



Environmental Monitoring Report

Project Number: 43253-025
February 2020

Period: July 2019 – December 2019

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: [Possible Forged Sender]Semi Annual Environmental Monitoring Report (SEMR) for the period of July to December- 2019 (Tranche-1)

Dear Sourav,

Please find link below of the SEMR (GKW) Jul- to Dec 2019 of Tranche 1.

<https://drive.google.com/open?id=1DAxML3ag4gp3vPwPdyVollk2Vx52X6xL>

Best regards,

Shashi



Semi Annual Environmental Monitoring Report

ADB Loan Number 3148-IND
Period Covered: July to December 2019

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

Tranche 1- 10th Report

February 2020



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	Multitranchise 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 (**PMD CSC, GKW Consult GmbH**) is also in placed.

B. Purpose of the Report

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

7. This report is the semi-annual environment monitoring report (SEMR) covering period **July to December 2019** under **GkW Consult. Scope**, i.e bulk water supply and underground drainage sub projects. 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 **7 sub projects** in Tranche 1 (Project 1) under **GKW Consult**. Scope. Physical construction was started for two sub projects at Byadgi (UGD +STP, bulk water supply), two sub projects at Harihar (UGD+STP, bulk water supply) and three sub projects at Davangere (separate contract for UGD, STP and bulk water supply). Out of 7 sub projects under **GKW Consult**. scope 5 projects are presently under implementation. Work for Davangere STP and Byadgi bulk water supply already completed. O & M continued for Davangere STP package. Status of sub-projects is given in **Table 1**. Site photographs are attached as **Appendix 1**.

Table 1: Status of Sub Project under Tranche 1 (Upto 31st December 2019) – GKW Consult. Scope

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 31 th December 2019	Package to be completed as of 30 th June 2020
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 (Extension upto 30.11.2019) <i>Further extension upto 31.03.2020</i>	Cumulative Progress Up to December 2019 Pipeline laying <ul style="list-style-type: none"> Pipeline laying of 73.44 km completed. Construction of 2,208 No's manholes Completed. HSC laying of 33.23 km completed. STP Works SBR Tank: Concerting of all walls, walkways, staircases are completed. Decanters, blowers MS pipes fixing railings, Sluice gates for SBR Basin, Air blowers & electric motors SBR to CCT DI pipe laying, RAS and WAS pumps fixing, pipes for airline, Air delivery pipes for diffuser works are completed. Painting/ finishing & Hydro testing are balance. PTU unit: Staircase, base slab, inlet, Grit chamber and walk way are completed. Fixing of sluice gates, mechanical and manual fine& coarse screens, grit scrappers fixing, Belt conveyors for mechanical coarse screen, plastering and finishing, rails fixing work are also completed.	87.58% (Variation quantity added)	Yes

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 31 th December 2019	Package to be completed as of 30 th June 2020
						<p>Painting/finishing & hydro testing balance.</p> <p><u>Wet well cum pump house:</u> Pump house inside plastering, rolling shutters, windows grills fixing and flooring works completed. Outside/ inside plastering & flooring completed. Painting, Terrace water proofing under progress. Wet well 5Nos submersible pumps, DI pipes laying up to above GL completed but pipe support RCC anchoring support work is under progress. Inlet chambers sluice gates, mechanical and manual coarse screen fixing completed. Railing for walkway Pressure gauges fixing & windows MS grills fixing are completed. Painting windows fixing etc works are yet to be done.</p> <p><u>Centrifuge building cum Sludge sump:</u> Ground floor plastering rolling shutters, window grills fixing, Air blower for sludge sump, electric motors fixing, and flooring Blower pipe fixing, Electrical Hoist works are completed. Aluminum windows fixing, painting, pipe laying sludge tank to centrifuge, hydro</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 31 th December 2019	Package to be completed as of 30 th June 2020
						<p>testing for sludge tank, are pending.</p> <p>CC Tank: Completed with walkway and railing but partial flume finishing & Hydro testing is balance.</p> <p>Chlorination building: Plastering, MS door, flooring completed, windows fixing, Chlorine leak observation system works are balance. Fixing of Vacuum chlorinator, chlorine toner installation is completed.</p> <p>Staff Building: Both GF and FF plastering, door frames windows/ grills fixing, Roof terrace waterproofing, vitrified flooring are completed. Bath/ wc wall tiles fixing, electrification, painting, Door panels, Windows fixing, electrification, plumbing & sanitary works for Toilets are under progress. Plinth protection concreting, Painting works are yet to be done.</p> <p>Admin Building: Plastering, Flooring doors frames and windows grills fixing, roof water proofing completed. Doors panel fixing, Aluminum windows fixing, sanitary and</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 31 th December 2019	Package to be completed as of 30 th June 2020
						<p>plumbing, wall tiles fixing works under progress.</p> <p>Blower room: Ground floor plastering, flooring, blower electrical panels, rolling shutters, window girls fixing are completed. First floor SCADA room finishing vitrified flooring, terrace water proofing are completed. Painting, doors panels, aluminum window fixing, electrification etc. works are yet to be done.</p> <p>DG room: Plastering, DG installation, flooring, rolling shutter fixing work are completed. Painting, Roof water proofing, windows fixing works yet to be done.</p> <p>Work shop: Plastering, flooring, Terrace water proofing works are completed. Doors and windows fixing, Electrification, painting etc works are yet to be done.</p> <p>Toilet block: Plastering completed. Doors and windows fixing, flooring, wall Dadoing and sanitary /plumbing work, Electrification, Painting, Roof waterproofing works are under progress.</p> <p>Guard room: Plastering completed, Door window fixing,</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 31 th December 2019	Package to be completed as of 30 th June 2020
						<p>flooring, roof water proofing & painting etc. work yet to be done.</p> <p><u>Compound wall:</u> East & West side compound walls competed. South side EWE for footing under progress. North side work is yet to be start.</p> <p><u>Electrical works:</u> Installation of 11 KV supply line from tapping, DG set fixing, Capacitor panel, Earthing, Cable tray & Cables installation, PB Station, Main Lightening panel, MCC# RSPH, PMCC, Transformer, Two pole structure installation works are completed.</p> <p><u>Roads, Storm drains & Landscaping:</u> Storm drain of CC work is under progress. Roads, Landscaping & Street lightening work is yet to be done.</p>		
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	Pipeline laying and all other works completed for 8.7 km.	100.0%	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 31 th December 2019	Package to be completed as of 30 th June 2020
Harihar	01HRA01	Expansion of the sewerage network (74.39 km sewers, 2530 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, Further extended to 30.06.2019) <i>Further extension upto 30.11.2019</i> <i>Further extension upto 31.03.2020</i>	Cumulative Progress Up to December-2019 Pipeline laying 74.39 km of pipe line work completed. Construction of 2,528 nos. manholes Completed. Total 4.148 km of Pumping main pipe line work completed. Wet well pumping station APMC & Keshavanagar Wet well finishing work under progress. Amravathi & Guthur Wet well are completed. STP work: <u>Formation of Bunds</u> Bund formation work completed. <u>Baffle Wall</u> Baffle wall Completed. <u>Foot Bridge</u> Foot Bridge Slab - Completed. <u>Pre -treatment Unit</u> Inlet Structure work under Progress.	91.95% (Variation quantity added)	yes
Harihar	01HRA02	Improvement of water supply system (bulk) in Harihara City. Package	18.05.2017	18 months	17.11.2018 (Extended upto 30.06.2019)	Cumulative Progress Up to December-2019 Pipeline laying completed for 15.33km.	95.76%	Yes

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 31 th December 2019	Package to be completed as of 30 th June 2020
		<ul style="list-style-type: none"> Dismantling of existing WTP. Raw water transmission pipeline for 4.3 km of 400mm diameter. Construction of new 20 MLD capacity Water treatment plant. Clear water transmission pipeline for 11.51 km ranging from 450mm diameter to 200mm diameter. Construction of two OHTs of 15 LL capacity and 10LL capacity. 			<p><i>Further extension upto 30.08.2019</i></p> <p><i>Further extension upto 31.03.2020</i></p>	<p><u>Amaravathi OHT:</u> RCC, Mechanical, work completed, Painting under progress.</p> <p><u>Jijamath OHT:</u> RCC, Mechanical, work completed.</p> <p>Construction of 20 MLD Water Treatment Plant :</p> <p><u>Aerator, Raw Water and Flash Mixer:</u> RCC, Mechanical, Electrical work completed and commissioned, painting work under progress.</p> <p><u>Flocculator, Tube Settler:</u> RCC, Mechanical, Electrical work completed and commissioned, painting work under progress.</p> <p><u>Filter House:</u> RCC, Mechanical, Electrical work completed, LOH, ROF erection under progress, Painting under progress. Back wash pumping machinery, Blower machinery and Panel erection completed.</p> <p><u>Chemical House:</u> RCC, Mechanical, Electrical work completed, Painting under progress.</p> <p><u>Pure water sump:</u> RCC, Mechanical work completed, Painting under progress.</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 31 th December 2019	Package to be completed as of 30 th June 2020
						<u>Pump House and Panel Room:</u> RCC, Mechanical, Electrical work completed, Painting under progress. <u>Chlorine and Tonner Room:</u> RCC, Mechanical, Electrical work completed, Painting under progress		
Davangere	01DVG01	Expansion of sewerage system (District 1 & 3) for Davangere -158.68 km sewers, 5742 nos. manholes	09.01.2015	36 months	08.01.2018 (Extended upto 31.10.2018 Further extended to 30.04.2019 Further Extension upto 30.06.2019) <i>Further extension upto 31.03.2020</i>	Cumulative Progress Up to December-2019 <u>RCC-NP3 pipes</u> <ul style="list-style-type: none"> Laying of 3,495.85m for 1200 mm diameter completed. Laying of 1903.61 m for 600 mm diameter completed. Laying of 1006.10m for 500 mm diameter completed. Laying of 2,522.29m for 450 mm diameter completed. Laying of 1,487.55m for 400 mm diameter completed. Laying of 5,696.50m for 350 mm diameter completed. Laying of 7,188.14m for 300 mm diameter Completed. Laying of 2034.89m for 250 mm diameter Completed. Laying of 928.75 m for 200mm diameter Completed. <u>GSW Pipes</u>	89.14% (Variation quantity added)	Yes

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 31 th December 2019	Package to be completed as of 30 th June 2020
						<ul style="list-style-type: none"> Laying of 87.60 m laying of 250 mm pipe completed. Laying of 44,590.26 laying of 200 mm GSW pipe completed. Laying of 9,730 m laying of 150 mm pipe completed. <p><u>DWC Pipes</u></p> <ul style="list-style-type: none"> Laying of 77,426.64 m laying of 200 mm pipe completed. Laying of 2,262.90 m laying of 250 mm pipe completed. <p><u>Koracharahatti (HDD Method):</u> 130m completed.</p> <p><u>Railway & Highway Crossing (HDD Method):</u> 204.15 m completed.</p> <p><u>Nala Diversion pipeline:</u> 185.36m completed.</p> <p><u>Total for pipeline</u></p> <ul style="list-style-type: none"> Total 1, 61,000 m of pipe line completed. <p><u>Manholes</u></p> <ul style="list-style-type: none"> Installation of 5,742No of manholes completed. <p><u>House service Connection</u></p> <ul style="list-style-type: none"> Laying of 89,640 m of House service connection of 110mm diameter 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 31 th December 2019	Package to be completed as of 30 th June 2020
						<ul style="list-style-type: none"> 7,833 Chamber completed. <u>Variation work:</u> Extra UGD network pipeline 2.4 km Completed. Manhole 54 No's Completed. House service connection Chambers 170 No's Completed. <u>Total for pipeline work including variation work</u> Total 1, 63,400 m of pipe line completed		
Davangere	01DVG01A	Improvements to sewerage system in Davangere (STP)- DBO for 20 MLD SBR STP & DBO for 5 MLD SBR STP	28.09.2015	24 months	27.09.2017 (Extended – upto 30.04.2018, Further extended upto 31.08.2018)	Construction completed. O & M continued	100.0%	Yes
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	01.08.2017	30 months	30.01.2020	Cumulative Progress Up to December-2019 <u>Intake well:</u> 2 nd lift wall concrete completed. <u>Jack well:</u> 3 rd lift wall concrete completed. <ul style="list-style-type: none"> Pipeline laying completed for 12.22 km. <u>Water treatment plant progress:</u> <u>Aerator:</u>	83.42%	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 31 th December 2019	Package to be completed as of 30 th June 2020
		<p>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 at Bathi Hillock. 				<ul style="list-style-type: none"> 90 degree vertical bend thrust block completed. 5.6m DI pipe vertically placed to the plumb. Shuttering and reinforcement for step slabs pending. <p><u>Parshall flume:</u></p> <ul style="list-style-type: none"> Walkway channel wall and chejja concrete completed. Notch specials procurement balance. <p><u>Sludge Chamber:</u></p> <ul style="list-style-type: none"> 2 chambers raised upto 3.6m 2 chambers raised upto 2.7m <p><u>Filter house:</u></p> <ul style="list-style-type: none"> 4th lift wall concrete completed. Operating slab concrete completed. Brick work completed upto roof level. <p><u>Pump House:</u></p> <ul style="list-style-type: none"> Brick work up to lintel level completed. Lintel and Brackets for cranes concrete completed. Brick work started upon the lintel level. <p><u>Clariflocculator :</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 31 th December 2019	Package to be completed as of 30 th June 2020
						<ul style="list-style-type: none"> • 4th lift wall concrete completed. • Final lift and electro mechanical works pending. <p><u>Clearwater channel:</u></p> <ul style="list-style-type: none"> • Bottom slab concrete completed. • Wall concrete completed. • Roof slab concrete completed. <p><u>Chemical house:</u></p> <ul style="list-style-type: none"> • Parapet wall completed. • Outer plastering completed. • Finishing and fabricating works are under progress. • Electromechanical works balance. <p><u>Wash water tank:</u></p> <ul style="list-style-type: none"> • Bottom beam, support beam, Hooper and bottom dome concrete completed. <p><u>Chlorine house:</u></p> <ul style="list-style-type: none"> • Plastering finished for outer and inner walls. • Electromechanical work balance. 		

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</p> <p>Conditions for Award of the Contract</p> <p>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</p> <p>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.</p> <p>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</p> <p>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</p> <p>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.</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 2017. 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. Updated Davangere sewerage package and Harihar sewerage package IEE/EMP accepted by ADB on December 2016 and January 2017 respectively.</p> <p>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 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 2017. 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> <p>Updated IEE for Harihar UGD and STP accepted by ADB on 13th January 2017</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 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 sends 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 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. 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>

Serial no. as per loan agreement	Program Specific Covenants	Status / Issues
Schedule 5 Item 16	<p>Safeguards Monitoring and Reporting</p> <p>The Borrower shall cause the EA to do the following:</p> <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>Under compliance</p> <p>(a) This is 10th semi-annual Safeguards Monitoring Report is prepared for the period July to December 2019, covering GWK Consult scope i.e bulk water supply and underground drainage system</p> <p>7th SEMR for the period January to June 2018 which submitted to ADB, already disclosed in ADB website. 8th SEMR for the period July to December 2018 also submitted in February 2019. 9th SEMR for the period January to June 2019 also submitted in August 2019.</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. 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.

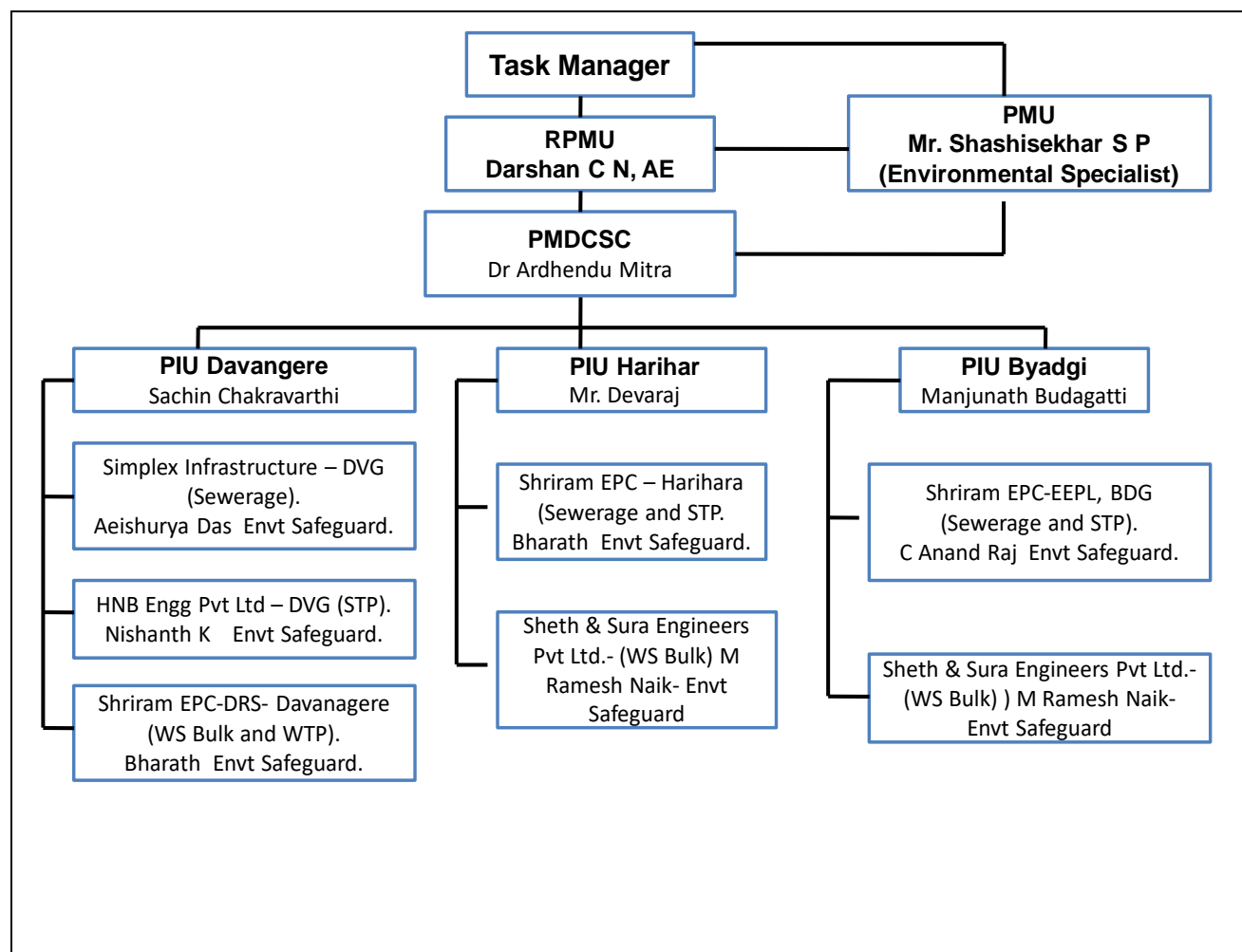
13. The contractor shall appoint one supervisor (environment & safety officer) who will be responsible on a day-to day basis for i) ensuring implementation of EMP ii) Coordinating the CS Engineer and environment specialists (all levels) iii) community liaison, consultation with interested/affected parties 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 sub-component 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 31st December 2019 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
Environmental Specialist KIUWMIP-KUIDFC Project Management Unit (PMU)	Name: Mr. Shashisekhar S P 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

Designation	Name and Contact Details
Assistant Executive Engineer, AEE, PIU, Davangere, Package 01DVG01	Name: Mr. Shiva Shankar Office Address: KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 Phone: 09448225239 Email: piukiuwmp.dvg@gmail.com
Assistant Engineer, AE, PIU, Davangere, Package 01DVG01 In-charge Environment safeguard compliance	Name: Mr. Sachin Chakravarthi Office Address: KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 Ph: 07829606346
Assistant Engineer, AE, PIU, Davangere, Package 01DVG01A In-charge Environment safeguard compliance	Name: Mr. Sachin Chakravarthi Office Address: KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 Ph: 07829606346
Assistant Executive Engineer, AEE, PIU, Harihar, Package 01HRA01	Name: Mr. Jagadeesh J M Office Address: KUIDFC-KIUWMIP Harihara City municipal Council Phone: 09591071068
Assistant Engineer, AE, PIU, Harihar, Package 01HRA01 In-charge Environment safeguard compliance	Name: Mr. Devaraj Office Address: KUIDFC-KIUWMIP Harihara City municipal Council Phone: 09481856963
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
PMDCSC, Environment Specialist	Name: Dr. Ardhendu Mitra (GKW Consult. Part) 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
PMDCSC, Support staff – Environment monitoring	Name: Mr. Madhu G Office Address: PMDCSC, KUIDFC-KIUWMIP #1976/9, Corporation zonal office besides Ashraya Hospital, Shamnur road, Mcc 'a' block, Davangere-04 Phone: 08971982373 Email: gkw.davanagere@gmail.com
Simplex Infrastructure Ltd. Contractor – Package 01DVG01	Name: Mr. A. Das Office Address: Door No. 314, 3 rd Main, 1 st cross

Designation	Name and Contact Details
Environment Safety Officer	S. Nijjalinguppa layout, Davangere Phone: 7978152229 Email: md.eunush@simplexinfra.com
HNB Engineers Pvt. Ltd Contractor – Package DVG01A Environment Safety Officer	Name: Mr. Nishant C Kolambkar Office Address: #3370/11-12, 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. Bharath Office Address: 54 B Block, Amaravati Housing Board Colony, Harihar 577601, Davangere Dist. Phone: 6383929612, 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. Bharath Office Address: 54 B Block, Amaravati Housing Board Colony, Harihar 577601, Davangere Dist. Phone: 6383929612, Email: vigneshwara@shriramepc.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

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	This Act has put restriction on felling of	Compensatory plantation as per rule

Component	Applicable Legislation	Compliance	Action Required for Project 1 Subprojects
	Trees Act, 1976 and Karnataka Preservation of Trees Rules, 1977	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.	
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 (**Under GKW Consult. Scope**) to national and state laws, rules, policies and regulations applicable to KIUWMIP Project 1.

Table 6: Status of Compliance with National and State Legal Requirements (31st December 2019)- GKW Consult. Scope only

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

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
			<p>Water (Prevention and Control of Pollution) Act. 1974</p> <p>The Air (Prevention and Control of Pollution) Act, 1981, as amended by Amendment Act, 1987</p> <p>Also, for setting up diesel generator Consent to Establish (CTE) and Consent to Operate (CTO)</p>	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)	<p>Approved on 15 June 2015 and is valid for one year.</p> <p>Renewal has been done on 14.06.2016 and which valid upto 14.06.2017</p> <p>Further renewal has been done on 14.06.2017 and which valid upto 14.06.2018.</p> <p>Again, renewal done on 14.06.2018 and which valid upto 14.06.2019</p> <p><i>Further renewal done on 14.06.2019 and which valid upto 14.06.2020</i></p>	Labour licence enclosed as Appendix 4
			Labour compensation insurance	Received. <i>Insurance renewed on 26.06.2019</i>	Workman compensation insurance policy

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
				<i>and Validity upto 25.06.2020</i>	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 renewed and which <i>valid upto 17.11.2020</i>	Labour licence enclosed as Appendix 4
			Labour compensation insurance	Received and validity upto 28.05.2018 Renewal has been done on 29.05.2018 and which valid upto 28.05.2019 Further <i>Renewal done on 29.05.2019 and which valid upto 28.11.2019</i> <i>Renewal done on 29.11.2019 and which valid upto 28.01.2020</i>	Workman 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
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 upto 23.2. 2017 Further renewal has been done on 23.02.2017 and which valid upto 23.02.2018. Again, renewal done on 23.02.2018 and which valid upto 23.02.2019 <i>Latest renewal done on 26.02.2019 and which valid upto 23.02.2020</i>	Labour licence enclosed as Appendix 4
			Labour compensation insurance	Received.	Workman compensation insurance policy

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
				Renewed and validity upto 24.10.2018 Further renewal done and which valid upto 10.04.2019 <i>Latest renewal done on 12.04.2019 and which valid upto 11.08.2019</i> <i>Renewed on 11.11.2019 and valid upto 10.05.2020</i>	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 Renewal already done which valid upto 01.07.2019 <i>Further renewal done on 05.07.2019 and which valid upto 01.07.2020</i>	Labour licence enclosed as Appendix 4
			Labour compensation insurance	Received and valid upto 25.06.2018 Insurance renewed on 26.06.2018	Workman compensation insurance policy attached as Appendix 5

Town	Package No.	Components	National and State Legal Requirement	Status	Conditions of the Clearance/NOCs
				which valid upto 16.04.2020	
			Labour compensation insurance	<p>Received and which effective from December 2016 for one year</p> <p>New insurance in name of JV has been done on 24.03.2016 and which valid upto 23.12.2018</p> <p>And separate new policy in JV name done and which valid upto 19.07.2018</p> <p>Further renewal on JV name done and now valid upto 19.01.2019</p> <p><i>Further M/s Shriram EPC - Eurotek Environmental Pvt Ltd – JV policy renewed upto 19.01.2020</i></p> <p>Separate Insurance renewed on 26.06.2018 for lead contractor and Validity upto 25.06.2019</p> <p><i>Latest renewal done on 26.06.2019 and which valid upto 25.06.2020</i></p>	Workman compensation insurance policy attached as Appendix 5

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 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. Daily, weekly and monthly monitoring is continued for all the running packages. The overall compliance status for all the 5 running packages (**under GKW Consult. Scope**) 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 11**.

22. There are few partial compliance statuses has been noted for the running packages.

- For all pipe laying project, time period for construction work for particular area and contact details of PIU, consultant in project display board for any grievances or suggestion not included
- Need to improve use of PPEs by contractor's workers for all projects. Use of PPEs should be at all times and as per site condition and work type. Particularly use of shoes, hand gloves and safety belt (when working at height)
- Improvement is required for first aid box. First aid materials are not sufficient in most of the packages. Sometime first aid materials contaminated
- Improvement of housekeeping is required for Davangere bulk water supply package WTP location
- Improper material storage for Davangere bulk water supply package WTP location
- Improper material storage and fuel storage for Harihar bulk water supply package WTP location
- Access to the camp and housekeeping need to be improved for Harihar bulk water supply package WTP location
- Excess earth and stone need to be removed and access to be maintained. for Byadgi UGD package
- No or partial caution tape at pipe laying location for Byadgi UGD package, Davangere bulk water supply package and Davangere UGD package
- Insufficient caution safety signage board for Davangere UGD 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 Work almost completed
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. Work almost completed
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	Work almost completed. Labour camp closed. Stockpile and storage areas selected within camp area and construction locations. Toilet facility provided-improvement required. 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	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Impacts due to excess excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to workers and public during work.	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	Document related to construction management format	Working locations	Contractor	Observation and document checking	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	Complied Excess excavated soil after back filling is reused to fill trenches if any or shifted from the sites.
Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and water logging, and 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 Work almost completed

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
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 	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Excavated earth is used to refill the trench. Materials are brought to the site whenever necessary covered by tarpaulin. Water sprinkling done as and when required. Air quality monitoring done during the report period. Complete result certificates available in PIU and PMDCSC office as back up paper. Location map of sampling stations attached as Appendix 8 PUC certificates for vehicles are submitted

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
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 mostly Work almost completed. Prior information is not always provided to locals. Instruction has been given to contractor for more active awareness No such noise producing machinery mobilized at site 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	<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 	<ul style="list-style-type: none"> Areas for stockpiles, storage of fuels and lubricants and waste materials 	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction supervisor	Do	Complied. Stockpiling avoided as far as possible. Work almost completed.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
construction areas in monsoon	<ul style="list-style-type: none"> provided with temporary bunds Prioritize re-use of excess spoils and materials in the construction works. Place storage area 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"> Number of silt traps installed along drainages (in slope) leading to water bodies Utilization of spoils 						Fuel and lubricants stored separately. Wastes disposed 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 be stocked at the site, transported and disposed properly. The Waste Management Plan will be part of the Construction Management Plan. Avoid stock piling of excess excavated soils as far as possible Coordinate with PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas 	<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 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. 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 	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

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. 							Work almost completed
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 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"> 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	<p>Complied. Partially Construction works are completing in least possible time.</p> <p>Sign board and Traffic diversion boards are not placed at all working locations.</p> <p>Partial or no 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</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
								plan is 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	Complied Schools, Hospitals and religious places were notified before the work. Work almost completed. Final stage jointing/ filling up gaps ongoing.
Socio-Economic: Livelihood	<ul style="list-style-type: none"> Leave space for access between mounds of 	<ul style="list-style-type: none"> Safety arrangement 	All construction	Contractor	<ul style="list-style-type: none"> Checking of records 	PMDSC's Environment	Do	Complied partially

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"> 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"> Complaint from sensitive receptors Sign board/ caution board availability with required information 	sites		<ul style="list-style-type: none"> Visual inspection of sites 	Specialist and Construction supervisor		<p>Advance information is not always given to the shopkeepers. Instruction has been given for more awareness</p> <p>Sign board not provided at all working locations. Emergency contact no. and time of construction not included in the board. Instruction has been given for improvement.</p>
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	PMDSC's Environment Specialist and Construction supervisor	Do	Complied. Mostly local people are employed where ever possible.
Workers occupational health & safety	<p>(i) 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>	<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	Partially Complied. Health and safety measures are followed. PPEs are used partially.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	(b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gum boot, gloves, nose mask and earplugs; (c) H&S Training for all site personnel; (d) documented procedures to be followed for all site activities; and (e) documentation of work-related accidents; (ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU; (iii) Ensure H&S plan is easily understandable to workers and labourers. Keep in mind that this plan will be used on-site and workers/labourers may not always understand highly technical terms; (iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours; (v) Provide specific guidance for suitable PPE for every on-site work assignment (vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be 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	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						First aid box available at working locations Tool box training for workers done Drinking water available at working sites Site photo attached in Appendix 1 Internal training document sample copy attached in Appendix 11 Insurance arranged for the labourer. Attached as Appendix 5 Tie up with local hospital done and medical check-up of workers – done Appendix 12 shows sample copy. There is no as such first aid case during report period.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	drinking water at working sites; (x) Provide clean eating areas where workers are not exposed to hazardous or noxious substances; and (xi) Provide H&S orientation training to all new workers to ensure that they are apprised of the basic site rules of work at the site, personal protective protection, and preventing injuring to fellow workers; (xii) Provide visitor orientation if visitors to the site can gain access to areas where hazardous conditions or substances may be present. Ensure also that visitor/s do not enter hazard areas unescorted; (xiii) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas; (xiv) Ensure moving equipment is out fitted with audible back-up alarms; (xv) Mark and provide sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal. Signage 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							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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 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	PMDSC's Environment Specialist and Construction supervisor	Do	Partially compiled Caution tape not always provided at excavation areas. Instruction given to contractor for improvement. Road signage noted partially Transportation of materials done as per convenient time without disturbing locals Work almost completed
Temporary worker camps	<ul style="list-style-type: none"> Establishment of temporary camps with drinking water, sanitary and solid waste 	<ul style="list-style-type: none"> Complaints from sensitive Receptors Water and 	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction	Do	Camps established with toilet (gender specific),

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"> management arrangement Train employees in the storage and handling of materials Remove all wreckage, rubbish, or temporary structures 	<ul style="list-style-type: none"> sanitation facilities for employees Housekeeping – regular disposal of solid waste 				supervisor		drinking water facility, first aid box available. Camp almost closed since project work almost completed.

Table 8: 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
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 	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. No labour camp constructed; local labour engaged mostly. Toilet facility developed at WTP site. Few workers stayed within room under construction at WTP

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	area <ul style="list-style-type: none"> Arrangement of toilet and drinking water facility No disposal of waste in water 							
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	PMDCSC's Resident Engineer & Environment Specialist / PIU	Before start of physical work & Continuous	Not required now
Construction								
Impacts due to excess excavated earth, excess construction materials, solid waste etc. Occupational hazards which can occur to workers and public during work.	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management, waste management, personal safety arrangement etc.	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDCSC's Environment Specialist and Construction supervisor	Daily by construction supervisor- Resident Engineer Weekly / bi weekly by Construction Manager. Verification by Environment Specialist of PMDCSC and Asst. Executive Engineer (Environment) KIUWMIP-KUIDFC	Complied mostly Excavation completed. Excess soil after back filling reused to fill trenches if any or shifted from the sites. Excess earth utilized at WTP
Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion,	<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 	<ul style="list-style-type: none"> List of approved quarry sites and sources of materials Bid document to include requirement for verification of 	Quarries and material source areas	Contractor	<ul style="list-style-type: none"> Checking of records visual inspection of sites 	PMDCSC's Environment Specialist and Construction supervisor	Do	Under Compliance. All materials procurement certified by implementation agency

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
disturbance in natural drainage patterns, ponding and water logging, and water pollution	<ul style="list-style-type: none"> 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"> suitability of sources and permit for 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 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 or utilized in WTP</p> <p>Materials are brought to the site whenever necessary but materials need to be stored properly. Instruction is given for improvement. Water sprinkling done as and when required</p> <p>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 PUC certificates</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
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>Prior information needs to be provided to locals. Instruction has been given to contractor for active awareness. No such noise producing machinery mobilized at site. During construction Noise quality monitoring is done during the report period. Complete result certificates available in PIU and PMDCSC office as back up paper. Location map of sampling stations attached as Appendix 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 	<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 	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 stored separately as per requirement. Improvement of storage of materials is required. Wastes to be</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>construction works.</p> <ul style="list-style-type: none"> 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 	<p>slope) leading to water bodies</p> <ul style="list-style-type: none"> Utilization of spoils 						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 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 construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	Improvement of housekeeping is required. Excess earth needs to be removed at earliest. Spoil management plan 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 	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</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>Archaeological Department should be intimated at the earliest and all the articles received during the sewer laying should be handover to ASI</p> <ul style="list-style-type: none"> • PMDCSC 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 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 	<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	<p>Under compliance. Construction works are to be completed in least possible time. Sign board and Traffic diversion boards arranged. Caution tape partially placed. Which needs to be placed properly at excavated area Traffic Management plan developed</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Impact on sensitive receptors- Schools, hospitals and religious places	traffic diversions; <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	To be comply. Schools, Hospitals and religious places will be notified before the work.
Socio-Economic: Livelihood	<ul style="list-style-type: none"> Leave space for access between mounds of 	<ul style="list-style-type: none"> Safety arrangement 	All construction	Contractor	<ul style="list-style-type: none"> Checking of records 	PMDSC's Environment	Do	Instruction has been given for awareness

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"> 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"> Complaint from sensitive receptors Sign board/ caution board availability with required information 	n sites		<ul style="list-style-type: none"> Visual inspection of sites 	Specialist and Construction supervisor		<p>to locals regarding work schedule in advance</p> <p>Sign and caution boards arranged at all working places.</p>
Socio-Economic: Employment generation	Employ at least 50%of the labour force, or to the maximum extent, local persons if man power is available Procure construction materials from local market.	Employment record	All construction sites	Contractor	Checking of records	PMDCSC's Environment Specialist and Construction supervisor	Do	Complied. Mostly local people are employed where ever possible.
Workers occupational health &safety	(i)Develop and implement site-specific Health and Safety (H&S) Plan which will include measures such as:	<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 	PMDCSC's Environment Specialist and	Do	Partially complied PPEs are given to the workers for complete use.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	(a) excluding public from the site; (b) ensuring all workers are provided with and use Personal Protective Equipment like helmet, gum boot, gloves, nose mask and earplugs; (c) H&S Training for all site personnel; (d) documented procedures to be followed for all site activities; and (e) documentation of work-related accidents; (ii) Designate a safeguard focal person and undertake safeguards orientation by PMU/PIU; (iii) Ensure H&S plan is easily understandable to workers and labourers. Keep in mind that this plan will be used on-site and workers/labourers may not always understand highly technical terms; (iv) Strict compliance of H&S plan and requirements of wearing personal protective equipment (PPE) during work hours; (v) Provide specific guidance for suitable PPE for every on-site work assignment (vi) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the project site; (vii) Provide medical	<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		Partial use noted. First aid box available at working locations but insufficient materials and cotton contaminated. Improvement required Induction and Tool box training arranged for workers (Appendix 11 , sample copy) Insurance arranged for the labourer. Attached as Appendix 5 Tie up with local hospital done and medical check-up of workers – done Appendix 12 shows sample copy. No as such first aid case during report period

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>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 energized electrical devices and lines, service rooms housing high voltage equipment, and areas for</p>							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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 	<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	Partially complied Caution tape provided partially at excavation areas 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
	equipment malfunction or premature failure <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	Presently local labour engaged. Labour camp not constructed Improvement required for temporary staying arrangement at WTP

Table 9: 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 Work almost completed
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 &	Before start of physical work & Continuous	Complied in design and as & when required Utility services are being restored on the same

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)	<ul style="list-style-type: none"> contingency plan for service interruptions 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		day or least possible time. Work almost completed. Presently road restoration/ construction of CC road almost completed.
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	Under compliance Presently few labourers stay at rented house. Camp closed at STP. 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	PMD CSC'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 	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>Plan. 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 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	Prepare and submit a Construction Management Plan, every month, Which cover location map, use of PPE, materials management,	Document related to construction management format	Working locations	Contractor	Observation and document checking	PMDSC's Environment Specialist and Construction	Daily by construction supervisor Weekly / bi weekly by	Complied. Excess excavated soil after backfilling is reused to fill trenches if any or shifted from the

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
materials, solid waste etc. Occupational hazards which can occur to workers and public during work.	waste management, personal safety arrangement etc.					supervisor	Construction Manager. Verification by Environment Specialist of PMDCSC and Asst. Executive Engineer (Environment) KIUWMIP-PMU	sites. Disposal as per permission from PIU. Work almost completed 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 already 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 Presently 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 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. 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>Work almost completed. 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 available.</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 Work almost completed. Only road construction ongoing. 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 Work almost completed
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/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	Complied mostly Excess earth stockpiled and reused. Excess earth from pipe laying already used in STP Spoil management plan as per EMP (sample Attached as Appendix 9) Work almost completed

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 Work almost completed
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 completed</p> <p>Caution tape provided at closure site.</p> <p>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
	<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 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 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. At present final stage road construction ongoing.

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 	PMDSC's Environment Specialist and Construction supervisor	Do	Pipe laying work completed, road construction ongoing 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	PMDSC'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>(i) 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 work assignment</p> <p>(vi) Ensure that qualified first-aid can be provided at all times.</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 equipment • 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 Tool box training for workers arranged Drinking water available at working sites Internal training document sample copy attached in Appendix 11</p> <p>Insurance arranged for the labourer. Attached as Appendix 5 Tie up letter with nearby health center in case of emergency arranged and medical checkup for workers done. 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>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 such as energized electrical devices and lines, service rooms housing high voltage equipment,</p>							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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 • Provide road signs and flag persons to warn of dangerous conditions, for all 	<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	Complied Only road restoration work and final stage STP work ongoing. Transportation of materials done as per convenient time without disturbing locals Work almost completed.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	the sites along the roads • Overall, the contractor should comply with IFC EHS Guidelines on Community Health and Safety							
Temporary worker camps	• Establishment of temporary camps with drinking water, sanitary and solid waste management arrangement • Train employees in the storage and handling of materials • Remove all wreckage, rubbish, or temporary structures	• Complaints from sensitive Receptors • Water and sanitation facilities for employees • Housekeeping – regular disposal of solid waste	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction supervisor	Do	Mostly complied. Labour camp closed. Few labourers stay presently at rented house. Stockpile and storage areas selected nearby construction locations. No hot mix plant is required

Table 10 Compliance to EMP of the Package- Bulk water supply system in Harihar city – Package No. 01HRA02

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Design & Pre Construction phase								
Design: Drinking water supply lines may be contaminated due to leakage from sewers	• Limit the sewer depth where possible. • Sewers shall be laid away from water supply lines and drains (at 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)	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions • In case of disruption of water supply, alternative supply, through tankers, shall be provided	• List of affected utilities if any and operators • Bid document to include requirement for a contingency plan for service interruptions	-	PIU / Design Consultant	Observation and document checking	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,	• Planning for setting up worker camps, hot mix	List of selected location for	Proposed camp	PIU / Design Consultant	Observation and document	PMDSC's Resident	Before start of physical	Complied partially. Labour camp

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
stockpile areas, storage areas, and disposal areas (disruption to traffic flow and sensitive areas and receptors)	plant, stockpile area, storage and disposal areas <ul style="list-style-type: none"> Prioritize areas within or nearest possible vacant space in the sub project location Non-use of residential area Arrangement of toilet and drinking water facility No disposal of waste in water 	construction work camps, hot mix plants, stockpile areas, storage areas, and disposal areas	site		checking	Engineer & Environment Specialist / PIU	work & Continuous	construction done at WTP and water reservoir sites. Improvement of housekeeping and access is requirement. 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. 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.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Extraction of materials can disrupt natural land contours and vegetation resulting in accelerated erosion, disturbance in natural drainage patterns, ponding and water logging, and water pollution	<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 Improvement is required for storage of construction materials. Instruction is given to contractor.
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 	<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. Improvement is required for storage of construction materials. WTP work almost completed. 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>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity							Sampling locations are shown in Appendix 8 . PUC certificates for vehicle and equipment submitted but renewal required
High noisy construction 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 	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. 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	<ul style="list-style-type: none"> Avoid stock piling of earth specially during the monsoon season unless covered by tarpaulins or 	<ul style="list-style-type: none"> Areas for stockpiles, storage of fuels and lubricants 	All construction sites	Contractor	Site observation	PMD CSC's Environment Specialist and	Do	Complied. Stockpiling avoided as far as possible Fuel and lubricants

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
due to contaminated runoff from construction areas in monsoon	<ul style="list-style-type: none"> 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"> and waste materials Number of silt traps installed along drainages (in slope) leading to water bodies Utilization of spoils 				Construction supervisor		stored separately. Improvement is required. 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 and WTP Spoil management plan applied as per EMP (Sample attached as Appendix 9)
Damage to protected structures due to construction along the areas near to protected	<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 	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	Not yet arise. Action will be taken as per requirement Instruction has been given to all workers on chance find

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
monuments	<p>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. 							
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 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 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. Sometime partial/ temporary placement is noted.</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>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
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 Impediment of access to	<ul style="list-style-type: none"> Leave space for access between mounds of excavated soil Provide wooden planks / foot bridges for pedestrians 	<ul style="list-style-type: none"> Safety arrangement Complaint from sensitive receptors 	All construction sites	Contractor	<ul style="list-style-type: none"> Checking of records Visual inspection of sites 	PMDSC's Environment Specialist and Construction	Do	Complied mostly. Advance information is given to the shopkeepers and locals Sign board provided.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
houses and business	and metal sheets for vehicles to allow access across trenches to premises where required <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. 	<ul style="list-style-type: none"> Sign board/ caution board availability with required information 				supervisor		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	(i) Develop and implement site-specific Health and Safety (H&S) Plan which will include measures such as: (a) excluding public from the site; (b) ensuring all workers are provided with and use Personal	<ul style="list-style-type: none"> Site-specific Health and Safety (H&S) Plan Equipped first-aid stations; Medical insurance coverage for 	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 First aid box available

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>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> <p>(x) Provide clean eating areas</p>	<p>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>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> <p>No as such first aid case during report period.</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>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 dBA for a duration of more than</p>							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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 Health and Safety 	<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	Partially complied. Caution tape provided at excavated areas-partially/ temporary 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 storage and handling of 	<ul style="list-style-type: none"> Complaints from sensitive Receptors Water and sanitation facilities for 	All construction sites	Contractor	Site observation	PMDSC's Environment Specialist and Construction supervisor	Do	Partially complied Labour camp construction – done at water reservoir and WTP site with toilet and drinking water facility.

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"> materials Remove all wreckage, rubbish, or temporary structures 	<ul style="list-style-type: none"> employees Housekeeping – regular disposal of solid waste 						Access to camp needs to be improved. 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.

Table 11: 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	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 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	<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 	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 workers. At STP site labour camp closed. Improvement of housekeeping is required.

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
sensitive areas and receptors)	<ul style="list-style-type: none"> Non use of residential area Arrangement of toilet and drinking water facility No disposal of waste in water 							
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 development zone around the STP sites. 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 	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

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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	In design discharge standard of CPCB is followed
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) KIUWMIP-KUIDFC	Mostly Complied. Excess excavated soil after backfilling 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. Disposal of construction waste is required. Appendix 13 shows further instruction from project management authority for disposal of excess earth at low laying areas and utilization for road

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
								construction. Excess earth from pipe laying will also be used in STP for land development. 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 	PMD CSC'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 	<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	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

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	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 							certificates available in PIU and PMDCSC office as back up paper. Sampling locations are shown in Appendix 8 . PUC certificates for vehicle and equipment 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 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	Complied Construction work limited to day time only Prior information is provided to locals During construction noise level monitoring done during the report period. Complete result certificates available in PIU and PMDCSC office as back up paper. Sampling locations are shown in Appendix 8
Impacts on	<ul style="list-style-type: none"> Avoid stock piling of earth 	<ul style="list-style-type: none"> Areas for 	All	Contractor	Site	PMDSC's	Do	Mostly Complied.-

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
surface drainage and water quality due to contaminated runoff from construction areas in monsoon	specially during the 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 	stockpiles, 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 	construct ion sites		observation	Environment Specialist and Construction supervisor		disposal of waste Stockpiling avoided as far as possible 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 construct ion sites	Contractor	<ul style="list-style-type: none"> • Checking of records • Visual inspectio n of sites 	PMDSC's Environment Specialist and Construction supervisor	Do	Partially 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	<ul style="list-style-type: none"> • All necessary and adequate care should be taken to minimize the impact on protected properties. If 	Chance find protocol	All construct ion sites	Contractor	<ul style="list-style-type: none"> • Checking of records • Visual inspectio 	PMDSC's Environment Specialist and	Do	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
along the areas near to protected monuments	<p>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. 				n of sites	Construction supervisor		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; 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 	<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 board placed. Emergency contact number 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.</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	routes, and ensure that public is informed about such traffic diversions;							Appendix 1 shows site photographs.
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:	<ul style="list-style-type: none"> Leave space for access between mounds of 	<ul style="list-style-type: none"> Safety arrangement 	All construction	Contractor	<ul style="list-style-type: none"> Checking of records 	PMDSC's Environment	Do	Complied mostly Advance information is

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
Livelihood Impediment of access to houses and business	<ul style="list-style-type: none"> 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"> Complaint from sensitive receptors Sign board/ caution board availability with required information 	ion sites		<ul style="list-style-type: none"> Visual inspection of sites 	Specialist and Construction supervisor		given to the shopkeepers and locals Sign board provided. 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	PMDSC's Environment Specialist and Construction supervisor	Do	Complied. Local people are mostly employed
Workers occupational health & safety	(i)Develop and implement site-specific Health and Safety(H&S) Plan which will include measures such as: (a) excluding public from the	<ul style="list-style-type: none"> Site-specific Health and Safety (H&S) Plan Equipped first-aid stations; 	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. They using

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<p>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 accident risks;</p>	<ul style="list-style-type: none"> • 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 						<p>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>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> <p>Sample first aid case shown in Appendix 14.</p>

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	<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; and</p>							

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	(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 construction sites	Contractor	Visual inspection	PMD CSC's Environment Specialist and Construction supervisor	Do	Partially Complied Caution tape provided at the 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, sanitary and solid waste 	<ul style="list-style-type: none"> • Complaints from sensitive Receptors 	All construction sites	Contractor	Site observation	PMD CSC's Environment Specialist	Do	Rented house arranged for workers All wastes need to

Impacts	Mitigation Measures	Parameters Monitored	Location	Responsible for mitigation	Method of Monitoring	Responsible for Monitoring	Date of Monitoring Conducted	Compliance status
	management arrangement • Train employees in the storage and handling of materials • Remove all wreckage, rubbish, or temporary structures	• Water and sanitation facilities for employees • Housekeeping – regular disposal of solid waste				and Construction supervisor		remove

V. ENVIRONMENTAL MONITORING AND EVALUATION

23. 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.

24. The ambient air quality monitoring results are presented in **Table 12**. 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 also increased “during construction” stage for Davangere underground drainage package. There is marginal variation of concentration of SO₂ and NO₂ for Davangere bulk water supply project. Both PM₁₀ and PM_{2.5} concentration levels are decreased for that package “during construction”. All parameters are within the standard. Similarly, there is marginal decrease of PM₁₀ and PM_{2.5} concentration at Harihar UGD and STP location. Concentration of SO₂ and NO₂ is not much varied for that package. At all the sites concentrations of all parameters are within the standard. At Harihar bulk water supply package location both base line and during construction PM₁₀ and PM_{2.5} are above the limit. There is increase in PM₁₀ concentration during construction. 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. 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 12: Ambient Air Quality Monitoring at Sites (GKW Consult. Project scope) 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
	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

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
		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
		Bhagat Singh Nagar		6.5	12.72	57.70	98.45
	Average During construction			6.0	13.6	53.75	94.21
	During Construction	Korcha Ratti	14.12.2018	6.3	12.8	21.9	46.2
		Yard- URS Layout SP Office	14.12.2018	6.8	13.5	23.8	49.3
		Basapura	14.12.2018	6.1	12.3	22.5	47.4
	Average During construction			6.4	12.86	22.73	47.63

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	Ward no 23-Basavana Gowda Badavane	25.06.2019	5.5	15.4	43.65	87.60
		Yard- URS Layout SP Office	25.06.2019	5.99	12.68	59.9	96.57
		Ward no 5-Basapura nala	25.06.2019	6.5	12.72	57.7	98.45
	Average During construction			5.99	13.6	53.75	94.20
	During Construction*	Shivakumar Badavane	30.12.2019	6.50	12.72	57.70	98.45
		Rajivee Gandhi Badavane	30.12.2019	5.5	15.50	43.65	87.60
		SPS Nagar	30.12.2019	5.99	12.68	59.90	96.57
	Average During construction*			5.99	13.63	53.75	94.20
Davangere Bulk water supply (Package no. 01WS01)	Base Line	Rajanahalli Jack well location	31.12.2017	4.17	9.25	45.17	85.23
		WTP site Bhathi	31.12.2017	4.77	9.62	46.21	85.27
		Vidhya nagar C Block pipe route Harihar	31.12.2017	4.83	9.75	46.71	82.21
	Average Base Line			4.59	9.54	46.03	84.24
	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
	During Construction	Rajanahalli Jack well location	15.12.2018	4.22	9.28	45.25	85.32
		WTP site Bhathi	15.12.2018	4.78	9.58	46.2	85.3
		Vidhya nagar C Block pipe route Harihar	15.12.2018	4.88	9.60	47.05	82.35
	Average During construction			4.62	9.48	46.16	84.32
	During Construction	Rajanahalli Jack well location	24.06.2019	4.61	9.69	43.76	82.41
		WTP site Bhathi	24.06.2019	4.36	8.83	44.12	81.32

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
		Vidhya nagar C Block pipe route Harihar	24.06.2019	4.05	7.12	43.33	79.04
	Average During construction			4.34	8.54	43.73	80.92
	During Construction *	WTP site Bhathi	23.12.2019	4.67	8.83	43.16	81.58
		Rajanahalli Jack well location	23.12.2019	4.68	9.53	44.11	81.89
	Average During construction*			4.67	9.18	43.63	81.73
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
	Average During Construction			4.65	10.02	48.92	82.40

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	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
	During Construction	STP site, Harihar	13.12.2018	4.99	9.90	49.45	88.35
		Benki Nagar, Harihar	13.12.2018	5.21	9.95	47.96	89.15
	Average During Construction			5.1	9.92	48.70	88.75
	During Construction	North Dist – 4A Benki Nagar	01.06.2019	5.5	10.95	53.15	88.35
		STP site near Kirloskar factory	01.06.2019	5.25	9.95	51.36	81.50
		Keshava nagar	01.06.2019	3.21	9.18	42.26	77.37
	Average During Construction			4.65	10.02	48.92	82.4
	During Construction*	Anjana Badavane	26.12.2019	4.69	8.84	44.33	82.62
		Amaravathi colony	26.12.2019	4.66	8.86	44.12	82.46
	Average During Construction*			4.68	8.85	44.23	82.54
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

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			4.87	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
	During Construction	Near Indian Oil Petrol pump, Kumar Pattan	11.12.2018	4.8	9.9	111.8	132.4
		WTP site, Harihar	11.12.2018	4.4	9.2	111.8	181.2
		OHT site near Gajanan Temple, Amaravathi colony	11.12.2018	4.8	9.7	53.7	97.2
	Average During Construction*			4.66	9.6	92.43	136.93
	During Construction	Near Indian Oil Petrol pump, Kumar Pattan	22.06.2019	4.5	9.8	58.6	118.2
		WTP site, Harihar	22.06.2019	4.2	9.5	81.9	164.4
		OHT site near Gajanan Temple, Amaravathi colony	22.06.2019	4.7	9.1	54.1	91.7
	Average During Construction			4.46	9.46	64.9	124.7
	During Construction*	WTP site, Harihar	18.12.2019	6.81	10.90	61.3	181.7
		OHT site near Gajanan Temple, Amaravathi colony	18.12.2019	5.09	10.46	49.05	86.21
		Near Indian Oil Petrol pump, Kumar Pattan	18.12.2019	5.63	10.48	69.70	145.62
	Average During Construction*			5.84	10.61	60.02	137.84
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

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
		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
	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
	During Construction	Sangameshwar nagar	16.12.2018	4.14	9.43	43.26	87.25
		Hallepet	16.12.2018	4.14	9.30	52.57	69.49
		Gumnahalli Road	16.12.2018	4.13	9.18	46.32	75.52
		Station main Road	16.12.2018	4.22	8.21	46.22	74.19
	Average During Construction*			4.15	9.03	47.09	76.61
	During Construction	Vidya nagar	19.05.2019	4.14	8.43	41.26	86.25
		Gandhi nagar	19.05.2019	4.14	9.30	53.57	71.49
		Chatra Road	19.05.2019	4.13	9.17	47.32	76.52
	Average During Construction			4.13	8.96	47.38	78.0
	During Construction*	Neharu Nagara	22.12.2019	4.16	9.41	42.25	88.25
		Kakol road	22.12.2019	4.16	9.32	42.57	68.49
		Basaveswara nagara	22.12.2019	4.15	9.16	45.32	74.52
	Average During Construction*			4.16	9.30	43.38	77.09

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
		Standard as per CPCB		80.0	80.0	60.0	100.0

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

* **Monitoring conducted (As per GKW scope) during report period July to December 2019, shaded gray in Table**

Package no. 01DVG01= 3 samples on 30.12.2019

Package no. 01WS01= 2 samples on 23.12.2019

Package no. 01HRA01= 2 samples on 26.12.2019

Package no. 01HRA02= 3 samples on 18.12.2019

Package no. 01BDG01 = 3 samples on 22.12.2019

25. The noise level monitoring has also been carried out for construction sites. **Table 13** shows noise level data. Complete test result certificates for 5 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 residential area. There is marginal decrease of noise level at Davangere pipe laying sites in compared to base line value. At Davangere bulk water supply package specifically at WTP locations noise level below the industrial area standard. At Harihar UGD and STP project areas noise level above the residential area standard but below the commercial/ industrial area standard. Noise level is above the standard at Harihar bulk water supply package locations. During construction Noise level also above the standard at Byadgi UGD and STP construction sites. 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 equipment and finally use of PPEs by worker or mitigation measures as prescribed in EMP.

26. The next environmental monitoring activities will be conducted within January to June 2020 for running packages to measure concentrations of parameters as done earlier. The cost of the environmental monitoring is arranged from contractor budget (Ref. **Appendix 2**).

Table 13: Noise Level Monitoring at project sites (GKW Consult. Project scope) 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

Town	Phase	Sampling Locations	Date of Monitoring	Day Time			Night Time Leq dB(A)			Noise Zone
				L Min dB(A)	L Max dB(A)	Leq dB(A)	L Min dB(A)	L Max dB(A)	Leq dB(A)	
		Ward 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
				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
		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	

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	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				
	During Construction	Korcha Ratti	14.12.2018	54.3	55.2	54.7	45.1	45.6	45.3	C
		Yard- URS Layout Office	14.12.2018	62.1	62.8	62.5	48.3	48.9	48.5	C
		Basapura	14.12.2018	58.1	58.5	58.3	43.6	44.2	43.9	C
	Average During construction			58.2	58.8	58.5	45.7	46.2	45.9	
	During Construction	Ward no 23- Basavana Gowda Badavane	25.06.2019	54.1	65.2	62.2				C
		Yard- URS Layout Office	25.06.2019	71.9	74.5	73.9				C
		Ward no 5- Basapura nala	25.06.2019	58.8	69.9	66.9				R
	Average During construction			61.6	69.9	67.7				
	During Construction*	Shivakumar Badavane	30.12.2019	54.1	65.2	62.2				R
		Rajivee Gandhi Badavane	30.12.2019	53.5	64.6	61.6				R
		SPS Nagar	30.12.2019	65.4	69	67.6				R
	Average During construction*			57.66	66.26	63.8				

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 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	
	During Construction	Rajanahalli Jack well location	15.12.2018	55.23	63.40	59.32	52.12	61.35	56.74	I
		WTP site Bhathi	15.12.2018	52.35	63.45	57.90	47.70	58.21	52.96	I
		Vidhya nagar C Block pipe route Harihar	15.12.2018	58.23	68.15	63.19	50.15	59.23	54.69	R
	Average During construction			55.3	65.0	60.1	49.9	59.6	54.8	
	During Construction	Rajanahalli Jack well location	25.06.2019	56.8	64.9	60.9	54.8	63.3	59.0	I
		WTP site Bhathi	25.06.2019	53.2	64.5	58.8	49.6	53.7	51.7	I
		Vidhya nagar C Block pipe route Harihar	25.06.2019	63.6	71.1	67.3	52.6	61.3	56.9	R
	Average During construction			57.9	66.8	62.3	52.3	59.4	55.8	
	During Construction*	WTP site Bhathi	23.12.2019	52.48	63.44	58.83	48.44	53.65	51.67	I
		Rajanahalli Jack well location	23.12.2019	55.88	64.98	60.43	54.78	63.26	59.02	I
	Average During construction*			54.18	64.21	59.63	51.61	58.45	55.34	
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

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)	
		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
	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

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)	
		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	
	During Construction	STP site, Harihar	13.12.2018	52.34	65.88	59.11	48.10	59.08	53.89	I
		Benki Nagar, Harihar	13.12.2018	54.32	63.45	58.89	57.45	68.32	62.89	R
	Average During Construction			53.3	64.7	59.0	52.8	63.7	58.4	
	During Construction	North Dist – 4A Benki Nagar	01.06.2019	42.5	54.3	48.4				R
		STP site near Kirloskar factory	01.06.2019	54.6	63.2	59.2				I
		Keshava nagar	01.06.2019				50.3	60.3	55.3	R
	Average During Construction			48.5	58.7	53.8	50.3	60.3	55.3	
	During Construction*	Anjiana Badavane	26.12.2019	56.11	64.44	60.28	53.66	63.15	58.41	R
		Amaravathi colony	26.12.2019	54.08	62.99	58.54	49.25	54.66	51.96	R
	Average During Construction*			55.10	63.72	59.41	51.46	58.91	55.19	
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				

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	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				
	During Construction	Near Indian Oil Petrol pump, Kumar Pattan	11.12.2018	71.8	78.0	73.8				R
		WTP site, Harihar	11.12.2018	61.5	72.3	70.4				I
		OHT site near Gajanan Temple, Amaravathi colony	11.12.2018	71.2	77.3	74.2				R
	Average During Construction*			68.2	75.8	72.8				
	During Construction	Near Indian Oil Petrol pump, Kumar Pattan	22.06.2019	68.2	71.4	69.8				R
		WTP site, Harihar	22.06.2019	64.1	69.5	66.8				I
		OHT site near Gajanan Temple, Amaravathi colony	22.06.2019	70.9	73.2	72.0				R
	Average During Construction			67.7	71.4	69.5				
	During Construction*	WTP site, Harihar	18.12.2019	65.2	71.5	68.3				I
		OHT site near Gajanan Temple, Amaravathi colony	18.12.2019	70.2	74.1	72.1				R
		Near Indian Oil Petrol pump, Kumar Pattan	18.12.2019	68.9	73.0	70.9				R

Town	Phase	Sampling Locations	Date of Monitoring	Day Time			Night Time Leq dB(A)			Noise Zone
				L Min dB(A)	L Max dB(A)	Leq dB(A)	L Min dB(A)	L Max dB(A)	Leq dB(A)	
	Average During Construction*			68.10	72.87	70.43				
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				
	During Construction	Neheru Nagar	31.12.2017	60.30	72.50	67.40	-	-	-	R
		Ashray Badavane	31.12.2017	69.30	74.50	72.40	-	-	-	R
		Islampur	31.12.2017	69.40	74.50	68.40	-	-	-	R
		Hallepet	31.12.2017	61.30	71.50	66.50	-	-	-	R
	Average During Construction			65.07	73.25	68.67				
	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				

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	Sangameshwar nagar	16.12.2018	60.3	72.5	72.4				R
		Hallepet	16.12.2018	69.3	74.5	70.4				R
		Gumnahalli Road	16.12.2018	69.4	74.5	71.4				R
		Station main Road	16.12.2018	61.3	71.5	68.5				C
	Average During Construction			65.0	73.2	70.7				
	During Construction	Vidya nagar	19.05.2019	60.3	72.5	71.4				R
		Gandhi nagar	19.05.2019	69.3	74.5	72.4				R
		Chatra Road	19.05.2019	69.4	74.5	73.4				R
	Average During Construction			66.3	73.8	72.4				
	During Construction*	Neharu Nagara	22.12.2019	60.30	72.50	66.40				R
		Kakol road	22.12.2019	69.30	74.50	71.40				R
		Basaveswara nagara	22.12.2019	69.40	74.50	69.40				R
	Average During Construction*			66.33	73.83	69.07				

* Monitoring conducted (As per GKW scope) during report period July to December 2019, shaded gray in Table

Package no. 01DVG01= 3 samples on 30.12.2019

Package no. 01WS01= 2 samples on 23.12.2019

Package no. 01HRA01= 2 samples on 26.12.2019

Package no. 01HRA02= 3 samples on 18.12.2019

Package no. 01BDG01 = 3 samples on 22.12.2019

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)

27. A performance monitoring fact sheet has been prepared to facilitate tracking and quick reference on environmental monitoring of Project 1 subproject packages (Tables 14 and 15).

**Table 14: Performance Fact Sheet for Required Environmental Consents/Clearances of KIUWMIP Project 1 (Package-wise)-
Only GKW Consult Scope part**

	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, renewal required
3	Expansion of Sewage System in Davangere City (District 1 & 3) – Package No. 01DVG01	SIMPLEX Infrastructure Limited	Yes	Not required till date	Not required	Not required as per present work	Not required as per present work	Not required as per present work	Obtained
4	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 are already felled	Not required	Not required as per present work	Not required as per present work	Not required as per present work	Obtained, renewal required

	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
5	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

Table 15: Performance Fact Sheet for EMP Implementation of KIUWMIP Project 1 (Package-wise) Only GKW Consult Scope
part

	Package Number	Name of Contractor	EMP Part of contract Document (Yes / No)	Contractor Social/ Environment Person ¹	Overall Status of EMP Implementation	Field to be Monitored as per EMP												
						Source of Materials	Camp Sites	Landscape and Aesthetics	Air Quality	Noise Level	Traffic	Ecological Resources – Terrestrial	Accessibility	Water Quality	Occupational Health & safety	Community Health & safety	Socio cultural resources	Employment generation
						In compliance (2) / Partial Compliance (1) / Not in compliance (0) / Not applicable (n/a)												
1	Providing expansion of sewage system in Harihar city – Package No. 01HRA01	SHRIRAM EPC Ltd.	Yes	Nominated	Complied	2	2	1	2	2	2	NA	2	NA	1	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	1	NA	1	1	2	2
3	Expansion of Sewage System in Davangere City (District 1 & 3) – Package No. 01DVG01	SIMPLEX Infrastructure Limited	Yes	Nominated	Complied	2	2	1	2	2	2	NA	2	NA	1	1	2	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 Aesthetics	Air Quality	Noise Level	Traffic	Ecological Resources – Terrestrial	Accessibility	Water Quality	Occupational Health & safety	Community Health & safety	Socio cultural resources	Employment generation
						In compliance (2) / Partial Compliance (1) / Not in compliance (0) / Not applicable (n/a)												
4	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	1	2	2	2	2	2	NA	1	1	NA	2
5	Design, Build, Operate & Maintain for 6 years for Byadgi comprehensive scheme from covering SBR STP (5 MLD), network and manholes, construction of one septic tank and provision of HSCs, Package No. 01BDG01	Shriram EPC- Eurotek Environmental Private Limited - JV	Yes	Nominated	Complied	2	2	1	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+2+1+2+2+2+2+1+2+2+2= 20. Number of operated field=11, **Then- 20/11=1.81≈ 2, More than 1.5, Complied**

Package No. 01HRA02= Total score- 2+1+1+2+2+2+2+1+1+1+2+2= 19. Number of operated field=12, **Then- 19/12=1.58 ≈ 2, More than 1.5, Complied**

Package No. 01DVG01= Total score- 2+2+1+2+2+2+2+1+1+2+2= 19. Number of operated field= 11. **Then – 19/11=1.72≈ 2, More than 1.5, Complied**

Package No. 01WS01= Total score- 2+2+1+2+2+2+2+2+1+1+2= 19. Number of operated field= 11. **Then – 19/11= 1.72≈ 2, More than 1.5, Complied**

Package No. 01BDG01= Total score- 2+2+1+2+2+2+2+2+1+1+2+2= 19, Number of operated field= 11. **Then – 19/11=1.72 ≈ 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/ work site management)

VI. CONSULTATIONS AND DISCLOSURES CONDUCTED

28. 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 15**.

29. 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.

30. Outcome of consultation as follows,

- ✓ Local people are happy with the project
- ✓ 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

31. The indicative schedule for consultations and disclosure is presented in **Table 16**.

Table 16: 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

32. During the report period informal environment safeguard training/ discussion on safety and environment has been arranged for contractor, supervisor's engineers at field level. **Appendix 16** indicates compliance issues.

VII. GRIEVANCE REDRESS MECHANISM

33. 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.

34. 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.

35. 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**.

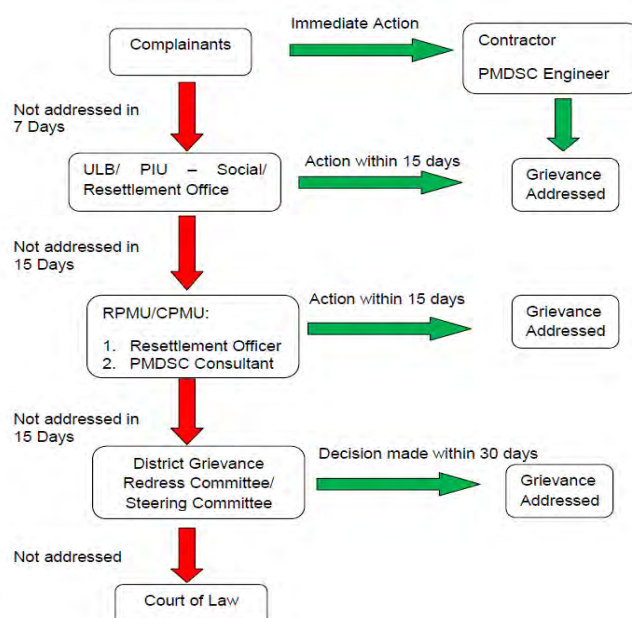


Figure 3: Grievance Redress Process

36. 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.

37. Project level GRC has been set up on 7th August 2015. Office memorandum is attached as **Appendix 17**.

38. Already complaint register and accident register open at contractor level. Sample copy of few grievances during report period is attached as **Appendix 18**. Till date all grievances are resolved at contractor level. Accident record is available with the contractor. Samples are attached as **Appendix 14**.

VIII. FINDINGS AND RECOMMENDATIONS

39. Based on environmental monitoring conducted during July to December 2019, KIUWMIP Project 1 (**GKW Consult Scope**) is in mixed (partial to fully complied) compliance level of environmental safeguards. The main partial non-compliances include:

- For all pipe laying project, time period for construction work for particular area and contact details of PIU, consultant in project display board for any grievances or suggestion not included
- Need to improve use of PPEs by contractor's workers for all projects. Use of PPEs should be at all times and as per site condition and work type. Particularly use of shoes, hand gloves and safety belt (when working at height)
- Improvement is required for first aid box. First aid materials are not sufficient in most of the packages. Sometime first aid materials contaminated
- Improvement of housekeeping is required for Davangere bulk water supply package WTP location
- Improper material storage for Davangere bulk water supply package WTP location
- Improper material storage and fuel storage for Harihar bulk water supply package WTP location
- Access to the camp and housekeeping need to be improved for Harihar bulk water supply package WTP location
- Excess earth and stone need to be removed and access to be maintained. for Byadgi UGD package
- No or partial caution tape at pipe laying location for Byadgi UGD package, Davangere bulk water supply package and Davangere UGD package
- Insufficient caution safety signage board for Davangere UGD package

40. **Table 17** provides the recommended corrective action plan to address the non-compliances and partially compliances.

Table 17: Corrective Action Plan

	Non-compliance Issues	Action Required	Responsible	Target Date	Indicator of Compliance
1	For all pipe laying project, time period for construction work for particular area and contact details of PIU, consultant in project display board for any grievances or suggestion not included	Arrangement of display board with all information. Advance information for locals including shopkeepers before starting of the work	Contractor	29 th February 2020	Information disclosure Public consultation
2	Need to improve use of PPEs by contractor's workers for all projects. Use of PPEs should be at all times and as per site condition and work type. Particularly use of shoes, hand gloves and safety belt (when working at height)	Use of PPEs should be at all times as per site condition and work type.	Contractor	Immediate and on regular basis with record	Availability and use of PPEs
3	Improvement is required for first aid box. First aid materials are not sufficient in most of the packages. Sometime first aid materials contaminated	Improvement is required for first aid box. First aid materials should be sufficient	Contractor	Immediate	Site observation

	Non-compliance Issues	Action Required	Responsible	Target Date	Indicator of Compliance
4	Improvement of housekeeping is required for Davangere bulk water supply package WTP location	Immediate improvement of housekeeping	Contractor	15 th February 2020	Site observation
5	Improper material storage for Davangere bulk water supply package WTP location	Proper storage of construction material with demarcation	Contractor	15 th February 2020	Site observation
6	Improper material storage and fuel storage for Harihar bulk water supply package WTP location	Proper storage of construction material with demarcation	Contractor	15 th February 2020	Site observation
7	Access to the camp and housekeeping need to be improved for Harihar bulk water supply package WTP location	Immediate improvement for access and housekeeping	Contractor	15 th February 2020	Site observation
8	Excess earth and stone need to be removed and access to be maintained. for Byadgi UGD package	Immediate removal of excess earth	Contractor	15 th February 2020	Site observation
9	No or partial caution tape at pipe laying location for Byadgi UGD package, Davangere bulk water supply package and Davangere UGD package	Improvement/ complete use of caution tape at working areas required	Contractor	Immediate	Site observation
10	Insufficient caution safety signage board for Davangere UGD package	Arrangement of sufficient caution safety signage	Contractor	Immediate	Site observation

Appendix 1: Photo Illustration



1200 mm dia pipe fixing and 2000 mm manhole Fixing at Basapur Nala



1200mm dia RCC pipe laying for UGD work at Basapura nala. use of PPEs by workers



Construction of HSC chamber at Yargunte



1200 mm dia RCC pipe laying at RMC link road



Earth work excavation for UGD work using 20mm DWC pipes at Yeregunta site



HSC chambers construction at Mandakibatti



Earthwork excavation near SPS nagara 2nd stage, No use of PPEs



M30 Concrete for raft and wall of Pedestal at Basapura nala, Davangere. No use of PPEs by workers



1100 dia DI Pipe laying near jackwell at Rajanhalli, Use of PPEs



Construction work for WTP Davangere is going on, Use of PPEs



WTP construction under progress, Use of PPEs



Outer wall Plastering at chemical house started



Poor material storage. Material spread and washed with water



Very poor housekeeping at Davangere WTP site



Filter house brick work continued



Back wash tank under construction



Pump house status



Clariflocculator work



Use of caution tape and PPEs noted at filter house area of WTP



Use of caution tape noted at pipe laying work



Plastering work at chemical house partial Use of PPEs by workers.



Caution board used at Pipe laying work.



Insufficient first aid materials and some are contaminated at WTP Davangere



Water bypass channel reinforcement completed, side shutter in progress



Plastering work completed for Amaravati OHT, Harihar



Plastering work completed for Jijamath nagar OHT, Harihar



WTP construction going on at Harihar. Poor material storage



Fuel storage noted. No metal tray below fuel drum



WTP construction going on at Harihar WTP. Partial use of PPEs by workers

Finishing works at Filter house



20 MLD WTP at Harihara

Unloading of machineries at head works. Use of PPEs noted



Road restoration work Partial Use of PPEs noted

Pipe laying work use of caution tape and hard barricading done.



Hard barricading and Caution done at excavated area.



Plastering work at filter house Partial Use of PPEs noted



Caution board used at WTP site.



Partial usage of PPEs



Workers camp condition. Access to the camp and housekeeping need to be focused



First aid box available at work site of WTP at Harihara



Construction of Receiving Chamber at Jijamatha nagara



Construction of Receiving Chamber at Amaravathi Colony



Construction of Receiving Chamber at Jijamatha nagara, Partial use of PPEs .



Construction of Receiving Chamber at Amaravathi Colony, Partial use of PPEs.



Caution tape used at working site.



Harihara STP Transformer yard



Amaravathi Wet Well



Insufficient first aid materials and some are contaminated at STP Harihara



CC road restoration at Shivapura Badavanae at Byadgi. Use of PPEs noted



Caution board and caution tape noted with emergency contact no. at Byadgi



STP work at Byadgi, Use of PPEs noted



Tool box training conducted at STP work at Byadgi



Construction of receiving chamber for UGD HSC in Vivekananda Nagar



HSC chamber construction in Vivekananda Nagar, Partial use of PPEs noted



Upvc 160 mm dia pipe laying (gap closing) at Mallur road, Partial use of PPEs noted at Byadgi



First aid box available at STP site Byadgi



Excess earth and stone need to be removed and access to be maintained. No caution tape at pipe laying location



Partial use of PPEs by worker. No use of shoes

Monitoring Budget

Sr. no.	Package	Tentative Monitoring budget (in Rs.) 2019
1	Providing expansion of sewage system in Harihar city – Package No. 01HRA01	5,00,000.00
2	Improvement of water supply system (bulk) in Harihara City- Package No. 01HRA02	7,70,000.00
3	Expansion of Sewage System in Davangere City (District 1 & 3) – Package No. 01DVG01	8,50,000.00
4	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
5	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	10,00,000.00 (2019-2020)

Appendix 3

Compliance against CFE condition

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 almost completed) and informed to Board during consent application UGD project under progress and will be completed by 2019 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

Sl. No	CFE Conditions	Compliance
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
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 in pay the entire cost of remediation or restoration and pay in advance an amount equal to the cost estimated by competent agency or committee.	Agreed
7	The separate flow meter shall be installed to record hourly inflow & outflow of domestic effluent into the STP and maintain logbooks for hourly recording for verification of inspecting officers.	The separate flow meter will be installed to record hourly inflow & outflow of domestic effluent into the STP and logbooks will be maintained for hourly recording for verification
III. Solid Waste (other than Hazardous waste) disposal		
	The solid wastes collected in the treatment plant premises in the form of general garbage shall be disposed off sufficiently to the satisfaction of the Board so as not to cause fugitive emissions, dust problems or water pollution through leaching etc. of any kind	As per the recommendations of CPHEEO Manual, November 2013 (Central Public Health and Environmental Engineering Organization), section 5, page 81, the sludge from Facultative aerated lagoon will be used as good agriculture soil filler. No emission and dust expected. Periodic testing of dried sludge will be conducted to ensure that it does not contain heavy metals that make it unsuitable for food crops
IV. General		
1	The authority shall immediately report to the board of any accident or unforeseen act or event resulting in release of discharge of	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

Sl. No	CFE Conditions	Compliance
	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	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	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

<u>ON LAND FOR IRRIGATION</u>		
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 end
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 <i>nalla</i>
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

SI 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 ⁰ 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)

LD1521000036940

3 - Renewal Certificate



GOVERNMENT OF KARNATAKA
DEPARTMENT OF LABOUR

Licence No : ALCD/CLA/LCN-1436/2014-15

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: Feb 25 2019

FORM-VI
[See Rule 25(1)]

1. Licence is hereby granted to Simplex Infrastructures Limited, No. 314, 3rd Main, 1st Cross, Backside of More Shop, S. Nijalingappa Layout, Davangere Under Section 12[1] of the Contract Labour [Regulation and Abolition] Act-1970, subject to the conditions specified in annexure.

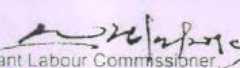
2. This Licence is for doing the work Expansion of Sewerage System in Davangere City (Expansion of Sewerage System in Davangere City) in the establishment of Commissioner Davangere City Corporation, P.B. Road, Davangere

3. The Licence shall remain in force till : 23/02/2020

Renewal
[Rule 29]

Sl no.	Date of Licence Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	26-02-2019	23-02-2019	LICENCE FEE:1500, PENALTY:375	23/02/2020

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


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

Davangere Bulk water supply (Package no: 01DVG01A)

LD1521000042539



2 - Renewal Certificate

**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 Harihar Urban
Development Authority
Building, Near Devaraja
Urs Layout, Commercial
Tax Office, Davangere-
577006

Licence Date: Nov 9 2017

FORM-VI

[See Rule25(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 :01/07/2020

**Renewal
[Rule 29]**

Sl no.	Date of Licence Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	05-07-2019	01-07-2019	LICENCE FEE:1500, PENALTY:375	01/07/2020

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

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

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

LD1521000041970



4 - Renewal Certificate

GOVERNMENT OF KARNATAKA

DEPARTMENT OF LABOUR

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

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

Assistant Labour
Commissioner, Bellary
Division, Davangere
Davangere Harihara 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 :14.06/2020

Renewal
[Rule 29]

Sl no.	Date of Licence Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	05-07-2019	14-06-2019	LICENCE FEE:2250, PENALTY:562	14/06/2020

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

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

Harihar Bulk Water supply (Package no. 01HRA02)


GOVERNMENT OF KARNATAKA
DEPARTMENT OF LABOUR

LOD/CWWB/DVG-CR-02/2017-18

Office of the Labour Officer,

Subdivision -
DAVANGERE
LABOUR OFFICER,
DAVANGERE

Fee: 1200

Date: 30-11-2019

FORM-II
(See Rule 16(1))

CERTIFICATE OF REGISTRATION (AMENDMENT)

A Certificate of Registration is hereby granted under Sub-section 3 of Section 7 of the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 and Karnataka Rules thereunder **M/s Sheth and Sura Engineers Pvt. Ltd.** (with the below mentioned address) having the following particulars subject to conditions laid down in the Annexure:

Registration Details :

1. Postal Address/ location where building or other construction work is to be carried on by the employer:	Dr. Aradhya House, P.B. Road, Kumarpattanam Post, Ranebennur Tq, Haveri Dist., C/o Karnataka Integrated Urban Water Management and Investment Programme, Slice No. 1- Improvement of Water Supply System (Bulk), Harihar City
2. Name and address of employer including location the building and other construction work:	Kiran Mangasule, Dr. Aradhya House, P.B. Road, Kumarpattanam Post, Ranebennur Tq, Haveri Dist
3. Name and permanent address of the establishment:	M/s Sheth and Sura Engineers Pvt. Ltd., C/o Karnataka Integrated Urban Water Management and Investment Programme, Slice No. 1- Improvement of Water Supply System (Bulk), Harihar City
4. Nature of work in which building workers are employed or are to be employed:	Construction of Water Treatment Plant, Constructio
5. Maximum number of building workers to be employed on any day by the employer:	18
6. Probable date of Commencement and completion of work:	18-11-2019, 17-11-2020
7. Other Particulars relevant to the employment of building workers:	Registration Fee
8. Particulars of fees paid	1200

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


Labour Officer
30/11/2019

Amended Details:

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

LD1521000037640

3 - Renewal Certificate

100

GOVERNMENT OF KARNATAKA
DEPARTMENT OF LABOUR

License No: ALC-DH/CLAVC-100004821/2016-17

Registration No: ALC-DH/CLAP-1000003302/2016-17

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

Licence Date: Feb 8 2017

FORM-VI
[See Rule 25(1)]

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

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

3. The Licence shall remain in force till : 16/04/2020

Renewal
[Rule 29]

Sl no.	Date of Licence	Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	25-04-2019		16-04-2019	LICENCE FEE: 2250, PENALTY: 0	16/04/2020

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

(Signature)
Assistant Labour Commissioner,
Dharwad Division, Hubli
Licensing Officer,
Under Contract Labour Act &
Assistant Labour Commissioner,
Dharwad Div. HUBLI

Workman compensation Insurance

Davangere UGD (Package: 01DVG01)

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

POLICY SCHEDULE FOR EMPLOYEES COMPENSATION INSURANCE

Insured's Name		SIMPL EX INFRASTRUCTURES LTD.	
Insured's Details		Issuing Office Details	
Customer ID	HO75544090	Office Code	Karnataka CC 950000 1992079
Address	C/O COMMISSIONER-CITY CORPORATION, DAVANGERE, DAVANGERE CITY	Address	420, J.L. NEELU ROAD 3RD FLOOR, JEEVAH SUDHA BUILDING, 100071
	DAVANGERE, KARNATAKA, 577002	Phone No.	332286589 / 332286598
Phone No.		Phone No.	332286589 / 332286598
E-mail/Fax	sanjay.mukherjee@simplinfra.com	E-mail/Fax	na.950000@newindia.co.in
PAN No.		S.Tax Regn. No.	AAACPM195CST117R
GSTIN/UDIN	28AAEC5076SR1ZL / NA	GSTIN	18AAACN4166G1Z0
		SAC	957135 (Other non-life insurance & reinsurance and R)

Policy Details			
Policy Number	9500003190100000132	Business Source Code	
Period of Insurance	From: 11/11/2019 05:06:29 PM To: 10/05/2020 11:56:59 PM	Dev Off level/Broker/Corp. Agent/Web Aggregator	DIRECT BUSINESS - (INDIAN)
Date of Proposal	11-Nov-19	Agent/Bancassurance/Specified Person	
Prev. Policy no.		Phone No.	
Client Type	Corporate	E-mail/Fax	

Premium(₹)	GST(₹)	Total (₹)	Total (₹ in words)	Receipt No. & Date
13200	2376	15576	RUPEES FIFTEEN THOUSAND FIVE HUNDRED SEVENTY-SIX ONLY	9500003119000000132 6-11/11/19

Details of Employees with monthly wages upto ₹ 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	50	7400000

Details of Employees with monthly wages above ₹ 8000:

Categories	Sub Categories	No of Employee	Cash Total Wages
Trade Description	Particular of Works	Location Details	Included All Sub-Contractors
CIVIL CONTRACTOR	EXPANSION OF SEWERAGE SYSTEM IN DAVANGERE CITY IN KARNATAKA (DISTRICT 1 & 3) PACKAGE NO.01 DVG 01 - CITY CORPORATION DAVANGERE		Yes

Contractor/Sub-Contractor Details:

Serial No.	Name of Contractor	Description	Category	No. of Workers			Amount Wages
				Skilled	Unskilled	Others	
1	VARIOUS	VARIOUS	Builders All employees engaged in shop or yard or in construction/ demolition of buildings and other civil construction like dams, bridges etc. incl. excavation	0	50	0	2400000

Extensions under the Policy Cover

Policy No : 9500003190100000132. Document generated by 26496 at 11/11/2019 17:18:06 Hours
Regd. & Head Office: New India Assurance Bldg., 97 M.G. Road, Fort, Mumbai - 400 001. TOLL FREE No. 1 800 208 1815

CIN No. 1166010B 12006PI C029979

Shriram Employees Compensation Insurance Policy - UIN NO. IRDAN137CP0013V02201819 - SAC Code. 997139

Co-insurance Details : NIL

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 :

SCHEDULE OF PREMIUM

Page 1 of 2

Harihar UGD & STP (Package: 01HRA01))

SHRIRAM EMPLOYEES COMPENSATION INSURANCE - POLICY SCHEDULE

Shriram Employees Compensation Insurance Policy - UIN NO. IRDAN137CP0013V02201819 - SAC Code. 997139

Policy No.	: 421010/48/20/001358	Prev. Policy No.	: 421010/48/19/008985
Cover Note No.	: MI106626	Cover Note Date	: 26-JUN-19
Insured's Code	: 6570708	Issue Office code	: 421010
Insured's Name	: M/S.Shriram EPC Limited - GSTIN No. - 33AAFCS1410C1Z6	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 26/06/2019 To Midnight of 25/06/2020 (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 : 27/06/2019

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. - 33AAKCS2509K1ZA

Page 1 of 2

Harihar Bulk Water supply (Package: 01HRA02)

दि न्यू इन्डिया एश्योरन्स कंपनी लि.

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

POLICY SCHEDULE FOR EMPLOYEES COMPENSATION INSURANCE

Insured's Name	SHETH & SURA ENGINEERS PVT LTD & CHIEF OFFICER TMC		
Customer ID	PD74958992		
Address	AQUA HOUSE, 263/1, SINHGAD ROAD NR PARWATI OVERBRIDGE, PUNE PUNE, MAHARASHTRA, 411030		
Phone No	02024458143 / 02024452880		
E-mail/Fax	sheth_sura@vsnl.net, / 02024452236		
PAN No	AAFC051737P		
GSTIN/UIN	27AAFC051737P/2V/NA		
Office Code	DIVISIONAL OFFICE - 150400 (150400)		
Address	COMMONWEALTH BUILDING, AXMIN ROAD, PUNE-411030		
Phone No	02024458143 / 02024452880		
E-mail/Fax	nia_150400@newindia.co.in / 02024452236		
S.Tax Regn. No	AAACN4165C32P		
GSTIN	27AAACN4165C32P		
SAC	997139 (Other non-life insurance services excl RI)		

Policy Number	15040036190100000279		
Period of Insurance	From: 29/11/2019 12:00:01 AM To: 28/01/2020 11:59:59 PM		
Date of Proposal	29-Nov-19		
Prev. Policy No.			
Client Type	Non-Corporate		
Business Source Code	M- RAVINDRA D BAGAOI (AM/836341)		
Dev.Off level/Broker/Corp. Agent/Web Aggregator	Mrs. SAVITA SATISH MEHTA (NA2D7561456) AGENT SITE /3839 (2D/55X026)		
Agent/Bancassurance/Specified Person	Phone No 9429507625 / NA		
Phone No	E-mail/Fax mehtasavita29@gmail.com, / / /		

Premium(₹)	GST(₹)	Total (₹)	Total (₹ in words)	Receipt No. & Date
9117	1642	10759	RUPEES TEN THOUSAND SEVEN HUNDRED FIFTY-NINE ONLY	15040036190000016206-14/11/19

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:			
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-ENGINEERS	1	40000
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	2	56000
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	3	72000
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	10	210000

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, SCICE NO-1), CONTRACT PACKAGE NO 01HRA02	IMPROVEMENT OF WATER SUPPLY SYS (BULK) IN HARIHARA CITY, KARNATAKA	Yes

Contractor/Sub-Contractor Details:					
Serial No	Name of Contractor	Description	Category	No. of Workers	Amount Wages
1	SHETH & SURA ENGINEERS PVT LTD				

Policy No. : 15040036190100000279 Document generated by 37697 at 14/11/2019 14:53:53 Hours.

Regd. & Head Office: New India Assurance Bldg., 67 M.G. Road, Fort, Mumbai - 400 001. TOLL FREE No. 1 800 209 1413.

प्रधान कार्यालय : दि न्यू इन्डिया एश्योरन्स बिल्डिंग, ६७, महात्मा गांधी मार्ग, फोर्ट, मुंबई ४०० ००१ फोन नं. ०२२ - २२७० ८१०० / २२७० ८४००

CIN NO. L66000MH1919GOI000525 - GSTIN No. 27AAACN4165C32P - IRDA REGN. NO. 190

Page 1 of 2

Byadgi UGD & STP (Package: 01BDG01)



RAHEJA QBE GENERAL INSURANCE COMPANY LIMITED

GENERAL ENDORSEMENT

Endorsement No. 015W000026601002 (Attached to and forming part of Policy No. 015W000026601000)

Insured: M/s Shriram EPC - Eurotek Environmental Pvt Ltd – JV (GSTIN No. 36AACCE0720CIZE)
Policy Period: 20th January 2018 to 19th January 2020
Effective Date: 20th January 2019
Policy No.: 015W000026601000
Policy Type: Workmen's Compensation Insurance Policy
Date of Issue: 21st January 2019

Notwithstanding anything to the contrary stated in the Policy or in any of the Endorsements thereon, it is hereby agreed and declared that the policy is extended for 12 months from 20th January 2019 to 19th January 2020.

Estimated Number of Employees	Estimated Wages/ Earnings. (Rs.)	Place of Employment
Insured Staff - 15	15,000 per month each	Byadgi Town Municipality, Karnataka
Principal's Staff – 5	25,000 per month each	

In view thereof, below mentioned additional premium has been charged & collected from the Insured.

Premium	(INR)	15,439
CGST @ 9%	(INR)	1,390
SGST/UGST @9%	(INR)	1,390
Total Premium	(INR)	18,219

Subject otherwise to the Coverage, Conditions and Exclusions of this Policy.

For Raheja QBE General Insurance Co. Ltd.


ABHIJIT KEDIA Digitally signed by ABHIJIT KEDIA
Date: 2019.01.21 11:38:20 +05'30'

Place : Mumbai

Authorized Signatory

Tree Felling NOC

Harihar Bulk WS package – NOC for Felling of 2 nos. Trees


ಕರ್ನಾಟಕ ಅರಣ್ಯ ಇಲಾಖೆ

ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳ ಕಛೇರಿ, ದಾವಣಗೆರೆ ಪ್ರಾದೇಶಿಕ ವಿಭಾಗ, ದಾವಣಗೆರೆ - 577 005.

ದೂರವಾಣಿ ಸಂಖ್ಯೆ : 08192-262527
ಫ್ಯಾಕ್ಸ್ ನಂ. : 08192-262527

ಇ-ಮೇಲ್ : dcfdv@gmail.com

ಸಂಖ್ಯೆ : ಬಿ4/ಮರ ಕಟಾವಣೆ/ಸಿಆರ್-04/2016-17
ದಿನಾಂಕ : 18-11-2017

ಅಧಿಕೃತ ಜ್ಞಾಪನ ಪತ್ರ

ವಿಷಯ : ಹರಿಹರ ತಾಲ್ಲೂಕು ರಾಜನಹಳ್ಳಿ ಗ್ರಾಮ ತುಂಗಭದ್ರಾ ನದಿ ದಂಡೆಯ Jack well ಜಾಗದಲ್ಲಿರುವ ಮರಗಳನ್ನು ಕಡಿಯಲು ಅನುಮತಿ ನೀಡುವ ಕುರಿತು.

ಉಲ್ಲೇಖ : 1) ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು, ಕೆಯುಐಡಿಎಫ್‌ಸಿ-ಕೆಐಯು ಡಬ್ಲ್ಯೂ.ಎಂ.ಐ.ಪಿ, ಆರ್‌ಪಿ.ಎಂ.ಯು, ದಾವಣಗೆರೆ ಇವರ ಕಛೇರಿ ಪತ್ರ ಸಂಖ್ಯೆ : KUIDFC/KIUWMIP-RPMU/UGD/ 2017-18/776, DATE : 25-10-2017
2) ವಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ, ದಾವಣಗೆರೆ ವಲಯ, ದಾವಣಗೆರೆ ಇವರ ಪತ್ರ ಸಂಖ್ಯೆ :ವಲಯ/ದಾಗರೆ/ಮ.ಕ.ಅ./2017-18/458, ದಿನಾಂಕ : 07-11-2017.
3) ಸಹಾಯಕ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ ಹಾಗೂ ತಾಂತ್ರಿಕ ಸಹಾಯಕರು, ದಾವಣಗೆರೆ ವಿಭಾಗ, ದಾವಣಗೆರೆ ರವರ ಶಿಫಾರಸ್ಸು ವರದಿ ಸಂಖ್ಯೆ : 315/2017-18, ದಿನಾಂಕ : 10-11-2017.

* * * * *

ಪ್ರಸ್ತಾವನೆ :

ಉಲ್ಲೇಖ (1)ರ ಪತ್ರದಲ್ಲಿ ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು, ಕೆಯುಐಡಿಎಫ್‌ಸಿ-ಕೆಐಯು ಡಬ್ಲ್ಯೂ.ಎಂ.ಐ.ಪಿ, ಆರ್‌ಪಿ.ಎಂ.ಯು, ದಾವಣಗೆರೆ ಇವರು ಹರಿಹರ ತಾಲ್ಲೂಕು ರಾಜನಹಳ್ಳಿ ಗ್ರಾಮ ತುಂಗಭದ್ರಾ ನದಿ ದಂಡೆಯಲ್ಲಿ Jackwell ನಿರ್ಮಿಸುವ ಸ್ಥಳದಲ್ಲಿ ಕಾಡು ಜಾತಿಯ ಮರಗಳು ಅಡ್ಡಿಯಾಗುತ್ತಿರುವುದರಿಂದ ಎರಡು ಮಳೆ ಮರಗಳನ್ನು ಕಟಾವಣೆ ಮಾಡುವಂತೆ ಕೋರಿರುತ್ತಾರೆ.

ವಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ, ದಾವಣಗೆರೆ ವಲಯ, ದಾವಣಗೆರೆ ಇವರು ಮತ್ತು ಅವರ ಸಿಬ್ಬಂದಿ ವರ್ಗದವರು ಸದರಿ ಮರವನ್ನು ಪರಿಶೀಲಿಸಿ, ಸದರಿ ಮರಗಳು ಜಾಕ್‌ವೆಲ್ ನಿರ್ಮಿಸುವ ಕಾಮಗಾರಿಗೆ ಅಡ್ಡಿಯಾಗುತ್ತಿರುವುದರಿಂದ ಕಟಾವಣೆಗೆ ಅನುಮತಿ ನೀಡಬಹುದೆಂದು ಅಭಿಪ್ರಾಯ ನೀಡಿರುತ್ತಾರೆ. ಸಹಾಯಕ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು, ದಾವಣಗೆರೆ ವಿಭಾಗ, ದಾವಣಗೆರೆರವರು ಸಹ ಸದರಿ ಮರಗಳ ಕಟಾವಣೆಗೆ ಶಿಫಾರಸ್ಸು ಮಾಡಿರುತ್ತಾರೆ.

ಕರ್ನಾಟಕ ವೃಕ್ಷ ಸಂರಕ್ಷಣಾ ಅಧಿನಿಯಮ 1976ರ ವಿಧಿ 8 ಮತ್ತು ಅದರ ಉಪವಿಧಿಗಳ ಪ್ರಕಾರ, ಸದರಿ ಮರಗಳಿಂದ ಜಾಕ್‌ವೆಲ್ ನಿರ್ಮಿಸುವ ಕಾಮಗಾರಿಗೆ ಅಡ್ಡಿಯಾಗುತ್ತಿರುವುದರಿಂದ ಕಟಾವಣೆ ಮಾಡುವುದು ಸೂಕ್ತವೆಂದು ಕಂಡು ಬಂದಿರುವುದರಿಂದ ಈ ಕೆಳಗಿನಂತೆ ಆದೇಶ ಹೊರಡಿಸಿದೆ.

ಕೆ.ಐ.ಯು.ಡಬ್ಲ್ಯೂ.ಎಂ.ಐ.ಪಿ. ಕೋಶ
ದಾವಣಗೆರೆ

ಸಂಖ್ಯೆ: 18/11/17
ದಿನಾಂಕ: 18/11/17

:: ಆದೇಶ ::


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

ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ,
ದಾವಣಗೆರೆ ವಿಭಾಗ, ದಾವಣಗೆರೆ.

ಪ್ರತಿಯನ್ನು :

1. ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು, ಕೆಯುಐಡಿಎಫ್‌ಸಿ-ಕೆಐಯುಡಬ್ಲ್ಯುಎಂಐಪಿ, ಆರ್‌ಪಿಎಂಯು, ದಾವಣಗೆರೆ ಇವರಿಗೆ ಮರದ ತಗ್ಗುಬೆಲೆ ಪಟ್ಟಿಯೊಂದಿಗೆ ಕಳುಹಿಸುತ್ತಾ, ಮರಗಳನ್ನು ಕಡಿದು ಮನೆ ಉಪಯೋಗಕ್ಕೆ ಮಾರಾಟ ಮಾಡಿದಾಗ, ಮಾರಾಟ ಮಾಡಿದ ಮೊತ್ತದ ಮೇಲೆ ಶೇ.8 ರಂತೆ ಅಥವಾ ಸಂಘಸಂಸ್ಥೆ, ಸಾಮಿಲ್/ನಿಗಮ ಮಂಡಳಿ ಹಾಗೂ ಇತರೆಯವರು ಖರೀದಿಸಿದಾಗ ಮಾರಾಟ ಮೊತ್ತದ ಮೇಲೆ ಶೇ.12 ರಂತೆ ಅರಣ್ಯ ಅಭಿವೃದ್ಧಿ ನಿಧಿಯನ್ನು ವಸೂಲಿ ಮಾಡಿ ವಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ, ದಾವಣಗೆರೆ ವಲಯ, ದಾವಣಗೆರೆ ಇವರಿಗೆ ಪಾವತಿಸಲು ಸೂಚಿಸಿದೆ.
2. ವಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ, ದಾವಣಗೆರೆ ವಲಯ, ದಾವಣಗೆರೆ ಇವರಿಗೆ ಮುಂದಿನ ಕ್ರಮಕ್ಕಾಗಿ ಕಳುಹಿಸಿದೆ. ಮರಗಳನ್ನು ಕಡಿದ ನಂತರ, ಮರಗಳ ಪಟ್ಟಿಯೊಂದಿಗೆ ಸಾಗಾಣಿಕೆ ಮಾಡಲು ಈ ಕಛೇರಿಯಿಂದ ರಹದಾರಿ ಪಡೆದು ನಂತರ ಸಾಗಿಸಲು ಕ್ರಮ ಕೈಗೊಳ್ಳತಕ್ಕದ್ದು. ಅಪರ ಪ್ರಧಾನ ಮುಖ್ಯ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು (ಅರಣ್ಯ ಸಂಪನ್ಮೂಲ ನಿರ್ವಹಣೆ), ಬೆಂಗಳೂರು ಇವರ ಪತ್ರ ಸಂಖ್ಯೆ : ಅಪ್ರಮುಅಸಂ(ಅಸಂನಿ)/ಬಿ5/ಕೆಟಿಪಿ/ಸಿಆರ್-137/2016-17, ದಿನಾಂಕ : 20-03-2017ರ ಪ್ರಪತ್ರದಲ್ಲಿ ತಿಳಿಸಿರುವಂತೆ ಮಾನ್ಯ ರಾಷ್ಟ್ರೀಯ ಹಸಿರು ಪೀಠ (NGT) ಮೂಲ ಅರ್ಜಿ ಸಂಖ್ಯೆ : 167/2016 ದಿನಾಂಕ: 26-04-2017ರ ಮಾನ್ಯ ನ್ಯಾಯಾಲಯದ ಆದೇಶವನ್ನು ಯಥಾವತ್ತಾಗಿ ಪಾಲನೆ ಮಾಡಲು ತಿಳಿಸಿದೆ.

Davangere Bulk WS package- NOC for felling of 2 nos. trees

 ಕರ್ನಾಟಕ ಅರಣ್ಯ ಇಲಾಖೆ	
ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳ ಕಛೇರಿ, ದಾವಣಗೆರೆ ಪ್ರಾದೇಶಿಕ ವಿಭಾಗ, ದಾವಣಗೆರೆ - 577 005.	
ಮೂಲವಾಣಿ ಸಂಖ್ಯೆ : 08192-262527	ಇ-ಮೇಲ್ : decdvg@gmail.com
ಫ್ಯಾಕ್ಸ್ ನಂ : 08192-262527	
ಸಂಖ್ಯೆ : ಬಿ-4/ಮರ ಕಟಾವಣಿ/ಸಿಆರ್-04/2016-17	ದಿನಾಂಕ : 18-11-2017
ಅಧಿಕೃತ ಜ್ಞಾಪನ ಪತ್ರ	
<p>ವಿಷಯ : ಹರಿಹರ ತಾಲ್ಲೂಕು ರಾಜನಹಳ್ಳಿ ಗ್ರಾಮ ತುಂಗಭದ್ರಾ ನದಿ ದಂಡೆಯ Jack well ಜಾಗದಲ್ಲಿರುವ ಮರಗಳನ್ನು ಕಡಿಯಲು ಅನುಮತಿ ನೀಡುವ ಕುರಿತು.</p>	
<p>ಉಲ್ಲೇಖ : 1) ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು, ಕೆಯುಐಡಿಎಫ್‌ಸಿ-ಕೆಐಯುಡಬ್ಲ್ಯೂಎಂಐಪಿ, ಆರ್‌ಪಿಎಂಯು, ದಾವಣಗೆರೆ ಇವರ ಕಛೇರಿ ಪತ್ರ ಸಂಖ್ಯೆ : KUIDFC/KIUWMIP-RPMU/UGD/ 2017-18/776, DATE: 25-10-2017</p>	
<p>2) ವಲಯ ಆರಣ್ಯಾಧಿಕಾರಿ, ದಾವಣಗೆರೆ ವಲಯ, ದಾವಣಗೆರೆ ಇವರ ಪತ್ರ ಸಂಖ್ಯೆ :ವಆಆ/ದಾಗೆರೆ/ಮ.ಕ.ಅ./2017-18/ 458, ದಿನಾಂಕ : 07-11-2017.</p>	
<p>3) ಸಹಾಯಕ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ ಹಾಗೂ ತಾಂತ್ರಿಕ ಸಹಾಯಕರು, ದಾವಣಗೆರೆ ವಿಭಾಗ, ದಾವಣಗೆರೆ ರವರ ಶಿಫಾರಸ್ಸು ವರದಿ ಸಂಖ್ಯೆ : 315/2017-18, ದಿನಾಂಕ : 10-11-2017.</p>	
* * * * *	
<p>ಪ್ರಸ್ತಾವನೆ :</p> <p>ಉಲ್ಲೇಖ (1)ರ ಪತ್ರದಲ್ಲಿ ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು, ಕೆಯುಐಡಿಎಫ್‌ಸಿ-ಕೆಐಯುಡಬ್ಲ್ಯೂಎಂಐಪಿ, ಆರ್‌ಪಿಎಂಯು, ದಾವಣಗೆರೆ ಇವರು ಹರಿಹರ ತಾಲ್ಲೂಕು ರಾಜನಹಳ್ಳಿ ಗ್ರಾಮ ತುಂಗಭದ್ರಾ ನದಿ ದಂಡೆಯಲ್ಲಿ Jackwell ನಿರ್ಮಿಸುವ ಸ್ಥಳದಲ್ಲಿ ಕಾಡು ಜಾತಿಯ ಮರಗಳು ಅಡ್ಡಿಯಾಗುತ್ತಿರುವುದರಿಂದ ಎರಡು ಮಳೆ ಮರಗಳನ್ನು ಕಟಾವಣಿ ಮಾಡುವಂತೆ ಕೋರಿರುತ್ತಾರೆ.</p> <p>ವಲಯ ಆರಣ್ಯಾಧಿಕಾರಿ, ದಾವಣಗೆರೆ ವಲಯ, ದಾವಣಗೆರೆ ಇವರು ಮತ್ತು ಅವರ ಸಿಬ್ಬಂದಿ ವರ್ಗದವರು ಸದರಿ ಮರವನ್ನು ಪರಿಶೀಲಿಸಿ, ಸದರಿ ಮರಗಳು ಜಾಕ್‌ವೆಲ್ ನಿರ್ಮಿಸುವ ಕಾಮಗಾರಿಗೆ ಅಡ್ಡಿಯಾಗುತ್ತಿರುವುದರಿಂದ ಕಟಾವಣಿಗೆ ಅನುಮತಿ ನೀಡಬಹುದೆಂದು ಅಭಿಪ್ರಾಯ ನೀಡಿರುತ್ತಾರೆ. ಸಹಾಯಕ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು, ದಾವಣಗೆರೆ ವಿಭಾಗ, ದಾವಣಗೆರೆರವರು ಸಹ ಸದರಿ ಮರಗಳ ಕಟಾವಣಿಗೆ ಶಿಫಾರಸ್ಸು ಮಾಡಿರುತ್ತಾರೆ.</p> <p>ಕರ್ನಾಟಕ ವೃಕ್ಷ ಸಂರಕ್ಷಣಾ ಅಧಿನಿಯಮ 1976ರ ವಿಧಿ 8 ಮತ್ತು ಅದರ ಉಪವಿಧಿಗಳ ಪ್ರಕಾರ, ಸದರಿ ಮರಗಳಿಂದ ಜಾಕ್‌ವೆಲ್ ನಿರ್ಮಿಸುವ ಕಾಮಗಾರಿಗೆ ಅಡ್ಡಿಯಾಗುತ್ತಿರುವುದರಿಂದ ಕಟಾವಣಿ ಮಾಡುವುದು ಸೂಕ್ತವೆಂದು ಕಂಡು ಬಂದಿರುವುದರಿಂದ ಈ ಕೆಳಗಿನಂತೆ ಆದೇಶ ಹೊರಡಿಸಿದೆ.</p>	
<div style="border: 1px solid black; padding: 5px; display: inline-block;"><p>ಕೆ.ಐ.ಯು.ಡಬ್ಲ್ಯೂಎಂಐಪಿ.ಸಿ. ಬೋಶ ದಾವಣಗೆರೆ</p></div> <p>ಸಂಖ್ಯೆ: 315/2017-18</p>	

:: ಅದೇಶ ::

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

ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ,
ದಾವಣಗೆರೆ ವಿಭಾಗ, ದಾವಣಗೆರೆ.

- ಪ್ರತಿಯನ್ನು :**
1. ಅಧೀಕ್ಷಕ ಅಭಿಯಂತರರು, ಕೆಂಪುಹಡಿಎಫ್‌ಸಿ-ಕೆಎಂಯುಡಬ್ಲ್ಯುಎಂಐಪಿ, ಆರ್‌ಪಿಎಂಯು, ದಾವಣಗೆರೆ ಇವರಿಗೆ ಮರದ ತಗ್ಗುಬೆಲೆ ಪಟ್ಟಿಯೊಂದಿಗೆ ಕಳುಹಿಸುತ್ತಾ, ಮರಗಳನ್ನು ಕಡಿದು ಮನೆ ಉಪಯೋಗಕ್ಕೆ ಮಾರಾಟ ಮಾಡಿದಾಗ, ಮಾರಾಟ ಮಾಡಿದ ಮೊತ್ತದ ಮೇಲೆ ಶೇ.8 ರಂತೆ ಅಥವಾ ಸಂಘಸಂಸ್ಥೆ, ಸಾಮಿಲ್/ನಿಗಮ ಮಂಡಳಿ ಹಾಗೂ ಇತರೆಯವರು ವಿಲೇವಾರಿ ಮಾಡಿ ಮೊತ್ತದ ಮೇಲೆ ಶೇ.12 ರಂತೆ ಅರಣ್ಯ ಅಭಿವೃದ್ಧಿ ನಿಧಿಯನ್ನು ವಸೂಲಿ ಮಾಡಿ ವಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ, ದಾವಣಗೆರೆ ವಲಯ, ದಾವಣಗೆರೆ ಇವರಿಗೆ ಪಾವತಿಸಲು ಸೂಚಿಸಿದೆ.
 2. ವಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ, ದಾವಣಗೆರೆ ವಲಯ, ದಾವಣಗೆರೆ ಇವರಿಗೆ ಮುಂದಿನ ಕ್ರಮಕ್ಕಾಗಿ ಕಳುಹಿಸಿದೆ. ಮರಗಳನ್ನು ಕಡಿದ ನಂತರ, ಮರಗಳ ಪಟ್ಟಿಯೊಂದಿಗೆ ಸಾಕ್ಷಾತ್ಕರಣ ಮಂಡಳಿ ಈ ಕಛೇರಿಯಿಂದ ರಹದಾರಿ ಪಡೆದು ನಂತರ ಸಾಗಿಸಲು ಕ್ರಮ ಕೈಗೊಳ್ಳತಕ್ಕದ್ದು. ಅಪರ ಪ್ರಧಾನ ಮಿಷ್ನಿ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿಗಳು (ಅರಣ್ಯ ಸಂಪನ್ಮೂಲ ನಿರ್ವಹಣೆ), ಬೆಂಗಳೂರು ಇವರ ಪತ್ರ ಸಂಖ್ಯೆ : ಅಪ್ರಮುಖಸಂ(ಅಸಂನಿ)/ಜಿ5/ಕೆಟಪಿ/ಸಿಆರ್-137/2016-17, ದಿನಾಂಕ : 20-03-2017ರ ಪ್ರಪತ್ರದಲ್ಲಿ ತಿಳಿಸಿರುವಂತೆ ಮಾನ್ಯ ರಾಷ್ಟ್ರೀಯ ಹಸಿರು ಪೀಠ (NGT) ಮೂಲ ಆರ್ಜಿ ಸಂಖ್ಯೆ : 167/2016 ದಿನಾಂಕ: 26-04-2017ರ ಮಾನ್ಯ ನ್ಯಾಯಾಲಯದ ಆದೇಶವನ್ನು ಯಥಾವತ್ತಾಗಿ ಪಾಲನೆ ಮಾಡಲು ತಿಳಿಸಿದೆ.

ಹರಿಹರ ತಾಲ್ಲೂಕು ರಾಜನಹಳ್ಳಿ ಗ್ರಾಮದ ತುಂಗಭದ್ರಾ ನದಿ ದಂಡೆಯ Jack well ಜಾಗದಲ್ಲಿರುವ ಮರಗಳ ಅಳತೆ ಪಟ್ಟಿ ಪೂಲ್‌ನ ವಿವರ

ಕ್ರ.ಸಂ	ಮರದ ಜಾತಿ	ಸುತ್ತಳತೆ (ಮೀ)	ಎತ್ತರ (ಮೀ)	ಗಾಟ (ಫೀಟ್)	ಸೌದೆ (ಫೀಟ್/ಮೀಟರ್)	ವಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ ಸೂಚಿಸಿದ ದರ	ಸಹಾಯಕ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ ಸೂಚಿಸಿದ ದರ	ಉಪ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ ಅನುಮೋದಿಸಿದ ದರ	ಪರಾ
1	ಮಳೆಮರ	1.00	3.50	-	12.00	3002	3002	3100/-	
2	ಮಳೆಮರ	1.50	3.52	-	12.00	3002	3002	3100/-	

Rachayekhary
ಉಪ ವಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ
ಹರಿಹರ ಶಾಖೆ
ದಾವಣಗೆರೆ ವಲಯ

[Signature]
ವಲಯ ಅರಣ್ಯಾಧಿಕಾರಿ
ದಾವಣಗೆರೆ ವಲಯ
ದಾವಣಗೆರೆ

[Signature]
ಸಹಾಯಕ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ
ಹಾಗೂ ತಾಂತ್ರಿಕ ಸಹಾಯಕರು
ದಾವಣಗೆರೆ ವಿಭಾಗ, ದಾವಣಗೆರೆ

[Signature]
Deputy Conservator of Forests
Davanagere Division, Davanagere

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 displayed 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 heavyduty 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 managed 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 removed 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.	

SIMPLEX INFRASTRUCTURES LIMITED

SAFETY, HEALTH AND ENVIRONMENTAL PLAN

NAME OF THE PROJECT: KARNATAKA INTEGRATED URBAN WATER MANAGEMENT INVESTMENT PROGRAMME (KIUWHIP), ADB LOAN NO- L3148G0399

NAME OF THE WORK& PACKAGE NO: Expansion of Sewerage Project System in Davanagere City (District 1 and 3).
01DVG01

EMPLOYER'S NAME & ADDRESS: Commissioner
City Corporation, Davanagere,
Karnataka, PIN-577002

THE PROJECT MANAGER: Executive Engineer (KUDIFC)

NAME OF THE PROJECT MANAGER: Md Eunush

THE CONSULTANT: Lahmeyer India

JOB VALUE : Rs.109, 99, 99,127/-

DATE OF STARTING : 9th January 2015.

DATE OF COMPLETION : 8th January 2018

TIME OF COMPLETION : 36 months from the date of notice to proceed.

DETAILS OF WORK IN BRIEF: -

SCOPE OF WORK:

The entire work related to this lot will be carried out in part of Davanagere city for improving the sewerage conveyance and disposal system in the added areas of Davanagere Municipal Corporation. The work will be carried in parts of ward Nos. of Davanagere Municipal Corporation.

The basic scope of work shall be as given below:

Safety, Health and Environment Plan

Simplex Infrastructures Limited



- ◆ Based on details given in the Tender drawings, Contractor shall carryout topographical survey, and preparing the topography drawings, showing details of existing structures in between property line.
- ◆ Taking of depth of Manhole of existing sewer line from Ground (Road top).
- ◆ Preparing construction drawing based on the data sheet issued by client. Construction drawing approved by client.
- ◆ Traffic shall be diverted by closing the road with help of hard barricade board.
- ◆ Excavation of trial pits/trenches for locating/verifying underground utility (paving, backfilling, watering and disposal of surplus excavated soil from trial pits/trenches).
- ◆ Supply, laying and testing of RCC, SWG, and uPVC pipe as per approved construction drawing.
- ◆ Casting of Pre-Cast Manhole component as per approved drawing in our yard and installed at site after laying of pipes.
- ◆ Temporary restoration of roads.
- ◆ Construction of brick and concrete inspection chambers.
- ◆ Utility shifting such as electric pole/cables/telephone poles/water supply lines or any other utilities if utility encountered in our alignment.
- ◆ Tree cutting if encountered in our pipe alignment.
- ◆ Restoration of permanent roads.
- ◆ Preparation and submission of completion drawings.

It is the policy of the Simplex Infrastructures Limited to ensure that all reasonable and practicable measures will be taken to ensure the safety and welfare of all of its employees and all other persons who may adversely affected by the company activities. Followings are the basic steps to maintain the site in a very safe way.

Supervision:

Provide adequate suitably trained, competent, and experienced management and supervision to ensure safety at site.

Pass clear and unambiguous instructions for work to include sequence of work, hazards and precautionary/accident preventive measures to be taken.

Reporting of all Fatal and Major Injuries and Dangerous Occurrences:

All Fatal, Major & Minor injuries and dangerous occurrences if any, shall be reported to the Safety Officer immediately and all other injuries to medical center/First aid room for recording.

Monthly Safety Committee Meeting:

Shall be attended by the Project Manager, all frontline Engineers & supervisors and Safety Officer and representative of labour contractor & all actions discussed & identified shall be complied within the prescribed time limit, where Project Manager is the Chairman & Safety Officer is the Secretary of the committee.



Health and Safety Training:

SIL will ensure adequate training for all employees and workers to ensure execution of work in safe manner as also meet all statutory obligations. Record of training shall be maintained.

Induction:

All employees including labours and also anybody who will be associated with the work and will be present in the site will be given suitable and sufficient induction training, before the concerned person commences work at site, under following circumstances and maintain record of training: -

- Change of responsibility
- Introduction of new working equipment
- Introduction of new system of work/technology
- Introduction of new labour
- Company Safety Policy

Induction training will be given by safety officer of SIL.

Tool Box Talks:

Front Line engineers and Supervisors shall collect workers and brief those for 5 minutes 'tool box talks' each day on different topics and record of such talks shall be maintained.

Safety Officer:

SIL will provide one Safety Officer who will report to the Project Manager and will be responsible for the safety of the work site.

Notification of Manpower Deployed:

SIL will provide information regarding manpower deployed on daily basis.

Provision of Personal Protective Equipment:

SIL will provide his employees & workmen all safety equipment like hand gloves, safety helmet, safety belt, eye protection goggles and screen, hard toe shoes, standard ladders, ear muffs, life jackets, and any other personal protective equipment as may be required.

Adequate Lighting arrangement:

Adequate lighting arrangement will be made for the stretches where the work will be carried out by providing lighting fixtures like Halogen etc.

Safety, Health and Environment Plan

Simplex Infrastructures Limited



Electrification:

All electrification work will be carried out with the help of licensed electricians and under the Supervision of Plant Engineer who will be posted in the site.

Dress of Working:

Nobody will be permitted to wear loose attire like dhoti, lungi, towel etc during working at the site.

Site Organization: Enclosed Separately

RISK ASSESSMENT:

A risk assessment of the various activities involved is given below:

SL. NO.	ACTIVITIES	AREA OF RISK	REMEDIAL ACTION TO BE TAKEN	ACTION BY
1.	GENERAL	<ul style="list-style-type: none">HOUSE KEEPING	<p>All the materials e.g. RCC/SWG/uPVC Pipes, shoring material Reinforcement bars, Cement, Sand, Stone chips etc. to be stacked properly at proper places.</p> <ul style="list-style-type: none">Cement godown is to be made rainproof.Smoking should generally be prohibited within the working area.	Store Assistant / Site Engineer.



		<ul style="list-style-type: none"> ELECTRICAL 	<ul style="list-style-type: none"> D.G. Room should be made well ventilated, rainproof, well secured. All the electrical appliances should be earth connected properly. ELCB must be used and the sensitivity of it must be 30 mA. All the supply wire should be well insulated & the gauge of wire should be sufficient. All the supply wire at site should be above man height and it should be laid with the help of Bamboo or Ballah as a post. No metallic post should be used. Supply should be distributed either from Junction box or the joints must be covered by insulation pipes. Double insulated two core flexible wire must be used for Hand lamps. 	Site Electrician / Plant Engineer
		<ul style="list-style-type: none"> MECHANICAL 	<ul style="list-style-type: none"> All the movable parts of each plant should be covered. / guarded Tightness of the foundation bolts as well as other bolts should be checked daily. Performance of Brake, Clutch, and Linkages should be checked daily and should be rectified immediately, if required. Spanners should be used in correct size and clean from oil to avoid slippage. No maintenance/ repair should be carried out in running plants. Nobody should go near the running machines wearing loose clothing. TPI is necessary for all lifting tools & tackles 	Site Mechanic/ Plant Engineer
		<ul style="list-style-type: none"> WELDING & GAS CUTTING 	<ul style="list-style-type: none"> Trolley should be used for carrying gas cylinders at site. Gas cylinders should be well secured vertically when working. A stationery frame may be used for this if there is no scope of use of Gas Trolley. Length of Cutting Hoses / Welding Cables should be minimum Flash back arrester is to be used in both ends i.e. torch end & cylinder end 	Site Engineer
		<ul style="list-style-type: none"> USE OF PPE 	<ul style="list-style-type: none"> All the Staff & Labours should wear Helmets, Safety shoes / Gumboots or other PPE's as per requirement of the site Welders / Gas cutters should wear Apron, Leather Hand gloves. 	Site Engineers

Safety, Health and Environment Plan

Simplex Infrastructures Limited



			Welding Screen / Cutting goggles etc.	
		<ul style="list-style-type: none"> ENVIRONMENT 	<ul style="list-style-type: none"> Labour huddles should be spacious & well ventilated. Larvins & Urinal for the labours & staffs should be sufficient and must be cleaned periodically. Sufficient quantity of water is to be supplied to staff & labours. 	Site Engineers & Admin. in Charge
2.	EXCAVATION OF TRENCHES & SHORING WORK	<ul style="list-style-type: none"> Soil may collapse Vehicle may fall into the pit. 	<ul style="list-style-type: none"> The width of the trench will be decided depending on the type of shoring to be used as well as working space required in the lower part of the trench to facilitate safe working. The shoring shall be adequate to prevent caving in of the trench walls of subsidence of areas adjacent to trench. In non-cohesive soils combined with considerable ground water, it may be necessary to use continuous interlocking steel sheet piling. Deep excavation should be avoided on rainy days or immediately after dewatering. Excavated earth should not be dumped at the edge of the pit (minimum 1.5 mtr distance from the excavated pit.) Sufficient numbers of dewatering pumps will be operated to keep the place of excavation generally dry. All pipes, ducts, cables, mains and other services exposed due to the excavation work shall be duly supported/shielded as the case may be depending upon the requirement. Pit is to be barricaded properly & caution boards to be provided where required. Vehicles utilised for carrying materials should not come too close to pit. Every vehicle must have the designated helper & signal to be given by the helper only while reversing. 	Site Engineer/ Safety Officer.
3.	TRAFFIC CONTROL	<ul style="list-style-type: none"> Movement of vehicles as well as pedestrians 	<ul style="list-style-type: none"> A traffic plan will be prepared and submitted to the Engineer for diversion of traffic flow/ allow one-way traffic/channelize the movement of traffic as the case may be. Place easily readable and clear warning signs well ahead of work area. Barricading will be constructed on the side of the trenches with posts, drum sheet walling and safety tapes. To channelize the traffic, if required as per the traffic plan, necessary signs will be provided along with posting of flagmen to control the flow and direction of traffic. 	Site Engineer/Safety Officer/Supervisors



4.	HANDLING AND LOWERING OF PIPES & MH IN THE TRENCHES	<ul style="list-style-type: none"> Workers may get injured Hydra Crane may tilt. Belt or wire ceiling may be tear. 	<ul style="list-style-type: none"> Pipes should be handled carefully using Hand Gloves. Guy ropes should be checked regularly, at the time of lowering Proper belt ceiling to tied in pipe Proper signaling should be delivered during pipe and manhole lowering by Hydra Crane. 	Site Engineer/Supervisor
7.	WIND-UP	<ul style="list-style-type: none"> Material handling. 	<ul style="list-style-type: none"> Manual handling of material as well as loading – unloading should be done carefully. Responsible supervisor must be present during the wind-up operation. 	Site Engineer/Stores Assistant

SITE RULES: -

- ✓ Every staff & workmen inside the site premises should wear helmet & gumboot / safety shoe.
- ✓ Consumption of Alcohol or any kind of drugs within the work premises is strictly prohibited.
- ✓ Smoking is prohibited within the working area.
- ✓ Drivers / Operators of vehicle / plant must be authorised.
- ✓ Nobody should be allowed nearby the plants with loose clothing.
- ✓ Everybody working at height should wear safety harness.
- ✓ No unauthorized person should be entered inside the site premises.
- ✓ Adequate illumination at work place shall be provided.
- ✓ Good Housekeeping is to be maintained.
- ✓ Adequate fire fighting arrangement such as fire extinguishers, fire buckets shall be kept at designated places.
- ✓ No workmen below 18 years and above 58 years of age shall be engaged in any job.

Environmental Monitoring Plan:

Impact on Environment	Construction Activity	Corrective Measures	Frequency
Air emissions due to excavated or filling material transportation	Earthwork for pipe laying work	Dust emissions shall be controlled by sprinkling water periodically within the working area.	As & when required
		Idling of trucks or other equipment shall not be permitted when they are not in active use.	Everyday or as required
		All equipment/vehicles shall be kept in good state of repairs. The log books of different equipments shall be maintained.	Quarterly or As Required
		All vehicles shall possess valid PUC, a copy of which should be available for inspection. The relevant records shall be maintained in the log book.	Quarterly or As Required

Safety, Health and Environment Plan

Simplex Infrastructures Limited



	Demolition of hard crust of roads	Dust produced due to demolition activities shall be controlled through moistening the area by water sprinkling.	As & when required.
Noise due to Demolition and Construction	Demolition of sheds/road/light towers/pillars / Pile boring / Reclamation	All the plants and equipments, specifically mechanical breakers, pneumatic breakers involved in the work shall be maintained properly and periodically to avoid unnecessary noise generation. Adequate measures such as barricading the site and/or intermittent use of high noise generating equipment should be practiced.	Weekly or As Required.
	During the progress of demolition and construction work.	Efforts shall be given to restrict the demolition activities during the day time only.	Daily or As Required
Waste generated during demolition/construction activity	Dismantling of roads, excavation and laying of pipeline	All excess materials including dismantled road crust which will not be required shall be disposed at the designated location(s) or in the areas earmarked by Engineer.	As & when required
Blockage and Clogging of Surface water/drains	Pipeline Laying Work.	Earth, stone or any other construction material shall be properly stored away from the drains so as not to block the flow of drainage system. Visual inspection would be carried out in this regard.	Daily or As Required.
		Once the work is completed in all respects in a particular stretch, the Contractor shall inspect the drains and if blockage is detected due to project construction work, the same shall be cleaned to the extent possible.	On completion of work.
Biodiversity of the Surrounding Area	Clearing of the site for construction	Utmost care should be taken to avoid tree felling during demolition. Records shall be maintained in this regard.	Quarterly or As Required
		Compensatory plantation shall be carried out as far as practicable after consultation with the Engineer. Necessary Records shall be maintained at site jointly with the Engineer.	Quarterly or As Required



Health and hygiene	Throughout the construction period	Construction of labour camps shall be located as far as practicable away from the nearest habitation to avoid conflicts and stress over infrastructure facilities. Shall be looked into on a periodical basis. The contractor should provide, erect and maintain necessary temporary living accommodation and ancillary facilities such as toilet blocks, potable water supply etc. for labour and personnel in consultation with the Engineer. Necessary labour records shall be maintained. On completion of the works, all temporary structures shall be cleared away along with all wastes as far as practicable. All excreta and other disposal pits shall be filled in and effectively sealed and the site work shall keep clean and tidy as far as possible. Shall be monitored from time to time.	Quarterly Required or As Required Quarterly Required or As Required As Required
Traffic / Safety and Emergency Response	Construction areas	Traffic diversion shall be carried out in consultation with the Engineer. Traffic Diversion Plan shall be periodically reviewed with respect to site conditions. Necessary Record Books shall be maintained at site.	Once at the beginning of the project work or As Required
	All the project activities	SIL shall make all his staff aware about the safety regulations while working.	Once at the beginning of the project work / change of work force
	Respective project activities	The accident hazard areas in the site shall be properly demarcated. Safety and hazard posters and signs shall be clearly displayed. Visual monitoring shall be carried out.	Weekly or As Required.
	Throughout the project period	SIL shall take all necessary measures for the safety of the public in general and workers in particular during construction and provide barricades, including signs, markings, flags, lights, and flagmen as may be required. Necessary records & Accident Register shall be maintained at site.	Daily or As Required
	As applicable during construction and demolition	SIL shall supply all necessary PPE such as safety goggles, helmets, safety belts, earplugs (wherever applicable), masks etc. to the worker and staff.	Weekly or As Required
	Lighting of the roads/wharf	SIL shall educate his people for precautions to be taken while working in Electrified sections. All necessary safety precautions shall be taken as indicated in consultation with the Engineer. All electrical circuits shall be connected through RCCB/ ELCB.	Quarterly Required or As Required
	At all the project activity sites throughout the stretch	A readily available first aid kit WITH NECESSARY MEDICINES including an adequate appliance shall be provided as per the requirements. SIL shall have a tie up with Local Hospital / Nursing Home and with a Doctor.	Quarterly Required or As Required

Safety, Health and Environment Plan

Simplex Infrastructures Limited



IMPORTANT TELEPHONE NUMBERS :-

		<u>SIMPLEX Site Offices</u>	<u>Phone Nos.</u>	<u>Mail ID.</u>
Fire Service	08192-258101			
Police Station City Circle	08192-259337	Door No-314, 1 st Cross, 3 rd Main, S.Nijalingappa, Davanagere	08192-297044	C3014@simplexinfra.net
Traffic Police PS	08192-259238			
Govt. Hospital	08192-253850	• Simplex House,27, Shakespeare Sarani, Kol-700 017		
S.S.Hospital	08192-253850	<u>Executive Engineer (KUIDFC)</u> Mr.Ravi Chandrashekarappa	09448043651	piukiuwmip.dvg@g mail.com
Ambulance	08192-234444			
SIMPLEX PROJECT MANAGER (Md Eunish)	9742263443(M)	<u>CONSULTANT</u> Mr.Prakesh Abbikera (Team Leader)	9448555766	gkw.davanagers@gm ail.com
Business Head (Mr. Kaushik Day)	9830077011 (M)	<u>Assistant Executive Engineer</u> (KUIDFC) Mr.Shiv Sankar	7676873939	piukiuwmip.dvg@g mail.com



Google Map shows sampling stations

Ambient Air Quality Monitoring at Sites of construction

Package	Locations	GPS Coordinate
Davangere UGD (Package no. 01DVG01)	Shivakumar Badavane(A1)	14°26'18.55"N 75°55'28.90"E
	Rajivee Gandhi Badavane(A2)	14°28'56.82"N 75°54'34.19"E
	SPS Nagar(A3)	14°29'0.19"N 75°54'41.35"E
Davangere Bulk water supply (Package no. 01WS01)	WTP site Bhathi(A4)	14°28'58.24"N 75°50'42.99"E
	Rajanahalli Jack well location(A5)	14°30'25.45"N 75°45'5.71"E
Harihar UGD & STP (Package no. 01HRA01)	Anjiana Badavane (A6)	14°30'52.91"N 75°49'38.69"E
	Amaravathi colony (A7)	14°30'41.06"N 75°49'22.62"E
Harihar Bulk WS (01HRA02)	WTP site, Harihar(A8)	14°31'7.11"N 75°48'5.26"E
	OHT site near Gajanan Temple, Amaravathi colony(A9)	14°30'37.53"N 75°49'42.98"E
	Near Indian Oil Petrol pump, Kumar Pattan(A10)	14°31'40.91"N 75°46'38.19"E
Byadgi UGD (Package no. 01BDG01)	Neharu Nagara (A11)	14°41'0.35"N 75°29'35.40"E
	Kakol road (A12)	14°40'45.30"N 75°29'46.85"E
	Basaveswara nagara (A13)	14°40'22.24"N 75°29'7.16"E

Noise Level Monitoring at Sites of construction

Package	Locations	GPS Coordinate
Davangere UGD (Package no. 01DVG01)	Shivakumar Badavane(N1)	14°26'18.55"N 75°55'28.90"E
	Rajivee Gandhi Badavane(N2)	14°28'56.82"N 75°54'34.19"E
	SPS Nagar(N3)	14°29'0.19"N 75°54'41.35"E
Davangere Bulk water supply (Package no. 01WS01)	WTP site Bhathi(N4)	14°28'58.24"N 75°50'42.99"E
	Rajanahalli Jack well location(N5)	14°30'25.45"N 75°45'5.71"E
Harihar UGD & STP (Package no. 01HRA01)	Anjiana Badavane (N6)	14°30'52.91"N 75°49'38.69"E
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Package	Locations	GPS Coordinate
	OHT site near Gajanan Temple, Amaravathi colony(N9)	14°30'37.53"N 75°49'42.98"E
	Near Indian Oil Petrol pump, Kumar Pattan(N10)	14°31'40.91"N 75°46'38.19"E
Byadgi UGD (Package no. 01BDG01)	Neharu Nagara (N11)	14°41'0.35"N 75°29'35.40"E
	Kakol road (N12)	14°40'45.30"N 75°29'46.85"E
	Basaveswara nagara (N13)	14°40'22.24"N 75°29'7.16"E

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



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- Byadgi UGD & STP project (Package 01BDG01)



Sample: Spoil Management Plan

Byadgi UGD & STP

SPOIL MANAGEMENT PLAN

M/S –SHRIRAM EPC LTD,

JULY 2019 to DEC 2019

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,

JULY 2019 to DEC 2019

4. SPOIL VOLUMES, CHARACTERISTICS AND MINIMIZATION

Extraction point	Spoil produced (m3)	Reuse on site (m3)	Offsite reuse (m3)
Manhole Excavation & Pipe laying	3,500	3,250	250

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.

Davangere Bulk water supply

SPOIL MANAGEMENT PLAN

M/S –Shriram EPC.Ltd

01WS01-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.

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

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- 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

Traffic Management Plan

JUNE-2019

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

Contract No: CMC/DVG/KIUWMIP/03/2017-18

**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 CORPRATION IN KARNATAKA**

EMPLOYER : CITY CORPORATION, DAVANAGERE

CONTRACTOR: SHRIRAM EPC LTD.

Prepared by

SHRIRAM EPC LTD.

**LOCATION : NIL
Traffic Diversion: Nil**

1.0	PURPOSE
	To preventing injury to persons and damage to property arising from site traffic and site transport.
2.0	SCOPE
	The procedure is applicable to Shriram EPC Ltd.Sites.
3.0	RESPONSIBILITY
	<p>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.</p> <ul style="list-style-type: none"> • Responsible for ensuring that material movement to and from the workface does not cause damage to the works, the workforce or the public. • There is a primary duty to provide a safe workplace environment that minimises the risk of injury to workers within, or adjacent to, the work area.

4.0	DEFINITIONS
	Project in charge: Person responsible for the execution of the project.
5.0	LEGAL REQUIREMENT
	The Building and Other Construction Workers (Regulations of Employment and Conditions of Service) Act 1996 and Central Rule 1998 Rule 48, 88 and 95, Motor Vehicle Act 1988
6.0	REQUIREMENTS
6.1	<u>General</u>
	<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.
6.2	<u>Planning stage</u>
	<ul style="list-style-type: none"> • The client and GKW's consultant Engineer should be consulted as regards the execution of the works and the safety measures which would be put in place. • Particular attention should be given to : <ul style="list-style-type: none"> ◦ traffic signs; ◦ cones; ◦ barriers; ◦ road hazard warning lights; ◦ information boards; and ◦ site lighting • Consider necessity of traffic control systems such as temporary Stop/Go boards. • Access should be planned to eliminate dangerous movements of site traffic (e.g. reversing of vehicles) and personnel (e.g. crossing dual carriageways). • Provision of adequate lighting.
6.3	<u>On site</u>
	<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 and equipment and space to move around the job. • Provision of safety zone- it shall be kept clear of all work, material storage and people and shall be clear of working radius of all plant.
6.4	Operators / Drivers
	<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.
6.5	Equipment
	<ul style="list-style-type: none"> • Drivers are made a daily inspection of their vehicles include steering, brakes, mirrors, lights, horn, tyres and windshield wipers. • Safety Department along with Plant department has been checking the vehicles monthly basis • All vehicles have reverse horns and it is in working properly. • All vehicles, periodical maintenance has conducted.
6.6	Roads

	<p>For safe operation we are following the bellow safety measure:</p> <ul style="list-style-type: none"> • Safe width has been provided. • Speed limit will be varied as per the site. • Safe walkway with proper guard has been provided. • Caution board has been placed in every location within the site. • During night alert light has been provided. • Conducting Toolbox training as regular basis. • Road will be closed with proper permission (if required). • Reflective type Diversion board has been placed in required places.
6.7	<p>Loading and unloading</p> <ul style="list-style-type: none"> • Only authorized persons were engage for loading / unloading. • Materials loaded within the permitted safe weigh limit for the truck, • Dimensions of loads carried on a vehicle in strict accordance with relevant provisions. • A red flag is being used at the rear extremity of an overhanging load. • During the hours of darkness or in poor visibility conditions, a white light showing ahead at each side of the front extremity and a red light showing to the rear extremity of the hanging load are has been provided. • During Toolbox talks Intimation has been delivered to all drivers/operators that when the driver leaves the driving seat, the engine of the truck shall be switched off, the gear engaged and parking brakes applied. On slopes, wheel blocks shall be applied. • Helper has been provided with all vehicles.
6.8	<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. • Particular attention has been taken in working area : <ul style="list-style-type: none"> ○ traffic signs; ○ cones; ○ barriers; ○ road hazard warning lights; ○ information boards; and ○ site lighting • Adequate lighting has been provided.
6.9	<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.
7.0	<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 workface does not cause damage to the works, the workforce or the public. • Manage and maintain visitor PPE stocks to an agreed number. • Produce method statements, risk assessments ensure lifting plans are produced. • Safeguard vulnerable road users from traffic and transport created by the site.

Sample Internal Training document- Contractor

Davangere UGD

SIMPLEX INFRASTRUCTURES LIMITED
DAVANAGERE SEWERAGE PROJECT(KARNATAKA) C-3014


TOOL BOX TALKDATE: 20.12.2019TIME: 9:00 AMVENUE: Bhuvika NagarCONDUCT BY: BalwantTOPIC DISCUSSED: PPE

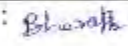
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2	Bk Nagpal	labour		
3	Illa + T	labour		
4	Zaffer Ahmed	labour		
5	Ramya + V	labour		
6	Tippesh	labour		
7				
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SIGNATURE OF SAFETY OFFICER SIGNATURE OF SITE ENGINEER SIGNATURE OF CLIENT

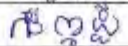

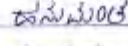
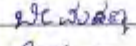
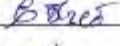


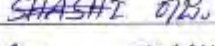





Davangere Bulk water supply


 Shriram epc Engineering the future	SHRIRAM EPC LIMITED	Format No	IMS/HSE/F04
	SAFETY TOOLBOX MEETING	Rev.No	00
		Issue No	01
		Issue Date	12.02.2019

Project Name	: BULK WATER SUPPLY
Topic Covered	: GENERAL SAFETY
Conducted By	: BHARATHI
Signature	: 
Date	: 20-07-2019
Time	: 9:00 AM

TOTAL NO OF PERSONS ATTENDED:

S.No	Name	Designation	Signature
1	chinappa	Labor	
2	RUMART	Labor	
3	HANUMANTHA	Labor	
4	BHIMANNA	Labor	
5	ASHOKA	Labor	
6	ASHU	Labor	
7	FARUK	Labor	
8	RAJAMNA	Labor	
9	SHASHIKUMARA	Labor	
10	UDAYN	Labor	
11	SEDHAPPA	Labor	

Harihar UGD & STP

 Shriramepc Engineering the future	SHRIRAM EPC LIMITED	Format No	IMS/HSE/F04
	SAFETY TOOLBOX MEETING	Rev.No	00
		Issue No	01
		Issue Date	12.02.2019

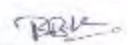
Project Name	:	HARIHAR - UGD
Topic Covered	:	General Safety
Conducted By	:	BHARATH
Signature	:	Bharath
Date	:	23-10-19
Time	:	10:00

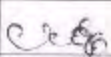

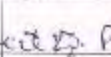
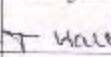
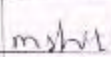
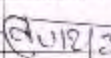
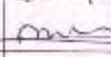
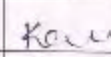
TOTAL NO OF PERSONS ATTENDED:

S.No	Name	Designation	Signature
1	Sarath	Labor	Sarath
2	Ramanna	Labor	Ramanna
3	Hanumantha	Labor	Hanumantha
4	Maheshwar	Labor	Maheshwar
5	Kumar	Labor	Kumar
6	Ashoka	Labor	Ashoka

Harihar Bulk water supply

SSEPL	OCCUPATION HEALTH AND SAFETY TRAINING	ATTENDANCE SHEET
-------	--	------------------

PROGRAM TITLE : HEALTH ,FIRE FIGHTING SAFETY TRAINING	
PROJECT : BULK WATER SUPPLY HARIHAR - (01HRA02)	
DATE : 16/12/2019	TIME : 10 AM
VENUE : Harihar WSP	
NAME OF THE TRAINER : Bharath Kamble	TRAINERS SIGNATURE : 

SL.NO	NAME	DESCRIPTION	SSEPL /CONTRACTOR	SIGNATURE
1	Lakshmi prasad	Helper	— 11 —	
2	Shamel Shaidar	Mester	— 11 —	
3	Madhur Biswas	Mester	— 1 —	
4	Tapas holder	Mester	— 11 —	
5	Kumalesh Konde	Helper	— 11 —	
6	Mudawir Sheikh	Helper	— 11 —	
7	Wijay Anand	Mester	— 11 —	
8	Kailayash torande	Helper	— 11 —	
9				
10				


Representative
Sheth & Sura Engineers Pvt. Ltd.

Byadgi UGD and STP

Shriram EPC Engineering the future	SHRIRAM EPC LIMITED		Format No.	IMS/HSE/F04
	SAFETY TOOLBOX MEETING		Rev.No	00
			Issue Date	12.02.2019

Project Name	M&A-LSI
Topic Covered	engage cut and engage condition
Conducted By	C-Anandharaj
Signature	[Signature]
Date	16/9/2019.
Time	10-30 am.

TOTAL NO OF PERSONS ATTENDED: 5

S.No	Name	Designation	Signature
1.	Doraiappa	Contractor	[Signature]
2.	Gudihari	Helper	[Signature]
3.	Laxmisharanan	Helper	[Signature]
4.	Narasimha	Helper	[Signature]
5.	DADA	operator	[Signature]

Page 1 of 1

Nothing We Do Is So Important That It Cannot Be Done Safely And Carefully Protecting Health, Safety And Environment

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 INFRASTRUCURES 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
DAVANAGERE SEWERAGE PROJECT(KARNATAKA) C-3014

MEDICAL EXAMINATION REPORT
(PERIODICAL MEDICAL EXAMINATION REPORT)

Date: 30.11.19

1. Name of Employee: Harish B
2. Designation: labour
3. Date of safety induction: 10.11.19
4. Gate pass no:
5. Age in years: 30
6. Identification Mark:
one small cut mark on right leg
7. Blood group: B⁺
8. Height: 5'6"
9. Weight: 48
10. Eye vision: Normal / Abnormal
11. Hearing: Normal / Abnormal
12. Respiratory Rate: 72 /Minute.
13. B.P.: 124/84
14. Pulse: 75 /Minute.
15. Recommendation if any for any further investigation: nil
16. Comments/medical advice if any: nil

Signature of Doctor

Dr. S. Krishnamurthy

(Dr. M.B.B.S)

SRI RAGHAVENDRA HOSPITAL

Reg. No. 12/1002-2012-2013
8th Cross, Vinobha Nagar, Davangere - 5

Signature of Employee



Davangere bulk water supply

Tie up with Hospital

AROGYA MATHEYA HOSPITAL

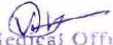
Amaravathi Colony, Doggalli Road, **HARIHAR-577 601.**
Ph. : 08192-242605, 243693

Ref. No.

Date :

M/s. SHIRAM EPC LTD Having 15 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 Doggalli Road,
HARIHAR 577 601,
Kt

Medical check up Report

ಆರೋಗ್ಯ ಮಾತೆಯ ಆಸ್ಪತ್ರೆ
AROGYA MATHEYA HOSPITAL

Certificate of Medical Examination

Name (In Block Letters) RAGHAVENDRA

Age 23y Sex Male Height 169 cm Weight 73 kg

Blood Group & Rh Factor 'O' Positive

CVS NA

US NA

R/A Set +

CNS NA

Others B.S. 120/80 mm

TB Mark A black mole on L. chest

Blood Sugar 108 mg/dl

Remarks No Pain in Lt ankle joint -
Adv to consult Ortho Surgeon

I certify that I have examined the above Ragharoodig
Status of his/her fitness (level of) Good

Date: 22-6-19

JK
Medical Officer
Arogya Matheya Hospital
Amravathi Colony Doddar Road,
HARSHAN 571 601,
Kt

Harihar UGD & STP

Tie up letter with hospital

AROGYA MATHEYA HOSPITAL


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

Ref. No.

Date :

M/s. SHIRAM 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 Doggalli Road,
HARIHAR 577 601,
Kt

Name (Full)	HANUMANI APPA
Age	25 ym
Sex	Male
Weight	166 kg
Height	41 kg
Blood Group & Rh Factor	O ⁺ Positive
CXR	Normal
US	Normal
P/A	Soft
ECG	Normal
Others	BP 100/70 mm
Examination	A black mole on U. maxillary
Blood Sugar	78 mg/dl
Remarks	etc. Piles some lym
	Adv to consult Singara.

Date: 17-10-19

Harihar Bulk water supply

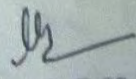
Tie up letter with hospital

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

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

Ⓡ

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

 3/1/18
Medical Officer
Arogya Matheya Hospital
Amaravathi Colony Dongali Road
HARIHAR 577 401.
K2

Medical check up

ಆರೋಗ್ಯ ಮಾತೆಯ ಆಸ್ಪತ್ರೆ
AROGYA MATHEYA HOSPITAL

Certificate of Medical Examination

Name (In Block Letters) Sachin Diswan
Age 31 Sex M Height 158 Weight 49
Blood Group & Rh Factor A B +
CVS E/P : 120/70 mmHg
RS :
P/A : 80/1
CNS : NAD
Others : Allergic Reaction is there
ID Mark : follow up
Remarks : Right hand is there tattoo

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

Date: 22-12-2019

[Signature]
Signature with seal
Medical Officer
Arogya Matheya Hospital
Anaravani Colony, Dongali Road,
HARIBAR 577 401,
Kd

Byadgi UGD and STP

Tie up with Clinic

Dr. S. N. Nidagundi M.B.B.S.

KMC Regn. No : 11313

Consulting Family Physician

Medical Examiner LIC Of India, Byadgi

Secretary St. John Ambulance India, BYADGI

Hon. Physician STI Clinic (KSAPS) Byadgi

Director, Community Health & Family Planning Centre, Ranebennur

**Dr. Nidagundi Clinic
& Day - Care Centre &
First -Aid Training Centre**

Near Bus-Stand, BYADGI-581106.


Ph : (08375) (C) : 228341, (R) : 228383

Mobile : 9448165543

Ref No :

Date : 2-1-2018.

Here by I agree to
undertake ^{employees of} Medical Examination
of 11 Shri Ram EPL Ltd Byadgi
and also do health check
up and treatment regularly
or when ever called for
at Byadgi.


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

Medical check up

Dr. S.N. Nidagundi M.B.B.S

KMC Regn No: 11313

Consulting Family Physician

Medical Examiner L.C. Of India, Byadgi

Secretary St. John Ambulance India, Byadgi

Hon. Physician STI Clinic (KSAPS) Byadgi

Director, Community Health & Family Planning Center, Raichennur

Dr. Nidagundi Clinic

& Day-Care Centre &

First-Aid Training Centre

Near Bus-stand, BYADGI-581106

Ph: 9837510228/341, 2228383

Mobile: 9448165543

Medical Examination Report

Name: British Age: 19 Sex: male

Place: Byadgi

Height: 165 Weight: 68 BP: 120/80

Identification Mark: blade mark neck

Abdomen: 85

Chest: 90

Blood Group: -

Blood Sugar: not mth

Eye Sight: normal

Systemic Examination

CVS - NAH

RS - NAH

CNS - NAH

P/A - NAH

Remarks: normal & Healthy

I certify that I have examined Mr/Mrs British Status of His/her Fitness
Level is recorded above.

Signature with Seal

Place: Byadgi

Date: 29/11/2019

Dr. S. N. Nidagundi,

Reg. No. 11313

M. B. B. S.

BYADGI.

Appendix 13

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

ಕರ್ನಾಟಕ ನಗರ ಮೂಲ ಸೌಕರ್ಯ ಅಭಿವೃದ್ಧಿ ಮತ್ತು
ಹಣಕಾಸು ಸಂಸ್ಥೆ ನಿಯಮಿತ
ಕರ್ನಾಟಕ ನಗರ ಸೇರು ಸರ್ವೆಕ್ಷನ್ ಮತ್ತು ಬಂಡವಾಳ ಸೂಚಕ ಕಾರ್ಯಕ್ರಮ
ಕೆಯುಐಐಎಫ್‌ಸಿ- ಕೆಯುಐಐಎಫ್‌ಸಿ- ಆರ್‌ಪಿಎಂಯು,
ದಾವಣಗೆರೆ.

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

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



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

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

Date: 24/10/2017

To,

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

Sir,

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

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

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

Your faithfully

-Sd/-

Superintending Engineer
KUIDFC- KIUWMIP - RPMU,
Davanagere

Copy submitted to :

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

Copy to:

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


Superintending Engineer
KUIDFC- KIUWMIP - RPMU,
Davanagere

ಕರ್ನಾಟಕ ನಗರ ಮೂಲ ಸೌಕರ್ಯ ಅಭಿವೃದ್ಧಿ ಮತ್ತು
ಹಣಕಾಸು ಸಂಸ್ಥೆ ಸಿಯುಮಿಹೆ
ಕರ್ನಾಟಕ ನಗರ ಸೀರು ನಿರ್ವಹಣೆ ಮತ್ತು ಬಂಡವಾಳ ಹೂಡಿಕೆ ಕಾರ್ಯಕ್ರಮ
ಕೆಯುಐಡಿಎಫ್‌ಸಿ- ಕೆಯುಐಡಿಎಫ್‌ಸಿ-ಆರ್‌ಪಿಎಂಯು,
ದಾವಣಗೆರೆ.

1978/9, ಶಾಮನೂರು ರಸ್ತೆ, ಎಂ.ಸಿ.ಸಿ.- 'ಎ' ಬ್ಲಾಕ್,
ಅಶ್ರಯ ಆಸ್ಪತ್ರೆ ಪಕ್ಕ, 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, Davangere-577004,

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

Date: 24/10/2017

To.

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

Copy submitted to :

The Task manager, KUIDFC-KIUWMIP, Banagalore, for kind information.

The Deputy Project Director, KUIDFC-KIUWMIP, RPMU, Davangere, 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, GK W Consult GmbH, Davangere, for information.


Superintending Engineer
KUIDFC- KIUWMIP - RPMU,
Davangere

Sample First Aid case

Byadgi – STP & UGD

 SHRIRAM EPC LIMITED Engineering the future	FIRST AID REPORT	Format No	IMS/HSE/F26
		Rev.No	00
		Issue No	01
		Issue Date	12.02.2019

Project name & Code: MSR 1571 Location: main road

Date of Incident: 3/12/2019 Time of Incident: 11:30 am First Aid Report No: _____

1. Details of the person receiving treatment

Name: Dharm Age: 22 Sex: M / F

Status: SEPC Staff ☐ Contractor ☒

ID Number _____

Designation: Painter Visitor ☐

2. Details of the Illness/Injury

Site ☒ Office ☐ Other ☐

Where did the event happen? Be specific, e.g. room / building / machine area / road / Construction work place

Witness (if appropriate): Prishamreddy

3. History of Illness/Injury: while the pipe cutting operation the blade cut into the Right Finger.

4. Assessment: bleed less.

5. Treatment: stop the bleeding and clean the wound and bandage.

6. Follow Up/Referral - None ☐ Doctor ☐ Ambulance ☐ Hospital ☐ Other ☐

7. Outcome: Continued work/study ☒ Returned next day ☐ Absent more than 1 day ☐

☒ Unknown ☐ Admitted to hospital? Yes ☐ No ☒

8. Victim's incident time: 11:30 am after first aid treatment reported time: 11:30 am Total time loss: 1 Hrs

9. Comments: Physic removed foreign operation Thimby 3 hrs.

10. First Aider Name and Signature: C. Prashanth

11. Date & Time: 3/12/2019 11:30 am

Nothing We Do is So Important That It Cannot Be Done Safely And Carefully Protecting Health, Safety And Environment

Page 1 of 1

Sample filled public consultation format

Davangere UGD

Public Consultation during construction

Package- Oldva 30/11/19

Area- Bhagarathi circle

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	near Bhagarathi circle	15/11/19	Nil	Removed	levelled	Nil	Barricade provide	was provide	Nil	Rathanna 9478691525	
2	near Bhagarathi circle	18/11/19	Nil	Removed	levelled	Nil	Barricade provide	was provide	Nil	Jaganath Acharya 8391725261	
3	near Bhagarathi circle	29/11/19	Nil	Removed	levelled	Nil	Barricade provide	was provide	Nil	Amit Shastri 9844666977	
4	near Bhagarathi circle	30/11/19	Nil	Removed	levelled	Nil	Barricade provide	was provide	Nil	Shub Samban 996484897	

Contractor (Date & Signature) _____

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



Sl. No.	Name and address of the person contacted	Contact No.	Issues discussed	Contacted person is the beneficiary of the proposed project? Yes/ No	Proposed project cause any useful work? Yes/ No	Suggestions for the proposed project yes/ no (If yes provide details)	Signature
	Durgam Cheruvu P.O. Secunderabad District Secunderabad T.S. State - 500 089	7666666666	Agriculture & P.R. Agricultural Project I suggested = crop	V Yes	N/A	N/A	Cheerla Sri Sai Prasad

Sangarshini

1

Name of the LRP: BOLIM WATER SUPPLY - DRAINAGE DRAINAGE

Date: 21-07-2019

Sub project component: 2.4.2 BOLIM WATER SUPPLY - DRAINAGE DRAINAGE ONLY

Consultations/ Discussions with Stakeholders/ Community

Sl. No	Name and address of the person consulted	Contact No	Topic discussed	Conducted person in the territory of the proposed project Yes/ No	Proposed project cause any social issue? Yes/ No	Suggestions for the proposed project Yes/ No (If Yes provide details)	Signature
	Water pump Narain Bhai Chop K. Narain Bhai	8888888888	Water pump laying	YES	NO	NO	
	Water pump Narain Bhai Chop K. Narain Bhai	8888888888	Water pump laying	YES	NO	NO	

Chop



Harihara UGD

Name of the ULB: CITY MUNICIPAL COUNCIL

Date: 31-08-2017

Sub project component: HARIHARA

Consultations/ Discussions with Stakeholders/ Community

Sl. No	Name and address of the person consulted	Contact No	Issues discussed	Contacted person is the beneficiary of the proposed project Yes/ No	Proposed project cause any social issue? Yes/ No	suggestions for the proposed project Yes/ No (If Yes provide details)	Signature
	<u>Arinbasari</u>	<u>948002104</u>	<u>STP</u>	<u>YES</u>	<u>NO</u>	<u>NO</u>	
	<u>Hammathuk</u>	<u>948002105</u>	<u>STP</u>	<u>YES</u>	<u>NO</u>	<u>NO</u>	


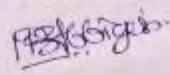
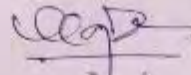


Harihar Bulk water supply

Monitoring during construction

No.	Location	PHE Connection established (in case affected) Remarks	Overhead 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	KAVA LETHU 3/8/19	DONE	yes	yes	NA	DONE	NO	NO	ಶ್ರೀಮತಿ. ಶ್ರೀಮತಿ. 901967200	ಶ್ರೀಮತಿ. ಶ್ರೀಮತಿ.
2	KAVA LETHU 6/8/19	DONE	yes	yes	NA	DONE	NO	NO	ಶ್ರೀಮತಿ. ಶ್ರೀಮತಿ. 984437641	ಶ್ರೀಮತಿ.
3	KAVA LETHU 9/8/19	DONE	yes	yes	NA	DONE	NO	NO	ಶ್ರೀಮತಿ. N 637342693	ಶ್ರೀಮತಿ.
4	KAVA LETHU 12/8/19	DONE	DONE	yes	NA	DONE	NO	NO	ಶ್ರೀಮತಿ. ಶ್ರೀಮತಿ. 903530704	ಶ್ರೀಮತಿ.

checked by: District Supervisor- Resident Engineer/ Environment Spl PMDCSC-

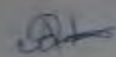
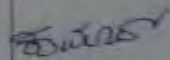
Byadgi UGD

Name of the ULB: TMC, BYADGI


Date: OCTOBER 2019

Sub project component: UGD

Consultations/ Discussions with Stakeholders/ Community

Sl. No	Name and address of the person consulted	Contact No	Issues discussed	Contacted person is the beneficiary of the proposed project Yes/ No	Proposed project cause any social issue? Yes/ No	suggestions for the proposed project Yes/ No (If Yes provide details)	Signature
1)	Arslan M Hassan Vidya Nagar	97311 26549	Road work Restoration	Yes	NO	No	
2)	KUMAR Vidhya nagar	8553 482123	Housekeeping work	yes	No	No	

Vigneshwari AS
Asst.
(Safety Env)


RE project
Byadgi



Environment Safeguards Training

ENVIRONMENT, HEALTH & SAFETY TRAINING PROGRAM FOR CONTRACTOR, CONSTRUCTION SUPERVISOR and ENGINEERS– Karnataka Integrated Urban Water Management Investment Program (KIUWMIP) - BY PMDCSC

During site visit Environment safeguard issues and non-compliances has been discussed with Contractor's safety officer.

The issues pointed out like,

- Overall application of EMP and compliance of safety requirement
- Labour and Office Camp site management- requirement of proper sanitation and solid waste management. Also, improvement of toilet facility.
- Disposal / utilization of overburden earth, rocks, spoil materials after work and filling up trenches at earliest
- Storage of construction materials
- Occupational safety during construction. Particularly requirement of sufficient PPEs and complete use of those by workers
- 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
- Necessity to carry out public consultation
- Arrangement of valid labour license and WC policy
- Timely submission of weekly, monthly monitoring reports
- Requirement of water quality, ambient air quality and noise level monitoring data

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

ENVIRONMENT, HEALTH AND SAFETY COMPLIANCE

ANNEX 1

- Immediate arrangement of renewal of labour license and Workman compensation policy in case of expiry
- 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 quality monitoring. 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 maintained 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, equipment and machinery – Timely Renewal of PUC


- 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 18 year 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
- 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 – as per EMP

GRM – GRC Notification

ಕರ್ನಾಟಕ ನಗರ ಮೂಲಸೌಕರ್ಯ ಅಭಿವೃದ್ಧಿ ಮತ್ತು ಹಣಕಾಸು ನಿಗಮ ನಿಯಮಿತ
 ಸ್ಥಾಪನಾ ಕಛೇರಿ : ೨ನೇ ಹಂತದ ಬ್ಲಾಕ್,
 ಎರಡನೇ ಮಹಡಿ, ಮುಖ್ಯ ರಸ್ತೆಯಲ್ಲಿ, ೨ನೇ ಅಂತಸ್ತು,
 ಮಹೇಶ್ ರಸ್ತೆ, ಬೆಂಗಳೂರು - ೫೬೦ ೦೨೭.
 ದೂರವಾರ್ತೆ : ೦೮೦ - ೨೨೨೨೨೨೧, ೨೨೨೨೨೨೨, ಫ್ಯಾಕ್ಸ್ : ೨೨೨೨೨೨೨



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 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/DLIC/2014-15/225

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 (PHONE/ LETTER/ SITE)	NAME OF COMPLAINER	COMPLAINT DETAILS	ACTION TAKEN BY CONTRACTOR/ PIU/PMDCSC	DATE-CASE RESOLVED (DAYS REQUIRED)	REMARKS- FURTHER ACTION IF ANY
1	15.11.19	9478691520	RANJANMA	Water line repair	Contractor	Immediately	
2	18.11.19	8971725261	Sagarath Achya	UGD repair	Contractor	1 day	
3	25.11.19	9844336841	Fazana Banar	Water line repair	Contractor	Immediate rectified	
4	27.11.19	9844066977	Amishkumar	Water line repair	Contractor	1 day	
5	30.11.19	9964848517	Shib Sanwar	UGD repair	Contractor	Immediately rectified	



Davangere Bulk water supply

MONTHLY REPORT ON GRIEVANCE REDDRESSAL

Name of the ULB:

Sub Project: BULK WATER SUPPLY DAVANGERE

Contractor: SEPC

SENo	Date	Name and address of the Complainer	Contact No	Complaint Details	Details of Action taken by Contractor/PIU/PMDCS C/ULB	Action taken Date	Remarks	Photograph of pre & post Action Taken
1	2-11-19	SUNIL Rajanahalli	8110915342	About Road level	Road cleared	2-11-19	NIL	
2	4-11-19	Hamamudha Rajanahalli	9751053861	About Road level	Rectified	5-11-19	NIL	
3	18-11-19	Mallikarjun Rajanahalli	9988925553	About Road level	Rectified	19-11-19	NIL	
4	21-11-19	SUDHARAK Rajanahalli	9751654209	Road problem	Rectified	22-11-19	NIL	

Bharath
BHARATH SEPC

(Signature)
(A.E)
GKW Consultant.

(Signature) I.O.M
A.E
KOIAPC

Harihar- UGD & STP

MONTHLY REPORT ON GRIEVANCE REDDRESSAL

UGD - Harihar

Name of the ULB: KUDWATP
Sub Project: Bussie service collection UGD
Contractor: SEPC

SLNo	Date	Name and address of the Complainer	Contact No	Complaint Details	Details of Action Taken by Contractor/PHU/PMDCS C/ULB	Action taken Date	Remarks	Photograph of pre & post Action Taken
1	3-12-17	Sami Beem Nagar	7975857831	Road level problem	Road leveled	4-12-17	NIL	
2	11-12-17	Sami Beem Nagar	7975857831	pipe damage	pipe fixed	12-12-17	NIL	
3	23-12-17	Mahesh Kumar Amravathi colony	9008545119	pipe damage	pipe fixed	24-12-17	NIL	
4	25-12-17	Daveraj	8147726855	Road level problem	Road leveled	26-12-17	NIL	

Blaseth
SAFETY SEPC

Prabir
R
GWS consultant

Reddy

Harihar Bulk water supply

No as such grievances

Byadqi – UGD & STP

Complaint Number	Date	Complaint though photo or sketch	Name of Complainant	Complaint Details	Action taken by Contractor	Date in which Resolved	Remarks Further action any if
42)	5/07/2019	Site	Rajul	Water Pipe Line Damaged	Contractor	6/07/2019	Rectified.
43	16/07/2019	Site	Nagendra	House Keeping not done at pipe laying area.	Contractor	17/07/2019	Rectified.
44	23/07/2019	Site	Suresh	Excess Soil to be removed.	Contractor	24/07/2019	To be removed.
45	29/07/2019	Site	Suresh	House Keeping to be done	Contractor	30/07/2019	Rectified.

NO. IN DATE

ADDS