	Account	3096	

Signature of Safety officer. 14/12/17

Signature of Safety Engineer.

Signature of Client

Davangere Bulk water supply

Shriram epc

SITE SAFETY INDUCTION	Format No	F/SAF/SI/01
	Rev No	00
	Issue No	01

Date:- 1-12-2017 Location:- Bathi.
SEPC /Contractor SRI KRISHNA CONSTRUCTION No of persons inducted:- 06
Project Detail:- KUWMIP-01W601
Nature of work:- Excavation, Pipe laying & Back Filling

Detail of person Inducted

S.No	Name	Designation	Contractor	Signature
01	K BABU	SUB Contractor	SRI KRISHNA CONSTRUCTION	K. Babu.
02	MANI.S	OPERATOR		S. Mani kalaiyar
03	ANANDAN. A	HELPER	CONTRACTOR	
04	MITHUN	HELPER	CONTRACTOR	
05	SANKAR	HELPER	CONTRACTOR	
06	SENTHAMILSELVAN	FITTER	CONTRACTOR	
07				
08				
09				
10				

Points discussed:-

- ☑ Policy
- ☑ Drugs & Alcohols
- ☑ Potential hazards in site
- ☑ Emergency Contact numbers
- ☑ Driving
- ☑ Poisonous Insects in site
- ☑ Reporting of Incidents / Un safe condition and Act
- ☑ Location of Firefighting equipment, First aid center and safe assembly point
- ☑ Responsibilities related to safety
- ☑ Site Layout and Emergency Preparedness
- ☑ Required PPE
- ☑ Work Permit System
- ☑ Safety signs / Posters
- ☑ Local Safety requirements

Additional Information Provided:-

1. Highway Safety, Electrical Safety
2.
3.

Induction given by:
Signature:
Name: D. DINESH
Designation: Jr. Safety Engg

Note:-

- It should be kept at site for record.
- It is mandatory for all new worker men/SEPC Staff /Visitors.
- Induction training must be given by site safety officer/Site engineer/Site manager in local language.

Harihar UGD

Shriram epc

SITE SAFETY INDUCTION	Format No	F/SAF/SI/01
	Rev No	00
	Issue No	01

Date:- 16-05-2017 Location:- STP
SEPC /Contractor Javid Contractor No of persons inducted:- 04
Project Detail:- KLUWTMP
Nature of work:- Wall Plinding, Plastering & Fitting work

Detail of person Inducted

S.No	Name	Designation	Contractor	Signature
01	VALI BASHA	MASON	JAVID	[illegible]
02	MUNIR	HELPER	JAVID	[illegible]
03	MANSOOR	HELPER	JAVID	[illegible]
04	SHAGRULLA	HELPER	JAVID	[illegible]
05				
06				
07				
08				
09				
10				

Points discussed:-

- ☑ Policy
- ☑ Drugs & Alcohols
- ☑ Potential hazards in site
- ☑ Emergency Contact numbers
- ☑ Driving
- ☑ Poisonous Insects in site
- ☑ Reporting of Incidents / Un safe condition and Act
- ☑ Location of Firefighting equipment, First aid center and safe assembly point
- ☑ Responsibilities related to safety
- ☑ Site Layout and Emergency Preparedness
- ☑ Required PPE
- ☑ Work Permit System
- ☑ Safety signs / Posters
- ☑ Local Safety requirements

Additional Information Provided:-

1. Scaffolding Safety
2. Height work
3. PPE's

Induction given by: Mr. MOHAN KUMAR T.B & DINESH.D
Signature: [illegible]
Name: D. DINESH
Designation: G.E.T

Note:-

- It should be kept at site for record.
- It is mandatory for all new worker men/SEPC Staff /Visitors.
- Induction training must be given by site safety officer/Site engineer/Site manager in local language.

Harihar Bulk water supply

SSEPL	OCCUPATIONAL HEALTH AND SAFETY TRAINING	Attendance Sheet

Program Title	Health, fire fighting safty training		
Project	Bulk water supply Harihar – (01HRA02)		
Date	24/11/2017	**Time**	
Venue			
Name of the Trainer	Keshav Sapkal	**Trainers Signature**	

SL.NO	NAME	DESIGNATION	SSEPL / CONTRACTOR	SIGNATURE
1	Ruchanjit mandal	mistri	Jayan Haldar	
2	Gopal munda	mistri	— " —	
3	Samir Sikdha	Mistri	— " —	
4	Sujon munda	Helper	— " —	
5	Pavarshis munda	Helper	— " —	
6	Sudhakar mane	mistri	CL	
7	Basappa	Helper	CL	
8	Nagappa	Helper	CL	
9				
10				

SETH & SURA ENGINEERS PVT. LTD. PUNE-30.
SAFETY OFFICER

Byadgi UGD

ShriramTepc

SAFETY TOOL BOX MEETING	Format No	F/EPC/STB/10
	Issue No	1
	Rev No	0

Project Name : MGWA 1571
Topic Covered : Excavation
Tool Box Meeting Conducted By : C Anandharaj
Signature :
Date : 4/10/2017
Time : 9.50 am

Total No of Persons Attened : 4

S.No	Name	Designation	Signature
1.	Pradeep mondal.	Helper	
2.	Deepak	Fitter	
3.	Balaji Ram	Fitter	
4.	Anjappa	Helper.	

Byadgi Bulk water supply

SSEPL	OCCUPATIONAL HEALTH AND SAFETY TRAINING	Attendance Sheet

Program Title Helth. fire fighting safty training	
Project Bulk water supply Byadagi - C01B0G02	
Date 24/12/17	Time 12.30 pm
Venue	
Name of the Trainer Keshav sapkal	Trainers Signature

SL.NO	NAME	DESIGNATION	SSEPL / CONTRACTOR	SIGNATURE
1	Pavitran C	mesti	CL	pavitran
2	Sanju Budihal	Helper	CL	[illegible]
3	Rohith Biranavar	Helper	CL	[illegible]
4	Manju Kamali	Helper	CL	[illegible]
5				
6				
7				
8				
9				
10				

SHETH & SURA ENGINEERS PVT. LTD. PUNE-30

SAFETY OFFICER

Appendix 11

Medical Tie up and Health check up

Harihar UGD

Tie up letter with hospital

AROGYA MATHEYA HOSPITAL

Amaravathi Colony, Doggalli Road, **HARIHAR-577 601.**
Ph. : 08192-242605, 243693

Ref. No. Date :.....

M/s SHRIRAM EPC LTD Having 75 Workers. They are doing UGD Work at Harihar & Bulk Water Supply at Davangere. If any Injury (or) any Emergency for Workers We Will Give the Treatment to the Workers

Thank you.

Medical Officer
Arogya Mathya Hospital
Amaravathi Colony Doggalli Road,
HARIHAR 577 601.
Ka

Medical camp on 26th September 2017

CHECKUP AREA

ಆರೋಗ್ಯ ಮಾತೆಯ ಆಸ್ಪತ್ರೆ

AROGYA MATHEYA HOSPITAL

Certificate of Medical Examination

Name (In Block Letters) RAJETHPONSAMY

Age 22yrs Sex M Height 175cm Weight 61kg

Blood Group & Rh Factor: 'A' Negative

CVS Normal

RS Normal

P/A Normal

CNS Normal

Others BP 110/70 mm

ID Mark A black mole over lower end of 1st lumbar vertebra

Blood Sugar 99 mg/dl

Remarks

He is in good health.

I certify that I have examined Mr/Mrs Rajethponsamy
Status of his/her fitness level is recorded above.

Date: 26-09-2012

Signature with seal

Harihar Bulk water supply and Byadgi Bulk water supply

OUR LADY'S HEALTH CENTER, HARIHAR
Temple Road, Harihar. ✆ 242713

AROGYA MATHEYA HOSPITAL
Amaravathi Colony, HARIHAR. ✆ 243693/242605

℞

Sheth & Sura Engg Pvt Ltd has about Eighteen workers. If they have any Health problems, getting injury during working hours will come to our hospital for treatment. All 18 workers are working in Harihar bulk water Supply.

3/1/18

Medical Officer
Arogya Matheya Hospital
Amaravathi Colony, Donagal Road
HARIHAR-577 601.

Byadgi UGD and STP

Tie up with Clinic

Dr. S. N. Nidagundi M.B.B.S.
KMC Regn. No : 11313
Consulting Family Physician
Medical Examiner LIC Of India, Byadgi
Secretary St. John Ambulance India, BYADGI
Hon. Physician STI Clinic (KSAPS) Byadgi
Director, Community Health & Family Planning Centre, Ranebennur

Dr. Nidagundi Clinic
& Day - Care Centre &
First -Aid Training Centre
Near Bus-Stand, BYADGI-581106.
Ph : (08375) (C) : 228341, (R) : 228383
Mobile : 9448165543

Ref No :

Date : 2-1-2018.

Here by I agree to undertake Medical Examination of employees of Shri Ram EPC Ltd Byadgi and also do health check up and treatment regularly or when ever called for at Byadgi.

Dr. S. N. Nidagundi,
Byadgi.

Medical examination

Dr. S. N. Nidagundi M.B.B.S.
KMC Regn. No : 11313
Consulting Family Physician
Medical Examiner LIC Of India, Byadgi
Secretary St. John Ambulance India, BYADGI
Hon. Physician STI Clinic (KSAPS) Byadgi
Director, Community Health & Family Planning Centre, Ranebennur

Dr. Nidagundi Clinic
& Day - Care Centre &
First -Aid Training Centre
Near Bus-Stand, BYADGI-581106.
Ph : (08375) (C) : 228341, (R) : 228383
Mobile : 9448165543

Ref No :

Date : 23-1-2017.

To day medical examination of employees of Shriram EPC Ltd was conducted at Byadgi in their premises. Total = 40 persons were examined.
= BP & Sugar examination was also done to all persons. All the persons
= were physically fit to do the labour work.
- Their age is ranging from 18 yrs to 58 yrs.
- one Mr. Basavaraj was having deformity at Lt foot due to burns sustained 20 yrs back. But this deformity does

PTO

Dr. S. N. Nidagundi M.B.B.S.
KMC Regn. No : 11313
Consulting Family Physician
Medical Examiner LIC Of India, Byadgi
Secretary St. John Ambulance India, BYADGI
Hon. Physician STI Clinic (KSAPS) Byadgi
Director, Community Health & Family Planning Centre, Ranebennur

Dr. Nidagundi Clinic
& Day - Care Centre &
First -Aid Training Centre
Near Bus-Stand, BYADGI-581106.
Ph : (08375) (C) : 228341, (R) : 228383
Mobile : 9448165543

Ref No :

Date :

- not hampes him from doing physical activities.
- Mr Manjunath aged 20yrs is having Diabetes and he is on regular treatment
- Five persons had minor ailments for which they were given prescriptions for medicines
- The Officers of the Company co-operated well in conducting the medical examination.

Byadgi.
23/9/17

Dr. S. N. Nidagundi,
Reg. No. 11313 M.B.B.S
BYADGI.

Dr. S. A. Nidagundi M.B.B.S.
Consulting Family Physician
Medical Examiner
Secretary
Hon. Physician
Director, Counselor Home & Family Planning Centre

Dr. Nidagundi Clinic
& Day - Care Centre &
First -Aid Training Centre
Near Bus-Stand, BYADGI
Mobile

PHYSICAL FITNESS CERTIFICATE

1. I do hereby certify that I have examined Rajappa a candidate for Bhrisam P.C. and that I cannot discover that he/she has any disease constitutional affection or bodily infirmity except Nil I do not consider this a disqualification for employment in the office of Sir PC

2. I am also satisfied by personal examination from certificates produced by that he/she was vaccinated/re-vaccinated within one week prior to the date of the certificate

3. Rajappa's age is according to his/her own statement 29 years and by appearance about 29 years

4. Height 160 cms

5. Weight 51 kgs

6. Chest measurement on full inspiration 87 cms

7. Acuteness of vision

a) Right Eye N

b) Left Eye N

Identification Mark: Three scars on left knee

B.P. – 120/76 mg Random Blood sugar : 107 mg%

Station Bydgi

Dated 25-7-17

Signature Dr. S. A. Nidagundi

Designation M.B.B.S.

Bydgi

Appendix 12

Sample Letter from Superintending Engineer, Regional Project Management Unit for excess earth disposal instruction to contractors

Karnataka Urban Infrastructure Development & Finance Corpn. Ltd.,
Karnataka Integrated Urban Water Management and Investment Programme,
KUIDFC- KIUWMIP - RPMU ,
No. 1976/9, Shamnur Road, MCC 'A' Block,
Beside Ashraya Hospital, Davangere-577004,
Phone: 08192-224477, 289401, E-mail:rpmukiuwmip.dvg@gmail.com

No: KUIDFC-KIUWMIP-RPMU/tech/2017-18/1144 Date: 24/10/2017

To,
The Project Manager,
M/s Shriram EPC Limited,
#50, 'B' Block, Amaravathi colony,
Harihara, Davanagere (Dist.)

Sir,

Sub: Expansion of Sewerage System in Harihara City, Davanagere District Package No. 01HRA01: **Dumping of excess earth reg.,**

- - -

With reference to the above, it is directed to dump the excavated excess earth in the low laying areas or use the same for road restoration works if feasible.

Please treat this as most important and comply to the same.

Your faithfully
-Sd/-
Superintending Engineer
KUIDFC- KIUWMIP - RPMU,
Davanagere

Copy submitted to :

1. The Task Manager, KUIDFC-KIUWMIP, Bangalore, for kind information
2. The Deputy Project Director, KUIDFC-KIUWMIP, RPMU, Davanagere, for kind information

Copy to:

3. The Executive Engineer, KUIDFC-KIUWMIP, Bangalore, for kind information
4. The Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU, Harihara for necessary action
5. The Team Leader, GKW Consult GmbH, Davanagere, for information.

Superintending Engineer
KUIDFC- KIUWMIP - RPMU,
Davanagere

ಕರ್ನಾಟಕ ನಗರ ಮೂಲ ಸೌಕರ್ಯ ಅಭಿವೃದ್ಧಿ ಮತ್ತು ಹಣಕಾಸು ಸಂಸ್ಥೆ ನಿಯಮಿತ
ಕರ್ನಾಟಕ ನಗರ ಜಲ ಸಂಪನ್ಮೂಲ ಮತ್ತು ಆರ್ಥಿಕ ಯೋಜನೆ ಘಟಕ ಹಿರಿಯ ಯೋಜನಾ ಅಭಿಯಂತರರು, ದಾವಣಗೆರೆ.
ಶಾಮನೂರು ರಸ್ತೆ ಎಂ.ಸಿ.ಸಿ. 'ಎ' ಬ್ಲಾಕ್, ಆಶ್ರಯ ಆಸ್ಪತ್ರೆ ಪಕ್ಕ, ದಾವಣಗೆರೆ-577004.

Karnataka Urban Infrastructure Development & Finance Corpn. Ltd.,
Karnataka Integrated Urban Water Management and Investment Programme, KUIDFC- KIUWMIP, RPMU, No. 1976/9, Shamnur Road, MCC 'A' Block, Beside Ashraya Hospital, Davangere-577004.

Phone: 08192-224477, 289401, E-mail: rpmukiuwmipdavanagere@gmail.com

No: KUIDFC-KIUWMIP- RPMU/tech /2017-18/ 1143 Date: 24/10/2017

To,
M/s Shriram EPC-Eurotek Environmental Private Limited-JV
(M/s Shriram EPC Ltd and M/s Eurotek Environmental Private Limited)
4th Floor, Sigappi Achi Building,
18/3, Rukmani Lakshmipathi Salai (Marshalls Road),
Egmore, Chennai-600 008.

Sir,

Sub: Design, Build and Operate (i) Comprehensive Sewerage System (Sewerage Network), (ii) 5 MLD Sequential Batch Reactor Type Sewage Treatment Plant AND (iii) Operation and Maintenance of the Sewerage Network & Sewage Treatment Plant for a period of Six (6) years for Byadgi town Municipality in Karnataka, Package No: 01BDG01- **Dumping of excess earth reg.,**

With reference to the above, it is directed to dump the excavated excess earth in the low laying areas or use the same for road restoration works if feasible.

Please treat this as most important and comply to the same.

Yours faithfully,
-Sd/-
Superintending Engineer
KUIDFC- KIUWMIP - RPMU,
Davanagere

Copy submitted to :
The Task manager, KUIDFC-KIUWMIP, Banagalore, for kind information.
The Deputy Project Director, KUIDFC-KIUWMIP, RPMU, Davanagere, for kind information.

Copy to :
The Executive Engineer, KUIDFC-KIUWMIP, Banagalore, for information.
The Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU, Byadgi, for necessary action.
The Deputy Team Leader, GKW Consult GmbH, Davanagere, for information.

Superintending Engineer
KUIDFC- KIUWMIP - RPMU,
Davanagere

Sample filled public consultation format

Harihara UGD

Public Consultation during construction

Package-

Area- Industrial area, Indira Colony, Jangampa Layout

OCTOBER - 2017

Sr. No.	Road/ Lane No.	Date	PHE Connection/ Utility Restoration- (In case affected) Remarks	Overburden soil removal - Remarks	Road Restoration- Remarks	Dust and noise problem- Remarks	Social safety arrangement- Caution tape/ barricade etc by contractor - Remarks	Problem of local movements due to project activity - Remarks	Other Problem faced if any	Name of the person with address/ contact No.	Sig
05	Industrial area	12-10-17	NIL	Removed	Levelled	NIL	Provided the Barricades	NIL	NIL	Ranganath [illegible]	[illegible]
06	Industrial area	12-10-17	NIL	Removed	Levelled	NIL	Barricades has been provided	NIL	NIL	Sreenu [illegible]	[illegible]
07	Indira Colony	[illegible]	NIL	Removed	Levelled	NIL	Provided the Plastic boards & barricades	Has provided	NIL	Karibasappa [illegible]	KARIBASAPPA
08	Jangampa Layout	[illegible]	NIL	Removed	Levelled	NIL	Provided the Barricades	Provided the side drain way	NIL	Pushpamma [illegible]	[illegible]

Contractor (Date & Signature)

Verified by PMDCSC's Resident Engineer (Date & Signature)

Nodal Safety Dept [illegible] R.C

30/10/2017

Harihar Bulk water supply

Public Consultation during construction

Package :- 01HRA02 (Bulk water supply for Harihar)

Area :- Gottur Road, Harihar

Sl. No.	Road/ Lane No.	Date	PHE Connection Restoration- (in case affected) Remarks	Overburden soil removal Remarks	Road Restoration Remarks	Dust and noise problem Remarks	Social safety arrangement- Caution tape/ barricade etc. by contractor Remarks	Problem of local movements due to project activity Remarks	Other Problem faced if any	Name of the person with address/ contact No.	Signature
1	Gottur Road	2/12/17	Done	Removed	Done	Not applicable	Done	No	No	D Bhanna 9483434344	
2	Kodal Hoppet Road	13/12/17	Done	Removed	clear	Not applicable	Done	No	No	Kishor.R 7975622011	Kishor.R
3	Dawangere main Road	16/11/17	Done	Removed	Done	Not applicable	Done	No	No	[illegible] 9900213094	
4	Anandnagar Road	20/12/17	Yes	Removed	Done	Not applicable	Done	No	No	Mahadevesh 9406325291	

Verified by Construction Supervisor- Resident Engineer/ Environment Spl PMDCSC-

(Date & Signature) 30/1/18

SHETH & SURA ENGINEERS PVT. LTD. PUNE

Safety officer

Byadgi UGD

Public Consultation during construction

Package- 01BP401

Area- Ashraya Badavane, Bagaveshwara Nagar, Vinayaka Nagar, Agasanahalli

Sr. No.	Road/ Lane No.	Date	PHE Connection/ Utility Restoration- (in case affected) Remarks	Overburden soil removal - Remarks	Road Restoration- Remarks	Dust and noise problem- Remarks	Social safety arrangement- Caution tape/ barricade etc. by contractor - Remarks	Problem of local movements due to project activity - Remarks	Other Problem faced if any	Name of the person with address/ contact No.	Signature
1	Int road & Special	8.11.17	Done	Removed	to be Done	No Problem	Done	No Problem	–	[illegible] S [illegible] 9880879233	M.S [illegible]
2	Int Special	24.11.17	Done	Removed	To be Done	No problem	Done	No Problem	–	[illegible] Agasanalli 9538125867	Agasanalli
3.	* main road	28.11.17	Done	Removed	To be Done	No problem	Done	No problem	–	[illegible] 9731155947	[illegible]
4.	Int road and Street	29.11.17.	Done	Removed	To be Done	No Problem	Done	No problem	–	[illegible] 9732255972	[illegible]

C. Anandomy - 30/11/17

Contractor (Date & Signature)

Verified by PMDCSC's Resident Engineer (Date & Signature)

Byadgi Bulk water supply

Public Consultation during construction

Package : 01BDG02

Area : Byadagi

Sl. No.	Road/ Lane No.	Date	PHE Connection Restoration- (in case affected) Remarks	Overburden soil removal Remarks	Road Restoration Remarks	Dust and noise problem Remarks	Social safety arrangement- Caution tape/ barricade etc. by contractor Remarks	Problem of local movements due to project activity Remarks	Other Problem faced if any	Name of the person with address/ contact No.	Signature
1	Hulikalli	1/9/2017	Done	Yes	Removed	NA	Yes	No	No	Mounesh. N Avarachari Hosa hulikalli 7996746718	
2	Hulikalli Hosur Road	2/9/2017	Done	Yes	Removed	NA.	Yes	No	NO	Ravi. M. Elagar Hosa hulikalli	
3	Hulikalli RNR Road	1/9/17	Done	Yes	Removed	NA.	Yes	No	NO	Neelappa. B Gulekar Hosa hulikalli 7538137662	
4	Asundi Sigi	2/9/17	Done	Yes	Removed	NA	Yes	No	No	Shivakumar B. Benakar Asundi 9480856789	

Verified by Construction Supervisor- Resident Engineer/ Environment Spl PMDCSC–

(Date & Signature) (RE PMDCSC)

Safety officer

Appendix 14

Environment Safeguards Training- Note

ENVIRONMENTAL SAFEGUARD – REVIEW MEETING AND ENVIRONMENT, HEALTH & SAFETY TRAINING PROGRAM FOR CONTRACTOR and ENGINEERS– Karnataka Integrated Urban Water Management Investment Program (KIUWMIP)

Safeguard review meeting cum training program has been conducted by Environment Specialist of PMDCSC on safeguard compliance issues and application of Environmental Management Plan (EMP) at Karnataka Urban Infrastructures Development and Finance Corporation (KUIDFC) office at Davangere on 10th August 2017 afternoon.

Environment Safety Officer of Contractor agency and site engineer are participated in the review meeting cum training program.

The issues discussed like,

- Overall application of EMP and compliance of safety requirement
- Labour and Office Camp site management- requirement of proper sanitation and solid waste management
- Disposal / utilization of overburden earth , rocks, spoil materials after work
- Storage of construction materials
- Occupational and public safety during construction
- Community safety – complete use of caution tape, caution board and barricade
- Traffic management and spoil management during laying of pipes (as per requirement)
- Requirement of Pollution Under Control (PUC)/ No Objection Certificate (NOC) from concerned department and renewal of the same before expiry
- Requirement of monitoring data

<u>Environment safety officer agreed to submit following documents on regular basis.</u>

- ✓ Monthly and weekly environment monitoring report in given format – on 5th day of the month (for e.g for the month of August, report must be submitted by 5th September). There should be few site photos related to environment safety compliance along with the monthly report.
- ✓ Submission of filled accident and first aid register for particular month along with monthly report
- ✓ Submission of grievance register for particular month along with monthly report
- ✓ Submission of public consultation report for particular month along with monthly report
- ✓ Submission of toll box, induction training and mock drill documents for particular month along with monthly report
- ✓ Submission of PUC certificate with list of vehicles and equipments engaged for the project – within 5th September 2017 and to be submitted on quarterly basis
- ✓ Submission of traffic management plan with location map showing complete and partial road closure – quarterly basis

- ✓ Submission of spoil management plan with approximate spoil volume and disposal area- quarterly basis
- ✓ Carry out next air quality, noise level and water quality monitoring after monsoon – preferably end of September 2017

List of health and safety compliance requirement is attached as Annex 1.

Attendance sheet attached as Annex 2

As requested by contractor agency soft copy of all formats are again mailed to environment safety officer.

ANNEX 1

Health & Safety requirement

1. Currently valid Labour license certificate
2. Currently valid Workmen compensation insurance paper
3. Currently valid PUC Certificate for all vehicles and equipments engaged in the project
4. Grievance/complaint register at all work sites/camp office as per standard format. We know that grievance register available at site office but now supervisor engineer of concerned contractor to carry that register for recording of local complaint
5. Work display board showing name and address of officers of grievance cells at all work sites
6. Accident register at camp office
7. Medical examination report of workmen every six month. This is pending for a long time
8. Document showing tie up with local doctor/nursing home/hospital
9. Display of Safety Officers' name and telephone number at work sites
10. First aid boxes with required medicines with valid dates at all work sites/camp site offices. Standardization of first aid box is required.
11. Toilet & Drinking water facilities at major work sites/camps
12. Fire fighting facilities at vulnerable work sites/camp office site/combustible material storage site
13. Rubber mat at high voltage electrical switch board area
14. Life jacket and rope at water front sites (as per requirement)

Karnataka Integrated Urban Water Management Investment Program (KIUWMIP)

Environment, Health and Safety –Training and Review Meeting

Venue: Davangere, PIU & PMDCSC office

Date: 10.08.2017

Sr. No.	Name	Organization / Designation	Contact No./ E mail	Signature
1	Mishant Kalambkar	Safety officer (SEPC)	9498212471	
2	Mohan Kumar T.R	Safety officer [SEPC]	9902294842	10/8/2017
3	Keshav Sapkal	Safety officer Chetth & Infra Eng P.Ltd.	9449011642 Keshav Sapkal2014@gmail.com	10/8/17
4	B. Mohan Naik	Site Engineer (SEPC)	9538715925	10/8/17
5	Aishwarya Das	SIMPLEX SAFETY OFFICER	8277432550	
6	RAHUL CHANDRA	SIMPLEX Site Engg	8095033122	
7	C ANANDHARAJ	SEPC Safety officer	9198976869 anandraj@gmail.com	
	Vishal Bhang	PMDCSC, Env consult	9886736154	

Ardhendu Mitra
PMDCSC 10/8/2017

ENVIRONMENTAL SAFEGUARD – REVIEW MEETING AND ENVIRONMENT, HEALTH & SAFETY TRAINING PROGRAM FOR CONTRACTOR, CONSTRUCTION SUPERVISOR and ENGINEERS– Karnataka Integrated Urban Water Management Investment Program (KIUWMIP)

Safeguard review meeting cum training program has been conducted on safeguard compliance issues and application of Environmental Management Plan (EMP) at Karnataka Urban Infrastructures Development and Finance Corporation (KUIDFC) office at Davangere on 28th October 2017 afternoon.

Asst Engineer of PIUs, Project Manager and Safety Officer of Contractor agency are participated in the review meeting cum training program.

The issues discussed like,

- Overall application of EMP and compliance of safety requirement
- Labour and Office Camp site management- requirement of proper sanitation and solid waste management
- Disposal / utilization of overburden earth , rocks, spoil materials after work
- Storage of construction materials
- Occupational and public safety during construction
- Community safety – complete use of caution tape and barricade
- Use of shoring in case of deep excavation more than 2.5 m
- Traffic management and spoil management during laying of pipes (as per requirement)
- Requirement of Pollution Under Control (PUC)/ No Objection Certificate (NOC) from concerned department and renewal of the same before expiry
- Requirement of monitoring data

Instruction is given to supervisor engineer and construction contractor to arrange weekly consultation/ training program particularly on safety and other safeguard issues for labourer.

Summary Instruction sheet for contractor, supervisor Engineers is attached as **Annex 1**

Attendance sheet attached as **Annex 2**

Annex 1

Instructions for Contractor/ Supervisor- Environmental Safeguard- KIUWMIP

- Nomination of environment-safety officer in contractor team
- Setting up camp office with proper sanitation condition, solid waste management facility and sufficient drinking water supply. Non cutting of trees during setting up camp
- Removal / disposal of overburden/surplus earth/ stone, sludge materials at earliest without any accumulation at working sites - Use of overburden materials at site (preferred option)
- Proper disposal of other construction waste –Reuse in other projects
  - Site should be selected in consultation with PIU and concerned Supervisor Engineer of PMDCSC
- Proper storage of construction materials - wastage of materials to be checked. Slope should be avoided
- Felling of trees if done to be compensated by plantation (1:5 ratio)
- Scheduling of work without any social impact – movement of pedestrian (particularly during tourist/ festive seasons) or other disturbances etc.
- Regular water sprinkling (at least 2-3 times in a day during dry period) at construction site for arresting of dust – record should be maintain at site
- Covering of materials carrying vehicles in case of transportation of wind- blown material like sand
- Personnel safety of workforce – use of ear plugs (noise producing area), nose mask (dust producing area and sewer connection work), helmet, gloves, gumboots, safety belt etc at working sites (as per site condition). Use of gas detector instrument for sewerage pipe laying work
- Filling up trenches and restoration of road after pipe laying at earliest
- Arrangement of shoring, if required
- Instruction to material supplier/ contractor to arrange pollution under control (PUC) certificate for material carrying vehicles, equipments and machinery – Timely Renewal of PUC
- In case of purchase of stone aggregates consent to establish and operate of stone crusher should be collected from supplier
- No objection certificate from pollution control board for use of DG set(5 KVA and above capacity)
- Regular maintenance of noise producing machinery
- Arrangement of enclosure for noise producing equipment like generator, concrete mixture
- Implementation of traffic stop/diversion measures including use of safety tape/ barricade/ caution board at working sites with proper diversion sign
- Proper drainage of waste water/ rain water from working sites
- Arrangement of common medicine and First Aid box at camp site, site office and working area
- At all working sites there should be a display board which shows location and contact phone number of PIU/PMDCSC office and grievance redress cell and respective officers for registering public complain. Keep Grievance Redress register at PIU office for recording and addressing public complain.
- Display of all emergency contact number at STP and other construction site
- Awareness program on HIV/AIDS
- Maintain chance find protocol for archeological objects
- No use of child labour below 14 yrs age
- Carry out monitoring work base line & during construction (air, water, noise) as per schedule EMP
- Regular public consultation at all sensitive receptor within project influence area

Annex 2

Karnataka Integrated Urban Water Management Investment Program (KIUWMIP)

Environment, Health and Safety – Orientation -Training

Venue: Davangere, PIU & PMDCSC office

Date: 28.10.2017

Sr. No.	Name	Organization / Designation	Contact No./ E mail	Signature
1.	PRAVEEN KOTA	Project Manager Haritha, Veolia India (P) Ltd	9880540713 praveen.kota@veolia.com	
2.	ANANDHARAJ.C	Safety officer BYADGI - SME	9148976809	
3	THARMADURAI [illegible]	[illegible] Exe Engineer	9448013202	
04	MOHAN KUMAR T.B	Safety officer [SEPC] Harihara	98022 34842	
05	D. DINESH	Jr. Safety Engg (SEPC) Harihara	8760857553	
06	Manjunath Budagatti	PIU A.E	9880174404 mbudagatti@gmail.com	
7	Vasudeva Rao	Veolia	9611196292 vasudeva-rao@veolia.com	
8	Leishal Shenoy.	Inkw Consult	9886774544 [illegible]	

Ardhendu Mitra 28/10/17
Environment Spl
PMDCSC

Appendix 15

GRM – GRC Notification

ಕರ್ನಾಟಕ ನಗರ ಮೂಲಸೌಕರ್ಯ ಅಭಿವೃದ್ಧಿ
ಮತ್ತು ಹಣಕಾಸು ನಿಗಮ ನಿಯಮಿತ
ಸೇಲಂಬಾಯಿಸ್ ಕಟ್ಟಡ (ಸಿಲ್ವರ್ ಜುಬಿಲಿ ಬ್ಲಾಕ್),
ಎರಡನೆ ಮಹಡಿ, ಯುನಿಟಿ ಬಿಲ್ಡಿಂಗ್ ಆನೆಕ್ಸ್, 3ರಿ ಅಡ್ಡರಸ್ತೆ,
ಮಿಷನ್ ರಸ್ತೆ, ಬೆಂಗಳೂರು - 560 027.
ದೂರವಾಣಿ : 080 - 22232021, 22232134, ಫ್ಯಾಕ್ಸ್ : 22232157

Karnataka Urban Infrastructure Development & Finance Corpn. Ltd.,
Regd. Office : Silver Jubilee Block, 2nd Floor, Unity Building Annexe, 3rd Cross, Mission Road, Bangalore - 560 027.
Phone : 080 - 22232021, 22232134, Fax : 22232157
E-mail : info@kuidfc.com website : www.kuidfc.com

KUIDFC/KIUWMIP/DLIC/2014-15/228

Date: 7th August 2015

OFFICIAL MEMORANDUM

Sub: ADB Assisted KIUWMIP-Jalasiri implementation of Resettlement and Rehabilitation Plans (RRP).

****

Under Karnataka Integrated Urban Water Management Investment Programme (KIUWMIP) land was purchased for implementation of various components under the programme. A Resettlement and Rehabilitation Plan for Affected Families (AFs) and Programme Affected Persons (PAPs) is prepared for land acquired under the programme and the compensation payable to them is determined as per the guide lines of ADB.

A project specific Grievance Redressal Mechanism (GRM) is to be established to receive and, evaluate concerns, complaints and grievances of the Affected Persons (APs). To provide time bound and transparent mechanism to resolve social and environmental concerns and ensure proper implementation and monitoring of the grievances, there is a need to designate Rehabilitation and Resettlement Officer and to constitute a Grievance Redressal Committee. Hence the following order:

ORDER

Rehabilitation and Resettlement Officer: The Special Land Acquisition Officer/the Assistant Commissioner of the concerned sub division "shall be the Rehabilitation and Resettlement Officer". He will be responsible for implementation of the Resettlement plans. He is authorised to release all compensation to the beneficiaries (based on land acquisition Awards and other assistance/ benefits decided by GRC based on approved Resettlement plans).

Grievance Redressal Committee: The committee shall consist of the following members:

The Special Land Acquisition Officer/ Assistant Commissioner of the concerned subdivision	Chairman
The Deputy Project Director KUIWMIP Davanagere	Member Secretary
The Commissioner / Chief Officer of the ULB	Member
Most affected Beneficiary	Member
One Vulnerable Beneficiary. (if none of the Beneficiaries are classified as vulnerable any other beneficiary shall be the member.)	Member
SDO of RPMU- KIUWMIP Davanagere	Member

ಕೆ.ಯು.ಐ.ಡಿ.ಎಫ್.ಸಿ. KUIDFC

ANNEXURE

Guidelines for implementation of resettlement and rehabilitation Plan.

- A project specific redressal mechanism will be established to receive, evaluate and facilitate concerns, complaints and grievances of the Displaced Persons (DPs) in relation to project's social and environmental performances. The main objective of the Grievance Redressal Mechanism (GRM) will be to provide time bound action and a transparent mechanism to resolve social and environmental concerns.
- The Deputy Project Director KIUWMIP Davanagere will convene the periodic meeting of the Grievance Redressal Committee (GRC) and will shoulder the responsibility of keeping records of grievances/complaints in details with help from Resettlement NGO. Other members such as community based organizations (CBO) representatives, ward council representatives, displaced persons representative will be selected by the respective Commissioners of the ULB to represent in the GRC. NGO will also deploy one person who will be responsible for coordinating with all GRC members and DPs for grievance redressal.
- Grievance redressal committee (GRC) should ensure that the list of affected persons mentioned in the resettlement plan tally with the list of persons mentioned in the award passed by the Assistant Commissioner (AC)/ Special land acquisition officer (SLAO).
- The committee should finalize the subsistence allowance and other assistance/benefits payable to the affected persons based on the approved resettlement plans and ensure delivery of project affected persons (PAP) entitlements and benefits.
- All payments made to the beneficiaries and other expenses for implementation of the Resettlement plan should be through "Account Payee" cheques only. Proper documentation and acknowledgement for receipt be maintained to facilitate Audit.
- Grievance if any, may be submitted by project affected persons (PAP) to the Chairman of the GRC.
- The Grievance Redressal Committee will redress the issues at the local level in a consultative manner.
- The date and time of the GRC meeting should be communicated to the PAPs by the implementing NGO or Regional Program management Unit (RPMU) Davanagere office, a week in advance.
- Proceedings of the GRC meeting should be documented and copy should be sent to task Manager KIUWMIP-KUIDFC Bengaluru.
- The GRC will determine the merit of each grievance and attempt to resolve the same within a month from date of lodging the complaint, failing which the grievance shall be addressed to the Deputy Commissioner.
- The Deputy Commissioner shall hear the appeals against the decision of the GRC. The decision of the Deputy Commissioner is final and cannot be contested in any other forum except in court of Law.
- All costs incurred in resolving the complaints will be borne by the concerned urban local Body.

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The committee shall ensure implementation of R&R strictly in accordance with the guidelines attached as Annexure.

Appeals against the decision of the GRC are to be addressed to the Deputy Commissioner of the concerned District.

Internal Monitoring: Implementing NGO of the programme town shall be responsible for internal monitoring.

External Monitoring: The DPD KIUWMIP Davanagere shall be the external monitoring agency.

Managing Director
KUIDFC, Bengaluru.

Enclosures: Guidelines

To:
1) Executive Director -KUIDFC Bengaluru
2) The Deputy Commissioner, Davanagere & Haveri
3) The Special Land Acquisition Officer/Assistant Commissioner of the concerned subdivisions under Davanagere & Haveri districts
4) Commissioner/Chief Officer of the concerned ULBs
5) Deputy Project Director-KUIWMIP, RPMU Davanagere

Appendix 16

Sample filled Grievance Register

Davangere UGD

Grievance Redressal Register

Complaint Number	Date	Complaint through (phone/ letter/ site)	Name of complainer	Complaint details	Action taken by Contractor/ PMU/DSC	Date – case resolved (days required)	Remarks – further action if any
01.	19/12/17	PHONE-233800010	JAYKUMAR	ELECTRICAL CABLE DAMAGED AT KALIDA CIRCLE W-NO-36	ELECTRICAL CABLE DAMAGED Immediately Rectify the CABLE & found OK.	SAME DAY	Immediately Rectify the Cable

PREPARED BY-
AISHWARYA HSE
SAFETY OFFICER
19/12/2017

Davangere Bulk water supply

GRIEVANCE REDRESSAL REGISTER

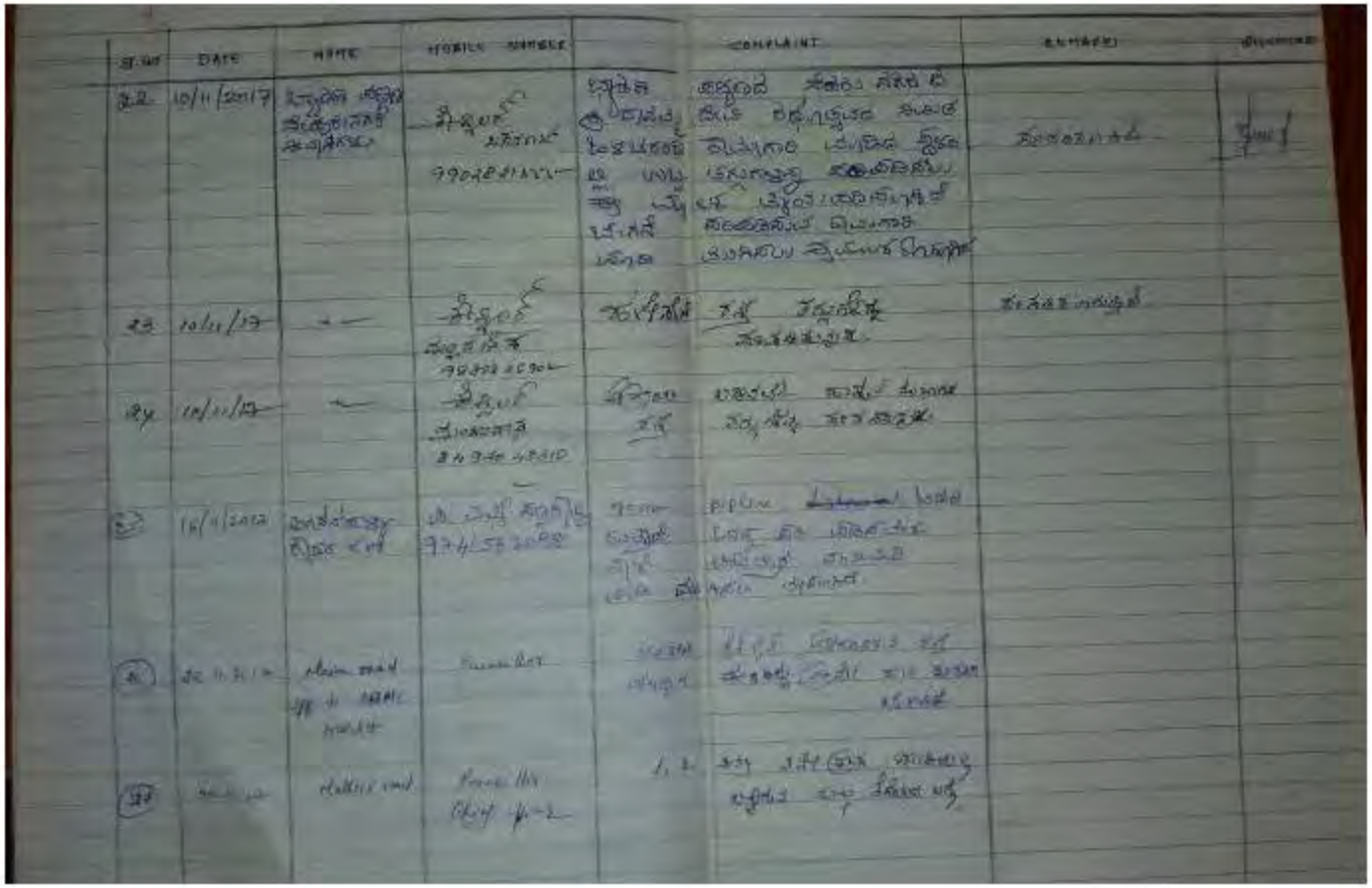
DEC - 2017

COMPLAINT NUMBER	DATE	COMPLAINT THROUGH (PHONE/ LETTER/ SITE)	NAME OF COMPLAINER	COMPLAINT DETAILS	ACTION TAKEN BY CONTRACTOR/ PIU/PMDCSC	DATE-CASE RESOLVED (DAYS REQUIRED)	REMARKS-FURTHER ACTION IF ANY
01	4-12-2017	SITE	ALI BASHA	SOIL OVER BURDEN	CONTRACTOR	Immediately Rectified.	
02	19-12-2017	SITE	RAMAPPA	SOIL REMOVAL	CONTRACTOR	Immediately Rectified.	
03	20-12-2017	SITE	SUNIL	WATER LINE	CONTRACTOR	Immediately Rectified.	
04	28-12-2017	SITE	PRAKASHARAPPA	WATER LINE	CONTRACTOR	Immediately Rectified.	

Harihar- UGD & STP

OCTOBER - 2017

GRIEVANCE REDRESSAL REGISTER

COMPLAINT NUMBER	DATE	COMPLAINT THROUGH (PHONE/ LETTER/ SITE)	NAME OF COMPLAINER	COMPLAINT DETAILS	ACTION TAKEN BY CONTRACTOR/ PIU/PMC/SC	DATE CASE RESOLVED (DAYS REQUIRED)	REMARKS FURTHER ACTION - ANY
01	3-10-2017	SITE	DEVARAJ	QUIVER BROKEN	CONTRACTOR	Rectified Immediately	
02.	15-10-2017	SITE	INGADESA	SOIL REMOVAL	CONTRACTOR	Rectified. Immediately	
03.	23-10-2017	LETTER.	NITHESH	WATER LINE	CONTRACTOR.	Rectified. Immediately	
04.	31-10-2017	PHONE	BASAVANNA	SOIL REMOVAL	CONTRACTOR	Rectified Immediately	

Byadgi – UGD & STP