



Environmental Monitoring Report

Project Number: 43253-025
August 2018

Period: January 2018 – June 2018

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

Submitted by

Karnataka Urban Infrastructure Development & Finance Corporation (KUIDFC)

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Asian Development Bank

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Subject: Semi Annual Environmental Monitoring report from Jan-18 to June-18 (L 3148)

logging pls
GM/SDG.

Dear Sir/Madam

Please find attached the Semi Annual Environmental Monitoring report from Jan-18 to June-18 for Tranche-1 of KIUWMIP for your kind perusal and comments

Regards,

Assistant Executive Engineer
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Subject: Semi Annual Environmental Monitoring report from Jan-18 to June-18

Dear Sir,

Please find the attached file reg-Semi Annual Environmental Monitoring report from Jan-18 to June-18.

With Regards,
AEE
KIUWMIP-RPMU
DAVANGERE



Semi Annual Environmental Monitoring Report

ADB Loan Number 3148-IND
Period Covered: January to June 2018

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

Tranche 1- 7th Report

August 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
Gol	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	Multitranches 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
PMDSC	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

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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 (PMDSCS) 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 **January to June 2018**. 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 10 sub projects in Tranche 1 (Project 1) under implementation. One water supply package awarded recently and preliminary work continued for that package. Physical construction has been started for three sub project at Byadgi (UGD +STP, bulk water supply and water supply distribution network), three sub project at Harihar (UGD+STP, bulk water supply and water supply distribution network) 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 30th June 2018)

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 30th June 2018	Package Completed as of 30th June 2018
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	<p>Cumulative Progress Up to June -2018</p> <p><u>Sewer Pipe Line</u></p> <p><u>uPVC Pipes</u></p> <ul style="list-style-type: none"> Laying of 47,820m of 160 mm pipe completed. Laying of 576 m of 200 mm pipe completed. <p><u>Total for Pipeline</u></p> <ul style="list-style-type: none"> Laying of 48,803m completed. <p><u>Manholes</u></p> <ul style="list-style-type: none"> Construction of 1,711 manholes Completed. <p><u>House service Connection</u></p> <ul style="list-style-type: none"> Total 15,140m of 110mm pipe line work completed. 1189 Chamber completed. <p><u>STP Works</u></p> <ul style="list-style-type: none"> Brickwork up to lintel level completed at staff quarters. East side and west side compound wall completed. Roof slab completed at workshop. 	56.7%	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 30 th June 2018	Package Completed as of 30 th June 2018
						<ul style="list-style-type: none"> • Roof slab completed toilet block. • Forming and 5th lift works under progress at SBR. • Construction of CCT completed except for parshall flume. • Inlet chamber 3rd lift shuttering works completed, 5th lift shuttering works completed at wet well. • PTU completed up to ground beam. • Centrifuge building up to ground beam completed. • Sludge sump excavation started. 		
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	<ul style="list-style-type: none"> • Pipeline laying completed for 8.22 km. • Hydraulic testing 6.2 km Completed. 	82.24%	No
Byadgi	01WS03	Construction of Distribution Network- Operator assisted in Byadgi	16.08.2017	120 months	14.08.2027	<ul style="list-style-type: none"> • Supply of 49.5 Km HDPE pipes has been received at site. 	10.3%	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 30 th June 2018	Package Completed as of 30 th June 2018
		including 8 Years O & M of 24 x 7- <ul style="list-style-type: none"> 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 				<ul style="list-style-type: none"> Laying of HDPE pipe line 11.78 km completed. Construction OHT 1LL Capacity PCC Completed. Rest undergoing 		
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, Further extended upto 31.07.2018)	Cumulative Progress Up to June-2018 <u>Sewer Pipe Line</u> <u>RCC-NP3 class</u> <ul style="list-style-type: none"> 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. 	81.5%	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 30 th June 2018	Package Completed as of 30 th June 2018
						<ul style="list-style-type: none"> 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. <p><u>uPVC pipes</u></p> <ul style="list-style-type: none"> Laying of 58,783 Completed. Laying of 3,247 m of 200 mm diameter pipes Completed. Laying of 2,290 m of 250 mm diameter pipes Completed. <p><u>Total for Pipeline</u></p> <ul style="list-style-type: none"> Total of 72,547 m of pipe line work completed. <p><u>Manholes</u></p> <ul style="list-style-type: none"> Construction of 2,463 manholes Completed. <p><u>DI Pumping Main (K-7 Class)</u></p> <ul style="list-style-type: none"> Laying of 1,436 m of 400 mm diameter pipes Completed. 		

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 30 th June 2018	Package Completed as of 30 th June 2018
						<ul style="list-style-type: none"> Laying of 750 m of 300mm diameter pipes Completed. Laying of 933 m of 200mm diameter pipes Completed. Laying of 965m of 150 mm diameter pipes Completed. Total 4,084 of Pumping main pipe line work completed <u>House service Connection</u> <ul style="list-style-type: none"> Total 59,438m of 110mm pipe line work completed. <u>Other Works</u> <u>WET WELLS</u> <ul style="list-style-type: none"> APMC, Amaravathi & Guttur Wet well Screen chamber Completed. 4Nos. Wet well C.C. Work Completed Amaravathi & APMC Pump House work completed. Guttur Pump house Brick work Completed Keshavanagar pump house Brick work under progress. <u>Sewage Treatment Plant</u> <u>Formation of Bunds</u>		

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 30 th June 2018	Package Completed as of 30 th June 2018
						<ul style="list-style-type: none"> 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 <p><u>Baffle Wall</u></p> <ul style="list-style-type: none"> Baffle wall Completed <p><u>Foot Bridge</u></p> <ul style="list-style-type: none"> Foot Bridge Slab – 8 Completed. <p><u>Pre Treatment Unit</u></p> <ul style="list-style-type: none"> Inlet Structure work under Progress. <p><u>Control Panel room</u></p> <ul style="list-style-type: none"> Panel room completed. HT line raising 98% completed. 		
Harihar	01HRA02	Improvement of water supply system (bulk) in Harihara City. Package <ul style="list-style-type: none"> Dismantling of existing WTP. Raw water transmission pipeline for 4.3 km of 	18.05.2017	18 months	17.11.2018	<ul style="list-style-type: none"> Pipeline laying completed for 9.87km. OHT at Amaravathi – conical bottom reinforcement under progress. OHT at Jijamath Above GL RCC Shaft completed up to 13.20 mtr. Further steel 	58.14%	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 30 th June 2018	Package Completed as of 30 th June 2018
		400mm diameter. <ul style="list-style-type: none"> Construction of new 20 MLD capacity Water treatment plant. Clear water transmission pipeline for 11.51 km ranging from 450mm diameter to 200mm diameter. Construction of two OHTs of 15 LL capacity and 10LL capacity. 				fabarication and Shuttering work under progress and ready to concrete work. <ul style="list-style-type: none"> Aerator, Raw Water Channel and Flash Mixture RCC work completed Back wash water tank- RC shaft completed up to bottom dome and conical wall Tube settler raft concrete completed further steel fabrication and shuttering work for side wall under progress Filter house Raft concrete completed Side wall 2nd lift completed with bed second raft filter bed 2nd lift with Gullet wall concrete completed. Jack well foot bridge ramp slab under progress. 		
Harihar	01WS04	Construction of Distribution Network- Operator assisted	01.09.2017	123 months	01.12.2027	<ul style="list-style-type: none"> Laying of pipeline 29.55 km completed. 	22.08%	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 30 th June 2018	Package Completed as of 30 th June 2018
		in Harihar including 8 Years O & M of 24 x 7 Harihara Water Supply <ul style="list-style-type: none"> • Distribution pipeline of 178 km ranging from 63mm diameter to 400mm diameter. • Providing 14,000 number of House service connections. 				<ul style="list-style-type: none"> • Supply of 55 Km HDPE pipes has been received at site • Supply of 110 numbers Various valves has been received at site 		
Davangere	01DVG01	Expansion of sewerage system (District 1 & 3) for Davangere -203.46 km sewers, 7581 nos. manholes	09.01.2015	36 months	08.01.2018 Extended upto 31.10.2018	Cumulative Progress Up to June -2018 <u>RCC-NP3 pipes</u> <ul style="list-style-type: none"> • Laying of 1,135m for 1200 mm diameter completed. • Laying of 1,831 m for 600 mm diameter completed. • Laying of 616m for 500 mm diameter completed. • Laying of 1,135m for 450 mm diameter completed. 	88.11%	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 30 th June 2018	Package Completed as of 30 th June 2018
						<ul style="list-style-type: none"> Laying of 1,216 m for 400 mm diameter completed. Laying of 4,385m for 350 mm diameter completed. Laying of 6,471m for 300 mm diameter Completed. Laying of 1,508 m for 250 mm diameter Completed. Laying of 939 m for 200mm diameter Completed. <p><u>GSW Pipes</u></p> <ul style="list-style-type: none"> Laying of 110 m laying of 250 mm pipe completed. Laying of 42,140 laying of 200 mm GSW pipe completed. Laying of 9,692 m laying of 150 mm pipe completed. <p><u>uPVC Pipes</u></p> <ul style="list-style-type: none"> Laying of 281 m laying of 200 mm pipe completed. Laying of 14 m laying of 250 mm pipe completed. <p><u>DWC Pipes</u></p>		

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 30 th June 2018	Package Completed as of 30 th June 2018
						<ul style="list-style-type: none"> Laying of 68,417 m laying of 200 mm pipe completed. Laying of 1076m laying of 250 mm pipe completed. <p><u>Total for pipeline</u></p> <ul style="list-style-type: none"> Total of 1,41,096 m of pipe line completed. <p><u>Manholes</u></p> <ul style="list-style-type: none"> Installation of 4,913No of manholes completed. <p><u>House service Connection</u></p> <ul style="list-style-type: none"> Laying of 78,884 m of House service connection of 110mm diameter completed. 6,825 Chamber completed. <p><u>Other works</u></p> <ul style="list-style-type: none"> Construction drawings issued for 162.5 Km including Trunk main as per new Condition survey to the Contractor. 		
Davangere	01DVG01A	Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP	28.09.2015	24 months	27.09.2017 (Extended – upto 30.04.2018, Further extended	<p><u>5 MLD STP SBR TYPE</u></p> <ul style="list-style-type: none"> Pump House- Finishing works under progress 	98.04%	20 MLD STP at completion stage

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 30 th June 2018	Package Completed as of 30 th June 2018
		& DBO for 5 MLD SBR STP			upto 31.08.2018)	<ul style="list-style-type: none"> 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. Compound Wall- Finishing and painting work 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 30 th June 2018	Package Completed as of 30 th June 2018
						<ul style="list-style-type: none"> Box Culvert- Finishing work under progress. Road works- Finishing works under progress. <u>20 MLD STP SBR TYPE</u> <ul style="list-style-type: none"> 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. 		
Davangere	01WS01	Design, Build and Operate (i) Improvement of Bulk Water Supply for 24x7 Water supply to	01.08.2017	30 months	30.01.2020	<ul style="list-style-type: none"> Supply of 13.49 km DI pipes has been received at site. Pipeline laying completed for 7.76 km. 	25.2%	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 30 th June 2018	Package Completed as of 30 th June 2018
		<p>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.</p> <ul style="list-style-type: none"> • 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 treatment plant. • Pure water pumping main from New WTP to break pressure tank 				<ul style="list-style-type: none"> • Clear Water Sump PCC completed. • Flocculator Earth Work under progress. • Filter House Earth work completed 		

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 30 th June 2018	Package Completed as of 30 th June 2018
		at Bathi Hillock.						
Davangere	01WS05	<p>Construction of Distribution Network- Operator assisted in Davanagere including 8 Years O & M of 24 x 7 Davanagere</p> <ul style="list-style-type: none"> Water Supply System 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) 	18.05.2018	140 months i.e 11 years 8 months	18.01.2030	<ul style="list-style-type: none"> Asset Survey for O.H.T.-31 Nos. W.T.P.- 3 Nos. and Intake Jackwell 1 No. completed for existing condition assessment. Geotechnical Investigations 5 Locations with 10 Bore holes completed. Work in Progress at 2 Locations Nittavalli Location- 2 Bore Holes Completed and 1 is in Progress. 	Nil (Preliminary work continued)	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 30th June 2018	Package Completed as of 30th June 2018
		<ul style="list-style-type: none"> • Providing 97,589 number of House service connections. • Rehabilitation of Head works (Intake & Jack well) & WTP-3 nos. , OHT-30 nos. 						

B. Compliance to Safeguard Loan Covenants

9. 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	<p>Procurement of Goods, Works and Consulting Services Conditions for Award of the Contract 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:</p> <p>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.</p>	<p>a) Obtained concurrence from ADB for Updated IEE sewerage and water supply packages of Davangere, Byadgi & Harihar. b) Incorporated EMP into the works contract of Davangere, Harihar and Byadgi sewerage and water supply works.</p>
Schedule 5 Item 10	<p>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.</p>	<p>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 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 submitted to ADB and report already disclosed in ADB website.</p>

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
		<p>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.</p> <p>All safeguard measures and requirements as prescribed in IEE/EIA and EMP being considered during implementation.</p> <p>Corrective or preventive action plans including personal protection will be reflected in Environment Monitoring Report and project implementation authority will be taken care.</p>
Schedule 5 Item 14	<p>Human and Financial Resources to Implement Safeguards Requirements</p> <p>The Borrower shall make available, or cause the EA to make available, all necessary budgetary and human resources to fully implement the EMP required.</p>	<p>Complied</p> <p>Budgetary provisions have been included in EMP of Tranche 1 sub projects.</p> <p>Environment Engineer (Asst. Executive Engineer) is placed in PMU</p> <p>Human resource (project consultant, i.e Environmental Specialist of PMDCSC) for implementation of EMPs is in place for regular compliance.</p>
Schedule 5 Item 15	<p>The Borrower shall ensure, or cause the EA to ensure, that all bidding documents and contracts for Works contain provisions that require contractors to: 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;</p>	<p>Under compliance</p> <p>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.</p> <p>In case of any change of scope, revised IEEs, EMPs will be prepared and corrective measures will be disclosed to contractor and same will be reflected in the "Environment Monitoring Report"</p> <p>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.</p> <p>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.</p>

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
	<p>(b) make available a budget for all such environmental measures;</p> <p>(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;</p> <p>(d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and</p> <p>(e) fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.</p>	<p>Updated IEE for Harihar UGD and STP accepted by ADB on 13th January 2017</p> <p>Updated IEE for Davangere and STP accepted by ADB on 16th December 2016. All updated reports already disclosed in ADB website.</p> <p>Further updation of IEE done for Davangere sewerage package, due to change in scope. That report send to ADB and report already disclosed in ADB website</p> <p>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.</p> <p>Corrective actions were taken on the contractor regarding 1) To ensure PPE at all ongoing sites, 2) arrangement of public safety, 3) disposal of waste and 4) camp site management</p> <p>(b) IEE indicates budgetary provisions for implementation of EMP</p> <p>Appendix 2 shows budgetary provision for safeguard implementation under different packages</p> <p>(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.</p> <p>Till date no unanticipated environmental risks or impacts reported</p> <p>(d) Haul roads will be marked properly (by avoiding residences and agricultural land) before commencement of transportation of materials.</p> <p>(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</p>
Schedule 5 Item 16	<p>Safeguards Monitoring and Reporting</p> <p>The Borrower shall cause the EA to do the following:</p>	Under compliance

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
	<p>(a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;</p> <p>(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</p> <p>(c) report any breach of compliance with the measures and requirements set forth in the EMPs, promptly after becoming aware of the breach.</p>	<p>(a) This is 7th semi-annual Safeguards Monitoring Report is prepared for the period January to June 2018,</p> <p>6th SEMR for the period June to December 2017 which submitted to ADB, that report not yet disclosed in ADB website. Report will be disclosed on KUIDFC website and respective ULB websites shortly after approval of updated report</p> <p>(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.</p> <p>(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.</p>
Schedule 5 Item 17	<p>Prohibited List of Investments</p> <p>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.</p>	<p>Complied</p> <p>Under Tranche -1, there is no violation of prohibited investment activities as per ADB SPS (2009) Appendix 5.</p> <p>Same will be followed in subsequent Tranches</p>
Schedule 5 Item 18	<p>Other Social Measures</p> <p>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.</p>	<p>Complied in document and during implementation</p> <p>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.</p> <p>In case of any breach of provision, necessary corrective measures as per contract clauses shall be taken.</p> <p>All activities including awareness program will be reflected in "Monitoring Report".</p>

C. Implementation Arrangement

10. 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.

11. 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 safeguards. 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.

12. 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.

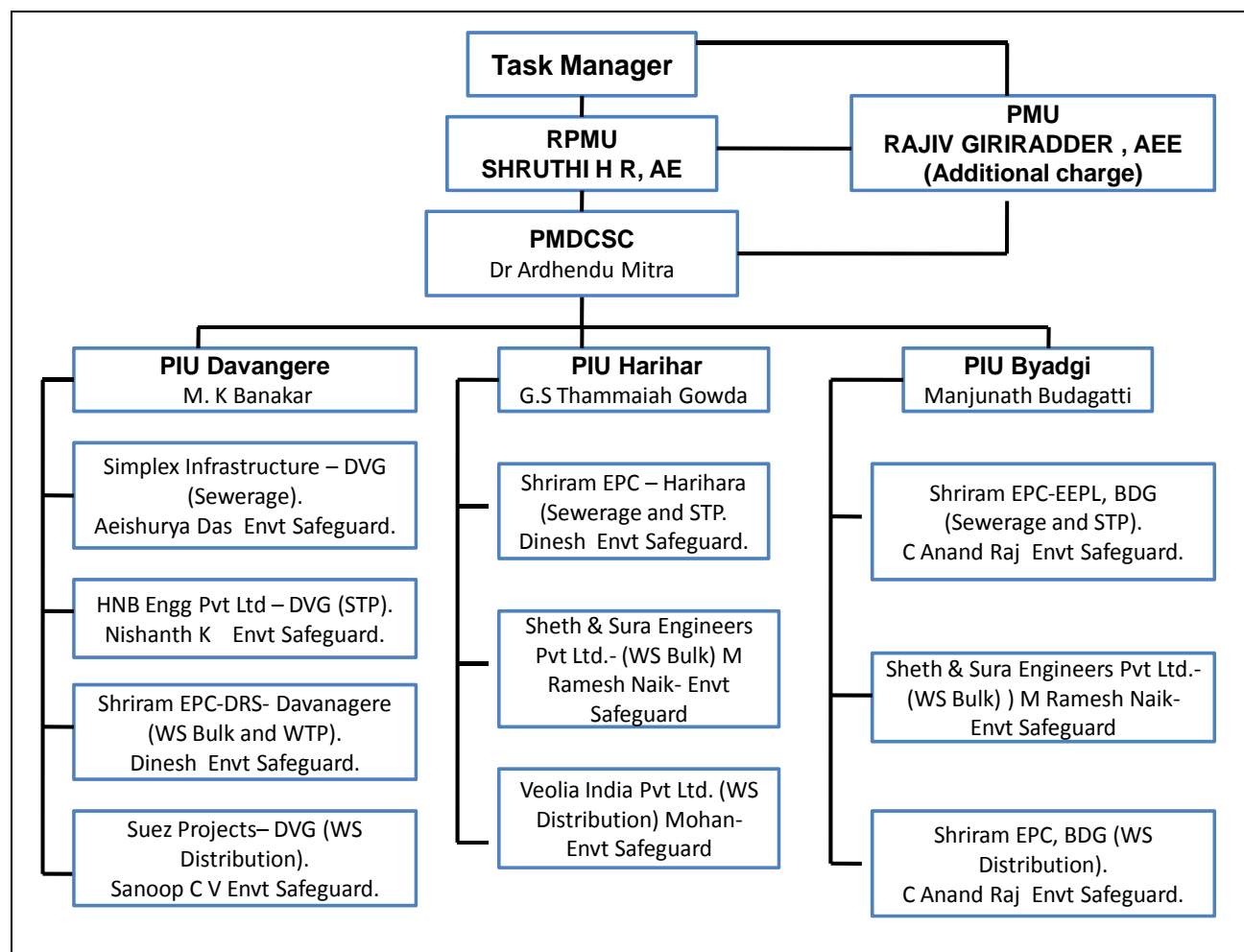
13. The contractor shall appoint one supervisor (environment & safety officer) who will be responsible on a day-to day basis for i) ensuring implementation of EMP ii) Coordinating the CS Engineer and environment specialists (all levels) iii) community liaison, consultation with interested/affected parties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

14. **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/Gol 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

15. **Figure 2** shows the implementation arrangement for environment safeguard. PMU includes a full-time Assistant Executive Engineer (Environment). As on 30th June 2018 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

16. **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. Rajiv Giriradder (Additional charge) Office Address Karnataka Urban Infrastructure Development & Finance Corporation Ltd Urban Infrastructure Bhavan Building, #22, 17 'F' Cross Binnamangala, 2 nd Stage, Old Madras Road Indiranagar, Bangalore – 560 038. Phone: 080-22232021,, 9886445936 Email: rajiv@kuidfc.com

Designation	Name and Contact Details
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: piukiuwmp.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: piukiuwmp.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: aeekiuwmpbyadgi@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
PMDSC, 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, 3 rd Main, 1 st cross S. Nijjalingsuppa 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, 1 st 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.G. Ramesh Naik Office Address: Veerasha 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, 4 th cross, 4 th ward, Nehru Nagara, Byadgi, Haveri Dist, Karnataka- 581106 Phone: 9148976809 Email: anandtkvl@gmail.com
Sheth and Sura Engineers Pvt Ltd Contractor – Package 01BDG02 Environment Safety Engineer	Name: Mr.G. Ramesh Naik Office Address: Veerasha 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, 4 th cross, 4 th ward, Nehru Nagara, Byadgi, Haveri Dist, Karnataka- 581106 Phone: 9148976809 Email: anandtkvl@gmail.com

Designation	Name and Contact Details
Suez Projects Pvt Ltd- Contractor – Package 01WS05	Name: Mr. Sanoop C V Office Address: Besides Income tax office, Hadadi Road, Davanagere, Davanagere District, Karnataka- 577004 Phone: 7022034963 Email: cv@se-india.com

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

III. ENVIRONMENTAL PROCEDURE REVIEW

A. Environmental Legal Requirement

18. **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)

19. **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 (30th June 2018)

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 14.06.2016 and which valid upto 14.06.2017 Further renewal has been done on 14.06.2017 and which valid	Labour licence enclosed as Appendix 4

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
				upto 14.06.2018. <i>Latest renewal done on 14.06.2018 and which valid upto 14.06.2019</i>	
			Labour compensation insurance	Received. <i>Insurance renewed on 26.06.2018 and Validity upto 25.06.2019</i>	Labour compensation insurance policy attached as Appendix 5
Harihar	01HRA02	Improvement of water supply system (bulk) in Harihara City	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)	Labour license available. <i>Valid upto 17.11.2018</i>	Labour licence enclosed as Appendix 4
			Labour compensation insurance	Received. And validity upto 28.05.2018 <i>Renewal has been done on 29.05.2018 and which valid upto 28.05.2019</i>	Labour compensation insurance policy attached as Appendix 5
			Forest (Conservation) Act 1980 and Indian Forest (Amendment) bill 2017 Tree felling and forest land acquisition	2 nos. Tree felling (at WTP site) permission obtained from forest dept	NOC from forest dept attached as Appendix 6 Tree felling done before start of construction

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
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 enclosed as Appendix 4 Labour compensation insurance policy attached as Appendix 5
			Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70)	Labour license available. <i>Valid upto 01.09..2018</i>	
			Labour compensation insurance	Received and valid upto 23.11.2018	
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
			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 24.2. 2015 and is valid for one year. Renewal done on 23.2.2016 which valid	Labour licence enclosed as Appendix 4

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
				upto 23.2.2017 Further renewal has been done on 23.02.2017 and which valid upto 23.02.2018. <i>Latest renewal done on 23.02.2018 and which valid upto 23.02.2019</i>	
			Labour compensation insurance	Received. Renewed and validity upto 24.10.2018	Labour compensation insurance policy attached as Appendix 5
Davangere	01DVG01A	Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP at Shiva nagar, Davangere Taluk & 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 25 th February 2015 and validity period of CFE – 5 years i.e 25 th 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. Consent received on 24.06.2016, which valid for 2 years	Compliance against CEF condition is attached in Appendix 3 CFO needs to be applied by City Municipal Corporation before start of operation Batching plant is already closed.

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)	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 <i>Renewal already done which valid upto 01.07.2019</i>	Labour licence enclosed as Appendix 4
			Labour compensation insurance	Received and valid upto 25.06.2018 Insurance renewed on 26.06.2018 and Validity	Labour compensation insurance policy attached as Appendix 5

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
				upto 25.06.2019	
			Forest (Conservation) Act 1980 and Indian Forest (Amendment) bill 2017 Tree felling and forest land acquisition	2 nos. Tree felling (at Jack well site)) permission obtained from forest dept	NOC from forest dept attached as Appendix 6 Trees not yet felled
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 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) Labour licence under The Contract Labour (Regulation & Abolition) Act, 1970. (Central Act w.e.f. 07-09-70) Labour compensation insurance	CFE for 5 MLD STP obtained from KSPCB on 12.07.2016 and valid for 5 years During implementation of project compliance with Air Act, Noise Rules and Water Act will be required For acoustic type of Generator – not required Approved on 16.04.2017 and was valid for one year, i.e 16.04.2018. <i>Further renewal has been done and which valid upto 16.04.2019</i> Received and which effective from December 2016 for one year New insurance in name of JV has been done	Compliance against CEF condition is attached in Appendix 3 Labour licence enclosed as Appendix 4 Labour compensation insurance policy attached as Appendix 5

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
				on 24.03.2016 and which valid upto 23.12.2018 And separate new policy in JV name done and which valid upto 19.07.2018 Separate Insurance renewed on 26.06.2018 for lead contractor and Validity upto 25.06.2019	
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 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)	Less than 10 labourers are involved in the package. Not required.	
			Labour compensation insurance	Received and which valid upto 28.05.2018. Renewal has been done, which valid upto 28.09.2018	Labour compensation insurance policy attached as Appendix 5
Byadgi	01WS03	Construction of Distribution Network-Operator assisted in Byadgi	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
		including 8 Years O & M of 24 x 7	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)	Received. Valid upto 10.02.2019	Labour licence enclosed as Appendix 4
			Labour compensation insurance	Received. Validity upto 25.06.2019	Labour compensation insurance policy attached as Appendix 5

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

IV. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

20. Civil works (mainly pipe laying and construction work) continued for all the UGD and STP and water supply awarded packages. Site-specific EMP was prepared by the contractor and submitted to PMDCSC for approval. Sample site specific EMPs are attached as **Appendix 7**.

21. Monitoring will be started shortly for newly awarded water supply package at Davangere. At present preliminary work continued for that package.

22. Daily, weekly and monthly monitoring is continued for all the running packages. The overall compliance status for all the 9 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 15**.

23. 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)
- Temporary placement of caution tape is noted for all the packages. Improvement/ complete use of caution tape at working areas required

- Disposal of waste from the drain for Davangere UGD package
- Improvement of housekeeping and labour staying arrangement is required for Davangere UGD camp and store yard
- Complete arrangement of Davangere bulk water supply package labour camp with proper safety arrangement
- Improvement is required for Harihar STP site – Toilet facility and housekeeping
- Improvement is required for Harihar bulk water supply WTP site labour camp – particularly housekeeping
- Improvement is required for storage of material for Harihar bulk water supply WTP construction site
- Improvement of housekeeping and labour camp is required for Byadgi STP site under Byadgi UGD- STP package
- Improvement of material storage is required for Byadgi STP site under Byadgi UGD- STP package

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	<ul style="list-style-type: none"> 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	PMDSC'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)	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	PMDSC'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)	<ul style="list-style-type: none"> 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	PMDSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Partially Complied. Labour camp construction – done Stockpile areas selected within camp area and construction locations. Toilet facility provided properly. Housekeeping needs to be improved at labour camp. Complete arrangement of bed is necessary. No hot mix plant is required
Emergencies such as leaks,	<ul style="list-style-type: none"> Develop Emergency Response Plan for all 	<ul style="list-style-type: none"> Emergency response plan 	-	PIU / Design Consultant	Observation and document checking	PMDSC's Resident Engineer	Before start of physical work &	Not required now

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
overflows, bursts	emergencies such as leaks, overflows, burst			t		& Environment Specialist / PIU	Continuous	
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	PMDSC'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. At few location excess earth disposed in nearby drain
Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> List of approved quarry sites and sources of materials Bid document to include requirement for verification of suitability of sources and permit for 	Quarries and material source areas	Contractor	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDSC'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
and water logging, and water pollution	<ul style="list-style-type: none"> Submit a monthly statement of construction material procured indicating material type, source and quantity. 	<ul style="list-style-type: none"> additional quarry sites if necessary Construction Contractor documentation 						
Dust and emissions from construction activity may degrade the air quality	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Location of stockpiles Complaints from sensitive receptors Monitoring data Heavy equipment and machinery with air pollution control Water sprinkling arrangement Cover materials 	All construction on site, stockpile areas	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>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.</p> <p>Location map of sampling stations attached as Appendix 8</p> <p>PUC certificates for vehicles are obtained</p>
High noisy construction activities may have adverse	<ul style="list-style-type: none"> Plan activities in consultation with the PIU so that activities with the greatest potential to generate noise are 	<ul style="list-style-type: none"> Complaints from sensitive receptors Use of silencers 	All construction on sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection 	PMDSC's Environment Specialist and	Do	Complied mostly. Prior information is not always provided to locals. Instruction

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
impacts on sensitive receptors and structures	<p>conducted during periods of the day which will result in least disturbance;</p> <ul style="list-style-type: none"> 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 	<p>in noise-producing equipment and sound barriers</p> <ul style="list-style-type: none"> Monitoring data 			n of sites	Construction supervisor		<p>has been given to contractor for more active awareness</p> <p>No such noise producing machinery mobilized at site</p> <p>Noise quality monitoring is done during the report period</p> <p>Complete result certificates available in PIU and PMDCSC office as back up paper.</p> <p>Location map of sampling stations attached as Appendix 8</p>
Impacts on surface drainage and water quality due to contaminated runoff from construction areas in monsoon	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	<p>Complied.</p> <p>Stockpiling avoided as far as possible</p> <p>Fuel and lubricants stored separately, but proper arrangement of oil tray is necessary</p> <p>Wastes dispose as per advice of engineer, but process should be faster. No water bodies nearby the present construction sites</p>
Impacts on	• Prepare and implement	• Waste	All	Contractor	• Checking	PMDCSC's	Do	Complied mostly

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
landscape and aesthetics due to construction activity	<p>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.</p> <ul style="list-style-type: none"> 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 	<p>Management List</p> <ul style="list-style-type: none"> Complaints from sensitive receptors PMU/PIU/PMD CSC to report in writing that the necessary environmental restoration work has been done 	construction sites		<ul style="list-style-type: none"> of records Visual inspection of sites 	Environment Specialist and Construction supervisor		Excess earth removed at earliest. Instruction has been given for immediate action. Spoil management plan will be applied as per EMP (sample spoil management plan Attached as Appendix 9)
Damage to protected structures due to construction along the areas near to protected monuments	<ul style="list-style-type: none"> 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 PMD CSC should include the above instruction in the contract document. 	Chance find protocol	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMD CSC's Environment Specialist and Construction supervisor	Do	<p>Not yet arise. Action will be taken as per requirement</p> <p>Instruction has been given to all workers on chance find</p>
Hindrance to traffic movement/ accessibility	<ul style="list-style-type: none"> Plan pipeline (sewer lines) work in consultation with the traffic police 	<ul style="list-style-type: none"> Traffic Management Strategy 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual 	PMD CSC's Environment Specialist	Do	Complied. Partially Construction works are completing in

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<ul style="list-style-type: none"> 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 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; 	<ul style="list-style-type: none"> Complaints from sensitive receptors Number of signage's placed at subproject location. 			inspection of sites	and Construction supervisor		<p>least possible time.</p> <p>Sign board and Traffic diversion boards are placed partially. No contact no. available in the board</p> <p>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 10. Site photo attached as Appendix 1</p>
Impact on sensitive receptors- Schools, hospitals and religious places	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Materials storage strategy Complaints from sensitive receptors Construction strategy near sensitive areas 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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
	<ul style="list-style-type: none"> 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. 							
Socio-Economic: Livelihood Impediment of access to houses and business	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Safety arrangement Complaint from sensitive receptors Sign board/ caution board availability with required information 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied partially Advance information is not always given to the shopkeepers. Instruction has been given for more awareness</p> <p>Sign board provided at most of the working locations. Emergency contact no. and time of construction not included in the board. Instruction has been given for improvement. Site photo in Appendix 1</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	pedestrians to inform 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	PMDSC's Environment Specialist and Construction supervisor	Do	Complied. Mostly local people are employed where ever possible.
Workers occupational health & safety	<p>68 Develop and implement site-specific Health and Safety (H&S) Plan which will include measures such as:</p> <p>(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</p>	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>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</p> <p>Internal training document sample copy attached in Appendix 11</p> <p>Insurance arranged for the labourer. Attached as Appendix 5</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	(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 high visibility vests when working in or walking through heavy equipment operating areas; (xiv) Ensure moving equipment is out fitted with audible back- up							Tie up with local hospital done and medical check up of workers – done Appendix 12 shows sample copy.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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	<ul style="list-style-type: none"> 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 CC 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 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors 	All construction sites	Contractor	Visual inspection	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Partially compiled Caution tape provided at excavation areas, but partial use of caution tape noted. Improvement required</p> <p>Instruction is given to contractor for improvement Road signage noted Transportation of materials done as per convenient time without disturbing locals</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>caused by equipment malfunction or premature failure</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Complaints from sensitive Receptors Water and sanitation facilities for employees Housekeeping – regular disposal of solid waste 	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction supervisor	Do	Partially Complied. Camps established with toilet (gender specific), drinking water facility, first aid box available. Improvement of housekeeping and worker rooms 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	<ul style="list-style-type: none"> 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	PMDSC's Resident Engineer PIU	-	Not applicable as per nature of work
Disturbance/ damage to existing utilities on the sites	<ul style="list-style-type: none"> List of affected utilities if any and operators Bid document to include requirement for a 	<ul style="list-style-type: none"> List of affected utilities if any and operators Bid document to 	-	PIU / Design Consultant	Observation and document checking	PMDSC's Resident Engineer &	-	Work at isolated area. Not applicable as

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
(Telephone lines, electric poles and wires, water lines within proposed project sites)	contingency plan for service interruptions <ul style="list-style-type: none"> In case of disruption of water supply, alternative supply through tankers shall be provided 	include requirement for a contingency plan for service interruptions				Environment Specialist/ PIU		per nature of work
Construction work camps, stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	<ul style="list-style-type: none"> 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	PMDSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Complied. Labour camp closed, 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	<ul style="list-style-type: none"> Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst 	<ul style="list-style-type: none"> Emergency response plan 	-	PIU / Design Consultant	Observation and document checking	PMDSC'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	<ul style="list-style-type: none"> 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. 	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
	<p>And declared no development zone around the STP sites.</p> <ul style="list-style-type: none"> 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.	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDSC's Environment Specialist and Construction supervisor	Daily by construction supervisor Weekly / bi weekly by Constructio	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
Occupational hazards which can occur to workers and public during work.	safety arrangement etc.						n Manager. Verification 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDSC'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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Location of stockpiles Complaints from sensitive receptors Monitoring data Heavy 	All construction site, stockpile areas	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	Complied. Work almost completed. 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
	by spraying with water when necessary during dry weather; <ul style="list-style-type: none"> 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 	equipment and machinery with air pollution control <ul style="list-style-type: none"> 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 8 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Complaints from sensitive receptors Use of silencers in noise-producing equipment and sound barriers Monitoring data 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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 8 .

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, <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	PMDSC's Environment Specialist and Construction supervisor	Do	Complied. Work almost completed. 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Waste Management List Complaints from sensitive receptors PMU/PIU/PMDSC to report in writing that the necessary environmental restoration work has been done 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	Under Compliance Excess earth utilized within the plant. Plantation and landscaping has been done. Since work at completion stage disposal/utilization of construction waste is required. Appendix 1 photo

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>excess excavated soils as far as possible</p> <ul style="list-style-type: none"> Coordinate with PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas 							illustration
Damage to protected structures due to construction along the areas near to protected monuments	<ul style="list-style-type: none"> 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 PMDSC should include the above instruction in the contract document. 	Chance find protocol	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Not yet arise. Action will be taken as per requirement</p> <p>Instruction has been given to all workers on chance find Work almost completed</p>
Hindrance to traffic movement/ accessibility	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors Number of signage's placed at subproject location. 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	Isolated location no needs for traffic management at site. 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
	<p>compaction- this will allow immediate road restoration and therefore will minimised is turbance to the traffic movement;</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Materials storage strategy Complaints from sensitive receptors Construction strategy near sensitive areas 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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
	<p>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</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Safety arrangement Complaint from sensitive receptors Sign board/ caution board availability with required information 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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	PMDSC's Environment Specialist and Construction supervisor	Do	Complied. Mostly local people are employed where ever possible.
Workers occupational health & safety	<p>68 Develop and implement site-specific Health and Safety (H&S) Plan which will include measures such as:</p> <p>(a) excluding public from the site;</p> <p>(b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gum boot, gloves, nose mask and earplugs;</p> <p>(c) H&S Training for all site personnel;</p> <p>(d) documented procedures to be followed for all site activities; and</p> <p>(e) documentation of work-related accidents;</p> <p>(ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU;</p> <p>(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</p>	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Checking of records • Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied. Health and safety measures are followed.</p> <p>PPEs are given to the workers. They used mostly First aid box available</p> <p>Tool box training for workers arranged and recorded. (Appendix 11, sample copy)</p> <p>Drinking water available at working sites</p> <p>Site photo attached in Appendix 1.</p> <p>Labour compensation insurance attached as Appendix 5.</p> <p>Tie up with ESI done and medical check up of workers – continued as per required (under ESI</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>always understand highly technical terms;</p> <p>(iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours;</p> <p>(v) Provide specific guidance for suitable PPE for every on-site work assignment</p> <p>(vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site;</p> <p>(vii) Provide medical insurance coverage for workers;</p> <p>(viii) Secure all installations from unauthorized intrusion and accident risks;</p> <p>(ix) Provide supplies of potable drinking water at working sites;</p> <p>(x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and</p> <p>(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;</p> <p>(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;</p>							<p>scheme)</p> <p>Appendix 12 shows sample copy.</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>(xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas;</p> <p>(xiv) Ensure moving equipment is out fitted with audible back- up alarms;</p> <p>(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</p> <p>(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.</p>							
Community Health & safety	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Traffic Management Strategy • Complaints from sensitive receptors 	All construction sites	Contractor	Visual inspection	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Complied Project site at isolated location.</p> <p>Construction work almost completed. Transportation of materials also completed. Site photo attached in Appendix 1.</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>areas on route cards/maps; identify buildings at risk prior to start of excavation work and take necessary precautions for safe conduct of work</p> <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Complaints from sensitive Receptors • Water and sanitation facilities for employees • Housekeeping – regular disposal of solid waste 	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction supervisor	Do	Complied. Labour camp 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	<ul style="list-style-type: none"> 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	PMDSC'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)	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	PMDSC'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)	<ul style="list-style-type: none"> 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	PMDSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Partially complied. Labour camp construction undergoing. Toilet facility under development stage at WTP site. Work just started No hot mix plant is required
Emergencies such as leaks, overflows, bursts	<ul style="list-style-type: none"> Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst 	<ul style="list-style-type: none"> Emergency response plan 	-	PIU / Design Consultant	Observation and document checking	PMDSC'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	PMDSC'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 started. Excess soil after back filling will be reused to fill trenches if any or shifted from the sites. Excess earth needs to be remove urgently from pipe laying site. .
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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDSC'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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Location of stockpiles Complaints from sensitive receptors Monitoring data Heavy equipment and machinery with air pollution control Water sprinkling arrangement Cover materials 	All construction on site, stockpile areas	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>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. During construction 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 8</p> <p>PUC certificates obtained</p>
High noisy construction activities may have adverse impacts on sensitive receptors and structures	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Complaints from sensitive receptors Use of silencers in noise-producing equipment and sound barriers Monitoring data 	All construction on sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Work just stated will be complied. Prior information needs to be provided to locals. Instruction has been given to contractor for active awareness</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>AM to 6 PM) for all the works located within the town;.</p> <ul style="list-style-type: none"> 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 							<p>No such noise producing machinery mobilized at site During construction Noise quality monitoring is done during the report period</p> <p>Complete result certificates available in PIU and PMDCSC office as back up paper.</p> <p>Location map of sampling stations attached as Appendix 8</p>
Impacts on surface drainage and water quality due to contaminated runoff from construction areas in monsoon	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	PMDSC's Environment Specialist and Construction supervisor	Do	<p>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.</p>
Impacts on landscape and aesthetics due to construction	<ul style="list-style-type: none"> Prepare and implement Waste Management Plan—it should present how the surplus waste generated will 	<ul style="list-style-type: none"> Waste Management List Complaints 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspectio 	PMDSC's Environment Specialist and	Do	<p>Work just started. Excess earth needs to be removed at earliest. Spoil</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
activity	temporarily stocked at the site, transported and disposed properly. The Waste Management Plan will be part of the Construction Management Plan. <ul style="list-style-type: none"> 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 	from sensitive receptors <ul style="list-style-type: none"> PMU/PIU/PMD CSC to report in writing that the necessary environmental restoration work has been done 			n of sites	Construction supervisor		management plan will be applied as per EMP (Sample spoil management plan Attached as Appendix 9)
Damage to protected structures due to construction along the areas near to protected monuments	<ul style="list-style-type: none"> 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 PMD CSC should include the above instruction in the contract document. 	Chance find protocol	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMD CSC'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	<ul style="list-style-type: none"> Plan pipeline (sewer lines) work in consultation with the traffic police Plan work such that trench excavation, pipe laying, and refilling including compacting, 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMD CSC's Environment Specialist and Construction supervisor	Do	Under compliance. Construction works are to be completed in least possible time. Work just started.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>at a stretch is completed in a minimum possible time;</p> <ul style="list-style-type: none"> Provide for immediate consolidation of back filling material to desired compaction- this will allow immediate road restoration and therefore will minimised 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 one line; In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions; 	<ul style="list-style-type: none"> Number of signage's placed at subproject location. 						<p>Sign board and Traffic diversion boards arranged.</p> <p>Caution tape needs to be placed properly at excavated area</p> <p>Traffic Management plan developed and to be apply soon</p>
Impact on sensitive receptors- Schools, hospitals and religious places	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Materials storage strategy Complaints from sensitive receptors Construction strategy near sensitive areas 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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
	<p>the work;</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Safety arrangement Complaint from sensitive receptors Sign board/ caution board availability with required information 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Instruction has been given for awareness to locals regarding work schedule in advance</p> <p>Sign and caution boards need to be arranged at all working places.</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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	<p>68 Develop and implement site-specific Health and Safety (H&S) Plan which will include measures such as:</p> <p>(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</p>	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Checking of records • Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>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 11, sample copy)</p> <p>Insurance arranged for the labourer. Attached as Appendix 5</p> <p>Tie up with local hospital done and medical check up of workers – done Appendix 12 shows sample copy.</p>

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

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 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.							
Community Health & safety	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 improvement is required. 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
	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Complaints from sensitive Receptors Water and sanitation facilities for employees Housekeeping – regular disposal of solid waste 	All construction sites	Contractor	Site observation	PMDSC's Resident Engineer and Construction supervisor	Do	Construction of camp undergoing

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	<ul style="list-style-type: none"> 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	PMDSC's Resident Engineer / PIU	Continuous	Complied as and when required
Disturbance/ damage to existing utilities on the sites (Telephone lines, electric poles and wires,	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> List of affected utilities if any and operators Bid document to include requirement for a contingency plan 	-	PIU / Design Consultant	Observation and document checking	PMDSC'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
water lines 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)	<ul style="list-style-type: none"> 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	PMDSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Partially Complied. Labour camp almost closed. Presently labourers 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	<ul style="list-style-type: none"> Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst 	<ul style="list-style-type: none"> Emergency response plan 	-	PIU / Design Consultant	Observation and document checking	PMDSC'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	<ul style="list-style-type: none"> 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 	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
	<p>development zone around the STP sites.</p> <ul style="list-style-type: none"> Design the layout plan of the facility such that potential odour generating units – inlet and primary treatment units and 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	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDSC's Environment Specialist and Construction supervisor	Daily by construction supervisor Weekly / bi weekly by Constructio	Complied. Mostly. Excess excavated soil after backfilling is reused to fill trenches if any or shifted from the sites. Disposal as per

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
waste etc. Occupational hazards which can occur to workers and public during work.	safety arrangement etc.						n Manager. Verification by Environment Specialist of PMDCSC and Asst. Executive Engineer (Environment) KIUWMIP-PMU On monthly basis	permission from PIU. Appendix 13 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 is 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDSC'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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Location of stockpiles Complaints from sensitive receptors Monitoring data Heavy equipment and 	All construction site, stockpile areas	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>when necessary during dry weather;</p> <ul style="list-style-type: none"> 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 	<p>machinery with air pollution control</p> <ul style="list-style-type: none"> Water sprinkling arrangement Cover materials 						<p>Water sprinkling is not done on continuation basis. Air quality monitoring has been done during the report period.</p> <p>Complete result certificates available in PIU and PMDCSC office as back up paper.</p> <p>Sampling locations are shown in Appendix 8. PUC certificates submitted</p>
High noisy construction activities may have adverse impacts on sensitive receptors and structures	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Complaints from sensitive receptors Use of silencers in noise-producing equipment and sound barriers Monitoring data 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied Construction work limited to day time only</p> <p>During construction noise monitoring done.</p> <p>Complete result certificates available in PIU and PMDCSC office as back up paper.</p> <p>Sampling locations are shown in Appendix 8</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	chiselling; <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	PMDSC'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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Waste Management List Complaints from sensitive receptors PMU/PIU/PMDC SC to report in writing that the necessary environmental restoration work has been done 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	Complied mostly Excess earth stockpiled and reused. Excess earth from pipe laying is also used in STP Spoil management plan will be applied as per EMP (sample Attached as Appendix 9)

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	beneficial uses of excess excavated soils or immediately dispose to designated areas							
Damage to protected structures due to construction along the areas near to protected monuments	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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; 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors Number of signages placed at subproject location. 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Complied mostly. Construction works are completing in least possible time.</p> <p>Pipe laying work almost completed</p> <p>Caution tape provided at closure site.</p> <p>Sample Traffic Management plan is attached as Appendix 10.</p> <p>Site photo attached as Appendix 1.</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<ul style="list-style-type: none"> 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; 							
Impact on sensitive receptors- Schools, hospitals and religious places	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Materials storage strategy Complaints from sensitive receptors Construction strategy near sensitive areas 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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
	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Safety arrangement Complaint from sensitive receptors Sign board/ caution board availability with required information 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMD CSC'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. Pipe laying work almost completed. Site photo in Appendix 1 .
Socio-Economic: Employment generation	Employ at least 50% of the labour force, or to the maximum extent, local persons if manpower is available	Employment record	All construction sites	Contractor	Checking of records	PMD CSC's Environment Specialist and	Do	Complied. Local people are mostly employed

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	Procure construction materials from local market.					Construction supervisor		
Workers occupational health & safety	<p>68 Develop and implement site-specific Health and Safety (H&S) Plan which will include measures such as:</p> <p>(a) excluding public from the site;</p> <p>(b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gumboot, gloves, nose mask and earplugs;</p> <p>(c) H&S Training for all site personnel;</p> <p>(d) Documented procedures to be followed for all site activities ; and</p> <p>(e) Documentation of work-related accidents;</p> <p>(ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU;</p> <p>(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;</p> <p>(iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours;</p> <p>(v) Provide specific guidance for suitable PPE for every on-site</p>	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied mostly. Health and safety measures are followed.</p> <p>PPEs are given to the workers. Used partially</p> <p>First aid box available</p> <p>Tool box training for workers arranged</p> <p>Drinking water available at working sites</p> <p>Site photo attached in Appendix 1.</p> <p>Internal training document sample copy attached in Appendix 11</p> <p>Insurance arranged for the labourer. Attached as Appendix 5</p> <p>Tie up letter with nearby health center in case of emergency arranged and medical checkup for workers done. Sample copy attached as Appendix 12</p>

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

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Traffic Management Strategy • Complaints from sensitive receptors 	All construction sites	Contractor	Visual inspection	PMDSC's Environment Specialist and Construction supervisor	Do	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
	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Complaints from sensitive Receptors Water and sanitation facilities for employees Housekeeping – regular disposal of solid waste 	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction supervisor	Do	Mostly complied. Labour camp at STP site with toilet and drinking water facility done.. But 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	<ul style="list-style-type: none"> 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	PMDSC's Resident Engineer / PIU	Continuous	Complied as and when required
Disturbance/ damage to existing utilities on the sites (Telephone	<ul style="list-style-type: none"> List of affected utilities if any and operators Bid document to include requirement for a 	<ul style="list-style-type: none"> List of affected utilities if any and operators Bid document to 	-	PIU / Design Consultant	Observation and document checking	PMDSC's Resident Engineer & Environment	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

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
lines, electric poles and wires, water lines within proposed project sites)	contingency plan for service interruptions <ul style="list-style-type: none"> In case of disruption of water supply, alternative supply, through tankers, shall be provided 	include requirement for a contingency plan for service interruptions				Specialist / PIU		time.
Construction work camps, stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	<ul style="list-style-type: none"> 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	PMDSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Complied. Labour camp construction – done at Reservoir construction site of Amaravathi and WTP. Housekeeping needs to be improved at WTP site Stockpile and storage areas selected nearby camp area and construction locations. No hot mix plant is required
Emergencies such as leaks, overflows, bursts	<ul style="list-style-type: none"> Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst 	<ul style="list-style-type: none"> Emergency response plan 	-	PIU / Design Consultant	Observation and document checking	PMDSC'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	PMDSC's Environment Specialist and Construction supervisor	Daily by construction supervisor Weekly / bi weekly by Construction Manager. Verification by Environment Specialist of PMDSC and Asst.	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
							Executive Engineer (Environment) KIUWMIP-PMU 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDSC'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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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. Improvement of storage of materials needed at WTP location Water sprinkling is not done on continuation basis. Air quality monitoring has been done during

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	sand and other loose material when transported by vehicles; <ul style="list-style-type: none"> • 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 							the report period. Complete result certificates available in PIU and PMDCSC office as back up paper. Sampling locations are shown in Appendix 8 . PUC certificates for vehicle and equipments submitted
High noisy construction activities may have adverse impacts on sensitive receptors and structures	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Complaints from sensitive receptors • Use of silencers in noise-producing equipment and sound barriers • Monitoring data 	All construction sites	Contractor	<ul style="list-style-type: none"> • Checking of records • Visual inspection of sites 	PMDSC'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 8

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	vehicle/s							
Impacts on surface drainage and water quality due to contaminated runoff from construction areas in monsoon	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 construct ion sites	Contractor	Site observation	PMD CSC'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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Waste Management List Complaints from sensitive receptors PMU/PIU/PMD CSC to report in writing that the necessary environmental restoration work has been done 	All construct ion sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMD CSC'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 9)
Damage to protected	<ul style="list-style-type: none"> All necessary and adequate care should be taken to 	Chance find protocol	All construct	Contractor	<ul style="list-style-type: none"> Checking of records 	PMD CSC's Environment	Do	Not yet arise. Action will be taken as

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
structures due to construction along the areas near to protected monuments	<p>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</p> <ul style="list-style-type: none"> PMDSC should include the above instruction in the contract document. 		ion sites		<ul style="list-style-type: none"> Visual inspection of sites 	Specialist and Construction supervisor		per requirement Instruction has been given to all workers on chance find
Hindrance to traffic movement/ accessibility	<ul style="list-style-type: none"> Plan pipeline (water supply 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 online; In unavoidable 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors Number of signages placed at subproject location. 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied mostly. Construction works are completing in least possible time.</p> <p>Road closure and diversion board placed. Contact no. needs to be provided</p> <p>Alternative routes provided in case of road closure</p> <p>Caution tape provided at closure site.</p> <p>Appendix 1 shows site photo</p> <p>Traffic Management Plan developed.</p> <p>Sample Traffic Management plan is</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions;							attached as Appendix 10
Impact on sensitive receptors- Schools, hospitals and religious places	<ul style="list-style-type: none"> 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 management, strictly at the sites. 	<ul style="list-style-type: none"> Materials storage strategy Complaints from sensitive receptors Construction strategy near sensitive areas 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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
Socio-Economic: Livelihood Impediment of access to houses and business	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Safety arrangement • Complaint from sensitive receptors • Sign board/ caution board availability with required information 	All construction sites	Contractor	<ul style="list-style-type: none"> • Checking of records • Visual inspection of sites 	PMD CSC's Environment Specialist and Construction supervisor	Do	Complied partially 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 at least 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	PMD CSC's Environment Specialist and Construction supervisor	Do	Complied. Local people are mostly employed
Workers occupational health & safety	68 Develop and implement site-specific Health and Safety (H&S) Plan	<ul style="list-style-type: none"> • Site-specific Health and Safety (H&S) Plan 	All construction sites	Contractor	<ul style="list-style-type: none"> • Checking of records • Visual inspection 	PMD CSC's Environment Specialist and	Do	Complied mostly. Health and safety measures are followed.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>which will include measures such as:</p> <p>(a) excluding public from the site;</p> <p>(b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gumboot, gloves, nose mask and earplugs;</p> <p>(c) H&S Training for all site personnel;</p> <p>(d) Documented procedures to be followed for all site activities ; and</p> <p>(e) Documentation of work-related accidents;</p> <p>(ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU;</p> <p>(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;</p> <p>(iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours;</p> <p>(v) Provide specific guidance for suitable PPE for every on-site work assignment</p> <p>(vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site;</p> <p>(vii) Provide medical insurance</p>	<ul style="list-style-type: none"> 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 			n of sites	Construction supervisor		<p>PPEs are given to the workers. Used partially</p> <p>First aid box available</p> <p>Tool box training for workers arranged</p> <p>Drinking water available at working sites</p> <p>Site photo attached in Appendix 1.</p> <p>Internal training document sample copy attached in Appendix 11.</p> <p>Insurance arranged for the labourer. Attached as Appendix 5</p> <p>Tie up letter with nearby health center in case of emergency attached as Appendix 12.</p> <p>Sample copy of Medical examination of workers attached as Appendix 12.</p>

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

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	<ul style="list-style-type: none"> • 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 Harihar 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 	<ul style="list-style-type: none"> • Traffic Management Strategy • Complaints from sensitive receptors 	All construction sites	Contractor	Visual inspection	PMDSC'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
	Health and Safety							
Temporary worker camps	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Complaints from sensitive Receptors Water and sanitation facilities for employees Housekeeping – regular disposal of solid waste 	All construction sites	Contractor	Site observation	PMD CSC's Environment Specialist and Construction supervisor	Do	<p>Complied partially. Labour camp construction – done at water reservoir and WTP site with toilet and drinking water facility. Improvement of housekeeping is required</p> <p>Stockpile and storage areas selected nearby camp area and construction locations. Improvement is required for storage of construction materials. No hot mix plant is required</p>

Table 12: Compliance to EMP of the Package- Water supply distribution network in Harihar Town – Package No. 01WS04

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	<ul style="list-style-type: none"> 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	PMD CSC's Resident Engineer / PIU	Continuous	Complied as and when required
Disturbance/ damage to existing utilities on the sites (Telephone)	<ul style="list-style-type: none"> List of affected utilities if any and operators Bid document to include requirement for a contingency plan for service 	<ul style="list-style-type: none"> List of affected utilities if any and operators Bid document to include 	-	PIU / Design Consultant	Observation and document checking	PMD CSC's Resident Engineer & Environment	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

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
lines, electric poles and wires, water lines within proposed project sites)	<ul style="list-style-type: none"> interruptions In case of disruption of water supply, alternative supply, through tankers, shall be provided 	requirement for a contingency plan for service interruptions				Specialist / PIU		time.
Construction work camps, stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	<ul style="list-style-type: none"> 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	PMDSC'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	<ul style="list-style-type: none"> Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst 	<ul style="list-style-type: none"> Emergency response plan 	-	PIU / Design Consultant	Observation and document checking	PMDSC'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	PMDSC's Environment Specialist and Construction supervisor	Daily by construction supervisor Weekly / bi weekly by Construction Manager. Verification by Environment Specialist of PMDSC and Asst. Executive Engineer	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
							(Environment) KIUWMIP-PMU 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDSC'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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>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.</p> <p>Air quality monitoring has been done during the report period.</p> <p>Complete result certificates available in PIU and PMDCSC</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<ul style="list-style-type: none"> 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 							<p>office as back up paper.</p> <p>Sampling locations are shown in Appendix 8.</p> <p>PUC certificates for vehicle and equipments submitted</p>
High noisy construction activities may have adverse impacts on sensitive receptors and structures	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Complaints from sensitive receptors Use of silencers in noise-producing equipment and sound barriers Monitoring data 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied Construction work limited to day time only</p> <p>During construction noise monitoring done.</p> <p>Complete result certificates available in PIU and PMDCSC office as back up paper.</p> <p>Sampling locations are shown in Appendix 8</p>
Impacts on surface	<ul style="list-style-type: none"> Avoid stock piling of earth specially during the 	<ul style="list-style-type: none"> Areas for stockpiles, 	All construction sites	Contractor	Site observation	PMDSC's Environment	Do	Complied. Stockpiling avoided as

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
drainage and water quality due to contaminated runoff from construction areas in monsoon	monsoon season unless covered by tarpaulins or plastic sheets <ul style="list-style-type: none"> 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 	storage of fuels and lubricants and waste materials <ul style="list-style-type: none"> Number of silt traps installed along drainages (in slope) leading to water bodies Utilization of spoils 	ion sites			Specialist and Construction supervisor		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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Waste Management List Complaints from sensitive receptors PMU/PIU/PMDC SC to report in writing that the necessary environmental restoration work has been done 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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 . Spoil management plan will be applied as per EMP (Sample attached as Appendix 9)
Damage to protected structures due to construction along the	<ul style="list-style-type: none"> All necessary and adequate care should be taken to minimize the impact on protected properties. If articles such as fabrics, 	Chance find protocol	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction	Do	Not yet arise. Action will be taken as per requirement Instruction has been given to all workers on

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
areas near to protected monuments	<p>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</p> <ul style="list-style-type: none"> PMDSC should include the above instruction in the contract document. 					supervisor		chance find
Hindrance to traffic movement/ accessibility	<ul style="list-style-type: none"> Plan pipeline (water 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 one line; In unavoidable circumstances of road closure, provide alternative routes, and ensure that 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors Number of signages placed at subproject location. 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied mostly. Construction works are completing in least possible time.</p> <p>Road closure and diversion board placed.</p> <p>Caution tape and caution board provided at construction site. But improvement is required</p> <p>Appendix 1 shows site photo Traffic Management Plan developed. Sample Traffic Management plan is attached as Appendix 10</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	public is informed about such traffic diversions;							
Impact on sensitive receptors- Schools, hospitals and religious places	<ul style="list-style-type: none"> 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 management, strictly at the sites. 	<ul style="list-style-type: none"> Materials storage strategy Complaints from sensitive receptors Construction strategy near sensitive areas 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	Not required now Schools, Hospitals and religious places are notified before the work.
Socio-Economic: Livelihood	<ul style="list-style-type: none"> Leave space for access between mounds of excavated soil 	<ul style="list-style-type: none"> Safety arrangement Complaint from 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual 	PMDSC's Environment Specialist	Do	Complied mostly Advance information is given to the

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Impediment of access to houses and business	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> sensitive receptors Sign board/caution board availability with required information 			inspection of sites	and Construction supervisor		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	PMDSC's Environment Specialist and Construction supervisor	Do	Complied. Local people are mostly employed
Workers occupational health & safety	68 Develop and implement site-specific Health and Safety(H&S) Plan which will include measures such as:	<ul style="list-style-type: none"> Site-specific Health and Safety (H&S) Plan Equipped first-aid stations; Medical 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	Complied mostly. Health and safety measures are followed. PPEs are given to the workers. Used partially

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>(a) excluding public from the site;</p> <p>(b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gumboot, gloves, nose mask and earplugs;</p> <p>(c) H&S Training for all site personnel;</p> <p>(d) Documented procedures to be followed for all site activities ; and</p> <p>(e) Documentation of work-related accidents;</p> <p>(ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU;</p> <p>(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;</p> <p>(iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours;</p> <p>(v) Provide specific guidance for suitable PPE for every on-site work assignment</p> <p>(vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site;</p> <p>(vii) Provide medical insurance coverage for workers;</p> <p>(viii) Secure all installations from unauthorized intrusion and</p>	<p>insurance coverage for workers</p> <ul style="list-style-type: none"> • 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 						<p>First aid box available</p> <p>Tool box training for workers arranged</p> <p>Drinking water available at working sites</p> <p>Site photo attached in Appendix 1.</p> <p>Internal training document sample copy attached in Appendix 11.</p> <p>Insurance arranged for the labourer. Attached as Appendix 5</p> <p>Tie up letter with nearby health center in case of emergency attached as Appendix 12.</p> <p>Medical examination of workers done. Sample attached as Appendix 12.</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>accident risks;</p> <p>(ix) Provide supplies of potable drinking water at working sites;</p> <p>(x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and</p> <p>(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;</p> <p>(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;</p> <p>(xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas;</p> <p>(xiv) Ensure moving equipment is out fitted with audible back- up alarms;</p> <p>(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;</p>							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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	<ul style="list-style-type: none"> • 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 Byadgi TMC 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 	<ul style="list-style-type: none"> • Traffic Management Strategy • Complaints from sensitive receptors 	All construct ion sites	Contractor	Visual inspection	PMD CSC's Environment Specialist and Construction supervisor	Do	Partially Complied. Caution tape provided at excavated areas, but improvement is required Transportation of materials done as per convenient time without disturbing locals
Temporary worker camps	<ul style="list-style-type: none"> • Establishment of temporary camps with drinking water, 	<ul style="list-style-type: none"> • Complaints from sensitive 	All construct	Contractor	Site observation	PMD CSC's Environment	Do	Complied. Rented house arranged

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	sanitary and solid waste management arrangement <ul style="list-style-type: none"> Train employees in the storage and handling of materials Remove all wreckage, rubbish, or temporary structures 	Receptors <ul style="list-style-type: none"> Water and sanitation facilities for employees Housekeeping – regular disposal of solid waste 	ion sites			Specialist and Construction supervisor		for labourer Stockpile and storage areas selected nearby construction locations. No hot mix plant is required

Table 13: 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	<ul style="list-style-type: none"> 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	PMDSC'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)	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	PMDSC'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)	<ul style="list-style-type: none"> 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 	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	PMDSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Partially complied Rented house arranged for workers At STP site toilet and drinking water facility available with small labour camp. Improvement of housekeeping, toilet facility and staying arrangement is required

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	drinking water facility • No disposal of waste in water							
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	<ul style="list-style-type: none"> • 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	The Treatment Plants should be	Review&	STP site	PIU / Design	Observation	PMU/ PIU/	Before start	Design under

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
and development of Treatment plans as per disposal standards set by CPCB (Pollution of surface water, ground water and land resources)	designed for following treated water disposal standards	Check the inclusion/provision in DPR, as appropriate		Consultant	and document checking	PMDSC's Resident Engineer and Environment Specialist	of physical work & as per requirement	finalization 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 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	PMDSC'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) KIUWMP-KUIDFC on monthly basis	Mostly 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 done from most of the working locations. Appendix 13 shows further instruction from project management authority for disposal of excess earth at low laying areas and utilization for road construction. Improvement is required for storage of materials at STP site. Excess earth from pipe

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
								laying will also be used in STP. Instruction has already been given.
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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDSC'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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>prior to leaving construction site</p> <ul style="list-style-type: none"> Ensure valid Pollution Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity 							<p>Sampling locations are shown in Appendix 8.</p> <p>PUC certificates for vehicle and equipments submitted</p>
High noisy construction activities may have adverse impacts on sensitive receptors and structures	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Complaints from sensitive receptors Use of silencers in noise-producing equipment and sound barriers Monitoring data 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied Construction work limited to day time only Prior information is provided to locals During construction noise level monitoring done during the report period.</p> <p>Complete result certificates available in PIU and PMDCSC office as back up paper.</p> <p>Sampling locations are shown in Appendix 8</p>
Impacts on surface drainage and water quality due to	<ul style="list-style-type: none"> Avoid stock piling of earth specially during the monsoon season unless covered by tarpaulins or plastic sheets 	<ul style="list-style-type: none"> Areas for stockpiles, storage of fuels and lubricants and waste 	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction	Do	<p>Mostly Complied.- disposal of waste Stockpiling avoided as far as possible Fuel and lubricants</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
contaminated runoff from construction areas in monsoon	<ul style="list-style-type: none"> 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 	materials <ul style="list-style-type: none"> Number of silt traps installed along drainages (in slope) leading to water bodies Utilization of spoils 				supervisor		stored properly No water bodies nearby the present construction sites
Impacts on landscape and aesthetics due to construction activity	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Waste Management List Complaints from sensitive receptors PMU/PIU/PMDC SC to report in writing that the necessary environmental restoration work has been done 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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 9)
Damage to protected structures due to construction along the areas near to protected monuments	<ul style="list-style-type: none"> 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 	Chance find protocol	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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
	<p>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</p> <ul style="list-style-type: none"> PMDSC should include the above instruction in the contract document. 							
Hindrance to traffic movement/ accessibility	<ul style="list-style-type: none"> 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 online; In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions; 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors Number of signages placed at subproject location. 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied. Construction works are completing in least possible time.</p> <p>Road closure board placed. Emergency contact no available.</p> <p>Alternative routes provided in case of road closure</p> <p>Caution tape provided partially at closure site. Improvement is required. Hard barricading needs to be provided at the UGD network site</p> <p>Sample Traffic Management plan is attached as Appendix 10. Appendix 1 shows site photographs.</p>
Impact on	<ul style="list-style-type: none"> No material should be 	<ul style="list-style-type: none"> Materials storage 	All	Contractor	<ul style="list-style-type: none"> Checking 	PMDSC's	Do	Not required now

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
sensitive receptors- Schools, hospitals and religious places	<p>stocked in this area; material shall be brought to the site as and when required</p> <ul style="list-style-type: none"> 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. 	<p>strategy</p> <ul style="list-style-type: none"> Complaints from sensitive receptors Construction strategy near sensitive areas 	construct ion sites		<ul style="list-style-type: none"> of records Visual inspection of sites 	Environment Specialist and Construction supervisor		Schools, Hospitals and religious places are notified before the work.
Socio-Economic: Livelihood Impediment of access to houses and	<ul style="list-style-type: none"> Leave space for access between mounds of excavated soil Provide wooden planks / foot bridges for pedestrians and metal sheets for 	<ul style="list-style-type: none"> Safety arrangement Complaint from sensitive receptors Sign board/ 	All construct ion sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
business	<p>vehicles to allow access across trenches to premises where required</p> <ul style="list-style-type: none"> 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. 	caution board availability with required information						construction not always informed in the board Site photo in Appendix 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	PMDCCSC's Environment Specialist and Construction supervisor	Do	Complied. Local people are mostly employed
Workers occupational health & safety	<p>68 Develop and implement site-specific Health and Safety(H&S) Plan which will include measures such as:</p> <p>(a) excluding public from the site; (b) ensuring all workers are</p>	<ul style="list-style-type: none"> Site-specific Health and Safety (H&S) Plan Equipped first-aid stations; Medical insurance coverage for workers 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCCSC's Environment Specialist and Construction supervisor	Do	<p>Complied. Mostly Health and safety measures are followed.</p> <p>PPEs are given to the workers. They using partially</p> <p>First aid box available</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>provided with and use Personal Protective Equipment like helmet, gumboot, gloves, nose mask and earplugs;</p> <p>(c) H&S Training for all site personnel;</p> <p>(d) Documented procedures to be followed for all site activities ; and</p> <p>(e) Documentation of work-related accidents;</p> <p>(ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU;</p> <p>(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;</p> <p>(iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours;</p> <p>(v) Provide specific guidance for suitable PPE for every on-site work assignment</p> <p>(vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site;</p> <p>(vii) Provide medical insurance coverage for workers;</p> <p>(viii) Secure all installations from unauthorized intrusion and accident risks;</p> <p>(ix) Provide supplies of potable drinking water at working sites;</p>	<ul style="list-style-type: none"> • 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 						<p>Tool box training for workers arranged</p> <p>Drinking water available at working sites</p> <p>Site photo attached in Appendix 1.</p> <p>Internal training document sample copy attached in Appendix 11</p> <p>Workman compensation insurance has been collected Attached as Appendix 5</p> <p>Tie up letter with nearby health center in case of emergency attached as Appendix 12</p> <p>Medical examination of workers done – shown in Appendix 12</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>(x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and</p> <p>(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;</p> <p>(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;</p> <p>(xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas;</p> <p>(xiv) Ensure moving equipment is out fitted with audible back- up alarms;</p> <p>(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</p> <p>(xvi) Disallow worker exposure to noise level greater than 85</p>							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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	<ul style="list-style-type: none"> 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 Byadgi TMC 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 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors 	All construction sites	Contractor	Visual inspection	PMD CSC'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	<ul style="list-style-type: none"> Establishment of temporary camps with drinking water, sanitary and solid waste management arrangement Train employees in the 	<ul style="list-style-type: none"> Complaints from sensitive Receptors Water and sanitation 	All construction sites	Contractor	Site observation	PMD CSC's Environment Specialist and Construction	Do	Rented house arranged for workers Improvement is required for labour camp at STP site

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	storage and handling of materials <ul style="list-style-type: none"> Remove all wreckage, rubbish, or temporary structures 	facilities for employees <ul style="list-style-type: none"> Housekeeping – regular disposal of solid waste 				supervisor		

Table 14: 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	<ul style="list-style-type: none"> 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	PMDSC'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)	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	PMDSC'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)	<ul style="list-style-type: none"> 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	PMDSC'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

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	<ul style="list-style-type: none"> Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst 	<ul style="list-style-type: none"> Emergency response plan 	-	PIU / Design Consultant	Observation and document checking	PMDSC'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	PMDSC's Environment Specialist and Construction supervisor	Daily by construction supervisor Weekly / bi weekly by Construction Manager. Verification by Environment Specialist of PMDSC and Asst. Executive Engineer (Environment) 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	Quarries and material source areas	Contractor	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDSC'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 logging, and water pollution	<ul style="list-style-type: none"> project purpose Submit a monthly statement of construction material procured indicating material type, source and quantity. 	<ul style="list-style-type: none"> sites if necessary Construction Contractor documentation 						
Dust and emissions from construction activity may degrade the air quality	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMD CSC's Environment Specialist and Construction supervisor	Do	<p>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.</p> <p>Complete result certificates available in PIU and PMDCSC office as back up paper.</p> <p>Sampling locations are shown in Appendix 8.</p> <p>PUC certificates for vehicle and equipments submitted</p>
High noisy construction activities may have adverse impacts on sensitive receptors and structures	<ul style="list-style-type: none"> 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; 	<ul style="list-style-type: none"> Complaints from sensitive receptors Use of silencers in noise-producing equipment and sound barriers 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMD CSC's Environment Specialist and Construction supervisor	Do	<p>Complied Construction work limited to day time only</p> <p>During construction noise monitoring done.</p> <p>Complete result</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Monitoring data 						<p>certificates available in PIU and PMDCSC office as back up paper.</p> <p>Sampling locations are shown in Appendix 8</p>
Impacts on surface drainage and water quality due to contaminated runoff from construction areas in monsoon	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied.</p> <p>Stockpiling avoided as far as possible</p> <p>Fuel and lubricants stored separately</p> <p>Wastes dispose as per advice of engineer</p> <p>No water bodies nearby the present construction sites</p>
Impacts on	<ul style="list-style-type: none"> Prepare and implement 	<ul style="list-style-type: none"> Waste 	All	Contractor	<ul style="list-style-type: none"> Checking 	PMDSC's	Do	Complied mostly

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
landscape and aesthetics due to construction activity	<p>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.</p> <ul style="list-style-type: none"> 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 	<p>Management List</p> <ul style="list-style-type: none"> Complaints from sensitive receptors PMU/PIU/PMDC SC to report in writing that the necessary environmental restoration work has been done 	construct ion sites		<ul style="list-style-type: none"> of records Visual inspectio n of sites 	Environment Specialist and Construction supervisor		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 9)
Damage to protected structures due to construction along the areas near to protected monuments	<ul style="list-style-type: none"> 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 PMD CSC should include the above instruction in the contract document. 	Chance find protocol	All construct ion sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspectio n of sites 	PMD CSC'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/	<ul style="list-style-type: none"> Plan pipeline (water lines) work in consultation with the traffic police 	<ul style="list-style-type: none"> Traffic Management Strategy 	All construct ion sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual 	PMD CSC's Environment Specialist	Do	Complied mostly. Construction works are completing in least

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
accessibility	<ul style="list-style-type: none"> 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 one line; In unavoidable circumstances of road closure, provide alternative routes, and ensure that public is informed about such traffic diversions; 	<ul style="list-style-type: none"> Complaints from sensitive receptors Number of signages placed at subproject location. 			inspection of sites	and Construction supervisor		<p>possible time.</p> <p>Road closure and diversion board placed.</p> <p>Caution tape and caution board provided at construction site. Flag man is posted.</p> <p>Appendix 1 shows site photo</p> <p>Traffic Management Plan developed.</p> <p>Sample Traffic Management plan is attached as Appendix 10</p>
Impact on sensitive receptors- Schools, hospitals and religious places	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Materials storage strategy Complaints from sensitive receptors Construction strategy near sensitive areas 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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
	<p>considering school timings; material should be in place before school starts;</p> <ul style="list-style-type: none"> 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. 							
Socio-Economic: Livelihood Impediment of access to houses and business	<ul style="list-style-type: none"> 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; 	<ul style="list-style-type: none"> Safety arrangement Complaint from sensitive receptors Sign board/ caution board availability with required information 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied mostly</p> <p>Advance information is given to the shopkeepers and locals</p> <p>Sign board provided. But caution and time of construction not always informed in the board</p> <p>Site photo in Appendix 1.</p> <p>Instruction has been given to the contractor for improvement</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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.							
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 construct ion sites	Contractor	Checking of records	PMD CSC's Environment Specialist and Construction supervisor	Do	Complied. Local people are mostly employed
Workers occupational health & safety	68 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;	<ul style="list-style-type: none"> • 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 	All construct ion sites	Contractor	<ul style="list-style-type: none"> • Checking of records • Visual inspectio n of sites 	PMD CSC'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 11 . Insurance arranged for the labourer. Attached

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>(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;</p> <p>(iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours;</p> <p>(v) Provide specific guidance for suitable PPE for every on-site work assignment</p> <p>(vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site;</p> <p>(vii) Provide medical insurance coverage for workers;</p> <p>(viii) Secure all installations from unauthorized intrusion and accident risks;</p> <p>(ix) Provide supplies of potable drinking water at working sites;</p> <p>(x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and</p> <p>(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;</p> <p>(xii) Provide visitor orientation if visitors to the site can gain access to areas where hazardous conditions or</p>	electrical devices and lines, service rooms						<p>as Appendix 5 Tie up letter with nearby health center in case of emergency attached as Appendix 12.</p> <p>Medical examination of workers done. Sample attached as Appendix 12.</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted;</p> <p>(xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas;</p> <p>(xiv) Ensure moving equipment is out fitted with audible back- up alarms;</p> <p>(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</p> <p>(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.</p>							
Community Health & safety	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors 	All construction sites	Contractor	Visual inspection	PMD CSC'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
	<ul style="list-style-type: none"> • Liaise with Byadgi TMC 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 							
Temporary worker camps	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Complaints from sensitive Receptors • Water and sanitation facilities for employees • Housekeeping – regular disposal of solid waste 	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied. Rented house arranged for labourer</p> <p>Stockpile and storage areas selected nearby construction locations. No hot mix plant is required</p>

Table 15: Compliance to EMP of the Package- Water supply distribution network in Byadgi Town – Package No. 01WS03

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	<ul style="list-style-type: none"> 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	PMD CSC'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)	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	PMD CSC'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)	<ul style="list-style-type: none"> 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	PMD CSC'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	<ul style="list-style-type: none"> Develop Emergency Response Plan for all emergencies such as leaks, overflows, burst 	<ul style="list-style-type: none"> Emergency response plan 	-	PIU / Design Consultant	Observation and document checking	PMD CSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Not required now
Construction								
Impacts due to excess	Prepare and submit a Construction Management Plan,	Document related to construction	Working locations	Contractor	Observation and document	PMD CSC's Environment	Daily by construction	Complied. Mostly. Excess excavated soil

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to workers and public during work.	every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	management format			checking	Specialist and Construction supervisor	supervisor Weekly / bi weekly by Construction Manager. Verification by Environment Specialist of PMDCSC and Asst. Executive Engineer (Environment) KIUWMIP-PMU On monthly basis	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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	Under Compliance. All materials procurement certified by implementation agency
Dust and emissions from construction activity may	<ul style="list-style-type: none"> Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other 	<ul style="list-style-type: none"> Location of stockpiles Complaints from sensitive 	All construction site, stockpile	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection 	PMDSC's Environment Specialist and	Do	Complied. Mostly Excavated earth is used to refill the trench.. Materials are brought to

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
degrade the air quality	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> receptors Monitoring data Heavy equipment and machinery with air pollution control Water sprinkling arrangement Cover materials 	areas		n of sites	Construction supervisor		<p>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.</p> <p>Complete result certificates available in PIU and PMDCSC office as back up paper.</p> <p>Sampling locations are shown in Appendix 8.</p> <p>PUC certificates for vehicle and equipments submitted</p>
High noisy construction activities may have adverse impacts on sensitive receptors and structures	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Complaints from sensitive receptors Use of silencers in noise-producing equipment and sound barriers Monitoring data 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Complied Construction work limited to day time only</p> <p>During construction noise monitoring done.</p> <p>Complete result certificates available in PIU and PMDCSC office as back up paper.</p> <p>Sampling locations are shown in Appendix 8</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>may come under risk due to the use of pneumatic drills; if there is risk,</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	PMDSC'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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Waste Management List Complaints from sensitive receptors PMU/PIU/PMDSC to report in writing that the necessary environmental restoration work 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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 . Spoil management plan will be applied as per EMP (Sample attached as Appendix 9)

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<ul style="list-style-type: none"> 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 	has been done						
Damage to protected structures due to construction along the areas near to protected monuments	<ul style="list-style-type: none"> 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 PMD CSC should include the above instruction in the contract document. 	Chance find protocol	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMD CSC'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	<ul style="list-style-type: none"> Plan pipeline (water 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 	<ul style="list-style-type: none"> Traffic Management Strategy Complaints from sensitive receptors Number of signages placed at subproject location. 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMD CSC's Environment Specialist and Construction supervisor	Do	<p>Complied mostly. Construction works are completing in least possible time.</p> <p>Road closure and diversion board placed.</p> <p>Caution tape and caution board provided at construction site. But improvement is required</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>immediate road restoration and therefore will minimise disturbance to the traffic movement;</p> <ul style="list-style-type: none"> 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; 							<p>Appendix 1 shows site photo</p> <p>Traffic Management Plan developed.</p> <p>Sample Traffic Management plan is attached as Appendix 10</p>
Impact on sensitive receptors- Schools, hospitals and religious places	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Materials storage strategy Complaints from sensitive receptors Construction strategy near sensitive areas 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC'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
	<p>construction work, mitigation measures in place, entry restrictions and dos and don'ts</p> <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Safety arrangement Complaint from sensitive receptors Sign board/ caution board availability with required information 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	<p>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</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Socio-Economic: Employment generation	Employ at least 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	<p>68 Develop and implement site-specific Health and Safety (H&S) Plan which will include measures such as:</p> <p>(a) excluding public from the site;</p> <p>(b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gumboot, gloves, nose mask and earplugs;</p> <p>(c) H&S Training for all site personnel;</p> <p>(d) Documented procedures to be followed for all site activities ; and</p> <p>(e) Documentation of work-related accidents;</p> <p>(ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU;</p> <p>(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;</p> <p>(iv) Strict compliance of H&S plan and requirements of wearing personal protective</p>	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Checking of records • Visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	<p>Complied mostly. Health and safety measures are followed.</p> <p>PPEs are given to the workers. Used partially</p> <p>First aid box available</p> <p>Tool box training for workers arranged</p> <p>Drinking water available at working sites</p> <p>Site photo attached in Appendix 1.</p> <p>Internal training document sample copy attached in Appendix 11.</p> <p>Insurance arranged for the labourer. Attached as Appendix 5</p> <p>Tie up letter with nearby health center in case of emergency attached as Appendix 12.</p> <p>Medical examination of workers done. Sample</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>equipment (PPE) during work hours;</p> <p>(v) Provide specific guidance for suitable PPE for every on-site work assignment</p> <p>(vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site;</p> <p>(vii) Provide medical insurance coverage for workers;</p> <p>(viii) Secure all installations from unauthorized intrusion and accident risks;</p> <p>(ix) Provide supplies of potable drinking water at working sites;</p> <p>(x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and</p> <p>(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;</p> <p>(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;</p> <p>(xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas;</p> <p>(xiv) Ensure moving equipment</p>							attached as Appendix 12.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>is out fitted with audible back- up alarms;</p> <p>(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</p> <p>(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.</p>							
Community Health & safety	<ul style="list-style-type: none"> • 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 Byadgi TMC 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 	<ul style="list-style-type: none"> • Traffic Management Strategy • Complaints from sensitive receptors 	All construct ion sites	Contractor	Visual inspection	PMDCCSC's Environment Specialist and Construction supervisor	Do	Partially Complied. Caution tape provided at excavated areas, but improvement is 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
	<p>parts to minimize potentially serious accidents caused by equipment malfunction or premature failure</p> <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Complaints from sensitive Receptors • Water and sanitation facilities for employees • Housekeeping – regular disposal of solid waste 	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction supervisor	Do	<p>Complied. Rented house arranged for labourer</p> <p>Stockpile and storage areas selected nearby construction locations. No hot mix plant is required</p>

V. ENVIRONMENTAL MONITORING AND EVALUATION

24. 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.

25. The ambient air quality monitoring results are presented in **Table 16**. 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 construction” SO₂ and NO₂ in compared to base line concentration level at Davangere underground drainage package working locations. Both PM₁₀ 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 decreasing trend of during construction SO₂, NO₂, PM₁₀ and PM_{2.5} in compared to base line level. That indicates maintaining of dust suppression at closure stage of the package. There is marginal variation of concentration of air quality parameters for Davangere bulk water supply project. All parameters are within the standard. Similarly there is marginal variation of SO₂, NO₂, PM₁₀ and PM_{2.5} concentration at Harihar UGD and STP location. At all the sites concentrations of all parameters are within the standard. At Harihar bulk water supply and water supply distribution package locations both base line and during construction PM₁₀ and PM_{2.5} are above the limit. There is no as such variation of SO₂ and NO₂ concentrations. Suppression of dust through arrangement of water sprinkling is necessary. At Byadgi project sites (UGD and STP) concentration of SO₂, NO₂, PM₁₀ and PM_{2.5} are within the standard. There is marginal variation of SO₂ and NO₂ concentration levels and concentration of PM₁₀ 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 PM₁₀ and PM_{2.5} are above the standard for Byadgi bulk water supply project work locations. Therefore application of mitigation measures like dust suppression is required at all the construction sites. There is marginal variation of SO₂, NO₂, PM₁₀ and PM_{2.5} concentrations at Byadgi water supply distribution package locations. All concentrations are within the standard. Complete test result certificates are available as back up papers with PMDCSC and PIU. **Appendix 8** 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 16: 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	2 nd 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
	During Construction*	Sarswathi nagar	26.06.2018	5.99	12.68	59.90	96.57
		K T J Nagar	26.06.2018	5.50	15.40	43.65	87.60

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
		Bhagat Singh Nagar		6.5	12.72	57.70	98.45
	Average During construction*			6.0	13.6	53.75	94.21
Davangere STP (Package No. 01DVG01A)	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
	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
	During Construction*	20 MLD STP	21.03.2018	4.43	9.35	33.68	71.46
		5 MLD STP	21.03.2018	4.37	9.20	28.29	65.61
	Average During construction*			4.4	9.27	30.98	68.53
Davangere Bulk water supply	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

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. 01WS01)		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
	During Construction*	Rajanahalli Jack well location	08.06.2018	4.21	9.38	45.46	85.35
		WTP site Bhathi	08.06.2018	4.97	9.83	46.32	85.42
		Vidhya nagar C Block pipe route Harihar	08.06.2018	4.92	9.81	47.13	82.43
	Average During construction*			4.7	9.67	46.30	84.4
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
	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

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			4.65	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
	During Construction*	STP site, Harihar	05.06.2018	4.81	9.91	49.42	88.02
		Benki Nagar, Harihar	05.06.2018	5.20	9.86	47.18	88.23
	Average During Construction*			5.0	9.88	48.3	88.12
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
	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
	During Construction*	Near Indian Oil Petrol pump, Kumar Pattan	12.06.2018	6.8	10.9	115.6	165.7
		WTP site, Harihar	12.06.2018	5.2	7.9	80.6	110.5
		OHT site near Gajanan Temple, Amaravathi colony	12.06.2018	6.3	10.1	46.7	82.6
	Average During Construction*			6.1	9.6	80.9	119.6

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
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
	During Construction*	Church Road	27.03.2018	4.86	9.97	92.81	146.74
		Harapanhalli Circle, near Bus stand	27.03.2018	5.83	10.35	142.38	265.33
		Near Vidhyanagar, Shivamogga main road	27.03.2018	5.76	10.22	123.62	230.19
		Guttur Road, Harihar	27.03.2018	5.38	10.03	97.18	164.35
	Average During Construction*			5.45	10.14	113.99	201.65
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
	During Construction*	Neheru Nagar	10.06.2018	4.16	9.41	42.25	88.25
		Kakul Road	10.06.2018	4.16	9.32	42.57	68.49
		Basaweswara Nagar	10.06.2018	4.15	9.16	45.32	74.52
		Shutter Road	10.06.2018	4.23	8.22	45.21	72.18
	Average During Construction*			4.17	9.03	43.83	75.86
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
	During Construction*	Near Kadaramandalgi Japping point	14.06.2018	9.2	11.3	55.6	89.6
		Near Asundi	14.06.2018	8.9	10.9	50.2	90.2
		Near Jinning mill, Ranebenur bypass	14.06.2018	8.6	10.6	110.2	162.1
	Average During Construction*			8.9	10.9	72.0	113.9
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

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*	Basaweswara Nagar	10.06.2018	4.16	9.41	44.25	88.25
		Nehru Nagar	10.06.2018	4.16	9.32	41.57	67.49
		Melagiri Plot	10.06.2018	4.15	9.16	46.32	73.52
	Average During Construction*			4.15	9.29	44.04	76.42
		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 January to June 2018, shaded gray in Table

Package no. 01DVG01= 3 samples on 26.06.2018

Package no. 01DVG01A= 2 samples on 21.03.2018

Package no. 01WS01= 3 samples on 08.06.2018

Package no. 01HRA01= 2 samples on 05.06.2018

Package no. 01HRA02= 3 samples on 12.06.2018

Package no. 01WS04= 4 samples on 27.03.2018

Package no. 01BDG01 = 4 samples on 10.06.2018

Package no. 01BDG02= 3 samples on 14.06.2018

Package no. 01WS03= 3 samples on 10.06.2018

26. The noise level monitoring has also been carried out for construction sites. **Table 17** shows noise level data. Complete test result certificates for 9 packages are available as back up papers with PMDCSC and PIU. **Appendix 8** shows monitoring locations. It is noted from the results that 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. At Davangere bulk water supply package locations noise level above the residential area standard but below the commercial or industrial area standard. At Harihar UGD and STP project areas noise level above the residential area standard but below the commercial area standard. Noise level is above the standard at Harihar bulk water supply and water supply distribution network package locations. During construction Noise level above the standard at Byadgi UGD and STP construction sites. Noise levels at Byadgi bulk water supply and water supply distribution network package working locations are also above the standard. 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.

27. The next environmental monitoring activities will be conducted within July to December 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 17: 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
	Average During construction			65.9	71.0	69.6	57.1	65.5	62.9	
	During Construction	2 nd 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

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)	
		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
		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	
	During Construction*	Sarswathi nagar	26.06.2018	53.5	64.0	61.6	-	-	-	R
		K T J Nagar	26.06.2018	71.8	74.5	73.9	-	-	-	R
		Bhagat Singh Nagar	26.06.2018	65.4	69.0	67.6	-	-	-	R
	Average During construction*			63.5	69.2	67.7				
Davangere STP (Package No. 01DVG01A)	Base line	20 MLD STP	08.12.2015	49.4	55.6	53.5	-	-	-	I
		5 MLD STP	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 STP	16.03.2016	62.1	69.8	68.6	-	-	-	I
	Average During construction			62.2	69.3	68.3	-	-	-	

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	20 MLD STP	21.06.2016	53.8	57.8	55.3	-	-	-	I
		5 MLD STP	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 STP	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 STP	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 STP	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				
	During Construction*	20 MLD STP	21.03.2018	49.2	51.9	50.9				I
		5 MLD STP	21.03.2018	47.4	49.8	48.4				I
	Average During construction*			48.3	50.8	49.6				
Davangere Bulk water supply (Package no. 01WS01)	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
		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	
	During Construction*	Rajanahalli Jack well location	08.06.2018	55.42	63.82	59.48	52.98	61.56	57.21	I
		WTP site Bhathi	08.06.2018	52.58	63.21	57.96	47.83	58.41	52.79	I
		Vidhya nagar C Block pipe route Harihar	08.06.2018	58.46	68.32	63.28	50.34	59.41	54.81	R
	Average During construction*			55.48	65.12	60.24	50.38	59.79	54.94	

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)	
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	
	During Construction	Keshava Nagar	31.12.2017	51.35	64.50	57.80	47.85	59.25	53.55	R
		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

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			55.08	66.85	61.19	51.18	61.63	56.35	
	During Construction*	STP site, Harihar	05.06.2018	52/34	65.78	58.25	48.21	59.87	54.32	I
		Benki Nagar, Harihar	05.06.2018	57.31	67.32	62.31	55.14	63.21	59.20	R
	Average During Construction*			57.31	66.55	60.28	51.67	61.54	56.76	
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				
	During Construction*	Near Indian Oil Petrol pump, Kumar Pattan	12.06.2018	69.2	73.6	71.4				R
		WTP site, Harihar	12.06.2018	70.2	74.0	72.1				I
		OHT site near Gajanan Temple, Amaravathi colony	12.06.2018	72.6	76.2	74.4				R
	Average During Construction*			70.7	74.6	72.6				
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,	02.12.2017	86.3	98.9	96.9				

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)	
		Shivamogga main road								
		Guttur Road, Harihar	02.12.2017	79.1	88.4	87.9				
	Average Base Line			82.8	93.0	91.0				
	During Construction*	Church Road	27.03.2018	69.1	74.0	71.6				R
		Harapanhalli Circle, near Bus stand	27.03.2018	80.2	91.2	89.7				R
		Near Vidhyanagar, Shivamogga main road	27.03.2018	70.1	74.6	73.3				R
		Guttur Road, Harihar	27.03.2018	70.0	74.0	72.0				R
	Average During Construction*			72.35	78.45	76.65				
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
		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				
		Neheru Nagar	31.12.2017	60.30	72.50	67.40	-	-	-	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	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				
	During Construction*	Neheru Nagar	10.06.2018	63.3	72.5	66.4				R
		Kakul Road	10.06.2018	69.3	74.5	71.4				R
		Basaweswara Nagar	10.06.2018	69.4	74.5	69.4				R
		Shutter Road	10.06.2018	61.3	71.5	67.5				R
	Average During Construction*			65.8	73.2	68.7				
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
	Average During Construction*			71.4	77.2	74.3				
	During Construction*	Near Kadaramandalgi Japping point	14.06.2018	71.1	75.2	73.1				R
		Near Asundi	14.06.2018	70.1	74.4	72.2				R
		Near Jinning mill, Ranebenur bypass	14.06.2018	71.9	77.6	74.7				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*			71.0	75.7	73.3				
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				
	During Construction*	Basaweswara Nagar	10.06.2018	61.3	72.50	65.40	-	-	-	R
		Nehru Nagar	10.06.2018	69.3	74.50	71.40	-	-	-	R
		Melagiri Plot	10.06.2018	69.40	74.50	67.40	-	-	-	R
	Average During Construction*			66.7	73.8	68.06				

* Monitoring conducted during report period January to June 2018, shaded gray in Table

Package no. 01DVG01= 3 samples on 26.06.2018

Package no. 01DVG01A= 2 samples on 21.03.2018

Package no. 01WS01= 3 samples on 08.06.2018

Package no. 01HRA01= 2 samples on 05.06.2018

Package no. 01HRA02= 3 samples on 12.06.2018

Package no. 01WS04= 4 samples on 27.03.2018

Package no. 01BDG01 = 4 samples on 10.06.2018

Package no. 01BDG02= 3 samples on 14.06.2018

Package no. 01WS03= 3 samples on 10.06.2018

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 @ 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)

28. For Davangere STP, Harihar 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.

29. A performance monitoring fact sheet has been prepared to facilitate tracking and quick reference on environmental monitoring of Project 1 subproject packages (Tables 18 and 19).

Table 18: 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	Done for 2 trees at WTP site after getting NOC from forest dept.	Not required	Not required as per present work	Not required as per present work	Not required as per present work	Obtained
3	Construction of Distribution Network-Operator assisted in Harihara including 8 Years O & M of 24 x 7 Harihara Water Supply- Package No. 01WS04	M/s Veolia India 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
4	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
5	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. Presently closed	Not required	Not functioning Work completed	Obtained for contractor's vehicle & equipment

	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 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	NOC received from forest dept. for felling of 2 trees. Trees not yet felled	Not required	Not required as per present work	Not required as per present work	Not required as per present work	Obtained
7	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
8	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
9	Construction of Distribution Network-Operator assisted in Byadgi including 8 Years O & M of 24 x 7- Package No. 01WS03	Shriram EPC	Yes	Not required till date	Not required	Not required till date	Not required	Not required	Obtained

Table 19: 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 Visual Quality	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	2	2	2
2	Improvement of water supply system (bulk) in Harihara City.- Package No. 01HRA02	M/s Sheth & Sura Engineers Pvt. Ltd.	Yes	Nominated	Complied	2	1	1	2	2	2	2	2	NA	1	1	2	2
3	Construction of Distribution Network-Operator assisted in Harihara including 8 Years O & M of 24 x 7 Harihara Water Supply- Package No. 01WS04	M/s Veolia India Pvt. Ltd.	Yes	Nominated	Complied	2	2	2	2	2	2	NA	2	NA	2	1	2	2
4	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
5	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

¹Nomination 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 Architecture	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)												
6	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	2	2	1	1	1	NA	2
7	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	1	1	2	2	2	NA	2	NA	2	1	2	2
8	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
9	Construction of Distribution Network-Operator assisted in Byadgi including 8 Years O & M of 24 x 7- Package No. 01WS03	Shriram EPC	Yes	Nominated	Complied	2	2	2	2	2	2	NA	2	NA	1	1	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+2+2= 20. Number of operated field=11, **Then- 20/11=1.82≈ 2, More than 1.5, Complied**

Package No. 01HRA02= Total score- 2+1+1+2+2+2+2+2+1+1+2+2= 20. Number of operated field=12, **Then- 20/12=1.67≈ 2, More than 1.5, Complied**

Package No. 01WS04 = Total score- 2+2+2+2+2+2+2+2+1+2+2= 21. Number of operated field=11, **Then- 21/11=1.9≈2, More than 1.5, Complied**

Package No. 01DVG01= Total score- 2+1+1+2+2+2+2+2+1+1+2+2= 18. 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+2+1+1+1+2= 20. Number of operated field= 12. **Then – 20/12= 1.67≈ 2, More than 1.5, Complied**

Package No. 01BDG01= Total score- $2+1+1+2+2+2+2+2+1+2+2=19$, Number of operated field= 11. **Then – $19/11=1.72 \approx 2$, More than 1.5, Complied**

Package No. 01BDG02= Total score- $2+2+2+2+2+2+2+2+2+2=22$ Number of operated field= 11. **Then – $22/11=2$, More than 1.5, Complied**

Package No. 01WS03= Total score- $2+2+2+2+2+2+2+1+1+2+2=20$ Number of operated field= 11. **Then – $20/11=1.82 \approx 2$, 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

30. 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 14**.

31. 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.

32. 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

33. The indicative schedule for consultations and disclosure is presented in **Table 20**.

Table 20: 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 construction locations all	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

34. 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 15**.

VII. GRIEVANCE REDRESS MECHANISM

35. 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.

36. 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.

37. 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**.

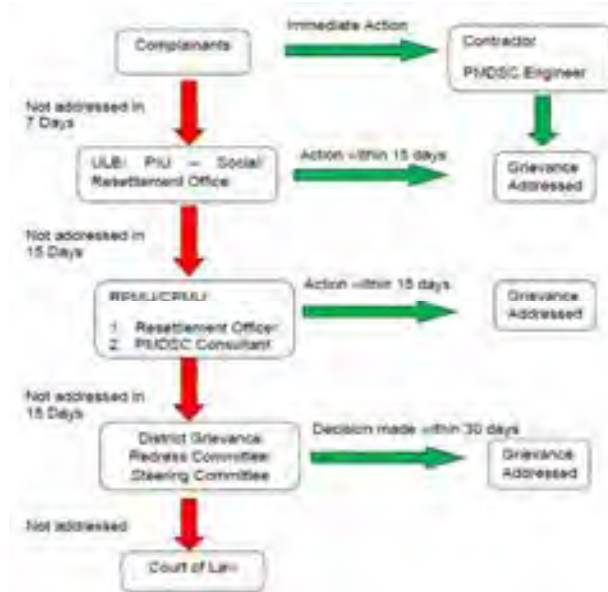


Figure 3: Grievance Redress Process

38. 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.

39. Project level GRC has been set up on 7th August 2015. Office memorandum is attached as **Appendix 16**.

40. Already complaint register and accident register open at contractor level. Sample copy of registration of grievances and addressing of grievances is attached as **Appendix 17**. 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

41. Based on environmental monitoring conducted during January to June 2018, 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)
- Temporary placement of caution tape is noted for all the packages. Improvement/ complete use of caution tape at working areas required
- Disposal of excess earth/ waste from the drain for Davangere UGD package
- Poor housekeeping and labour staying arrangement at Davangere UGD camp and store yard
- Incomplete arrangement of Davangere bulk water supply package labour camp with proper safety arrangement
- Harihar STP site – Toilet facility and housekeeping- poor condition
- Poor housekeeping and solid waste management facility for Harihar bulk water supply WTP site labour camp
- Improper storage of material for Harihar bulk water supply WTP construction site
- Poor housekeeping at labour camp of Byadgi STP site under Byadgi UGD package
- Improper material storage at Byadgi STP site under Byadgi UGD package

42. **Table 21** provides the recommended corrective action plan to address the non-compliances and partially compliances..

Table 21: 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	15 th August 2018	Information disclosure Public consultation
2	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,	Use of PPE should be at all times as per site condition and work type.	Contractor	Immediate and on regular basis with record	Availability and use of PPE

	Non-compliance Issues	Action Required	Responsible	Target Date	Indicator of Compliance
	hand gloves and safety belt (when working at height)				
3	Temporary placement of caution tape is noted for all the packages.	Improvement/ complete use of caution tape at working areas required	Contractor	Immediate	Site observation
4	Delay in disposal of excess earth/ waste from the drain for Davangere UGD package	Immediate disposal	Contractor	Immediate	Site observation
5	Poor housekeeping and labour staying arrangement at Davangere UGD camp and store yard	Immediate Improvement of housekeeping and labour staying arrangement at Davangere UGD camp and store yard	Contractor	15 th August 2018	Site observation
6	Incomplete arrangement of labour camp and improper safety arrangement at work site for Davangere bulk water supply package	Improvement of Davangere bulk water supply package labour camp and proper safety arrangement at work site	Contractor	15 th August 2018	Site observation
7	Harihar STP site – Toilet facility and housekeeping- poor condition	Improvement is required for Harihar STP site – Toilet facility and housekeeping	Contractor	Immediate	Site observation
8	Poor housekeeping and solid waste management facility for Harihar bulk water supply WTP site labour camp	Immediate improvement is required for Harihar bulk water supply WTP site labour camp – particularly housekeeping	Contractor	15 th August 2018	Site observation
9	Improper storage of material for Harihar bulk water supply WTP construction site	Improvement is required for storage of material for Harihar bulk water supply WTP construction site	Contractor	Immediate	Site observation
10	Poor housekeeping at labour camp of Byadgi STP site under Byadgi UGD package	Improvement of housekeeping and labour camp is required for Byadgi STP site under Byadgi UGD package	Contractor	15 th August 2018	Site observation
11	Improper material storage at Byadgi STP site under Byadgi UGD package	Improvement of material storage is required for Byadgi STP site under Byadgi UGD	Contractor	Immediate	Site observation

Appendix 1: Photo Illustration



UGD Pipe laying work at APMC area Davangere. No work board and caution tape



Partial use of PPEs by workers at pipe laying area. Poor condition of material storage. Material spread at site



First aid box available at site



Work display board observed at Neutali road KTJ nagar. No contact no. available in the board. Partial use of caution tape – noted. No diversion board noted at site



Excavated earth fall on the drain. No proper clearance at RTO area.



Use of PPEs noted at pipe laying area near Vishal store at Hadadi road



Bed provided partially for few workers at labour camp



Demarcation of camp/ stock yard site by GI sheet - done after necessary instruction



20 MLD STP at Davangere – completed



20 MLD STP at Davangere – completed



20 MLD STP at Davangere – completed



20 MLD STP at Davangere – completed



Plantation done at STP



Plantation and improvement of aesthetic at 5 MLD STP



Finishing work continued at 5 MLD STP



Finishing work continued at 5 MLD STP



Finishing work continued at 5 MLD STP



Plantation done at STP



Pipe laying work continued under Davangere bulk water supply near Sugar factory – Bathi road– partial use of PPEs by workers



Excess earth needs to be dispose/ remove from working site



Storage of pipes along the road at working sites of Davangere- noted



Work display board noted at WTP site Davangere



Toilet under construction at WTP site. Arrangement of water is required



Partial arrangement of caution tape at excavated area of WTP at Davangere



First aid box available with safety officer at working site of Davangere bulk water supply package



Construction of STP at Harihar undergoing



Construction of STP at Harihar undergoing



Use of PPEs by workers – noted. No use of hand gloves



Amtavathi Wet well at Harihar. Work finished



Restoration of Road at Benki Nagar- Harihar



Work continued at Amaravati OHT. Use of PPEs by workers noted



Use of PPEs noted at Harihar reservoir site



Proper arrangement of labour camp at Amaravati OHT site under Harihar bulk water supply



Requirement of proper storage of construction materials at WTP construction site, Harihar



Project display sheet at WTP site



Proper use of PPEs by workers at Harihar WTP site



Proper Placement of display board and caution tape noted at Kodiar Hospet pipe laying sites



Road closure noted with signage at Harpanhalli road. Caution board noted



Poor housekeeping needed at WTP site labour camp and at Harihar WTP construction site



No use of shoes by workers at WTP site



Caution tape noted at Indranagar pipe laying area under Harihar water supply distribution network package



Caution board noted at pipe laying area. No contact number in caution board



Partial use of caution tape- noted



Use of PPEs noted at water distribution pipe laying area at Harihar



Caution board and caution tape noted at working site of Vidyanagar



Use of PPEs noted at pipe laying area of Vidyanagar



Excess earth removed from working site of Vidyanagar water distribution pipe line area of Harihar



Partial use of caution tape and no use of PPEs by workers at Byadgi STP work site



Scrap materials and construction waste need to be disposed from STP construction site at Byadgi



Construction of Staff Quarters going on at Byadgi STP. Use of PPEs noted



SBR Tank Walk way under construction – at Byadgi



Poor housekeeping. Waste water and solid waste spread over STP site. Improvement si required



Caution board noted at Rathihalli UGD pipe laying area at Byadgi



Use of PPEs by workers – noted at Nehru Nagar site



Construction of Manhole at Rathihalli Road. Use of PPEs by workers - noted



Use of caution tape noted at excavated area under Byadgi bulk water supply package



Hydro testing going on for Byadgi bulk water supply



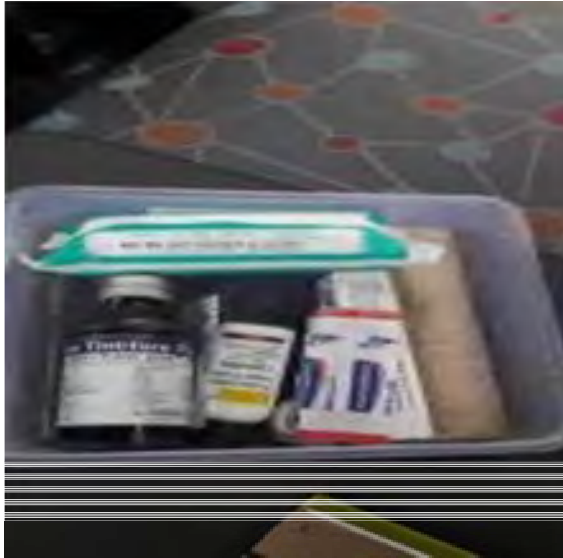
Subhash nagar CC road breaking work continued for water supply distribution network at Byadgi. No use of PPEs



Caution board placed. Temporary arrangement of caution tape at pipe laying area of water distribution pipe line lying at Kadarmandgi Road



Hydro testing work continued at police quarter



First aid box available at working site- Byadgi



Partial use of PPEs by worker during water supply pipe laying work - Byadgi

Monitoring Budget

Sr. no.	Package	Tentative Monitoring budget (in Rs.)
1	Providing expansion of sewage system in Harihar city – Package No. 01HRA01	7,60,000.00
2	Improvement of water supply system (bulk) in Harihara City.- Package No. 01HRA02	7,72,000.00
3	Construction of Distribution Network-Operator assisted in Harihara including 8 Years O & M of 24 x 7 Harihara Water Supply, Package No.01WS04	10,30,000.00
4	Expansion of Sewage System in Davangere City (District 1 & 3) – Package No. 01DVG01	17,00,000.00
5	Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP, Package No. 01DVG01A	5,00,000.00
6	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
7	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
8	Improvement of Water Supply System (bulk) in Byadgi Town, Package No. 01BDG02	5,02,000.00
9	Construction of Distribution Network-Operator assisted in Byadgi including 8 Years O & M of 24 x 7, Package No. 01WS03	10,00,000.00

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- 25 th February 2015, Date of expiry – 25 th 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

Sl. No	CFE Conditions	Compliance
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 be liable to 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,	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

Sl. No	CFE Conditions	Compliance
	dust problems or water pollution through leaching etc. of any kind	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- 25 th February 2015, Date of expiry – 25 th 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 be 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 be liable to 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



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- 22 nd January 2015, Date of expiry – 22 nd 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 be 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 be liable to 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



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- 12 th July 2016, Date of expiry – 12 th 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 be liable to 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 ^o 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	NH ₄ -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.




Labour license

Davangere- Sewerage (Package no.: 01DVG01)

LD1521000022492

2 - Renewal Certificate



GOVERNMENT OF KARNATAKA
DEPARTMENT OF LABOUR

Licence No: ALCD/CLAV/LCN-1436/2014-15
Registration No: ALCD/CLAV/RGN-173/2013-12

Assistant Labour
Commissioner, Biliary
Division, Davangere
Davangere Harisara Urban
Development Authority
Building, Near Devanaga
Mn Layout, Commercial
Tax Office, Davangere-
577006

Licence Date: 24-02-2015

FORM-VI
(See Rule 25(1))

1. Licence is hereby granted to Singdra Infrastructures Limited, No. 311, 3rd Main,
1st Cross, Backside of More Shop, S. Nihalappa Layout, Davangere Under Section
12(1) of the Contract Labour (Regulation and Abolition) Act, 1971, 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 23/02/2019.

Renewal
(Rule 29)


Sl no.	Date of Licence	Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	23-02-2018	23-02-2018	LICENCE FEE: 1500- PENALTY: 375	23/02/2019	

Please, verify authenticity of my visiting:
www.labour.gov.in For e-verify to Certificate Holder

Assistant Labour Commissioner,
Biliary Division, Davangere
ALCD/CLAV/CLAV/1436/2014-15
ALCD/CLAV/RGN/173/2013-12

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

LD1521000021025



GOVERNMENT OF KARNATAKA
DEPARTMENT OF LABOUR

Licence No: ALCD/CLA/LCN-1518/2015-18
Registration No: ALCD/CLA/RGN-173/2012-13

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

Licence Date: Jan. 2 2018

FORM-VI
[See Rule 25(1)]

1. Licence is hereby granted to **HNB Engineers Pvt.Ltd, 20 MLD-STP, Davangere, City Corporation Sr.No.11, Ashraya Colony, Shivnagara, Doddahundiha Road, B** Under Section 12(1) of the Contract Labour [Regulation and Abolition] Act-1970, subject to the conditions specified in annexure.

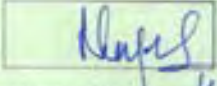
2. This Licence is for doing the work **STP Plant Works** in the establishment of **Commissioner, Davangere City Corporation, P.B. Road, Davangere**

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


Assistant Labour Commissioner
Bellary Division, Davangere
ಸಹಾಯಕ ಕಾರ್ಮಿಕ ಅಧೀಕ್ಷಕರು
ಬೆಳ್ಳಾರಿ ವಿಭಾಗ, ದಾವಣಗೆರೆ

44/18

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 labourers 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 ಅಧ್ಯಕ್ಷರು
ಬಳ್ಳಾರಿ ವಿಭಾಗ, ಬಾಡ್ಗೇರಿ

Davangere Bulk water supply (Package no: 01DVG01A)

LD1321100013297



GOVERNMENT OF KARNATAKA

DEPARTMENT OF LABOUR

Licence No: ALC-BAL/CLAC-100013297/2017-18

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

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

Nov- 9 2017
3:07PM

Security
Deposit: 1250

FORM-VI
[See Rule 25(1)]

1. Licence is hereby granted to M/s SKPC - DRS ITPL - IV, 1st Floor, (Northern Wing) Rajah Annamalai Building, No.18/3, Rykman Lakshminagari Salai, Eumore, Chennai C/o Ameravalli Colony, Hanhara, Davangere Dist. Under Section 12(3) 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 Davangere City Corporation, P.B. Road, Davangere.
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 Division,
Davangere
ಇದರ ಮೇಲೆ ಸಹಿ ಮಾಡಿ
ಇಲ್ಲಿಂದ ಕಡೆಗೆ ಕೊಡಬೇಡಿ

The license is subject to the following conditions:-

- Handwritten signature: *W. L. ...*



GOVERNMENT OF KARNATAKA

DEPARTMENT OF LABOUR

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

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

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

Licence Date: Nov 9 2017

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, Davangere 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 Davangere City Corporation, P.B. Road, Davangere

3. The Licence shall remain in force till 01/07/2019

Renewal
[Rule 29]

Sl no.	Date of Licence	Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	25-06-2018		01-07-2018	LICENCE FEE 1000. PENALTY 250	01/07/2019

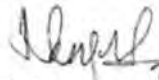
Please, verify authenticity of by visiting
www.labouronline.kar.nic.in & entering certificate Number


Assistant Labour Commissioner, 25-6-18
Bellary Division, Davangere
ಸಹಾಯಕ ಕಾರ್ಮಿಕ ಅಧೀಕ್ಷಕರು
ಬೆಳ್ಳಾರಿ 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 **50 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 labourers 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 ಅಧೀಕ್ಷಕರು
ಬಳ್ಳಾರಿ ವಿಭಾಗ, ಗಾವಳಗಿರಿ 25.6.18

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

LD1521000027302



3 - Renewal Certificate

**GOVERNMENT OF KARNATAKA
DEPARTMENT OF LABOUR**

Licence No: ALCD/CLA/LCN-1464/2015-15

Registration No: ALCD/CLA/RGN-194/2012-13

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

Licence Date: 15-06-2015

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 :14/06/2019

**Renewal
[Rule 29]**

Sl no.	Date of Licence	Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	25-06-2018		14-06-2018	LICENCE FEE:1500, PENALTY:375	14/06/2019

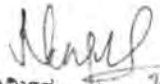
Please: verify authenticity of by visiting
www.labouronline.kar.nic.in & entering certificate Number


Assistant Labour Commissioner,
Bellary Divison, Davangere
ಸಹಾಯಕ ಕಾರ್ಮಿಕ ಅಧೀಕ್ಷಕರು
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 labourers 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, ದಾವಣಗೆರೆ 75-6-18

Harihar Bulk Water supply (Package no. 01HRA02)

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

GOVERNMENT OF KARNATAKA
OFFICE OF THE REGISTERING OFFICER

LICENSE NO: LOD/CWWB/DVG-CR-02/2017-18 **DD: 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 1966 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	Place 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, Office 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 Mangalore, M/s Sheth and Sura Engineers Pvt. Ltd., Dr. Aradhya House, P.B. Road, Kumarapattana Post, Ramdurga Tal, 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, B.D 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.	15
6	Probable date of commencement and completion of work.	16-08-2017 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:-

- The Certificate of registration shall be non transferable.
- 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.
- Save or provided in these rules the fees paid for the grant of registration certificate shall be non-refundable;
- 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 or award not less than the rates so fixed; and
- The employer shall comply with the provision the act and the rules made there under.

Harihar water distribution network (01WS04)

LD1321100016632



GOVERNMENT OF KARNATAKA

DEPARTMENT OF LABOUR

Licence No : ALC-BAL/CLAVC-100016632/2017-18

Assistant Labour
Commissioner, Bellary Division,
Davangere
Davangere Harihar Urban
Development Authority
Building, Near Devaraja Urs
Layout, Commercial Tax
Office, Davangere-577008

Registration
No: ALCD/CLA/RGN-194/2012-2013

Feb 6 2018
5:23PM

Security
Deposit : 2500

FORM-VI

[See Rule 25(1)]

1. Licence is here by granted to M/s Veolia India Private Limited, B-1, Marble Arch, 9 Prithviraj Road, New Delhi C/o HIG-100, KHBC, Amaravathi, 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 Construction and Distribution of Water Supply in the establishment of City Municipal Council Harihar, Harihar.

3. The Licence shall remain in force till 01/09/2018

Licence

[Rule-29]

Sl. NO	Date Of Licence	Fee Paid for Licence	Date Of Expiry
1	01-09-2017	Rs.1500	01/09/2018

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

Assistant Labour Commissioner, Bellary Division,
Davangere

ಹಾಸಯರ ಕಾಮರಾಜ್ ಕುಯ್ಯಾರ್
ಬೆಳ್ಳಾರಿ 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, exceed **100 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 labourers 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 ಪ್ರಯೋಗ
ಬಳ್ಳಾರಿ ವಿಭಾಗ, ದಾವಣಗೆರೆ

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

LD1524000032216

2 - Renewal Certificate



GOVERNMENT OF KARNATAKA
DEPARTMENT OF LABOUR

License No: ALC-DH/CLAC-100004821/2016-17
Registration No: ALC-DH/CLAC-1000003302/2016-17

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

License Date: Feb. 9 2017

FORM-VI
[See Rule 29(1)]

1. License is here by granted to: **Shrikam EPC Ltd, Srinath Achi Building, IVth Floor, 18/3, Rukmani Lakshminipathi 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 License is for doing the work **Construction of sewerage network & 5 MLD STP Plant** in the establishment of **TOWN MUNICIPAL COUNCIL, BYADGI, TMC, HAYERI DISTRICT**

3. The License shall remain in force till **16/04/2019**

Renewal
[Rule 29]

Sl no.	Date of Licence Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	03-04-2018	16-04-2018	LICENCE FEE:1500, PENALTY:0	16/04/2019

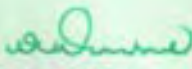
Please, verify authenticity of by visiting
www.labouronline.kar.nic.in & entering certificate Number


Assistant Labour Commissioner,
Dharwad Division, Hubli
**Inspecting Officer,
Under Contract Labour Act &
Assistant Labour Commissioner
Dharwad Div., HUBLI**

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 them: 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 labourers 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.


Licensing Officer,
Under Contract Labour Act &
Assistant Labour Commissioner
Gharwad Dist. HUSTJ

Byadgi water distribution network (01WS03)

LD132*100016821



GOVERNMENT OF KARNATAKA
DEPARTMENT OF LABOUR

Licence No. ALC-DH/CLA/C-100016821/2018-19

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

Registration No. ALC-DH/CLA/P-1000003302/2018-17

Security Deposit 1250

FORM-VI
[See Rule 25(1)]

Apr 3 2018 1:38PM

1. Licence is here by granted to SUREAM ENCL LIMITED SIGAPPA CHUDHRI 4TH FLOOR, 18/1, SUREMANI LAKSHMINARATHY SRI AT ROAD, CHENNAI-600008 Under Section 12(1) of the Contract Labour (Regulation and Abolition) Act-1970, subject to the conditions specified in schedule.

2. This Licence is for doing the work CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY in the establishment of TOWN MUNICIPAL COUNCIL BYADGI TMC, HAVERI DISTRICT.

3. The Licence shall remain in force till 10/02/2019.

Licence
(Rule-25)

Sl. NO	Date Of Licence	Fee Paid for Licence	Date Of Expiry
1	10/02/2018	Rs.1000	10/02/2019


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


Assistant Labour Commissioner, Dharwad Division,
Hubli
Licensing Officer,
Under Control of Labour Act &
Assistant Labour Commissioner,
Dharwad Div., Hubli

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 licensee 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 labourers 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.


Licensing Officer,
Under Contract Labour Act &
Contract Labour (Regulation and
Abolition) Act, 1947

Labour compensation Insurance

Davangere UGD (Package: 01DVG01)

[illegible]

 <p>Royal Sundaram General Insurance</p>	<p>Royal Sundaram General Insurance Co., Limited <small>(Formerly known as Royal Sundaram General Insurance Company Limited)</small></p> <p>Office No : 201, 2nd Floor, Zenith Complex, K.M. Gandhi Marg, Opp.Krushna Bhawan, Shivaji Nagar, Pune - 411 005. Tel. No.: 020-25530671/72/73/75 Toll No.: 1860 425 1880 E-mail: customer.services@royalsundaram.in Website: www.royalsundaram.in Registered Office: 21, Patalles Road, Chennai - 600 012. IRDAI Registration Number - IRD / CIN-L1672001N7000PLC204561</p>
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WORKMEN'S COMPENSATION POLICY SCHEDULE

IntermediaryCode	BR500658
IntermediaryName	Damika Insurance Broking Co Pvt Ltd
Contact	

Policy No.	: LW00008965000101
Insured Name & Address	HNB Engineers Pvt. Ltd. : 1326, Shukrawar Path, 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	%	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

Royal Sundaram General Insurance Co. Limited

(Formerly known as Royal Sundaram Assurance Insurance Company Limited)

Office No.: 201, 2nd Floor, Zenith Complex, K.M. Gandhi Marg,

Opp. Kumbh Bhawan, Minaji Nagar, Pune - 411 005.

Tel. No.: 020-25536671/72/73/79 | Toll No.: 1860 425 0000

E-mail: customerservice@royalsundaram.in

Website: www.royalsundaram.in

Registered Office: 21, Pandion Road, Chennai - 600 002.

Official Registration Number - 302 | 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:
 - o Any interest and/or penalty imposed on the insured on account of his/her failure to comply with the requirements laid down under WC Act 1923.
 - o Occupational diseases
 - o 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



[Handwritten signature]

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 trial 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 120 (A) (per schedule) employees on the rolls of the Insured during the Period of Insurance.



[Signature]

Davangere Bulk Water supply (Package: 01WS01)

IRDA Registration Number - 137

CIN No. U66010RJ2006PLC029979

SHRIRAM EMPLOYEES COMPENSTATION INSURANCE - POLICY SCHEDULE

Shriram Employees Compensation Insurance Policy - UIN No. IRDANT137P926RVE1268889 - SAC Code: 997138

Policy No. : 421010/48/19/008985	Prev. Policy No. : -
Cover Note No. : MIT3685	Cover Note Date : 26-JUN-18
Insured's Code : 6570708	Issue Office code : 421010
Insured's Name : M/S. Shriram EPC Limited - GSTIN No. : 33AAFC51410C1Z6	Issue Office Name : CHENNAI
Address : 18/3, 4th Floor, Sigappi Achi Building, Rukmini Lakshmi Pathi Salai (Marshall's 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 : 7412078259 / 7412078260 / 7412078263 / / sgi.chennai@shriramgi.com
Dev. Officer : -	Broker Details / W. : LB0000000002 M/S. BHARAT RE-INSURANCE BROKERS PVT. LTD. / / Contact No. :

Period of Insurance : From 00:00 on 26/06/2018 To Midnight of 25/06/2019 (Both days Inclusive)

Gross Premium : 209,300 S Tax : 0 GST : 37674 Cess : 0 ST Duty : 105 Total : 246,974

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 :CGST	18,837.00
ADD :SGST	18,837.00
TOTAL AMOUNT	2,46,974.00

Place : CHENNAI

Date : 30/06/2018

All the amounts mentioned in this policy are in Indian Rupees.

GSTIN No. : 33AAKCS2509K1ZA

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD

Authorised Signatory

Page 1 of 2

Attached to and forming part of policy number 421010/48/19/008985

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 abinitio (from inception).

In witness whereof the undersigned being authorised by and on behalf of the Company has/have herein to set his/their hands at CHENNAI on 30th Day of June 2018.

Entered by : SANJAY SINGH

Approved by : SANJAY SINGH


Place : CHENNAI

Date : 30/06/2018

All the amounts mentioned in this policy are in Indian Rupees.

GSTIN No. - 33AAKC62509K1ZA

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD


Authorized Signatory

Page 2 of 2

Harihar UGD & STP (Package: 01HRA01))

IRDA Registration Number - 137

CHN No. U66010P2006PLC029979

SHRIRAM EMPLOYEES COMPENSTATION INSURANCE - POLICY SCHEDULE
Shriram Employees Compensation Insurance Policy - UIN No. 80GAN137P0200V01200009 - SAC Code: 997128

Policy No.	: 421010/48/19/008985	Prev. Policy No.	: -
Cover Note No.	: MIT3685	Cover Note Date	: 26-JUN-18
Insured's Code	: 6570708	Issue Office code	: 421010
Insured's Name	: M/S. Shriram EPC Limited - GSTIN No. - 33AAFC51410C1Z6	Issue Office Name	: CHENNAI
Address	: 18/3, 4th Floor, Sigappi Achi Building, Rukmini Lakshminipathi Salai (Marshall's 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	: 7412078259 / 7412078260 / 7412078263 / / sgl.chennai@shriramgi.com
Dev. Officer	: -	Broker Details / W.	: LB0000000002 M/S. BHARAT RE-INSURANCE BROKERS PVT. LTD. / / Contact No.:
Period of Insurance	: From 00:00 on 26/06/2018 To Midnight of 25/06/2019 (Both days Inclusive)		
Gross Premium	: 209,300	S Tax	: 0
GST	: 37674	Cess	: 0
ST Duty	: 105	Total	: 246,974

Co-Insurance Details : NIL

Business : Engineers not otherwise classified - Ind. 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 :CGST	18,637.00
ADD :SGST	18,637.00
TOTAL AMOUNT	2,46,974.00

Place : CHENNAI
Date : 30/06/2018

All the amounts mentioned in this policy are in Indian Rupees.

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD

Authorised Signatory

GSTIN No. - 33AAKCS2599K12A

Page 1 of 2

Attached to and forming part of policy number 421010/48/19/008985

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 abinitio (from inception).

In witness whereof the undersigned being authorised by and on behalf of the Company has/have herein to set his/their hands at CHENNAI on 30th Day of June 2018.

Entered by : SANJAY SINGH

Approved by : SANJAY SINGH


Place : CHENNAI

Date : 30/06/2018

All the amounts mentioned in this policy are in Indian Rupees.

GSTIN No. - 33AAKC62599K1ZA


For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD


Authorized Signatory


Page 2 of 2

Harihar Bulk Water supply (Package: 01HRA02)

THE NEW INDIA ASSURANCE CO.
(Government of India Undertaking)



नियु. इन्डिया एश्योरेन्स कंपनी लिमिटेड



POLICY SCHEDULE FOR EMPLOYEES COMPENSATION INSURANCE

Insured's Name : SMITH & SURA ENGINEERS PVT LTD		Issued's Details		Issuing Office Details	
Customer ID : PO24856792	Address : AQUA HOUSE 283/1, SINGHAR ROAD NR PARWATI OVERBRIDGE, PUNE PUNE, MAHARASHTRA 411030	Office Code : DIVISIONAL OFFICE - 150400 (150400)	Address : COMMONWEALTH ROAD, LAXMI ROAD PUNE-411030	Phone No : 02224452143 / 02224452890	E-mail/Fax : nia.150400@newindia.co.in / 02224452238
Phone No :	E-mail/Fax : sheth_sura@gmail.com	Phone No :	E-mail/Fax :	STAX Regn. No : AAACNA165CST178	GSTIN : 27AAACNA165C32P
STAX Regn. No :	GSTIN : 27AAEC31737P1ZV / NA	SAC : 897139 (Other non-life insurance services excl RD)			

Policy Details					
Policy Number : 15040001180100000098	Period of Insurance : From: 25/05/2018 12:00:01 AM To: 28/05/2019 11:59:59 PM	Business Source Code :	Dev.Off level/Broker/Corp. Agent : Mr. RAVINDRA D BAGADE - (AM7506341)		
Date of Proposal : 29-May-18	Agent/Bancassurance : Mrs. SAVITA SATISH MEHTA (NA2D7551455) AGENT_SITE_T3859 (2D7552026)	Phone No : 9422507525 / NA	E-mail/Fax : / /		
Prev. Policy no. : 15040001170100000117	Client Type : Non-Corporate				

Premium(₹) : 115354	GST(₹) : 18964	Total (₹) : 124318	Total (₹ in words) : RUPEES ONE LAC TWENTY-FOUR THOUSAND THREE HUNDRED EIGHTEEN ONLY	Receipt No. & Date : 1504000118000000424 6 - 22/05/18
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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-ENGINEER	2	480000
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	304000
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	29	2320000

Trade Description	Particular of Works	Location Details	Included All Sub-Contractors
Improvement of water supply system (bulk) - Municipal commissioner, City municipal council, Harihar,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

Contractor/Sub-Contractor Details:

IRDA Registration Number: 190



Harihar water distribution network (Package: 01WS04)

IFFCO - TOKIO GENERAL INSURANCE CO. LTD Regd. Office: IFFCO Sadan, C-1, District Centre, Saket, New Delhi-110017		Servicing Office : <i>Mankurda, Rajahmundry</i>																					
		IFFCO/TOKIO General Ins. Co. Ltd. 2nd Floor, FAI HOUSE, 10, Shahd Jee Marg, Saket Marg, Qutub Institutional Area, New Delhi-110007 Rate Code: 07, GSTIN: 07AACB7389129 General Insurance Scheme: 9971																					
Workmen's Compensation Policy Schedule Cum Tax Invoice ORIGINAL FOR RECIPIENT																							
GST																							
Insured's Name: Shree Sri Pyl. Ltd. & The Municipal Commissioner, Harihar Address: B-1 MARBLE ARCH, 9 PRITHVIRAJ, ROAD, NEW DELHI NDMC (PART) DELHI Pin Code: 110011 State Code: 07 Country Name: India GSTIN: 07AACB7389129 Phone: C/N No.: Agent No: 2300005423		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																					
Premium Taxable Value: 33820.56 Service Tax: 0.00 Swachh Bharat Cess(Rs.): 0.00 Krishi Kalyan Cess(Rs.): 0.00 Total Value (Rs.): 39908		Co-insurance Details <table border="1"> <thead> <tr> <th></th> <th>CGST</th> <th>SGST/UTGST</th> <th>IGST</th> <th>CESS</th> </tr> </thead> <tbody> <tr> <td>Percentage</td> <td>9.00</td> <td>9.00</td> <td>0.00</td> <td></td> </tr> <tr> <td>Amount</td> <td>3043.85</td> <td>3043.85</td> <td>0.00</td> <td></td> </tr> </tbody> </table>			CGST	SGST/UTGST	IGST	CESS	Percentage	9.00	9.00	0.00		Amount	3043.85	3043.85	0.00						
	CGST	SGST/UTGST	IGST	CESS																			
Percentage	9.00	9.00	0.00																				
Amount	3043.85	3043.85	0.00																				
Trade or Business: As mentioned below Place of Employment(s): HIG-100, KHBC, Amaravathi, Harihar- 577601, Karnataka																							
<table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Category of Employee</th> <th>Estimated Total Wages, Salaries and other</th> <th>Rate (%)</th> <th>Premium without Service Tax (Rs.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>99 Workers Upto-8000</td> <td>9504000.00</td> <td>0.3424</td> <td>32541.70</td> </tr> <tr> <td>2</td> <td>Above-8000</td> <td>5976000.00</td> <td>0.0214</td> <td>1278.86</td> </tr> <tr> <td colspan="2"></td> <td>Overall Total Wages</td> <td>15480000</td> <td></td> </tr> </tbody> </table>		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			
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 (Furnish 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 recomputed at the time of claim. In case the premium has insured is less than the actual wages/salary paid at the time of loss then 10% suitable penalty shall be applied on the sum of claim amount. It is also hereby declared that the policy premium shall be proportionately recomputed at the expiry of the policy period with the actual wages/salary paid in the actual number of workers with the estimated wages/salary declared at the inception of policy.																					
IFFCO-TOKIO GENERAL INSURANCE COMPANY LIMITED																							
IFFCO 50th Anniversary Logo		No: MARSH NIDEA INSURANCE BROKERS PVT LTD 022-66112000 Regd. Office: IFFCO Sadan, C-1, District Centre, Saket, New Delhi-110017 Delhi Commercial - FAI - Bldg: 2nd Floor, FAI House, 10, Shahd Jee Marg, Qutub Institutional Area, New Delhi-110007 Corporate Identity No. (CIN): 1174898032302PLC148621, RDA Regn. No. 108																					

Policy Schedule



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

Muskan Kaur

The Policy is subject to the following Warranties / Conditions/ 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-rata 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 Warranties / 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. AAAC075/SMST001 Corporate Identification Number (CIN)

Toll Free : 1-800-160-5499 ; 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:- Subrata Mondal
Description:- Executive Vice President



IFFCO-TOKIO GENERAL INSURANCE COMPANY LIMITED
43150940
Regd. Office : IFFCO Sadan , C-1, District Centre, Saket, New Delhi - 110017
Delhi Commercial - FAI - Broker: 2nd Floor, FAI House, 10, Shreeed Jee Singh Marg,
Qutub Institutional Area, New Delhi-110067
Corporate Identity No. (CIN) : U74899DL2008PLC107821, ROC Regn. No. 195





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.



IFFCO-TOKIO GENERAL INSURANCE COMPANY LIMITED
Regd. Office :- "IFFCO Sadan", C-1, District Centre, Baket, New Delhi - 110017
Delhi Commercial - PAI - Broker: 2nd Floor, PAI House, 10, Shaheed Jeeb Singh Marg,
Qutub Institutional Area, New Delhi-110067
Corporate Identity No. (CIN) : U74899DL2000PLC107621, IRDA Regn. No. 106



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 : 42101044/16/000126
Endorsement No : 001
Endorsement Effective : From 00:00 On 24/03/2016 To Midnight Of 23/12/2018
Endorsement Date : 20/05/2016

Insured's Code : 12168962
Insured's Name : M/S.Shriram EPC Ltd - Eurotek Environmental Pvt. Ltd. JV and Employer Name as Byadgi, Town Municipal Council
Issue Office Code : 421010
Issue Office Name : CHENNAI

Address : Northern Wing, Raja Annamalai Building, No.18/3, Rukmini Lakshmiipathi (Marshalla) 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.

SCHEDULE OF 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

Service Tax Reg. No. AAKCS2609KST001

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD

Authorized Signatory

Page 1 of 2



RAHEJA QBE GENERAL INSURANCE COMPANY LIMITED

5th Floor, Wyndham House, CST Road, Kalina, Santacruz (E), Mumbai 400 098
Telephone: +91 22 4231 3000, Fax: +91 22 4231 3777, Toll Free No. 1800-102 1723
Website: www.rahejqbe.com Email: info@rahejqbe.com
Corporate Identity Number: U58030MH2007PLC173129, IRDA Reg. No. 141

HELD COVER LETTER

Date – 23rd January 2018

No: HC/HYD/648/WCA/GPA/2018

Policy No. 015W000026001000, 015A000064201000

To,

M/s Shriram EPC - Eurotek Environmental Pvt Ltd – JV

Plot No.504, 5th Floor, Modern Profound

Tech Park, Sy.No.12, Opp: Ramaleyam,

White Field road, Kondapur,

Hyderabad- 500084

Dear Madam/Sir,

Subject: Confirmation of Cover for "Workmen's Compensation Insurance Policy & Group Personal Accident Insurance Policy".

Thank you for expressing your confidence in Raheja QBE General Insurance Company Ltd.

We are glad to confirm receipt of the premium of INR 20,565 /- vide cheque number 000598, dated 19th January 2018, drawn on Bank of Baroda, towards Workmen's Compensation Insurance Policy & Group Personal Accident Insurance Policy for "M/s Eurotek Environmental Pvt. Ltd. "

The agreed terms and conditions are as per annexure attached.

We request you to kindly note that inception of risk cover is subject only to realization of cheque/funds and receipt of full premium and applicable taxes, as well as complete compliance of terms and conditions of cover, by the policy holder. The policy shall stand cancelled ab initio in the event of non-realization of the premium.

We look forward to an enriching business relationship.

Thanking you,

For RAHEJA QBE GENERAL INSURANCE CO. LTD.

ANIRUDH
SINGH

Digitaly signed by
Anirudh Singh
Date 23/01/2018 11:40:10
+05'30'

Authorized Signatory

shp

This document is digitally signed, hence physical signature is not required.

Annexure 'A'

Insured	M/s Shreem EPC - Eurotek Environmental Pvt Ltd - JV
Address	Plot No 504, 5th Floor, Modern Profound Tech Park, Sy No.12, Opp: Ramalayam, white Field road, Kondapur, Hyderabad- 500084
Location of assignment	Byadgi Town Municipality, Karnataka
Nature of Work	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)
Policy Period	20 th January 2018 to 19 th July 2018
Estimated Total Wages	Insured's Employee – 15 No's (15,000 per month each) Principal's Employee – 5 No's (25,000 per month each)
Number of Employees	20
Coverage	<ul style="list-style-type: none"> As per Workmen's Compensation Act, Fatal Accidents Act and Common Law Medical Expenses Benefit for INR 50,000 / Employee Average Clause Contract Employee are covered Sanction Limitation and Exclusion Clause Terrorism exclusion
Conditions	<ul style="list-style-type: none"> Submission of Completed & Signed Proposal Form Declaration of "No known or reported claims", prior to bidding.
Premium	INR 12,096 + GST

Annexure B

INSURED	M/s Shorani EPC - Eurotek Environmental Pvt Ltd - JV
ADDRESS OF INSURED	Flat No 1805, Pegasus II Block, Meenakshi Sky Lounge, Khairat, Hyderabad - 500084
OCCUPATION	Activities related to construction & erection of Sewage Treatment Plant
LOCATION COVERED	Byadgi Town Municipality, Karnataka
POLICY PERIOD	20 th January 2018 to 19 th July 2018
TOTAL SUM INSURED	INR 100,00,000/-
COVERAGE	Ratna QBE's - GPA Policy: Death + PFD & PTD + TTD (TTD 1% of CSI or Rs 5,000 whichever is less for maximum 104 weeks)
Number of employees	20
PREMIUM	INR 5,19,77/- + Stamp Duty - INR 1600/- + GST @18%
OTHER TERMS & CONDITIONS	<ul style="list-style-type: none"> • Ambulance charges following an accident limited to the amount INR 2,500 Per accident • Loss or damage to clothing following an accident limited to the amount INR 2,500 Per accident • Transportation cost for carriage of mortal remains and funeral expenses 1% of individual sum insured or actual amount whichever is lower • Education assistance for two dependent children in the event of death or permanent total disablement of Insured limited to the amount INR 5,000/- for each child in case of death or permanent total disablement of Insured • Loss of employment as a consequence of permanent total disablement following an accident limited to 25% of individual sum insured • Medical Extension : 20% of the C.S.I. or 40% of the admissible P.A. claims • Nominee details to be provided at the time of binding of policy • Maximum sum insured limit will not exceed INR 30 Crores at any one location.

SHRIRAM EMPLOYEES COMPENSTATION INSURANCE - POLICY SCHEDULE

Shriram Employees Compensation Insurance Policy - UIN No. 45DAN137P9289V01263889 - SAC Code: 997138

Policy No.	421010/48/19/008985	Prev. Policy No.	-
Cover Note No.	MIT3685	Cover Note Date	26-JUN-18
Insured's Code	6570708	Issue Office code	421010
Insured's Name	M/S.Shriram EPC Limited - GSTIN No. - 33AAFC51410C1Z6	Issue Office Name	CHENNAI
Address	18/3, 4th Floor, Sigappi Achi Building, Rukmini Lakshmi Pathi Salai (Marshall's 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	7412078259 / 7412078260 / 7412078263 / / sgl.chennai@shriramgi.com
Dev. Officer	-	Broker Details / W.	LB0000000002 M/S.BHARAT RE-INSURANCE BROKERS PVT. LTD. / / Contact No:
Period of Insurance	From 00:00 on 26/06/2018 To Midnight of 25/06/2019 (Both days Inclusive)		
Gross Premium	209,300	S Tax	0
		GST	37674
		Cess	0
		ST Duty	105
		Total	246,974

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:CGST	18,637.00
ADD:SGST	18,637.00
TOTAL AMOUNT	2,46,974.00

Place: CHENNAI

Date: 30/06/2018

All the amounts mentioned in this policy are in Indian Rupees.

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD

Authorised Signatory

GSTIN No. - 33AAKCS2599K12A

Page 1 of 2

Attached to and forming part of policy number 421010/48/19/008985

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 herein to set his/their hands at CHENNAI on 30th Day of June 2018.

Entered by : SANJAY SINGH

Approved by : SANJAY SINGH


Place : CHENNAI

Date : 30/06/2018

All the amounts mentioned in this policy are in Indian Rupees

GSTIN No. - 33AAKC62599K1ZA

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD


Authorised Signatory

Page 2 of 2

Byadgi Bulk Water Supply package (01BDG02)

THE NEW INDIA ASSURANCE CO. लि. न्यू इन्डिया एश्योर्सन्स कंपनी लिमिटेड
(Government of India Undertaking)



POLICY SCHEDULE FOR EMPLOYEES COMPENSATION INSURANCE

Insured's Name	SHETH & SURA ENGINEERS PVT LTD		
Customer ID	PO24050202	Office Code	DIVISIONAL OFFICE - 150400 (150400)
Address	AQILA HOUSE, 203/1, SAHGAO ROAD, NR. PARWAI, OVERSEAS COLLEGE, PUNE	Address	COMMONWEALTH BUILDING, LAXMI ROAD, PUNE-411030
Phone No		Phone No	411030
E-mail/Fax	sneth_sura@vsnl.net, /	E-mail/Fax	02024452143 / 02024452890
PAN No		S.Tax Regn. No	AAACN105C31178
GSTIN	27AAEC51737P1ZV / NA	GSTIN	27AAA/CN105C32P
		SAC	887139 (Other non-life insurance services (600 RR)

Policy Details			
Policy Number	15040030180100000089	Business Source Code	
Period of Insurance	From: 29/05/2018 12:00:01 AM To: 28/09/2018 11:59:59 PM	Dev.Off Insur/L/Broker/Corp. Agent	Mr. RAVINDRA D BAGAGE - (AM7806341)
Date of Proposal	29-May-18	Agent/Bancassurance	Mrs. SAVITA SATISH MEHTA (BA2D7551455) - AGENT_SITE_73839 (2D7552026)
Prev. Policy no.	15040030170100000119	Phone No	9421507625 / NA
Client Type	Non-Corporate	E-mail/Fax	/ / /

Premium(₹)	GST(₹)	Total (₹)	Total (₹ in words)	Receipt No. & Date
9165	1650	10815	RUPEES TEN THOUSAND EIGHT HUNDRED FIFTY FIVE ONLY	1504003018000000126 1 - 23/05/18

Details of Employees with monthly wages upto ₹ 8000:

Categories	Sub Categories	No of Employee	Cash Total Wages
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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-ENGINEER	1	80000
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	1	42000
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	1	48000
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	5	210000

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 (KIUMIP, SLICE NO 2)CONTRACT PACKAGE NO 01BDG02	Chief Engineer, Town Municipal Council, Byadgi, Karnataka	Yes

Contractor/Sub-Contractor Details:

THE NEW INDIA ASSURANCE CO.
(Government of India Undertaking)

न्यू इंडिया एश्योरन्स कंपनी लिमिटेड



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

Extensions under the Policy Cover

Name of the Extension	Sub Limit of the Extension	Deductibles of the Extension
Special Conditions		
	NA	

Special Exclusions	NA
Special Excess/Deductible	NA

The Policy shall be subject to EMPLOYEES COMPENSATION INSURANCE Policy clauses attached herewith.

Clauses	Description
---------	-------------

Premium and GST Details:

	Rate of Tax	Amount in INR
Premium		₹ 9165.00
SGST	9	825
CGST	9	825
IGST	0	0

In witness whereof the undersigned being duly authorised by the Insurers and on behalf of the Insurers has (have) hereunder set his (their) hand(s) on this 23rd day of May, 2018.

For and on behalf of

The New India Assurance Company Limited

Duly Constituted Attorney(s)

Date of Issue: 23/05/2018

Stamp Duty under the Policy is ₹1.

Mudra No. _____ Dt. _____ Consolidated Stamp Fees Paid by Pay Order Number _____ vide receipt
Number _____ dt. _____

Tax Invoice No : 1504003801000089

IRDA Registration Number: 190



Byadgi water distribution network package (01WS03)

IRDA Registration Number - 137

CIN No. U66010RJ2006PLC029979

SHRIRAM EMPLOYEES COMPENSTATION INSURANCE - POLICY SCHEDULE

Shriram Employees Compensation Insurance Policy - UIN No. IRDANT137P9289V01268889 - SAC Code: 997138

Policy No. : 421010/48/19/008985	Prev. Policy No. : -
Cover Note No. : MIT3685	Cover Note Date : 26-JUN-18
Insured's Code : 6570708	Issue Office code : 421010
Insured's Name : M/S.Shriram EPC Limited - GSTIN No. - 33AAFC51410C1Z6	Issue Office Name : CHENNAI
Address : 18/3, 4th Floor, Sigappi Achi Building, Rukmini Lakshmiipathi Salai (Marshall's 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 : 7412078259 / 7412078260 / 7412078263 / / sgi.chennai@shriramgi.com
Dev. Officer : -	Broker Details / W. : LB0000000002 M/S.BHARAT RE-INSURANCE BROKERS PVT. LTD. / / Contact No.:

Period of Insurance : From 00:00 on 26/06/2018 To Midnight of 25/06/2019 (Both days Inclusive)

Gross Premium : 209,300 S Tax : 0 GST : 37674 Cess : 0 ST Duty : 105 Total : 246,974

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 :CGST	18,837.00
ADD :SGST	18,837.00
TOTAL AMOUNT	2,46,974.00

Place : CHENNAI

Date : 30/06/2018

All the amounts mentioned in this policy are in Indian Rupees.

GSTIN No. - 33AAKCS2509K1ZA

For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD

Authorised Signatory

Page 1 of 2

Attached to and forming part of policy number 421010/48/19/008985

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 herein to set his/their hands at CHENNAI on 30th Day of June 2018.

Entered by : SANJAY SINGH

Approved by : SANJAY SINGH


Place : CHENNAI

Date : 30/06/2018

All the amounts mentioned in this policy are in Indian Rupees

GSTIN No. - 33AAKC62599K1ZA

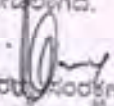
For and on behalf of
SHRIRAM GENERAL INSURANCE COMPANY LTD


Authorised Signatory

Page 2 of 2

== ಆದೇಶ ==

ಪ್ರಸ್ತಾವನೆಯಲ್ಲಿ ವಿವರಿಸಿದ ಪರಿಸ್ಥಿತಿಗಳ ಹಿನ್ನೆಲೆಯಲ್ಲಿ, ಕರ್ನಾಟಕ ವೃಕ್ಷ ಸಂರಕ್ಷಣಾ ಅಧಿನಿಯಮ 1976ರ ವಿಧಿ 8 ಮತ್ತು ಅದರ ಉಪವಿಧಿಗಳ ಪ್ರಕಾರ ಈ ಕೆಳಕಂಡಂತಿಗಾಗಿ ಪ್ರದತ್ತವಾದ ಅಧಿಕಾರವನ್ನು ಚಲಾಯಿಸಿ ಹರಿಹರ ತಾಲ್ಲೂಕು ರಾಜನಹಳ್ಳಿ ಗ್ರಾಮ ತುಂಗಭದ್ರಾ ನದಿ ದಂಡೆಯಲ್ಲಿ Jackwell ನಿರ್ಮಿಸಲು ಎರಡು ಮಳೆ ಮರಗಳನ್ನು ಕಡಿಯಲು ಅನುಮತಿ ನೀಡಲಾಗಿದೆ.


ಉಪ ಆರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ,
ದಾವಣಗೆರೆ ವಿಭಾಗ, ದಾವಣಗೆರೆ.

ಪ್ರತಿಯನ್ನು :

1. ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು, ಕೆಂಪುಹಡಿಎಫ್‌ಸಿ-ಕೆಂಪುಹಡುಬ್ಬೊಂಪು, ಆರ್‌ಪಿಎಂಐ, ದಾವಣಗೆರೆ ಇವರಿಗೆ ಮರದ ತಗ್ಗುಲೆ ಪಟ್ಟಿಯೊಂದಿಗೆ ಕಳುಹಿಸುತ್ತಾ, ಮರಗಳನ್ನು ಕಡಿದು ಮನೆ ಉಪಯೋಗಕ್ಕೆ ಮಾರಾಟ ಮಾಡಿದಾಗ, ಮಾರಾಟ ಮಾಡಿದ ವೊತ್ತದ ಮೇಲೆ ಶೇ.3 ರಂತೆ ಅಥವಾ ಸಂಘಸಂಸ್ಥೆ, ಸಾಮಿಲ್/ನಿಗಮ ಮಂಡಳಿ ಹಾಗೂ ಇತರೆಯವರು ಖರೀದಿಸಿದಾಗ ಮಾರಾಟ ವೊತ್ತದ ಮೇಲೆ ಶೇ.12 ರಂತೆ ಅರಣ್ಯ ಅಭಿವೃದ್ಧಿ ನಿಧಿಯನ್ನು ವಸೂಲಿ ಮಾಡಿ ಪಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ, ದಾವಣಗೆರೆ ಪಲಯ, ದಾವಣಗೆರೆ ಇವರಿಗೆ ಪಾವತಿಸಲು ಸೂಚಿಸಿದೆ.
2. ಪಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ, ದಾವಣಗೆರೆ ಪಲಯ, ದಾವಣಗೆರೆ ಇವರಿಗೆ ಮುಂದಿನ ಕ್ರಮಕ್ಕಾಗಿ ಕಳುಹಿಸಿದೆ. ಮರಗಳನ್ನು ಕಡಿದ ನಂತರ, ಮರಗಳ ಪಟ್ಟಿಯೊಂದಿಗೆ ಸಾಗಣಿಕೆ ಮಾಡಲು ಈ ಕಛೇರಿಯಿಂದ ರಹದಾರಿ ಪಡೆಯ ನಂತರ ಸಾಗಿಸಲು ಕ್ರಮ ಕೈಗೊಳ್ಳತಕ್ಕದ್ದು. ಅಖರ ಪ್ರಧಾನ ಮುಖ್ಯ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು (ಅರಣ್ಯ ಸಂಪನ್ಮೂಲ ನಿರ್ವಹಣೆ), ಬೆಂಗಳೂರು ಇವರ ಪತ್ರ ಸಂಖ್ಯೆ : ಆಪ್ರಮುಅಸಂ(ಆಸಂನಿ)/ಬಿ5/ಕೆಟಪಿ/ನಿಆರ್-137/2016-17, ದಿನಾಂಕ : 20-03-2017ರ ಪ್ರವೃತ್ತದಲ್ಲಿ ತಿಳಿಸಿರುವಂತೆ ಮಾನ್ಯ ರಾಷ್ಟ್ರೀಯ ಹಸಿರು ಪೀಠ (NGT) ಮೂಲ ಆರ್ಜಿ ಸಂಖ್ಯೆ : 167/2016 ದಿನಾಂಕ: 26-04-2017ರ ಮಾನ್ಯ ನ್ಯಾಯಾಲಯದ ಆದೇಶವನ್ನು ಯಥಾವತ್ತಾಗಿ ಪಾಲನೆ ಮಾಡಲು ತಿಳಿಸಿದೆ.

[illegible]

ಪ್ರಸ್ತಾವನೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಸರ್ಕಾರದ ವಿವರಣೆ, ಕಾರ್ಯದ ವಿವರಣೆ
ಕಾರ್ಯದ ವಿವರಣೆ ಸರ್ಕಾರದ ವಿವರಣೆ, ಕಾರ್ಯದ ವಿವರಣೆ
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ಕಾರ್ಯದ ವಿವರಣೆ ಸರ್ಕಾರದ ವಿವರಣೆ, ಕಾರ್ಯದ ವಿವರಣೆ

THE UNIVERSITY OF CHICAGO

1. The following information is being furnished to you for your information and use only. It is not to be used for any other purpose. The information is being furnished to you for your information and use only. It is not to be used for any other purpose. The information is being furnished to you for your information and use only. It is not to be used for any other purpose.

BANK ACCOUNT STATEMENT FOR MONTH OF JANUARY 2018								
Sl. No.	Particulars	Debit (₹)	Credit (₹)	Balance (₹)	Bank Name	Branch	Account No.	Page No.
1	Opening Balance		1000	1000	State Bank of India	Delhi	1234567890	1/1
2	Salary	500		500	State Bank of India	Delhi	1234567890	1/2
3	Interest		50	550	State Bank of India	Delhi	1234567890	1/3
4	Transfer	200		350	State Bank of India	Delhi	1234567890	1/4
5	Closing Balance			350	State Bank of India	Delhi	1234567890	1/5

Handwritten signature
the word "Handwritten"
over the
signature

2000-2001
2002-2003
2004-2005


 DEPARTMENT OF HEALTH AND HUMAN SERVICES
 HEALTH CARE FINANCING ADMINISTRATION
 OFFICE OF INSURANCE REGULATION

Deputy Commissioner of Forests
Georgetown, Guyana

Sample Site Specific Environment Management Plan

SITE SPECIFIC ENVIRONMENTAL MANAGEMENT PLAN

**PROJECT: KARNATAKA INTEGRATED URBAN WATER
MANAGEMENT INVESTMENT PROGRAM**

Contract No: CC/DVG/KIUWMIP/03/2013-14

**PROGRAM: DESIGN AND OPERATE (1) IMPROVEMENT OF BULK
WATER SUPPLY TO DAVANAGERE CITY-AND (2)
OPERATION AND MAINTENANCE OF THE BULK WATER
SUPPLY SYSTEM FOR A PERIOD OF THREE (3) MONTHS
FOR DAVANAGERE CITY CORPORATION IN KARNATAKA**

EMPLOYER: CITY CORPORATION, DAVANAGERE

CONTRACTOR: SHRIRAM EPC LTD.

SHRIRAM EPC LTD.

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 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.	

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, telecommunication lines, power lines and	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
	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	
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 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/ PMDCSC 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. Construction site – particularly excavated area already barricaded	Company's health and safety guidelines will be followed

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

Field/Issues	Anticipated Impact	Mitigation Measures	Remarks
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. Flammable materials stored as far as possible from adjacent residents / businesses.	

Google Map shows sampling stations

Ambient Air Quality Monitoring at Sites of construction

Package	Locations	GPS Coordinate
Davangere UGD (Package no. 01DVG01)	Sarswati Nagar(A1)	14°26'26.48"N 75°55'48.06"E
	K T J Nagar(A2)	14°27'22.89"N 75°55'16.93"E
	Bhagat Singh Nagar(A3)	14°27'56.77"N 75°56'04.46"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)	North Dist – 4A Benki Nagar (A9)	14°30'16.64"N 75°48'48.75"E
	STP site near Kirloskar factory(A10)	14°31'44.71"N 75°48'20.55"E
Harihar Bulk WS (01HRA02)	Near Indian Oil Petrol pump, Kumar Pattan (A11)	14°31'40.91"N 75°46'38.19"E
	WTP site, Harihar (A12)	14°31'7.11"N 75°48'5.26"E
	OHT site near Gajanan Temple, Amaravathi colony (A13)	14°30'37.53"N 75°49'42.98"E
Harihar water distribution network (01WS04)	Church Road(A14)	14°30'42.43"N 75°48'37.54"E
	Harapanhalli Circle, near Bus stand (A15)	14°30'54.01"N 75°48'27.14"E
	Near Vidhyanager, Shivamogga main road (A16)	14°30'8.11"N 75°48'23.85"E
	Guttur Road, Harihar (A17)	14°32'0.63"N 75°48'46.60"E
Byadgi UGD (Package no. 01BDG01)	Neheru Nagar(A18)	14°41'0.35"N 75°29'35.40"E
	Kakul Road (A19)	14°40'45.30"N 75°29'46.85"E
	Basaweswara Nagar(A20)	14°40'22.24"N 75°29'7.16"E
	Shutter Road(A21)	14°40'27.06"N 75°29'16.71"E

Byadgi bulk WS (01BDG02)	Near Kadaramandalgi Japping point and existing MS pipeline (A22)	14°37'27.60"N 75°36'2.06"E
	Near Asundi (A23)	14°38'2.18"N 75°32'40.87"E
	Near Jinning mill, Ranebenur bypass (A24)	14°37'43.41"N 75°35'34.48"E
Byadgi water distribution (01WS03)	Basaweswara Nagar(A25)	14°40'22.24"N 75°29'7.16"E
	Nehru Nagar(A26)	14°41'0.35"N 75°29'35.40"E
	Melagiri Plot(A27)	14°39'54.21"N 75°28'59.91"E

Noise Level Monitoring at Sites of construction

Package	Locations	GPS Coordinate
Davangere UGD (Package no. 01DVG01)	Sarswati Nagar(N1)	14°26'26.48"N 75°55'48.06"E
	K T J Nagar(N2)	14°27'22.89"N 75°55'16.93"E
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	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
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Byadgi water distribution (01WS03)	Basaweswara Nagar(N25)	14°40'22.24"N 75°29'7.16"E
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	Melagiri Plot(N27)	14°39'54.21"N 75°28'59.91"

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



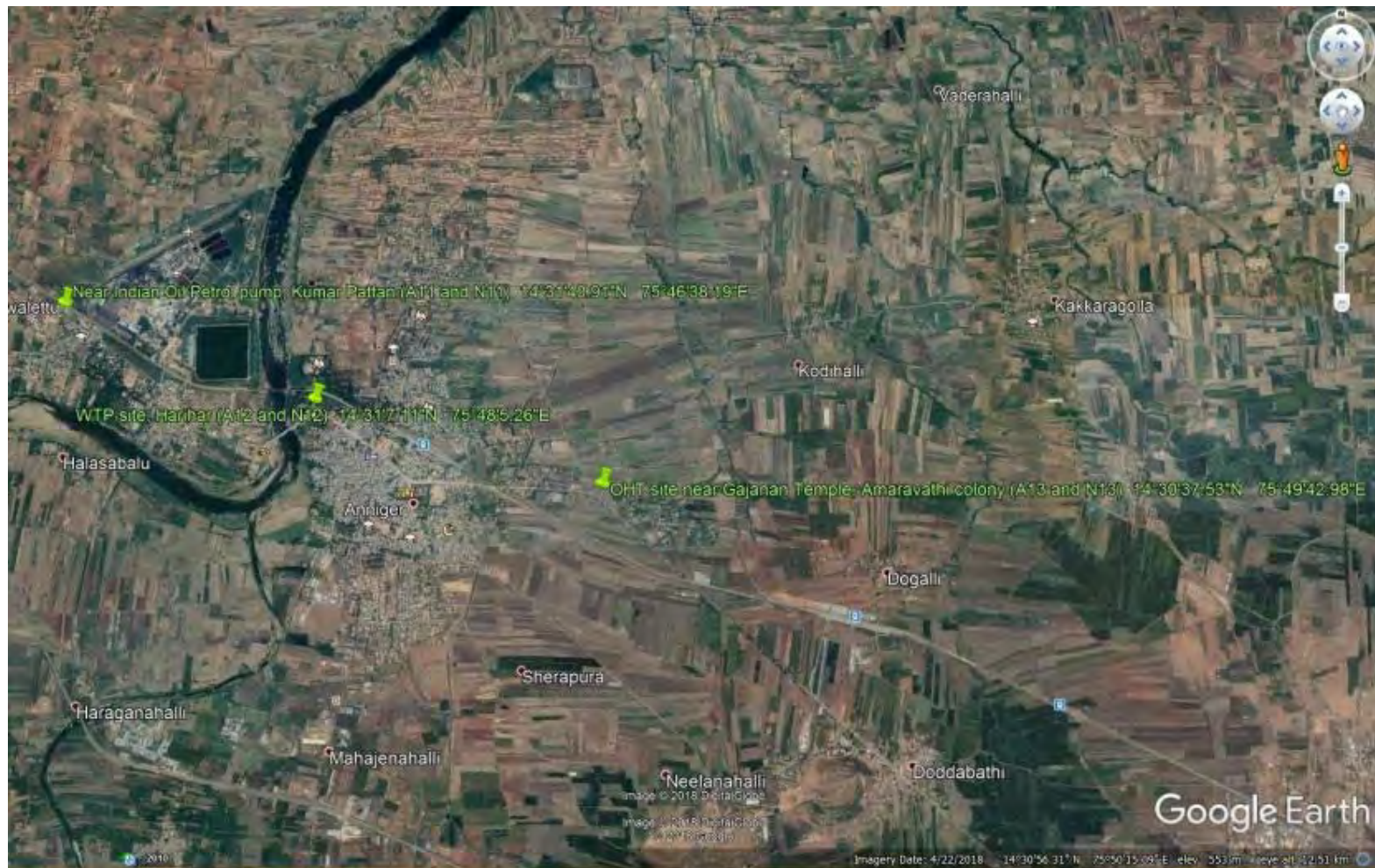
Air and Noise stations- Davangere bulk water supply (Package 01WS01)



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)



Sample: Spoil Management Plan

Byadgi UGD & STP

SPOIL MANAGEMENT PLAN

M/S –SHRIRAM EPC LTD,

Jan 2018 to June 2018

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

SPOIL MANAGEMENT PLAN
M/S –SHRIRAM EPC LTD,
Jan 2018 to June 2018

4. SPOIL VOLUMES, CHARACTERISTICS AND MINIMIZATION

Extraction point	Spoil produced (m3)	Reuse on site (m3)	Offsite reuse (m3)
Manhole Excavation & Pipe laying	7,300	5,410	1,890

5. 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.

6. 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.

7. MONITORING, REPORTING, REVIEW, AND IMPROVEMENTS

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

SPOIL MANAGEMENT PLAN

M/S –SHETH AND SURA ENGG.PVT.Ltd

01HRA02 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. 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 100 cum excavated earth will be shifted by truck from working site to disposal area at STP if required after level and dressing.

8. MONITORING,REPORTING,REVIEW,AND IMPROVEMENTS

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

Sample - Traffic Management Plan

Harihar Water Supply Distribution Network

TRAFFIC MANAGEMENT PLAN
MAY-2018

Project: KARNATAKA INTEGRATED URBAN WATER
MANAGEMENT AND INVESTMENT PROGRAMME

Contract No: CMC/HRR/KIUWMIP/DWS/CR 70/2017-18/226. Dated

Program: Construction of Distribution Network-Operator Assisted in
Harihara including 8 years of O&M 24x7 Harihara Water
Supply System

Package No : 01WS04

EMPLOYER: CITY MUNICIPAL COUNCIL (CMC), HARIHARA

CONTRACTOR: Veolia India Pvt Ltd

Prepared by - Veolia India Pvt Ltd

TRAFFIC MANAGEMENT PLAN

MAY-2018

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 Harihara CMC.
3.0	RESPONSIBILITY
	<ul style="list-style-type: none"> 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 workplace 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	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
5.0	REQUIREMENTS
5.1	General
	<ul style="list-style-type: none"> 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.
5.2	Planning stage
	<ul style="list-style-type: none"> The client and 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 <ul style="list-style-type: none"> traffic signs; cones; barrers; 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.
5.3	On site
	<ul style="list-style-type: none"> 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.

TRAFFIC MANAGEMENT PLAN

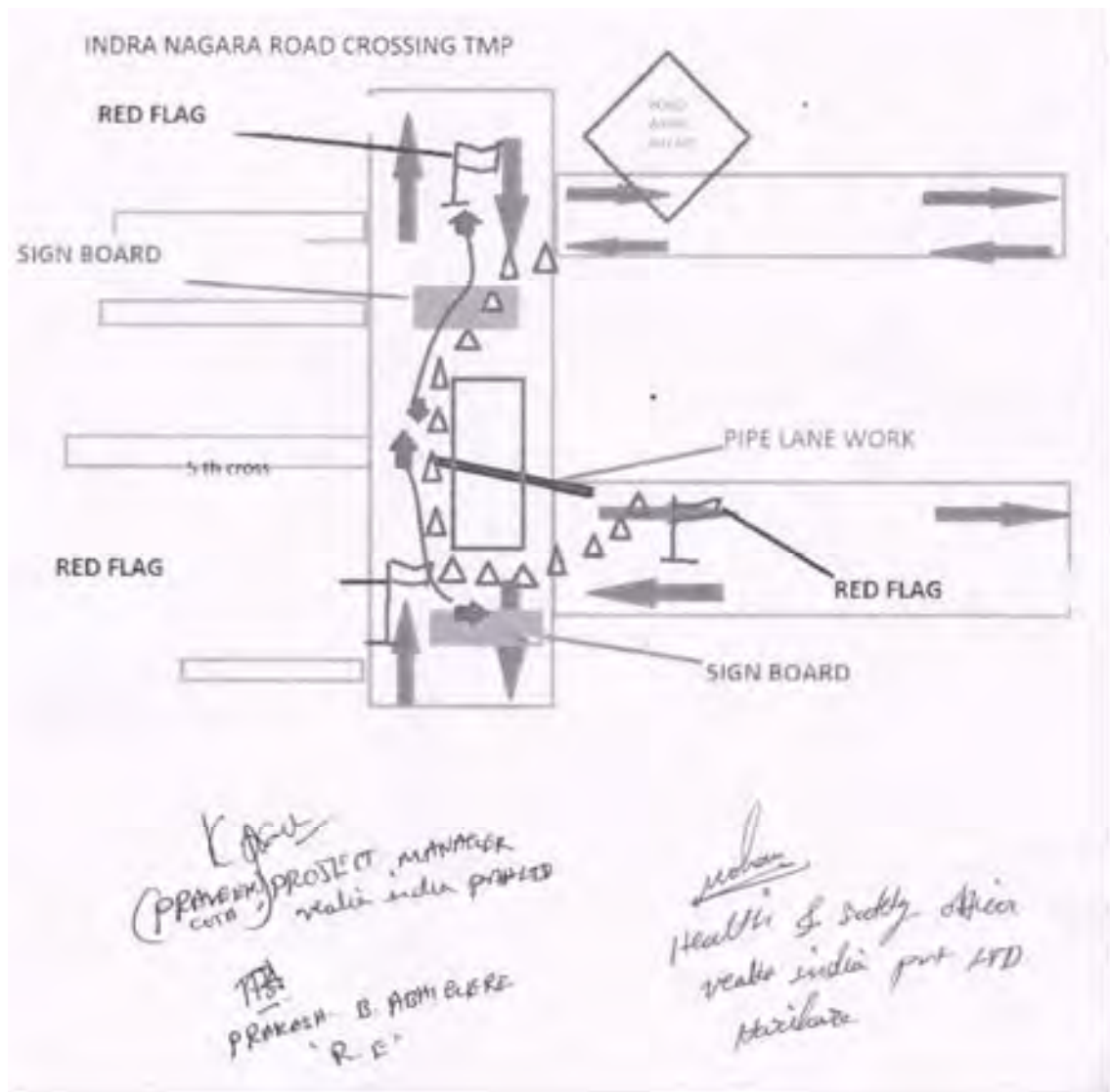
MAY-2018

	<p>and equipment and space to move around the job</p> <ul style="list-style-type: none"> • 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.
5.4	Operators / Drivers
	<ul style="list-style-type: none"> • Experienced operators and drivers with valid license has been appointed • One copy of license has been collected by Safety Department.
5.5	Equipment
	<p>Drivers are made a daily inspection of their vehicles include steering, brakes, mirrors, lights, horn, tires and windshield wipers</p> <p>Safety Department along with Plant department has been checking the vehicles monthly basis</p> <p>All vehicles have reverse horns and it is in working properly</p> <p>All vehicles periodical maintenance has conducted</p>
5.6	Roads
	<p>For safe operation we are following the below safety measure</p> <p>Safe width has been provided</p> <p>Speed limit will be varied as per the site</p> <p>Safe walkway with proper guard has been provided</p> <p>Caution board has been placed in every location within the site</p> <p>During night Traffic light has been provided</p> <p>Conducting Toolbox training as regular basis</p> <p>Road will be closed with proper permission (if required)</p> <p>Reflective type Diversion board has been placed in required places</p> <p>Red and green Flag we have used in day time</p>
5.7	Loading and unloading

TRAFFIC MANAGEMENT PLAN

MAY-2018

	<p>Only authorized persons were engage for loading / unloading.</p> <p>Materials loaded within the permitted safe weigh limit for the truck.</p> <p>Dimensions of loads carried on a vehicle in strict accordance with relevant provisions.</p> <p>A red flag is being used at the rear extremity of an overhanging load.</p> <p>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</p> <p>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</p> <p>Heiper has been provided with all vehicles.</p>
5.8	<p>Working Area</p> <ul style="list-style-type: none"> • 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 <p>Particular attention has been taken in working area:</p> <ul style="list-style-type: none"> o traffic signs; o cones; o barriers; o road hazard warning lights; o information boards; and o site lighting <p>Adequate lighting has been provided</p>
5.9	<p>Signage:</p> <ul style="list-style-type: none"> • Ensure that signage and signage symbols used are internationally recognised • Ensure additional languages are used in signage to ensure messages are understood
6.0	<p>Safety:</p> <ul style="list-style-type: none"> • 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 workplace 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.





working area

K. P. S.
(PRANEEN COTA) PROJECT MANAGER
realia india pvt LTD

PRKASH B. ABHIGERE
R.D.

Health & Safety Officer
realia india pvt LTD
Haverhara

Sample Internal Training document- Contractor

Davangere UGD

SIMPLEX INFRASTRUCTURE LIMITED
DAVANGERE SEWAGE PROJECT(KARNATAKA) C-3014
TOOL BOX TALK

DATE: 20/03/2018
 TIME: 8:30 AM
 VENUE: L-ASTING YARD
 CONDUCT BY: A. C. Das
 TOPIC DISCUSSED: ROAD SAFETY, FIRE SAFETY, HOUSE KEEPING

Sl. No	NAME OF WORKER	DESIGNATION	GATE PASS	SIGNATURE
1.	Gauri Shankar Path	MECH ENGINEER		
2.	PRAMOD	HELPER		
3.	Bidishi MONDAL	HELPER		
4.	BAJO MONDAL	HELPER		
5.	WAKIL MONDAL	HELPER		
6.	Indumani Sharma	STORE MNT		
7.	KUNDRE NAIK	HELPER		
8.	ASIT GOSWAMI	STORE - INCHARGE		
9.	Awardash Kumar	MECHANIC HELPER		
10.	SIMV KUMAR	STORE HELPER		SHIVANUMHAR.DAS
11.	KISHORE	TRUCK DRIVER		
12.	RANGA	TRACTOR OPERATOR		
13.	PARSURAM	"		
14.	KUMAR	"		
15.	MANJU	"		
16.	PRABHU	WATER TANK		PRABHU KUMAR
17.	BARANRAPP. S. PALAP	JCB-OPERATOR		BSP
18.	APURBAJAL ROY	QUALITY ASST		
19.	Bidyut Biswas			

SIGNATURE OF SAFETY OFFICER: [Signature]
 SIGNATURE OF SITE ENGINEER: [Signature]
 SIGNATURE OF CLIENT: [Signature]

Davangere STP



HNB ENGINEERS PVT.LTD

DAVANAGERE:- 05.MLD-SEWAGE TREATMENT PLANT, AVARGERE UTTAM LAYOUT (KARNATAKA)

TOOL BOX TALK

Date: 20/04/2018
 Time: 3:00 PM
 Venue: Site Office, NEW SPOT OUTRECH, S.M.L.D STP AVE. DVO
 Conduct By: Nimit K. Kulkarni
 Topic discussed: Construction Site Traffic Road Safety

Sr. No	Name of employee	Designation	Emp.Code Nos	Signature
1	Mohaseen J. Shukla	PLC opt	1010	(Signature)
2	Ground J. Mule	PLC opt	4207	(Signature)
3	Ramesh H	Electrician	10102	(Signature)
4	Ganesh M	Helper	13102	(Signature)
5	Premar N	Helper	13111	(Signature)
6	Ratnamma	Helper	13112	(Signature)
7	Venkataramaiah	Electrician	4218	(Signature)
8	Ibrahim Vllac	Helper	13123	(Signature)
9	Ajdaiah. M	Helper	13114	(Signature)
10	Dhampar. N	Helper	13115	(Signature)
11	Kiran naik	Helper	13107	(Signature)
12	Rajesh M	Helper	11303	(Signature)
13	Suresh M.	Work	9216	(Signature)
14	Pooja K	Work	9217	(Signature)

Signature of Safety officer.

Signature of Safety Engineer.

Signature of Client



Davangere Bulk water supply

ShriramYepc

SAFETY TOOL BOX MEETING

Format No.

F/EPC/STB/10

Issue No.

1

Rev No.

0

Project Name

Bulk Water Supply - DWS

Topic Covered

Electrical & Trench Safety

Tool Box Meeting Conducted By

D.DINESH

Signature

[Signature]

Date

5.2.2018

Time

9 am

Total No of Persons Attended

5

S.No

Name

Designation

Signature

1

BABU - K

Sub-Contractor

K. Babu

2

Ganesh

Helper

[Signature]

3

Mithun

Filter

[Signature]

4

ANAND - A

Helper

[Signature]

5

MAHAKANDAN S

operator

[Signature]

Harihar UGD & STP

[illegible]

Harihar Bulk water supply & Byadgi Bulk water supply

SITE SAFETY INDUCTION	Form No.	
	Rev No.	
	Issue No.	

Date:- 25/09/2019 Location:- OWT Ammasikere
 SSEPL/Contractor Shreeganesh Projects No of persons inducted:- 04
 Project Detail:- Water supply
 Nature of work:- pipeline trenching & electrical General Safety

Detail of person Inducted				
S.No	Name	Designation	Contractor	Signature
01	Puoshanjit Mandal	Mason	Narayana	[Signature]
02	Gopal munda	Helper	Narayana	[Signature]
03	Samir Sridha	Helper	Narayana	[Signature]
04	Sudam munda	Helper	Narayana	[Signature]
05				
06				
07				
08				
09				
10				

Points discussed:-

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

Additional Information Provided:-

- Emergency Safety
- PPE
- Night work

Induction given by: Ramesh Nair & Praveen

Signature: [Signature]

Name: Ramesh Nair

Designation: Safety Officer

Note:-

- It should be kept at site for record.
- It is mandatory for all new worker men/SSEOL, Staff /Visitors.

Harihar water supply distribution network

Veolia India Pvt Ltd

SITE SAFETY INDUCTION

Date:- 19-03-2019 Location:- HARIHARA SITE office
 VIPL Contractor:- VIPL No. of persons inducted:- total no. of people
 Project Detail:- Construction of 24/7 water supply in Harihara
 Nature of work:-

Detail of person Inducted				
S.No	Name	Designation	Contractor	Signature
01	PRABHAKAR KOTA	Manager	VIPL	[Signature]
02	Surya R H	Engineer	VIPL	[Signature]
03	GANESH-19	J. ENGINEER	VIPL	[Signature]
04	A. YUSUF	Junior Engineer	VIPL	[Signature]
05	Sunil Kumar. b. S	Network Asst	Self	[Signature]
06	Manoj Kumar. H. D	Network Asst	Self	[Signature]
07	SURESH	Office Asst	Self	[Signature]
08	De'jay Kumar	Driver	Self	[Signature]
09	Ushumath. S. H	Driver	Self	[Signature]
10				

Points discussed:-

- ☒ Policies
- ☒ Drugs & Alcohol
- ☒ 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. _____
2. _____
3. _____

Induction given by: Mr. Mohan Kumar. T. D.

Signature: [Signature]


Name:

Designation: Health & Safety Officer

Note:

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

Byadgi UGD and STP

 Shriram epc Engines for the Future	OCCUPATIONAL HEALTH AND SAFETY TRAINING	Attendance Sheet
--	--	-----------------------------

Program Title <i>Trenching Safety.</i>	
Project <i>Highway 1511 - Byadgi - UGD.</i>	
Date <i>12/3/2018.</i>	Time <i>9.30 am</i>
Venue <i>Kehru Nagar - Byadgi</i>	
Name of the Trainer <i>Akhandharaj</i>	Trainers Signature <i>[Signature]</i>

SL.NO	NAME	DESIGNATION	SEPC / CONTRACTOR	SIGNATURE
1	Durgappa	contractor	Contractor	[Signature]
2	Bhemappa	labour	contractor	[Signature]
3	Ramappa	contractor	contractor	[Signature]
4	Laxmanam	major.	Contractor	[Signature]
5	manjul	driver	contractor	[Signature]
6	Ragavaraj	driver	contractor	[Signature]
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				

[illegible]

Medical Tie up and Health check up

Davangere UGD

Tie up letter with hospital

DATE: 27.07.2018


MEDICAL TIE-UP LETTER

This is certify that M/S-SIMPLEX INFRASTRUCTURES LIMITED who is working in davangere Karnataka for the Expansion of sewerage system in Davangere city (district 1& 3) has been tie-up with us for FIRST-AID TREATMENT of their employees, workers and MEDICAL EMERGENCY 24X7 in our hospital, as we have various setups across the city .Therefore we would like to have a tie-up with SIMPLEX INFRASTRUCTURES LIMITED to handle all the first aid cases and medical emergencies .

SRI RAGHAVENDER HOSPITAL
 DR. S.KRISHNAMURTHY(B.Sc..M.B.B.S)
 Reg.No-15991/KMC,1st Main Road
 8th Cross,Vinobha Nagar,DAVANGERE,Karnataka


 Dr. S. Krishnamurthy
 SRI RAGHAVENDRA HOSPITAL
 Reg. No. 15991/KMC, 1st Main Road,
 8th Cross, Vinobha Nagar, Davangere - 6

Health Check up report

 **SIMPLEX INFRASTRUCTURES LIMITED**
DAVANGERE SEWERAGE PROJECT

MEDICAL EXAMINATION REPORT

(PERIODICAL MEDICAL EXAMINATION REPORT)

DATE: 25/03/2018

1. NAME OF EMPLOYEE HUMAYUN SEKH

2. DESIGNATION HELPER

3. DATE OF SAFETY INDUCTION 1/02/2018

4. GATE PASS NO

5. AGE 52 yes

6. IDENTIFICATION MARK one small black mole on

7. BLOOD GROUP O+ve

8. HEIGHT 5.2 cm

9. WEIGHT 52 kg

10. EYE VISION NORMAL/ABNORMAL

11. HEARING NORMAL/ABNORMAL

12. RESPIRATORY RATE 7.5 /minute

13. B.P. 158/77 mm of Hg

14. PULSE 74 /min

15. RECOMMENDATION if any for any further investigation NIL

16. Comments/Medical advice if any NIL

Signature of Employee

Signature of Doctor

Dr. S. Krishnamurthy
MBBS
SRI RAGHAVENDRA HOSPITAL
Reg. No. T-1412091, 1st Main Road,
8th Cross, Yelochannur, Davangere-4

Davangere STP

Tie up letter with hospital



EMPLOYEES' STATE INSURANCE CORPORATION e-Pehchan Card

Insured Person: **Rathnamma Ningappa**
Insurance No: **5858531609**
Date of Registration: **29/04/2017**

If (Date Aadhaar Number is not entered this is valid upto date: **19/05/2017** only.

YOUR REGISTRATION DETAILS

Employee Name:	Rathnamma Ningappa	Type of Disability:	None
Name of Father / Husband:	Ningappa	Date of Birth:	10/05/1905
Marital Status:	Married	Gender:	Female
Present Address:	Davangere, Dist Davangere, Karnataka	Permanent Address:	Davangere, Dist Davangere, Karnataka
Aadhaar Number:	303640676901	Aadhaar Status:	Unverified
Dispensary / BMP for IP:	Davangere City, KA (ESIS Disp.)	Dispensary / BMP for Family:	Davangere City, KA (ESIS Disp.)
Current Employer Details		First Employer Details	
Employer's Code No.:	33000172270000999	Employer's Code No.:	None
Sub Unit's Code No.:	58330172270010999	Sub Unit's Code No.:	None
Date of Appointment:	01/03/2017	First Insurance No.:	None
Name of Employer:	H.N.B. ENGINEERS PVT. LTD.	Name of Employer:	None
Address of Employer:	29 MLD - STP, Davangere City Corporation, Sr.No. 11, Ashraya Colony, Shivamogga, Doddabachhal Road, 577004 Road, Dist Davangere, Karnataka 577004	Address of Employer:	None

Family Details:

Name	Relationship with the Employee	Date of Birth	Whether Residing with Insured Person	State	District	Aadhaar	Aadhaar Status
Durgesha	DEPENDANT SON-RECEIVING EDUCATION	09/03/1969	Yes	Karnataka	Davangere	902454639174	Unverified

Nominee Details:

Name of Nominee	Relationship with IP	Percentage	Address of Nominee	Aadhaar	Aadhaar Status
Durgesha	Dependant son receiving education	100	Davangere, Karnataka Dist Davangere	NA	NA

Davangere bulk water supply

Tie up with Hospital

AROGYA MATHEYA HOSPITAL


Amaravathi Colony, Daggalli Road, HARIHAR-577 801,
Ph. : 08192-242805, 243693

Ref. No.

Date :

M/s. SUREKAM 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 Matheya Hospital
Amaravathi Colony Daggalli Road,
HARIHAR-577 801,
Kt

Medical check up Report

ಆರೋಗ್ಯ ಮಾತೆಯ ಆಸ್ಪತ್ರೆ AROGYA MATHEYA HOSPITAL

Certificate of Medical Examination

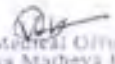
Name (In Block Letters)..... BABU.K
Age: 45yrs Sex: M Height: 168cm Weight: 65 kg
Blood Group & Rh.Factor: 'A' Positive
CVS : Normal
RS : Normal
P/A : Normal
ENS : Normal
Others : BP - 136/86
I D Mark : A black Mole at rt. Side of neck.
Blood Sugar : 106 mg/dl
Remarks :
He is in good health
I certify that I have examined Mr/Mrs. Babu
Status of his/her fitness level is recorded above.

Date: 08-06-2018


Signature with seal
Adminstr.
Arogya Matheya
Andra-ath- District, Thang
HOSPITAL
Karnataka, 500000

Harihar UGD & STP

Tie up letter with hospital

AROGYA MATHEYA HOSPITAL Amaravathi Colony, Daggali Road, HARIHAR-577 601. Ph. : 08192-242605, 243693	
Ref. No. _____	Date : _____
<p>M/s. SHIRIRAM 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</p> <p>Thank you.</p> <p> Medical Officer Arogya Matheya Hospital Amaravathi Colony Daggali Road - HARIHAR-577 601. Kt</p>	

Medical check up Report

ಆರೋಗ್ಯ ಮಾತೆಯ ಆಸ್ಪತ್ರೆ AROGYA MATHEYA HOSPITAL

Certificate of Medical Examination

Name (In Block Letters)..... MAHANTESH
Age: 22yrs Sex: m Height: 165cm Weight: 53kg
Blood Group & Rh Factor: 'O' Positive
CVS: Normal
RS: Normal
P/A: Normal
CNS: Normal
Others: B-P-130/80 mmHg
I D Mark: A black mole over middle of the neck.
Blood Sugar: 94 mg/dl
Remarks: He is in good health.

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

Date: 06-06-2018

Dr. Laxmi
Signature with seal

Administrator
Arogya Matheya Hospital
Kannur - Colony Dogga Road
HSHHAP-577 011,
Karnataka, India

Harihar Bulk water supply and Byadgi Bulk water supply

Tie up letter with hospital



ಚೈತ್ರಾ ಕ್ಲಿನಿಕ್ CHAITRA CLINIC

ಬಸ್ ಸ್ಟಾಂಡ್ ಹತ್ತಿರ, ಬೋಯ್ಸ್ ರೋಡ್, ಬ್ಯಾಡಗಿ-581106. ಹಾವೇರಿ ಜಿಲ್ಲೆ

ಡಾ|| ಮುರಗೇಶ
M.B.B.S
ಜನರಲ್ ಮೆಡಿಸಿನ್

ಡಾ|| ಜನರಾಜ್ ಸಿ. ಇಂಗಲೇಗಾರಿ
M.B.B.S, D.C.H
ಮಕ್ಕಳ ತಜ್ಞರು

ಡಾ|| ಅಂದರ್ಜನ್
M.B.B.S, Urology
ಮೂತ್ರರೋಗ ತಜ್ಞರು

ಡಾ|| ಅಶ್ವಿನಿ
M.B.B.S, B.D.S
ದಂತ ವೈದ್ಯರು

ಡಾ|| ದೀಪರಾಜ್ ಎಸ್.
M.B.B.S, M.S
ಜನರಲ್ ಮೆಡಿಸಿನ್ & ಸರ್ಜನ್

Certificate of Medical Examination

Sheth & Suresh Engg. Pvt Ltd has
Workers. If they have any Health
Problems, getting injury during working
hours will come to our hospital
for treatment. All workers are
working in Byadgi Bulk water
supply.

ಸಮೀಕ್ಷಕರ ಸಂಖ್ಯೆಗಳು :

- * ಚೈತ್ರಾ ಮೆಡಿಕಲ್ ಖಾನ್
- * ಚೈತ್ರಾ ರಕ್ತ ಪರೀಕ್ಷಾ ಕೇಂದ್ರ
- * ಚೈತ್ರಾ ರೂಪಕ ಕೇಂದ್ರ
- * ರಕ್ತ ಪರೀಕ್ಷಾ ಕೇಂದ್ರ
- * ಬಳ ರೋಗಗಳ ಖಾನ್

Date: 6-1-2018

CHAITRA HOSPITAL
CTS No : 239/240/B, 1st Floor,
Post Office Road, Near Bus Stand
BYADGI-581106. Dist : Haveri

ಚೈತ್ರಾ ಕ್ಲಿನಿಕ್ CHAITRA CLINIC

ಬಸ್ ಸ್ಟಾಂಡ್ ಹತ್ತಿರ, ಮೋಜ್ವಾ ರೋಡ್, ಬ್ಯಾಡಗಿ-581106. ಹಾವೇರಿ ಜಿಲ್ಲೆ

ಡಾ|| ಮುದಗೇಶ
M.B.B.S
ಜನರಲ್ ಸರ್ಜನ್

ಡಾ|| ಅನಂದ ಸಿ. ಇಂಗಲಗಾಡಿ
M.B.B.S, D.C.H
ಮಕ್ಕಳ ತಜ್ಞರು

ಡಾ|| ಅಂಬರೀಶ್
M.B.B.S, Urology
ಮೂತ್ರರೋಗ ತಜ್ಞರು

ಡಾ|| ಅಶ್ವಿನಿ
M.B.B.S, B.D.S
ದಂತ ವೈದ್ಯರು

ಡಾ|| ಬಸವರಾಜ ಎಸ್,
M.B.B.S, M.S
ಜನರಲ್ ಮೆಡಿಸಿನ್ & ಸರ್ಜನ್

Certificate of Medical Examination

Name: Manju. Kamali

Age: 37 Sex: Male

Height: 5.3 Weight: 76 kg.

EYES: N.A.E

R.S: Normal

P.L.A: Good. Normal

E.N.S: N.A.E

Other's: B.P. 130/80 mmHg.

T.D. marks: Scar of burn's

Remarks: he is in good health.

Blood group and R.h. factors B' positive

Date: 6-1-2018

ಸಮಗ್ರವಾದ ನೋಟಪಟ್ಟಿಗಳು:

- * ಕೈಯ ಮೆರಲರ್ ಶಾಪ್
- * ಕೈಯ ರಕ್ತ ಪರೀಕ್ಷಾ ಕೇಂದ್ರ
- * ಕೈಯ ಉಷ್ಣ ಕೇಂದ್ರ
- * ಕೈಯ ಬಲವು ಸೌಕರ್ಯ
- * ಒಳ ರೋಗಗಳ ವಿಭಾಗ
- *
- *

CHAITRA HOSPITAL

CTS No: 239/249/B, 1st Floor,
Post Office Road, Near Bus Stand
BYADGI-581106. Dist: Haveri

Harihar water supply distribution network

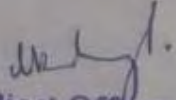
Tie up letter with hospital

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

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

Ⓡ Construction of water supply in
Harihar (24x7) Package No:- 01W504
Veolia India pvt. Limited has

Hundred workers. All workers are
working in watersupply department.
If they have any Health problems,
any minor injury will come & take
treatment in Arogya Matheya
Hospital Amaravathy Colony Harihar.


Medical Officer
Arogya Matheya Hospital
Amaravathi Colony Doodali Road,
HARIHAR 571 501.
KARNATAKA STATE

SRI VINAYAKA CLINIC

Dr. Shivakumarappa, M.B.B.S.

M.K. Road, HARIHAR - 577 601. (Karnataka)

Ref. No.

Date: 23/6/2018

✓ THE VEDANTA INSTITUTE LTD

Medical Camp organised
on 23rd and 24th June 2018
for Staff. Labors. I have
collected some of the persons of 50 to
(one hundred & fifty persons).
also consultation fees for 60 persons
persons for sixty persons

G.M.

G.M. SHIVAKUMARAPPA
M.B.B.S.**Vinayaka Clinic,**

M.K. Road, HARIHARA-577601

Reg. No. 12701

C. No. 7406442178

SRI VINAYAKA CLINIC

Dr. Shivakumarappa, M.B.B.S.
M.K. Road, Harihara - 577601. (Karnataka)

(Certificate of Medical Examination)

Ref. No. (2) Date: 23/6/2018

01. Name (In Block Letters) Srinivas Kumar LS

02. Age - 34y Sex M Height 5'10" Weight 65kg

03. Blood Group & R.H. Factor O - Positive

04. CVS : Normal

05. RS : Normal

06. P/A : Soft & regular

07. CNS : Normal

08. Others : Normal

09. ID Marks : Barely visible

10. Blood Sugar : Normal

11. Remarks : No


I Certify that I have examined Mr/Mrs Srinivas Kumar LS
Status of his/her fitness level is recorded above.

Date 23/6/2018

G.M. SHIVAKUMARAPPA
M.B.B.S.
Vinayaka Clinic,
M.K. Road, Harihara - 577601

Byadgi UGD and STP and water supply distribution network

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, Raichennur	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.
<p>Here by I agree to undertake of Medical Examination of ^{employees of} Shri Rame EPC Ltd Byadgi and also do health check up and treatment regularly or when ever called for at Byadgi.</p>	
<p> Dr. S. N. Nidagundi, Reg. No. 11313 M.B.B.S BYADGI.</p>	

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, Raichur

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

PHYSICAL FITNESS CERTIFICATE

I do hereby certify that I have examined Yauappa
a candidate for Shivam Epc urd and that I
cannot discover that he/she has any disease constitutional affection or bodily infirmity which
Nil I do not consider this a
disqualification for employment in the office of Shivam Epc urd.

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. Yauappa's age is according to his/her own
statement 20 years and by appearance about 20 years.

4. Height 167 cm

5. Weight 63 kg

6. Chest measurement on full inspiration 97 cm

7. Acuteness of vision
a) Right Eye Normal
b) Left Eye Normal

BP - 130/70 Random Blood sugar : 98 mg/dl

Station Byadgi
Date 13/6/2023

[Signature]
Designation

No: KUIDFC-KIUWMIP-RPMU/tech/2017-18/1144

— — —

Superintending Engineer
KUIDFC- KJWMIP - RPMU,
Davanagere

ಕರ್ನಾಟಕ ನಗರ ಮೂಲ ಸೌಕರ್ಯ ಅಭಿವೃದ್ಧಿ ಮತ್ತು
ಹಣಕಾಸು ಸಂಸ್ಥೆ ಲಿಮಿಟೆಡ್

ಕರ್ನಾಟಕ ಸಮಗ್ರ ನಗರ ಸಾರ್ವಜನಿಕ ಮತ್ತು ವಾಣಿಜ್ಯ ಹಣಕಾಸು ಅಭಿವೃದ್ಧಿ
ಕಾರ್ಯಕ್ರಮದಡಿ- ಕೆಐಒಎಫ್‌ಸಿ- ಕೆಐಒಎಫ್‌ಸಿ-ಎಂಐಪಿ-ಆರ್‌ಪಿಎಂಐಪಿ,
ದಾವಣಗೆರೆ.

1976/9, ಶಾಮನೂರು ರಸ್ತೆ, ಎಂ.ಸಿ.ಸಿ.- 'ಎ' ಬ್ಲಾಕ್,
ಅಶ್ರಯ ಆಸ್ಪತ್ರೆ ಬಸ್ಸು, ದಾವಣಗೆರೆ-577004.

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



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

No: KUIDFC-KIUWMIP- RPMU/tech /2017-18/ 1143

Date: 24/10/2017

To,

M/s Shriram EPC-Eurotek Environmental Private Limited-IV
(M/s Shriram EPC Ltd and M/s Eurotek Environmental Private Limited)
4th Floor, Sigappi Achi Building,
18/3, Rukmani Lakshmiipathi 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

Davangere UGD & STP

Public Consultation during construction

Package-
Area-

Sr. No.	Road/Lane No.	Date	P&E 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
	SSM Nagar	23/6/18	ಯಿರು	ಇಲ್ಲ	ಇಲ್ಲ	ಇಲ್ಲ	20/6/18	ಇಲ್ಲ	ಇಲ್ಲ	ಭೀಮೇಶ್	ಭೀಮೇಶ್
	ಬೆಂಗಳೂರು ರಸ್ತೆ	23-6-18	ಯಿರು	ಇಲ್ಲ	ಇಲ್ಲ	ಇಲ್ಲ	20/6/18	ಇಲ್ಲ	ಇಲ್ಲ	ಬಸವರಾಜ್	ಬಸವರಾಜ್
	ಬೆಂಗಳೂರು ರಸ್ತೆ	23-6-18	ಯಿರು	ಇಲ್ಲ	ಇಲ್ಲ	ಇಲ್ಲ	16/2/18	ಇಲ್ಲ	ಇಲ್ಲ	ಕುಂದ್. 4	ಕುಂದ್
	ದಾವಣಗೆರೆ	23-6-18	Yes	NO	NO	NO	Good	NO	NO	Harish. R	Harish. R.

Verified by Construction Supervisor/ Resident Engineer/ Environment, Soil PMOCC -

R. Pandey *Harish*

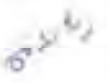



Daavangere Bulk water supply

Public Consultation during construction


MAY-2018

Package- O/W/S

Area- Sugar Factory Road, Benki nagar Backside.

Sr. 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
01	Sugar Factory Road	7-5-2018	NIL	Removed	Levelled	NIL	Barricade Provided	Was Provided	NIL	Ramanjan 78551 23934	
02	Sugar Factory Road	15-5-2018	NIL	Removed	Levelled	NIL	Barricade Provided	Provided with side access way	NIL	SADDAM 9666 88134	
03	Appurtenant Land Bathi	23-5-2018	NIL	Removed	Levelled	NIL	NIL	NIL	NIL	ASHOK 78992 82531	
04	Appurtenant Land Benki nagar Backside	30-5-2018	NIL	Removed	Levelled	NIL	Barricade Provided	Side access way provided	NIL	RIYAZ 7760460871	

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


(Date & Signature)



Harihara UGD

Public Consultation during construction

APRIL 2018

Package- NSWR 1404											
Area- BOMBI NAGAR, BHEEM NAGAR.											
Sr. 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	Bombi nagar Main Road	02-4-18	NIL	Removed	Levelled	NIL	Barricade Provided	Was Provided	NIL	Srinappa 910254157	[Signature]
2	Bombi nagar	6-4-18	NIL	Removed	Levelled	NIL	Barricade Provided	Provided access way	NIL	Ramesh 8861771096	[Signature]
3	BHEEM nagar Main Road	08-4-18	NIL	Removed	Levelled	NIL	Barricade Provided	Provided access way	NIL	NAGappa 9443573244	[Signature]
4	Amravati Colony Road	10-4-18	NIL	Removed	Levelled	NIL	Barricade Provided	Side way provided	NIL	Srinappa 9571547415	[Signature]

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

[Signature] (DINESH)

(Date & Signature)

Harihar Bulk water supply

Public Consultation during construction

Page: 01 HARBA (Bulk water supply for Harihar)
Old P.B. Road

Road Line No.	Date	PHE Connection Restoration on case of accident 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
PB Road 16/11/18	Done	Removed	Done	NA applicable	Done	NO	NO	NO	Satish Kumar Jambagi 99803 101112	S. K. Jambagi
PB Road 18/11/18	Done	Removed	Done	NA	Done	NA	NO	NO	D. Manjunath 9980697121	D. Manjunath
PB Road 24/11/18	Done	Removed	Done	NA	Done	NO	NO	NO	Angappa H. S. 848186266	Angappa H. S.
PB Road 26/11/18	Done	Removed	Done	NA	Done	NO	NO	NO	Subash S. P. 90194 99901	Subash S. P.

Verified by Construction Supervisor- Resident Engineer/ Environment Spl PMDCSC

Date & Signature) 28/04/19



Harihar water supply distribution network

1009

Annexure 3

Public Consultation during construction

Package- KIWMP- OWS04 [24/7 water supply in Harihar]

Area- Indira Nagar, Sub zones - 04, & 03.

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 arrangements- 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
01	Indira Nagar	1-05-18	NIL	Removed	Levelled	NIL	provided the Barricade & Sign boards	Not provided	NIL	Manoj 9402296482	(A)
02	Indira Nagar Subzone 04	3-05-18	NIL	Removed	Levelled	provided sprinkler water	provided the Sign boards, Barricade	NIL	NIL	Yallappa 761923864	(B)
03	Indira Nagar Subzone 04	5-05-18	NIL	Removed	Levelled	NIL	Barricade has been provided	provided on side of road	NIL	Rangnath 9972876219	(C)
04	Indira Nagar Subzone 03	9-05-18	NIL	Removed	Levelled	NIL	provided the Caution tape	provided on side of road	NIL	Somappaiah 9972876219	(D)

Contractor (Date & Signature) Health & Safety Officer NIPI Harihar

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

(DEVARAJ (PWS))

Byadgi UGD

Public Consultation during construction

Package- 01 BPO 01

Area- Nohri Nagar, Baginewara Nagar, Bagini plot, Saket Road.

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.	End Street	14/4/2018	to be done	Removed	to be done	no problem	done	no problem	-	Yashraj 129471444 Nehru.	[Signature]
2.	3rd cross Street	16/4/2018	done	Removed	to be done	no problem	done	no problem	-	W. R. Singh (Cousin) 9872456789	[Signature]
3	main Road	21/4/2018	done	Removed.	to be done	no problem	done	no problem.	-	Baginewara Lalwara 917824342	[Signature]
4.	2nd cross Street	21/4/2018	done	removed	to be done	no problem	done	no problem.	-	Pr. Singh 7814232109	[Signature]

C. Anandharam (20/4/2018)
Contractor (Date & Signature)

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

Byadgi Bulk water supply

Public Consultation during construction

Package :- 01 BD 602

Area :-

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	NH 48 Road	03/3/18	DONE	yes	yes	NA	DONE	NO	NO	Mallareppa Kuvarekundi Kesanahalli 7353634603	MAS
2	NH 48 Road	10/3/18	DONE	yes	yes	NA	DONE	NO	NO	Hannanahappa Nilappa Kuvarekundi Kesanahalli 9632344855	22/03/18
3	NH 48 Road	14/3/18	DONE	yes	yes	NA	DONE	NO	NO	Parasappa A. Dodamani Kesanahalli 9108097302	PA2
4	NH 48 Road	15/3/18	DONE	yes	yes	NA	DONE	NO	NO	Satish B. D. Idani Kesanahalli 8284172451	Satish

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

(Date & Signature)



Byadgi water supply distribution network

Public Consultation during construction

Package- 01WS03 24x7 water supply.

Area- Nisarga Nagar, Nehru Nagar, Ry Road, Vaishnava Layout.

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.	and main road	10/6/2018	to be done	removed	to be done	No problem	Done	No problem	Nil	Omprakash Nehru Nagar. 944812551	
2.	1st cross street	22/6/2018	Done	removed.	to be done	No problem	Done	No problem	Nil	Wagdo 922621373	
3.	4th cross street.	25/6/2018	Done	removed	to be done	No problem	Done	No problem	Nil	Zang 9223821456	
4.	3rd Street.	22/6/2018	Done	removed	Done	No problem	Done	No problem	Nil	Keshavnand 922628743	

C. Hrudhavaraj 24/6/2018.
Contractor (Date & Signature)

20/6/2018.
Verified by PMDCSC's Resident Engineer (Date & Signature)

Environment Safeguards Training- Note

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) and PMDCSC office at Davangere on 15th June 2018 afternoon

Superintendent Engineer of KUIDFC Davangere started the meeting. Asst Executive Engineer, Asst Engineer of PIUs; Team Leader, Project Manager, Engineer 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 and filling up trenches at earliest
- 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
- Necessary to carry out public consultation
- Arrangement of valid labour license and WC policy for all packages
- Timely submission of weekly, monthly monitoring reports
- Requirement of water quality, ambient air quality and noise level monitoring data

Specific non compliance issues have been discussed with respective contractors for compliance within 7 days.

Attendance sheet attached as **Annex 1**



Photo: Safeguard Training



Photo: Safeguard Training



Photo: Safeguard Meeting

Ardhendu Mitra
(Dr. Ardhendu Mitra)
Environment Specialist PMDCSC

ATTENDANCE SHEET

Karnataka Integrated Urban Water Management Investment Program (KIUWMIP)

Environment, Health and Safety – Training Program and Review Meeting

Venue: Davangere, PIU & PMDCSC office

Date: 15.06.2018

Sr. No.	Name	Organization / Designation	Contact No./ E mail	Signature
1.	M. Derajappa	KIUWMIP- PIU Hathihara Asst. Engineer	7829800555 devrajm@gmail.com	
02	Mohar Kumar	Health & Safety Officer Vedha India Pvt Ltd Hathihara	7619335562 mohar.kumar@vedha.com	
03	D DINESH	SAFETY ENGINEER SHREYAS EPC LTD HATHIHARA	8760847553 dineshdine@gmail.com	
04	M RAMESH NAIK	safety Engg Sheth & Surji	9538748352 147 Ramesh, nair@gmail.com	
05	C Anandharaj	Safety officer SEPC	9148996807 anandharaj@gmail.com	
06	Shreyas B. Hadimani	Assistant Engineer KIUWMIP PIU Rambhadracharya	7741088889 shreyasbhad@gmail.com	
07	VASUDEVARAO-L	Project Manager Rambhadracharya	961196292 vasudeva.rao@vedha.com	
08	PRAVEEN KOTA	Project Manager Hathihara	9880540773 praveen.kota@vedha.com	
09	Gonda Pradeep	Sewer Engineer SUE2, Davangere	7022034962 gonda.pradeep07@gmail.com	
10	RAKHESH SHETTY	SUE2 PROJECTS Asst Manager Admission	9611649481 rakesh.shetty@se-india.com	
11	NIKHIL Wagh	SUE2 PROJECTS Manager (Construction)	9733513872 nikhil.wagh@sue2.com	
12	Gandharva M	SUE2 PROJECTS Senior Engineer	9900021651 gandharva.m@se-india.com	
13	Ravikiran Kamagad	SUE2 PROJECTS Pvt Ltd SENIOR ENGINEER	9908021665 ravikiran.kamagad@se-india.com	
14	Balraj Mishra	SUE2 PROJECTS Pvt Ltd SENIOR ENGINEER	7022034962 balraj.mishra2@gmail.com	

Sr. No.	Name	Organization / Designation	Contact No. / E mail	Signature
15	Somooop - c.v	Suez Wajou / Pvt. U. Banujanand@gmail.com Sr. Saeely officer	9686005144	
16	Prashanth.v.k.	Suez Project Public Manager	9900021817 Prashanth.vk@suez.com	
17	Rahul Chandra	Simplex / Sr. Engg.	9095033122	
18	M K. Banakere	PIV Davaanagere	9591705661	
19	Kiran Mangasule	Shetty & Sons PVT. LTD. PUNE	9440132777 kiranmangasule@gmail.com	
20	Shivakumar.K.	SDO. PNHU	9986538839 KSSS211553@gmail.com	
21	Ujjwal Shetty	ARE, GND	9886775454 u.ujwalshetty.vishal@gmail.com	

Arthendu Mitra

Environment Spl. 15/6/18
PMDCSC

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) and PMDCSC office at Davangere on 12th March 2018 morning

Superintendent Engineer of KUIDFC Davangere started the meeting. Asst Executive Engineer, Asst Engineer of all PIUs; Team Leader, Resident Engineers and other Engineers of PMDCSC, 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 and filling up trenches at earliest
- 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
- Necessary to carry out public consultation
- Arrangement of valid labour license and WC policy for all packages
- Timely submission of weekly, monthly monitoring reports
- Requirement of water quality, ambient air quality and noise level monitoring data

Specific non compliance issues have been discussed with respective contractors for compliance within 7 days.

Environment, health & safety compliance requirement and summary Instruction sheet for contractor, supervisor Engineers is attached as **Annex 1**

Attendance sheet attached as **Annex 2**



Photo: Safeguard Training



Photo: Safeguard Training



Photo: Safeguard Meeting

Ardhendu Mitra
(Dr. Ardhendu Mitra)
Environment Specialist PMDCSC

ENVIRONMENT, HEALTH AND SAFETY COMPLIANCE

ANNEX 1

- Immediate arrangement of renewal of labour license and Workman compensation policy in case of expiry
- Submission of Currently valid PUC Certificate for all vehicles and equipments engaged in the project. Preparation of list of vehicle and equipment and PUC validity date
- Grievance/complaint register at work sites/camp office as per standard format.
- At labour camp site office display board showing all emergency contact no., contact no. of PIU KUIDFC and display of Safety Officers' name and telephone number at work sites
- Maintaining accident register/ first aid register at camp/ site office
- Document showing tie up of construction agency with local doctor/nursing home/hospital
- Medical examination report of workmen every six month
- First aid boxes with required medicines with valid dates at all work sites/camp site offices. Number should be sufficient
- Toilet & Drinking water facilities at work site. Proper storage of drinking water
- Fire fighting facilities (Fire Extinguisher, sand bucket) at vulnerable work sites/ labour camp/ site office/ combustible material storage site. Regular checking of expiry date of fire fighting equipment. Refilling immediately as per requirement
- In case of fuel storage, tray below fuel drum need to be placed
- Non storage of petroleum product within office room and access – source prevention for any fire hazard
- Fire exit area should be cleaned and sufficient arrangement of lighting
- Rubber mat (ISI marked) at high voltage electrical switch board area
- Arrangement of sufficient light at night work location
- Arrangement of Royalty receipt copy from material supply – particularly aggregates and sand
- Carry out air, noise, water within March 2018 positively. Monitoring photograph needs to be recorded
- Public consultation for linear – pipeline project on regular basis

Health & Safety

- Implement good housekeeping practices at the construction camp, storage area and work site.
- Strictly implement health and safety measures and audit on a regular basis.
- Secure enclosed construction site.
- Provide warning signs of hazardous working areas.
- Clearly demarcate excavations and provide barriers (not just danger tape) to protect pedestrians from open trenches.
- Thoroughly train workers assigned to dangerous equipment.
- Workers have the right to refuse work in unsafe conditions.

- Undertake waste management practices.
- Control speed and movement of construction vehicles
- Use of equipment, vehicle with back alarm and placement of flag man
- Exclude public from the site
- Ensure all workers are provided with and use Personal Protective Equipment-helmet, gumboot, safety shoes, goggles, hand gloves, safety belt, nose mask, ear plugs,
- Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas
- Provide medical insurance coverage for workers.
- Display of Safety Officers' name and telephone number at work sites
- Provide clean eating areas where workers are not exposed to hazardous or noxious substances;
- Storage/ disposal of hazardous waste as per Hazardous waste rules
- Storage and disposal of hazardous chemical containers as per National rule.
- Display of MSDS at storage location
- Provide warning signs of hazardous working areas.

Instructions for Contractor/ Supervisor- Environmental Safeguard

- 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.
- 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 (1:3 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).
- 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/ diversion board at working sites with proper diversion sign
- Proper drainage of waste water/ rain water from working sites
- Arrangement of 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 Contractor, PIU, PMDCSC office and grievance redress cell and respective officers for registering public complain. Keep Grievance Redress register at PIU and Contractor's office for recording and addressing public complain.
- Display of all emergency contact number at site office/ storage depot
- Awareness program on HIV/AIDS
- Maintain chance find protocol for archeological objects
- Non 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

Report submission schedule and components are as below.

- **Timely submission of monitoring report – monthly & weekly**
 - Weekly report – **Soft copy-** Filled weekly format, induction & tool box training documents, site photo- **Every 15th day of the month**
 - Monthly report – **Soft Copy & Hard copy-** Contains – Filled monthly format- environment and HSE, public consultation filled format, GR Register, Accident/ First aid Register, PUC certificate – in case of renewal, site photo- positively by **6th day of the month**
- **Other submission** – Traffic Management Plan with location name & drawings, Spoil Management Plan, Site specific EMP- Atleast quarterly- **Positively by 31st March**
- Submission of compliance report against site observation and as per direction of PMDCSC Expert
- Timely submission of SEMR documents
- Carry out – air, noise and water quality monitoring – quarterly monitoring. All monitoring needs to be completed by March 31st 2018. Next within 15th June 2018, before start of monsoon




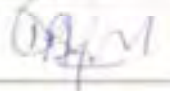
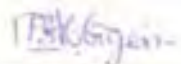
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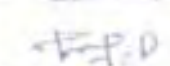
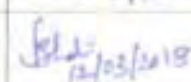
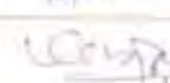
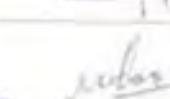
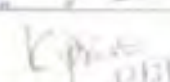
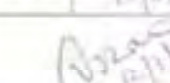
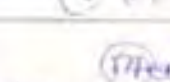
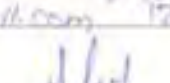
Karnataka Integrated Urban Water Management Investment Program (KIUWMIP)




Environment, Health and Safety – Training Program and Review Meeting

Venue: Davangere, PIU & PMDCSC office

Date: 12.03.2016 at 11:00 AM

Sl. No.	Name	Organization / Designation	Contact No./ E mail	Signature
1	R.C. Mohan	SE	9845131415 mohancr@pud-davangere.co	
2				
3	Shiva Shankar DH	PMDSC, TL Davangere	7629531771	
4	R.K. Goudar	Stn. In-charge	9449810991	
5	Kiran Mangrulkar	— — —	9440832774	
6	Prakash, S. Abhigyan	Guests consultant Hosted	9448555766	

Sl. No.	Name	Organization / Designation	Contact No./ E mail	Signature
7	L. Anandharaj	SEPC / Safety Officer	9148970809 / anandharaj@sepc.com	
8	D-DINESH	SEPC / Safety Engineer	8760857553 / ddinesh@sepc.com	
9	Shekar.B Hadimani	Assistant Engineer KUIDEC - MIDWATER PID Ranebennur	9411088889 shekardhadimani@gmail.com	
10	M. Devrajappa	KUIDEC - KIC WMP PID - Distribution Asst Engineer	9829800555 devrajappam@gmail.com	
11	MOHINI KUMARTE	Vedha India Pvt Ltd	7619555555 mo_hini_kumar@vedha.com	
12	PRAVEEN KOTA	Vedha India Pvt Ltd	9880540775 praveen.kota@vedha.com	
13	VASUDEVA RAO L	Vedha India Pvt Ltd	9611196292 vasudeva.rao@vedha.com	
14	Pramesh narayan	SSEPL / Safety Officer	9838748350 143 Pramesh, narayan@gmail.com	
15	AENHURYA DAS	SIMREX / Safety Officer	7975152227 das21safety@gmail.com	

Sl. No.	Name	Organization / Designation	Contact No./ E mail	Signature
16	Rahul Chandra	Simplex / Sr. Engg	80451 33122	
17	Manjunath Budagatti	KILWMI PILL BUDAGATTI Assist. Engineer	9880174404 m.budagatti@gmail.com	
18	Udayal Shetty	GK-10000	9896745454	
19				
20				
21				
22				
23				

Arundhanu Kirtan Environment Sri
PMDCSC 12/1/18

GRM – GRC Notification

ಕರ್ನಾಟಕ ನಗರ ಮೂಲಸೌಕರ್ಯ ಅಭಿವೃದ್ಧಿ ಮತ್ತು ಹಣಕಾಸು ನಿಗಮ ನಿಯಮಿತ
 ಕಾರ್ಯಾಲಯ ಕಛೇರಿ : 3ನೇ ಮಹಡಿ ಬ್ಲಾಕ್,
 ಎಲೆಕ್ಟ್ರಿಕ್ ಬಾಡು, ಮಿಷನ್ ರೋಡ್ ಅಡ್ಡಲ್, 3ನೇ ಅಡ್ಡಲ್,
 ಮಹಾದ್ ರಸ್ತೆ, ಬೆಂಗಳೂರು - 560 027.
 ದೂರವಾರ್ತೆ : 080 - 22232021, 22232134, ಫ್ಯಾಕ್ಸ್ : 22232157
 ಕಾರ್ಯಾಲಯ : 080 - 22232021, 22232134, ಫ್ಯಾಕ್ಸ್ : 22232157

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

KUIDFC/KIUWMIP/DUC/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 KIUWMIP 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



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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KUIDFC

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

Sample filled Grievance Register

Davangere UGD

GRIEVANCE REDRESSAL REGISTER							
COMPLAINT NUMBER	DATE	COMPLAINT THROUGH (THROUGHT/SITE)	NAME OF COMPLAINER	COMPLAINT DETAILS	ACTION TAKEN BY UGD/UP/UT/UT/UT/UT	DATE CASE RESOLVED/ON	STATUS/ ACTION TAKEN
01.	5/6/18	PHONE	KURBANAH Mob-984410 6575	WATER LINE DAMAGED DURING PIPE LAYING AT ALWAGH CAMP	Immediately Rectified The water line	5/6/18	
02.	12/6/18	SITE	PUSHANJALI THEATRE	WATER LINE DAMAGE DURING PIPE LAYING AT PUSHANJALI THEATRE	Immediately Rectified the Water line	12/6/18	
03.	26/6/18	SITE	R.S. ANNAMMA 9844199966	ELECTRICAL CABLE DAMAGED DURING PIPE LAYING AT BUDHAT SINKOH NAGAR	ELECTRICAL CABLE Rectified Immediately by cell Electricians	26/6/18	

Davanqere Bulk water supply

APRIL

GRIEVANCE REDRESSAL REGISTER

NT R	DATE	COMPLAINT THROUGH (PHONE/ LETTER/ SITE)	NAME OF COMPLAINER	COMPLAINT DETAILS	ACTION TAKEN BY CONTRACTOR/ PIU/PMDSC	DATE-CASE RESOLVED (DAYS REQUIRED)	REMARKS-FURT ACTION IF AN
	4-04-18	SITE	RAMU	Excess Soil Removal	Contractor	Problem Rectified	Nil
	9-04-18	SITE	Krishnanda	Water line	Contractor	Problem Rectified.	Nil
	18-04-18	SITE	Kottiswara	Soil over Burden	Contractor	Problem Rectified.	NIL
	27-04-18	PHONE	BASAVARAJ	Soil over Burden	Contractor	Problem Rectified.	NIL

May-2018

GRIEVANCE REDRESSAL REGISTER

COMPLAINT NUMBER	DATE	COMPLAIN THROUGH (PHONE/ LETTER/ SITE)	NAME OF COMPLAINER	COMPLAINT DETAILS	ACTION TAKEN BY CONTRACTOR/ PU/ MUGSO	DATE WHEN RESOLVED (DAYS REQUIRED)	REMARKS/FURTHER ACTION IF ANY
01,	2-5-18	PHONE	RAVINDRAN	Soil over Burden	Contractor	Problem Rectified	
02,	7-5-18	PHONE	Prakash	WATER LINE	Contractor	Problem Rectified	
03,	14-5-18	SITE	Basavaraj	WATER LINE	Contractor	Rectified Immediately	
04,	19-5-18	PHONE	SHASHI	Soil over Burden	Contractor	Problem Rectified	
05,	21-5-18	SITE	Manjunath	Soil over Burden	Contractor	Problem Rectified	
06,	25-5-18	SITE	DEVARAJ	Soil over Burden	Contractor	Rectified. Immediately	
07,	28-5-18	SITE	Rajappa	Water line	Contractor	1 Day	Problem Rectified
08,	31-5-18	PHONE	Mallappa	Water line	Contractor	Rectified Immediately	

Harihar and Byadgi Bulk water supply

No as such grievances

Harihar water supply distribution network

GRIEVANCE REDRESSAL REGISTER						June-2018	
COMPLAINT NUMBER	DATE	COMPLAINT THROUGH (PHONE/ LETTER/ SDR)	NAME OF COMPLAINER	COMPLAINT DETAILS	ACTION TAKEN BY CONTRACTOR/ PU/PMDCSC	DATE CASE RESOLVED (DAYS REQUIRED)	REMARKS- FURTHER ACTION IF ANY
1	18/06/18	phone	Ashvini (Gija mata colony) Ph:- 9018507324	Water pipe Damage and excavation pit opened	Water pipe line leakage immediately rectified and closed the pit.	19/06/18	
2	30/06/18	Phone	Prashanth Near APMC behind Shivamogga main road. Ph:- 9844363463	Drinking water pipes damage and leakage problem	Water pipe line leakage immediately rectified and closed the pit.	30/06/18	
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL

CCP

1st. P.C. Engineer

*Heads & Supt. Officer
Water Division P.W.D.*

Byadgi - UGD & STP

COMPLAINT NUMBER	DATE	COMPLAINT THROUGH PHONE / SITE LETTER	NAME OF COMPLAINER	COMPLAINT DETAILS	ACTION TAKEN BY. CONTRACTOR	DATE CASE RESOLVED	REMARKS. FURTHER ACTION IF ANY.
1.	12/3/2018	phone	manappa	Excess soil to be removed on the road surface.	Contractor. Immediate.	18/3/2018.	Excess soil removed.
2.	18/4/2018	phone	Nagaraj	water pipe line damaged.	Contractor Immediate	20/4/2018	Rectified.
3.	19/5/2018	phone	Santhosh	water pipe line damaged.	Contractor Immediate	20/5/2018.	Rectified

Byadgi water supply distribution network

Complaint Number	Date	DIWS 03		WS 24x7		Water Supply		Date Case Resolved	Remarks Further Action if any.
		Complaint Through Phone / Site / Letter	Name of Complainee	Complaining Details	Action Taken By Contractor				
1.	16/4/2018	Phone	Nagaraj	Excess soil to be removed on the road surface.	Contractor Immediately		17/4/2018	Excess soil removed.	
2.	18/5/2018	Phone	Minna.	Utility cable damaged.	Contractor Immediate		19/5/2018	Rectified.	
3.	20/6/2018	Phone	Nagarappa	Water pipe damaged.	Contractor Immediate		20/6/2018	Rectified.	
4	20/6/2018	Phone	Nagarappa	Work / Repair to be done.	Contractor Immediate		20/6/2018	Rectified.	