

# Environmental Monitoring Report

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Project Number: 43253-027  
Semestral Report (July – December 2019)  
January 2020

INDIA: Karnataka Integrated Urban Water  
Management Investment Program (Tranche 2)

Appendices 16-30

Prepared by Karnataka Urban Infrastructure Development and Finance Corporation,  
Government of Karnataka for the Asian Development Bank.

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## **APPENDIX 16 - EMPLOYEE COMPENSATION INSURANCE-PUTTUR WSS**



**POLICY SCHEDULE FOR EMPLOYEES COMPENSATION INSURANCE**

<b>Insured's Name</b>	: SUEZ PROJECTS PVT. LTD.,SUEZ INDIA PVT. LTD.		
<b>Insured's Details</b>		<b>Issuing Office Details</b>	
<b>Customer ID</b>	: PO70855544	<b>Office Code</b>	: Delhi LCO 930000 (930000)
<b>Address</b>	: DRS INFRATECH PVT. LTD. JV IST FLOOR, 18 CSI COMPOUND, 2ND CROSS, MISSION ROAD, BANGALURU, BENGALURU URBAN, KARNATAKA BANGALORE ,KARNATAKA, 560027	<b>Address</b>	: 301,R.G.CITY CENTER LSC, BLOCK B, LAWRENCE ROAD NEW DELHI,110035
<b>Phone No</b>	: 9871459093	<b>Phone No</b>	: 27196509 / 27196510
<b>E-mail/Fax</b>	: dharmesh.s@jbbodamail.com, /	<b>E-mail/Fax</b>	: nia.930000@newindia.co.in / 27196515
<b>PAN No</b>	: ABBAS5237L	<b>S.Tax Regn. No</b>	: AAACN4165CST178
<b>GSTIN/UIN</b>	: 29ABBAS5237LIZI / NA	<b>GSTIN</b>	: 07AAACN4165C1ZT
		<b>SAC</b>	: 997139 (Other non-life insurance services excl RI)

<b>Policy Details</b>			
<b>Policy Number</b>	: 93000036190100000031	<b>Business Source Code</b>	
<b>Period of Insurance</b>	: From: 05/07/2019 12:00:01 AM To: 04/07/2020 11:59:59 PM	<b>Dev.Off level./Broker/Corp. Agent/Web Aggregator</b>	: J.B. BODA INSURANCE & REINSURANCE BROKERS PVT LTD. - (DM2347225) JB BODA-311800 (SI00063547)
<b>Date of Proposal</b>	: 05-Jul-19	<b>Agent/Bancassurance/ Specified Person</b>	:
<b>Prev. Policy no.</b>	:	<b>Phone No</b>	: 26402878, 8912502165, 9440281062 / NA
<b>Client Type</b>	: Corporate	<b>E-mail/Fax</b>	: accountshyd@jbbodamail.com, / / /

<b>Premium(₹)</b>	<b>GST(₹)</b>	<b>Total (₹)</b>	<b>Total (₹ in words)</b>	<b>Receipt No. &amp; Date</b>
163457	29422	192879	RUPEES ONE LAC NINETY-TWO THOUSAND EIGHT HUNDRED SEVENTY- NINE ONLY	9300008119000000249 2 - 12/07/19

**Details of Employees with monthly wages upto ₹ 8000:**

Categories	Sub Categories	No of Employee	Cash Total Wages
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**Details of Employees with monthly wages above ₹ 8000:**

Categories	Sub Categories	No of Employee	Cash Total Wages
Engineers not otherwise classified	Incl. work away from shop or yard upto 9 mtrs height SKILLED - ₹ 11544/- PM	18	2493504
Engineers not otherwise classified	Incl. work away from shop or yard upto 9 mtrs height SEMI SKILLED - ₹ 11154/- PM	39	5220072
Engineers not otherwise classified	Incl. work away from shop or yard upto 9 mtrs height UN SKILLED - ₹ 10894/- PM	97	12680616
Trade Description	Particular of Works	Location Details	Included All Sub - Contractors
Laying of Water Pipelines Water Distribution services in Puttur, karnataka		Puttur, Karnataka	

**Contractor/Sub-Contractor Details:**

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

Signature Not  
Verified  
Digitally signed  
by Srinivasan  
Valdeswaran  
Date: 2019.07.12  
15:50:40 +05'30'

Policy No. : 93000036190100000031 Document generated by 33309 at 12/07/2019 15:50:38 Hours.

Regd. & Head Office: New India Assurance Bldg., 87 M.G. Road, Fort, Mumbai - 400 001. TOLL FREE No. 1 800 209 1415.



**Extensions under the Policy Cover**

Name of the Extension	Sub Limit of the Extension	Deductibles of the Extension
<b>Special Conditions</b>	SKILLED - 18 (₹ 11544/- PM) SEMI SKILLED-39 (₹ 11154/- PM) UNSKILLED - 97 (₹ 10894/- PM)	
	NA	

<b>Special Exclusions</b>	NA
<b>Special Excess/Deductible</b>	NA

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

Clauses	Description
Conditions	Due observance and fulfilment of terms, conditions and endorsements of policy
Conditions	The Company may cancel Policy by sending seven days notice by registered letter
Conditions	Name of every employee with amount of wages, earnings shall be properly recorded
Conditions	No payment shall be made by or on behalf of Insured without consent of Company
Conditions	Remedy available to the insured if the company disclaims liability
Conditions	The insured shall take reasonable precaution to prevent accidents and diseases
Conditions	Notice or communication under this policy shall delivered in writing to Company
Conditions	The Policy and the Schedule shall be read together as one contract
Conditions	liability being otherwise admitted
Conditions	In the event claim, Insured shall give notice to Company with full particulars
Exclusions	Any accident, loss or legal liability arising from nuclear weapons material
Exclusions	Death, injury caused directly or indirectly by ionising radiation or contamination by radioactivity
Exclusions	Any legal liability of whatsoever nature
Exclusions	Any sum which the insured would have been entitled to recover from any party but for an agreement between insured and such party
Exclusions	Liability of the insured which arises by virtue of an agreement
Exclusions	Any employee who is not a workman within the meaning of the Law(s)
Exclusions	Insureds liability to employees of their contractors
Exclusions	Any injury or disease directly attributable to war or war-like situations
Exclusions	Damage to any property or any Consequential losses

**Premium and GST Details**

	Rate of Tax	Amount in INR
<b>Premium</b>		₹ 163457.00
<b>SGST</b>	0	0
<b>CGST</b>	0	0
<b>IGST</b>	18	29422

In witness whereof the undersigned being duly authorised by the Insurers and on behalf of the Insurers has (have) hereunder set his (their) hand(s) on this 12th day of July, 2019.

For and on behalf of

The New India Assurance Company Limited

Date of Issue: 12/07/2019		
		Duly Constituted Attorney(s)

Stamp Duty under the Policy is ₹1

Mudrank \_\_\_\_\_ Dt. \_\_\_\_\_ consolidated Stamp Fees Paid by Pay Order Number \_\_\_\_\_ vide receipt number \_\_\_\_\_ dt. \_\_\_\_\_.



Tax Invoice No : 93000019P0005629

**IRDA Registration Number: 190**

## **APPENDIX 17 - MARINE-CUM-ERECTION INSURANCE POLICY-PUTTUR WSS**



**MARINE-CUM-ERECTION INSURANCE POLICY**

<b>Insured's Name</b>	: SUEZ PROJECTS PVT. LTD.,SUEZ INDIA PVT. LTD.		
<b>Insured's Details</b>		<b>Issuing Office Details</b>	
<b>Customer ID</b>	: PO70855544	<b>Office Code</b>	: Delhi LCO 930000 (930000)
<b>Address</b>	: DRS INFRATECH PVT. LTD. JV 1ST FLOOR, 18 CSI COMPOUND, 2ND CROSS, MISSION ROAD, BANGALURU, BENGALURU URBAN, KARNATAKA BANGALORE ,KARNATAKA, 560027	<b>Address</b>	: 301,R.G.CITY CENTER LSC, BLOCK B, LAWRENCE ROAD NEW DELHI,110035
<b>Phone No</b>	: 9871459093	<b>Phone No</b>	: 27196509 / 27196510
<b>E-mail/Fax</b>	: dharmesh.s@jbbodamail.com, /	<b>E-mail/Fax</b>	: nia.930000@newindia.co.in/27196515
<b>PAN No</b>	: ABBAS5237L	<b>S.Tax Regn. No</b>	: AAACN4165CST178
<b>GSTIN/UIN</b>	: 29ABBAS5237LIZI/NA	<b>GSTIN</b>	: 07AAACN4165C1ZT
		<b>SAC</b>	: 997139 (Other non-life insurance services excl RI)

<b>Policy Details</b>			
<b>Policy Number</b>	: 93000044190800000022	<b>Business Source Code</b>	
<b>Period of Insurance</b>	: 05/07/2019 12:00:01 AM to 02/11/2022 11:59:59 PM	<b>Dev.Off. level/Broker/Corp. Agent</b>	: J.B. BODA INSURANCE & REINSURANCE BROKERS PVT LTD. - (DM2347225) JB BODA-311800 (SI00063547)
<b>Date of Proposal</b>	: 05-Jul-19	<b>Agent/Bancassurance</b>	:
<b>Prev. Policy no.</b>	:	<b>Phone No</b>	: 26402878, 8912502165, 9440281062 / NA
<b>Client Type</b>	: Corporate	<b>E-mail/Fax</b>	: accountshyd@jbbodamail.com, / / /

<b>Premium:</b>	<b>GST:</b>	<b>Stamp Duty</b>	<b>Total (₹)</b>	<b>Receipt No. &amp; Date:</b>
1664278	299570	0	1963848	9300008119000000246 2 - 11/07/19

Limit : By Rail/ Road ₹: 50000000	PERIOD: The cover commences from the date of the first consignment of despatch from the manufacturer's/ supplier's warehouse either in India or abroad and remains in force for the period as mentioned above (the said period starting from the arrival of the first consignment or despatch at the site of erection) or the completion of erection including test period not exceeding ----- weeks, whichever is earlier.
Limit : By Air / Sea ₹: 50000000 any one vessel	
Limit as per Location Clause ₹: 100000000	
LOCATION CLAUSE : In case of loss and/ or damage before shipment after discharge to the Insured interest in any one locality the underwriter notwithstanding anything to the contrary contained in this contract, shall not be liable in respect of any one accident or series of accidents arising, out of the same event for more than its proportion of an amount upto, but not exceeding, the sum of ₹ _____. The conveyance of the insured interest upon interior or by land transit shall not be deemed to be shipment within the meaning of this clause.	Special Conditions: Excess : 0.5% of claim amount subject to minimum of ₹10,000/- eel. Coverage : ITC-A+SRCC+RSMD.
Excess for Cargo: 10000	PREMIUM: As per Premium Endorsement hereunder:

<b>Voyage</b>		
<b>Sl. No.</b>	<b>From</b>	<b>To</b>
1	Anywhere in India	Anywhere in India

CLAIMS PAYABLE: On the basis of the actual loss sustained at the time of claim. NOTICE of loss or damage to be given and survey arranged and a certificate obtained from the Company's Agent at port of discharge or in case where the Company has no agent, by a Certificate from Lloyd's Agents, without which Certificates no claim for loss will be paid. In the event of loss or damage which may result in claim under this Insurance, immediate notice must be given to policy issuing Office/ any office nearest to the destination who are the Company's agent at port of discharge, in order they may examine the goods and issue a survey report. Where the Company has no agent, the notice must be given to W. K. Webster's

Signature Not  
Certified  
Digitally signed  
by Srinivasan  
Vaideswaran  
Date: 2019.07.11  
16:34:27 IST





Closing Particulars - All shipments are to be declared to the Company immediately upon receipt of shipping documents and stamped certificates to be obtained from the Company's Office at the issuing Office.

**\* Premium subject to adjustment on completion of the Project**

Sl. No.	Type of Project/Description of Project
1	110603 - Laying of Water Pipelines / 1) Water distribution services in Puttur, Karnataka

Site of Erection	Risk Address : 1 Puttur Town, Karnataka,dakshin kannad,KA025,UDUPI, KA,KARNATAKA, INDIA, 560211
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Principal(s)/ Contractor/ sub-contractor Details:		
Sl. No.	Name	Address
1	SUEZ PROJECTS PVT. LTD.,SUEZ INDIA PVT. LTD.	DRS INFRATECH PVT. LTD. JV

Sl. No.	Period of Insurance
1.	Period of Insurance From : 05/07/2019 12:00:01 AM To : 02/11/2022 11:59:59 PM (including 1 months Testing ) plus 12 months Extended Maintenance period

**Section I - Material Damage :**

**1. Plant & Equipments to be erected (New Machine)**

**a ) Landed Cost of Imported machinery as at Factory site at exchange Rate : 0 (sub divided as)**

Sl. No.	Invoice Cost	Freight insurance, handling, Clearing and Forwarding charges up to Factory site	Custom duty
1	0	0	0

**b ) On machinery fabricated or manufactured in India (sub divided as)**

Sl. No.	Invoice Cost including Insurance, handling, clearing and transport up to Factory site	Excise Duty
1	640000000	0

**Second Hand Machinery(to be Erected)**

**i) Landed cost of Imported machinery as at Factory site at exchange rate : «SHEXchange Rate ER ME» (sub divided as)**

Sl. No.	Invoice Cost	Freight insurance, handling, Clearing and Forwarding charges up to Factory site	Custom duty
1	NA	NA	NA

**ii ) On machinery fabricated or manufactured in India (sub divided as)**

Sl. No.	Invoice Cost including Insurance, handling, clearing and transport up to Factory site
1	0

Sl. No.	c ) On Cost of erection including salaries of all Foreign and Indian Technicians and Wages of all skilled and unskilled labour employed at Factory Site during erection :
1	0

**d ) On Building in which the above Plant and Machinery is to be erected**

Sl. No.	a) Permanent Civil Engineering Works	b) Temporary Works	Completely erected value
1	0	0	640000000

**2. Contractors Plant and Machinery (Memo 4) as per list enclosed**



Item No.	Quantity	Description of Items (Type, Manufacture, Capacity)	Year of Manufacture	Sum Insured (In ₹)	Risk Code	Excess due to AOG Perils	Excess due to Other than AOG Perils	Excess for Boom Section
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### 3. Add on Covers

#### 1. Owners Surrounding Property

Sl. No.	Limit of Indemnity	Excess
1	5000000	0

#### 2. Additional Custom Duty

Sl. No.	Limit of Indemnity	Excess
1	5000000	0

#### 3. Removal of Debris per occurrence

Sl. No.	Limit of Indemnity	Excess
1	5000000	0

#### 4. Professional Fees

Sl. No.	Limit of Indemnity	Excess
1	0	0

#### 5. Expediting Cost including Air Freight & Express Freight

Sl. No.	Limit of Indemnity	Excess
1	0	0

#### 6. Offsite Storage/ Fabrication

Sl. No.	Limit of Indemnity	Excess
1	0	0

#### 7. on increased replacement value (including duty on such additional replacement value) which may have to be paid on replacement of Imported Plant and Machinery as per 1(a) above

Sl. No.	Limit of Indemnity	Excess
1	0	0

#### 8. on increased replacement value which may have to be paid on replacement of indigenous Plant and Machinery as per 1(b) above

Sl. No.	Limit of Indemnity	Excess
1	64000000	0

#### on increased replacement value which may have to be paid on replacement of Plant and Machinery as per 1(d) a) above

Sl. No.	Limit of Indemnity	Excess
1	0	0

#### 9. Dismantling cover for Used /Second Hand Machinery

Sl. No.	Limit of Indemnity	Excess
1	0	0

#### 10. Automatic Reinstatement clause

Sl. No.	Limit of Indemnity	Excess
1	0	0

#### 11. Loss minimisation expenses



Sl. No.	Limit of Indemnity	Excess
1	0	0

**12. Cover for valuable documents**

Sl. No.	Limit of Indemnity	Excess
1	0	0

**13. Continuity of cover during operational phase for unit / plant tested but awaiting integral testing (along with other units / plants)**

Sl. No.	Limit of Indemnity	Excess
1	0	0

**14. Design Defect Cover**

Sl. No.	Limit of Indemnity	Excess
1	DE-4 of Munich Re	5 times AOG excess

**15. Waiver of Subrogation clause**

Sl. No.	Limit of Indemnity	Excess
1	NA	0

**Section II - Third Party Liability :**

**Limit of Indemnity**

Sl. No.	For any one accident	For all accidents during the period	Any One Person
1	6400000	6400000	6400000

**EXCESS for Section I and II :**

Sl. No.	For Storage & Erection Claims	For Testing Period Claims/ maintenance period claims	For Acts of God Claims (as per Memo 6)/Maintenance Cover ( to be removed)	For Fire / Explosion Claims	Terrorism
1	5 % of the claim amount subject to a minimum of ₹ 75000	5 % of the claim amount subject to a minimum of ₹ 200000	10 % of the claim amount subject to a minimum of testing period excess & a maximum of ₹ 5 Crores	10% of the claim amount subject to a minimum of testing period excess & a maximum of ₹ 2 Crores	0.5 % of Total Sum Insured subject to minimum of ₹ 1,00,000/-for each and every claim

**Excesses For Specific AddOn Covers :**

Sl. No.	Description Of Cover	Excess
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Terrorism Covered	Terrorism Premium
YES	386640

<b>Deductibles Opted for Terrorism Pool</b>	<b>:</b> 5% of the claim amount for each and every claim subject to Minimum of ₹1,00,000 and Maximum of ₹2,50,00,000
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Risk Serial No.	STFI Cover
2	YES

Risk Serial No.	Earth Quake Cover
1	YES

**Installment Details**

Installment Number	Installment Date	Installment Amount (₹)
1	05/07/2019	456236



Installment Number	Installment Date	Installment Amount (₹)
2	05/07/2019	244717
3	02/10/2019	126290
4	02/01/2020	126290
5	02/04/2020	126290
6	02/07/2020	126290
7	02/10/2020	126290
8	02/01/2021	126290
9	02/04/2021	126290
10	02/07/2021	126290
11	02/10/2021	126290
12	02/01/2022	126285

The policy is subject to endorsements, warranties attached.

ENDORSEMENTS ATTACHED TO & FORMING PART OF THE POLICY		
Sl. No.	Endorsement Number	Endorsement Title
	ENG 002	Extension of terrorism damage
	SLEC	Section Limitation and Exclusion Clause

Risk Code	Excess
NA	NA

In witness whereof the undersigned being duly authorized by the Insurers and on behalf of the Insurers has (have) hereunder set his (their) hand(s) on this 11th day of July, 2019

For and on behalf of  
The New India Assurance Company  
Limited

Duly Constituted Attorney(s)

#### Premium and GST Details

	Rate of Tax	Amount in INR
Premium		₹1664278
SGST	0	0
CGST	0	0
IGST	18	299570

In witness whereof the undersigned being duly authorized by the Insurers and on behalf of the Insurers has (have) hereunder set his (their) hand(s) on this 11th day of July, 2019

For and on behalf of  
The New India Assurance Company  
Limited



Duly Constituted Attorney(s)

Tax Invoice No :

**IRDA Registration Number: 190**

## **APPENDIX 18 - LABOUR LICENSE-UDUPI WSS**



## GOVERNMENT OF KARNATAKA

## DEPARTMENT OF LABOUR

Licence No : ALC-MNG/CLA/C-100027485/2019-20

Registration No: ALCM/RGN/CLA/UDP-29/2008

Assistant Labour  
Commissioner, Mangalore  
Division, Mangaluru  
Prakruthi Commercial  
Complex 2nd Floor, Opp.  
Bharath Beedi Works Pvt  
Ltd., Kadri road,  
Mangalore-575003

Licence Date: Jun 21 2019

**FORM-VI**

[See Rule 25(1)]

1. Licence is here by granted to SPPL SIPL- DRS INFRA- JV, #1-44, Animitha House, Padubettu, Adi-Udupi 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 Water supply in the establishment of City Municipal Commissioner, Udupi

3. The Licence shall remain in force till 11/01/2021

Renewal  
[Rule 29]

Sl no.	Date of Licence Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	10-01-2020	11-01-2020	LICENCE FEE:2250, PENALTY:562	11/01/2021

Please, verify authenticity of by visiting  
[www.labouronline.kar.nic.in](http://www.labouronline.kar.nic.in) & entering certificate Number

  
Assistant Labour Commissioner  
MANGALORE DIVISION, MANGALORE  
Mangalore Division, Mangaluru



The license is subject to the following conditions:-

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

— Assistant Labour Commissioner  
MANGALORE DIVISION, MANGALORE

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

— Assistant Labour Commissioner  
MANGALORE DIVISION, MANGALORE



## **APPENDIX 19 - EMPLOYEE COMPENSATION INSURANCE-UDUPI WSS**



**ADDITIONAL ENDORSEMENT DOCUMENT**  
**EMPLOYEES COMPENSATION Insurance Policy**

<b>Insured Name</b>	: SUEZ PROJECTS PVT. LTD., SUEZ INDIA PVT. LTD.	<b>Insurer Office Code</b>	: Delhi LCO 930000 (930000)
<b>Address</b>	: DRS INFRATECH PVT. LTD. JV 1ST FLOOR, 18 CSI COMPOUND, 2ND CROSS, MISSION ROAD, BANGALURU, BENGALURU URBAN, KARNATAKA BANGALORE, KARNATAKA, 560027	<b>Address</b>	: 301, R.G. CITY CENTER LSC, BLOCK B, LAWRENCE ROAD NEW DELHI, 110035
<b>Telephone</b>	: //9871459093	<b>Telephone</b>	: 27196509 / 27196510
<b>Fax</b>	:	<b>Fax</b>	: 27196515
<b>Email</b>	:	<b>Email</b>	: nia.930000@newindia.co.in
<b>GSTIN</b>	: 29ABBAS5237LIZI	<b>GSTIN</b>	: 07AAACN4165C1ZT
<b>UIN</b>	: NA	<b>SAC</b>	: 997139 (Other non-life insurance services excl RI)

<b>Endorsement attached to forming part of Policy Number</b>		:	93000036190100000031
<b>Department</b>	: Liability Insurance	<b>Cover</b>	: Workmen's Compensation Policy
<b>Period of Insurance</b>	: From 05/07/2019 12:00:01 AM To 04/07/2020 11:59:59 PM	<b>Endorsement No</b>	: 93000036190183000006
		<b>Effective Date</b>	: 18 February 2020
<b>Date Signed</b>	: 21/02/2020	<b>Sum Insured ₹</b>	: 21,294,192.00
<b>Additional Premium ₹</b>	: 4,432.00	<b>Additional GST ₹</b>	: 798
<b>Refund Premium ₹</b>	: N/A	<b>Refund ST/GST. ₹</b>	: N/A
<b>Policy Duration</b>	: 1 Years		

**Change in Policy Attributes**

Parameter Name	Changed Value	Old Value
Policy Status	06	
Is this risk located in SEZ Zone?	NO	
getSecndOption	100	00

**Change in Policy Risk Attributes**

Risk Number	Parameter Name	Changed Value	Old Value
1	Special Conditions1	SKILLED - 18 (₹ 11544/- PM) SEMI SKILLED-39 (₹ 11154/- PM) UNSKILLED - 97 (₹ 10894/- PM) HIGHLY SKILLED - 3 (RS. 25000/- PM)	SKILLED - 18 (₹ 11544/- PM) SEMI SKILLED-39 (₹ 11154/- PM) UNSKILLED - 97 (₹ 10894/- PM)
1	Sum Insured	21294192	20394192

It is hereby understood and agreed that the endorsement on policy 93000036190100000031 will be in effect from 18 February 2020.

<b>Reason</b>	Notwithstanding anything herein contained to the contrary it is hereby agreed and declared that at the request of insured 3 employees are added under the said policy w.e.f. 18.2.2020.  Details of Additional Premium as under: Sum Insured Premium Additions of 3 ₹ 3.0 Lac per employee ₹ 4432/- + GST extra. (Highly skilled employees)  All other terms and conditions remain unaltered
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**Premium and GST Details**

**Premium**  
Verified  
Digitally signed  
by Srinivasan  
Vaideswaran  
Date: 2020.02.21  
16:49:44 IST

**Rate of Tax**  
**Amount**  
4,432.00

**Policy No. : 93000036190100000031 Document generated by 33309 at 21/02/2020 16:49:43 Hours.**

**Regd. & Head Office: New India Assurance Bldg., 87 M.G. Road, Fort, Mumbai - 400 001. TOLL FREE No. 1 800 209 1415.**



SGST	0	0
CGST	0	0
IGST	18	798
TOTAL PAYABLE	:	5230
TOTAL PAYABLE (In words)	:	RUPEES FIVE THOUSAND TWO HUNDRED THIRTY ONLY

IN WITNESS WHEREOF THIS POLICY has been signed at \_\_\_\_\_ this 21-Feb-20.

**Extension Details :**

Period of extension	Modified Expiry date
	04-JUL-20

Place :BLOCK B, LAWRENCE ROAD,  
NEW DELHI,110035  
Date :21-Feb-20

For and on behalf of  
The New India Assurance Company Limited  
Authorized Signatory

Tax Invoice No : 93000019E0022246

**IRDA Registration Number: 190**

**APPENDIX 20- COVERING LETTER FOR EMP-  
REPORT-AUGUST-2019-MANGALORE UGD**



# DRS INFRATECH PRIVATE LIMITED

Ref: DRSITPL/KUIDFC/ MNG/2019-20/19

Dated 21.08.2019

To,  
**The Executive Engineer**  
PIU-KUIDFC - KIUMIP  
Mangaluru

Dear Sir,

**Sub:** Replacement of Old Sewerage Pumping Mains and Rehabilitation of Sewerage system for Mangalore City - **Submission EMP Report for the month of Aug'19**

**Ref:** 1) Letter issued by executive Engineer No. KIUMIP/PIU-MNG/CR-022017-18/189, Date 19-07-2018 work Program approved with Date of Commencement as 06.06.2018

Sir,

With reference to the above subject and as per the directions, here with submitting the EMP report for the month of Aug'19

This is for your Kind Consideration

Thanking you,  
Yours Truly,

For DRS Infratech Pvt Ltd,

Authorized Signatory  
Mangaluru

Encl: 02 Set of EMP Report.





# DRS INFRATECH PRIVATE LIMITED

Ref: DRSITPL/KUIDFC/ MNG/2019-20/19

Dated 21.08.2019

To,  
**The Executive Engineer**  
PIU-KUIDFC - KIUMIP  
Mangaluru

Dear Sir,

**Sub:** Replacement of Old Sewerage Pumping Mains and Rehabilitation of Sewerage system for Mangalore City - **Submission EMP Report for the month of Aug'19**

**Ref:** 1) Letter Issued by executive Engineer No. KIUMIP/PIU-MNG/CR-022017-18/189, Date 19-07-2018 work Program approved with Date of Commencement as 06.06.2018

Sir,

With reference to the above subject and as per the directions, here with submitting the EMP report for the month of Aug'19

This is for your Kind Consideration

Thanking you,  
Yours Truly,

For **DRS Infratech Pvt Ltd,**

**Authorized Signatory**  
Mangaluru

Encl: 02 Set of EMP Report.



**APPENDIX 21 - COVERING LETTER FOR EMP-  
REPORT-AUGUST-2019-KUNDAPURA**





## LAXMI CIVIL ENGINEERING SERVICES PVT. LTD.

Corporate Office : C. S. No. 100/MQ, E. Ward, 3rd Floor, Sterling Tower, Gavet Mandak, Shahupur,  
Kodapur - 416 001 (Maharashtra), India. Phone No. : +91 231 - 2668910 / 11, FAX: +91 231-2668199  
Website : www.lcepl.com, (An ISO 9001 : 2015 Certified Company), CIN NO. : U74210PN2007PTC014005

No: LE/KUIDFC/KIUWMIP/02KDP01/EMP Dec -19/227/2018-19

Date: 30.12.2019

To,  
The Executive Engineer  
KUIDFC-KIUWMIP  
Tranche-2  
PIU, Kundapura

Sub:- Construction of works and services for Operation & Management of 24x7 Water Supply System for Kundapura town. Package-02KDP01:- Submission EMP report to the Month of Dec-2019 reg;

Ref:- 1) LOA letter no. TMC/WSS/CR no. 1 2017-2018 Dated: 28.10.2017  
2) Agreement dated: 19.12.2017

Dear sir,

With reference to the above subject we are here by submitting the EMP report for the month of Dec-2019 for your kind perusal

Thanking you & assuring our best services at all times.

For Laxmi Civil Engineering Services Pvt. Ltd.

*— N. Vaidhyan*

Authorized Signatory

Encl:- EMP for the month of Dec-19



Copy to:

- 1) Assistant Executive Engineer, KIUWMIP, PIU, Kundapura.
- 2) Team Leader, EGIS Consult, Mangalore



*Forwarded to Mr. EGIS &  
Encl. Encl. regarding the date  
to go through into report & report  
accordingly at Kundapur.*  
*— N. Vaidhyan*  
*30/12/2019*



## **APPENDIX 22 - COVERING LETTER FOR EMP- REPORT-DECEMBER-2019-UDUPI**



Ref: SPPL/SIPL/DRS JV /KUIDFC /UCMC/0150/2019-20

Date:- 31<sup>st</sup> December -2019

To

The Executive Engineer  
KUIDFC-KIUWMIP, Jalasiri Tranch-2  
PIU-Udupi

**Sub:** KUIDFC-KIUWMIP-construction work of services for operation and management of 24x7 water supply system for Udupi city -package No 02UDP01"-Submission of EMP report December 2019,Udupi.

**Ref:** 1.LOA letter no UCMC/UDUPI/KUIDFC/ADB/udp03/2018-19/Dated 10.10.2018

2.Contract Agreement Dated 16.11.2018

Dear Sir,

In view of the above subject, we hereby submit the EMP report for month December 2019.

Thanking you and assuring you our best services at all times.

For SPPL-SIPL-DRS JV

Authorized Signatory

Encl: Report enclosed



- CC: 1. Deputy Project Director, KUIDFC-KIUWMIP, Jalasiri Tranch-2, RPMU, Mangaluru  
2.The Commissioner, City Municipal Council, Udupi  
3.Team Leader -Egis India Consulting Engineers Pvt Ltd, Mangaluru

## **APPENDIX 23 - SITE SPECIFIC EMP- CONSTRUCTION STAGE-MANGALORE UGD**



**KARNATAKA URBAN INFRASTRUCTURE DEVELOPMENT  
& FINANCE CORPORATION**

**KIUWMIP**

**REPORT ON IMPLEMENTATION OF  
ENVIRONMENT MANAGEMENT PLAN FOR SUB  
PROJECTS AT MANGALORE CITY**

**FOR THE MONTH OF**

**AUGUST- 2019**

**PREPARED BY**

***DRS INFRA TECH Pvt Ltd***

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### 1. Introduction:

Contracts awarded under KIUWMIP are governed by the provisions of Environmental Management Plan (EMP) approved for the project which is a part of the Contract Agreement. As per ADB's Safeguard Policy Statement (2009) there is requirement of submission of report and safeguard documents. Steps are initiated to implement the EMP as per the approved IEE. Recently IEE has been updated and updated EMP will be handed over to respective contractor.

The subproject formulated under this Investment Program to address gaps in sewerage infrastructure, and to meet the design demand includes

#### Package: 02MNG02

Replacement of Old Sewerage Pumping Mains and Rehabilitation of Sewerage system for Mangalore City

### 2. Project status and work components:

Package	Project	Project components	Physical activity completed	Work started	Scheduled date of completion	Date of Extension if any
02MNG02	Replacement of Old Sewerage Pumping Mains	Replacement of Old Sewerage Pumping Mains by DI pipe of dia 1100 mm, 900mm and 450mm	<u>Pipeline laying</u> : out of 11.48 km of pipe line 5.66 km completed. Work is stop Rain problem	06.06.2018	05.03.2021	

### 3. Consents/ Statutory clearances/ Approvals:

The project is not located within any sensitive area. Required clearances and consents and their status is shown in Table 2

Table 1: Status of statutory clearance and approval

Name of the scheme	Contract package	Railways	National highways	PWD	Irrigation	Labour license and compliance	Workman compensation policy
Replacement of Old Sewerage Pumping Mains	02MNG02	Permission obtained	Concurrence obtained	-NA-	- NA -	Renewed on 06.06.2019 and valid upto 06.06.2020	Attached



#### 4. Application of Mitigation as part of EMP:

Status of Implementation of EMP against different environment issues are shown below

Table 2: Status of Implementation of EMP (As per approved IEE/ EMP- Construction stage.

Sl. No	Major Issues	Anticipated Impact	Mitigation measures	Compliance status
1	Worker camp	Impacts on local environment	<ul style="list-style-type: none"> <li>Consult with PIU before locating workers camps/sheds, and construction plants; as far as possible located within reasonable distance of work site.</li> <li>Minimize removal of vegetation and disallow cutting of trees.</li> <li>Living facilities shall be built with adequate materials should be in good condition and free from rubbish and other refuse</li> <li>Provide water and sanitation facilities; water, meeting Indian drinking water standards shall be provided, in adequate quantities (supply of 60- 80 L/PCD); all water storage structures must be cleaned regularly and covered properly to avoid any contamination.</li> <li>Provide separate facilities for men and women; sanitary facilities shall be properly build and well maintained; toilet and bath facilities should be provided on basis of 1 per 15 or less persons</li> </ul>	<p>Labour camp is constructed as per standard</p> <p>No removal of vegetation and trees reported.</p> <p>Complied</p> <p>Water and sanitary facilities are provided.</p> <p>Separate sanitary facilities for men and women are provided.</p>
2	Impact on public due to destruction of public utilities such as water	Inconvenience for public	<ul style="list-style-type: none"> <li>The impacts on utilities will be repaired and restored in the least time frame with the support of concerned authorities.</li> </ul>	Utility services are restored on the same day or least possible time.

Sl. No	Major Issues	Anticipated impact	Mitigation measures	Compliance status
	pipes, electric telephone lines etc.			
3	Air quality	Dust and emissions from construction activity may degrade the air quality	<ul style="list-style-type: none"> <li>Consult with PIU on the designated areas for stockpiling of clay, soils, gravel, and other construction materials.</li> <li>Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather.</li> <li>Bring materials (aggregates, sand, etc gravel) as and when required.</li> <li>Use tarpaulins to cover sand and other loose material when transported by vehicles.</li> <li>Clean wheels and undercarriage of vehicles prior to leaving construction site.</li> <li>Fit all heavy equipment and machinery with air pollution control devices which are operating correctly; ensure valid Pollution Under Control (PUC) Certificates for all vehicles and equipment used in the construction activity.</li> </ul>	<p>Complied.</p> <p>Excavated earth is used to refill the trench. Water sprinkling during dry season is not done on regular basis</p> <p>Materials are brought to the site whenever necessary.</p> <p>Mostly covered by tarpaulin.</p> <p>Cleaning wheels and undercarriage of vehicles not complied.</p> <p>PUC submitted all equipment have been fitted with silencers.</p>
4	Noise Level	High noisy construction activities may have adverse impacts on sensitive receptors and structures	<ul style="list-style-type: none"> <li>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.</li> <li>Construction work shall be</li> </ul>	Complied.



Sl. No	Major Issues	Anticipated impact	Mitigation measures	Compliance status
			<p>limited to day light hours (8 AM to 6 PM) for all the works located within the town.</p> <ul style="list-style-type: none"> <li>• Provide prior information to the local public about the work schedule.</li> <li>• 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 chiseling.</li> <li>• Minimize noise from construction equipment by using vehicle silencers, fitting jackhammers with noise-reducing mufflers, and portable street barriers the sound impact to surrounding sensitive receptor.</li> <li>• Maintain maximum sound levels not exceeding 80 decibels (dB) when measured at a distance of 10 m or more from the vehicle/s.</li> </ul>	<p>Complied.</p> <p>Complied.</p> <p>Pipe laying work continued during day time</p> <p>complied</p> <p>Ensured</p>
5	Landscape and aesthetics	Impacts on landscape and aesthetics due to construction activity	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Avoid stockpiling of excess excavated soils as far as possible.</li> <li>• Avoid disposal of any debris and waste soils in the forest areas and in or near water bodies/rivers.</li> </ul>	<p>Submitted</p> <p>Ensured</p>

Sl. No	Major Issues	Anticipated impact	Mitigation measures	Compliance status
			<ul style="list-style-type: none"> <li>Coordinate with PIU for beneficial uses of excess excavated soils or immediately dispose to designated areas.</li> </ul>	<p>Complied.</p> <p>immediately disposed to designated areas</p>
6	Nuisance/ disturbance to sensitive areas during construction work in the proximity (within 250 m of such place)	Schools, hospitals and religious places	<ul style="list-style-type: none"> <li>No material should be stocked in this area; material shall be brought to the site as and when required.</li> <li>Conduct work manually with small group of workers and less noise; minimize use of equipment and vehicles.</li> <li>No work should be conducted near the religious places during religious congregations.</li> <li>Material transport to the site should be arranged considering school timings; material should be in place before school starts.</li> <li>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.</li> <li>Implement all measures suggested elsewhere in this report – dust and noise control, public safety, traffic management, strictly at the sites.</li> </ul>	<p>Complied. Planned accordingly</p> <p>The works are carried out manually at sensitive areas, Wherever less noise and minimum use of equipment criteria is required.</p> <p>Complied.</p> <p>Complied.</p> <p>Schools, Hospitals and religious places will be notified before starting of any pipe laying work. Instruction has been given.</p> <p>Complied.</p>
7	Socio-Economic: Livelihood	Impediment of access to houses and business	<ul style="list-style-type: none"> <li>Leave space for access between mounds of excavated soil.</li> <li>Provide wooden</li> </ul>	Space available for public movement.

Sl. No	Major Issues	Anticipated Impact	Mitigation measures	Compliance status
			<p>planks/footbridges for pedestrians and metal sheets for vehicles to allow access across trenches to premises where required.</p> <ul style="list-style-type: none"> <li>Consult affected businesspeople; inform them in advance when work will occur. Address livelihood issues; implement the Resettlement Plan (RP) to address these issues.</li> <li>Provide sign/caution/warning boards at work site indicating work schedule and traffic information; prevent public entry into work sites through barricading and security.</li> <li>Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.</li> </ul>	<p>Not required as of now.</p> <p>RP will be implemented as per requirement.</p> <p>Caution board not provided at all sites.</p> <p>Complied.</p>
8	Socio-Economic: Livelihood	Temporary impact on business to the shop keepers, hawkers and vendors (with moveable structures and footpath sellers) Impact on traffic movement	<ul style="list-style-type: none"> <li>Provision of advance notice to community to shift their merchandise, vending items, mobile shops at least 7 days prior to construction work.</li> <li>Conducting awareness campaigns through a media partner, if any and the project resettlement &amp; monitoring NGO with signage for road diversion, safety caution, etc.</li> <li>Maintaining access to shops by providing planks and leaving spaces to avoid disturbance to residents and businesses.</li> <li>Open pits to be guarded properly against safety hazard, especially during day time working period, near</li> </ul>	<p>Complied.</p> <p>Public consultation continued at working site.</p> <p>Access maintained in most of the cases.</p> <p>Open pit not fully guarded by use of safety caution tape.</p>



Sl. No	Major Issues	Anticipated impact	Mitigation measures	Compliance status
			<p>road crossings, near schools, etc.</p> <ul style="list-style-type: none"> <li>Managing traffic flows as per the traffic management plan prepared by the contractor in coordination with local authorities and communities.</li> <li>Conducting major portion of the works at night, if possible, to avoid / reduce the inconvenience to public and shopkeepers.</li> <li>Closing the open trenches immediately after pipe laying.</li> <li>Completing works quickly where large numbers of businesses are located.</li> <li>Avoiding full road closure to the extent possible.</li> <li>Placing telephone number on visible areas to notify in case of emergency.</li> <li>Making the community fully aware of the grievance redress mechanism.</li> <li>Providing assistance to vendors and hawkers in shifting to alternative nearby locations and help reinstallation of their business as early as possible</li> </ul>	<p>Traffic movement restricted at construction area. Road closure and diversion board noted at few locations.</p> <p>Works carried out in daylight.</p> <p>Complied.</p> <p>Complied.</p> <p>Ensured</p> <p>Emergency contact number mentioned in the caution board at all working sites.</p> <p>Public consultation continued at site.</p> <p>Will be done accordingly</p>
9	Loss of trees during sewer laying and STP work	Damage to Environment	<ul style="list-style-type: none"> <li>No tree cutting is envisaged; each tree lost should be replaced with two trees.</li> <li>The plantation should be done at the onset of monsoon immediately after</li> </ul>	<p>Complied.</p> <p>No tree cutting in any of</p>

Sl. No	Major Issues	Anticipated impact	Mitigation measures	Compliance status
			completing the construction along.	the current stretch

10	Occupational Health and Safety	Workers occupational health & safety	<ul style="list-style-type: none"> <li>Develop and implement site-specific Health and Safety (H and S) Plan which will include measures such as:               <ul style="list-style-type: none"> <li>(a) excluding public from the site;</li> <li>(b) ensuring all workers are provided with and use Personal Protective Equipment;</li> <li>(c) H and S Training for all site personnel;</li> <li>(d) documented procedures to be followed for all site activities; and</li> <li>(e) documentation of work-related accidents.</li> </ul> </li> <li>All trenches deeper than 2 m shall be protected with wooden bracing to avoid safety risks to workers, public and nearby buildings/structures.</li> <li>Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site.</li> <li>Provide medical insurance coverage for workers.</li> <li>Secure all installations from unauthorized intrusion and accident risks.</li> <li>Provide supplies of potable drinking water.</li> <li>Provide H and 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.</li> <li>Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas.</li> <li>Ensure moving equipment is outfitted with audible back-up alarms.</li> <li>Disallow worker exposure to noise level greater than 85 dB for duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.</li> </ul>	<p>Complied</p> <p>Health and safety measures are followed.</p> <p>PPEs are given to the workers. 60% used</p> <p>Wooden barricading done. Caution tape and board provided</p> <p>First aid box available at pipe laying area</p> <p>Provided for worker</p> <p>complied</p> <p>Complied</p> <p>Regular H &amp; S training not done.</p>
----	--------------------------------	--------------------------------------	--	--

<p>11 Community health &amp; safety</p>	<p>Danger due to deep excavations, hindrance to traffic and chances of accident.</p>	<ul style="list-style-type: none"> <li>• Provide wooden bracing for all deep excavations (8-10m); identify buildings at risk prior to start of excavation work and take necessary precautions for safe work.</li> <li>• Plan material and waste routes to avoid times of peak pedestrian activities.</li> <li>• Liaise with Mangalore city 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.</li> <li>• Maintain regularly the vehicles and use of manufacturer-approved parts to minimise potentially serious accidents caused by equipment malfunction or premature failure.</li> <li>• Provide road signs and flag persons to warn of dangerous conditions, for all the sites along the roads.</li> <li>• Construction should be expedited in the least time frame.</li> <li>• Activities requiring temporary access control should be done during non-peak hours.</li> <li>• Excavation along the road should be done in such a way that entire Stretch will not be trenced at a time.</li> <li>• Traffic management with diversion through alternate routes will be implemented by providing adequate sign boards.</li> <li>• Trenching and pipe laying along the traffic routes will be planned and integrated to avoid retrenching / modifying trench</li> </ul>	<p>Provided wooden bracing for all excavations.</p> <p>Planned</p> <p>Planned</p> <p>Identified risk area if any will be identified after discussion with Mangalore City.</p> <p>Provided road signs and flag persons to warn of dangerous conditions</p> <p>Planned accordingly</p> <p>Planned accordingly</p> <p>Construction works are completing in least possible time.</p> <p>Entire stretch is not being trenced at a time.</p> <p>Traffic diversion boards are given but number insufficient.</p>
---	--	--	---



			during pipe laying along the same lane.	
12	Rain water collection in excavated areas.	Inconvenience for public	<ul style="list-style-type: none"> <li>Trenching and sewer laying should be planned to be completed in seasons other than rainy season.</li> <li>If ground water is collected in trenches, the water should be pumped out and opportunities for channeling to agricultural fields for irrigation should be sought.</li> </ul>	<p>Will be planned accordingly.</p> <p>Water is being pumped out as per requirement.</p>
13	Socio-Economic: Employment	Employment generation Sourcing of local employers will give employment opportunities for local people and also attract influx of labour from outside and competition for basic resources such as water, shelter, food etc.	<ul style="list-style-type: none"> <li>Employ at least 50% of the labour force, or to the maximum extent, local persons if manpower is available.</li> <li>Secure construction materials from local market.</li> </ul>	<p>Ensured</p> <p>Complied.</p>

#### 5. Non complied and Partially complied issues of EMP application:

**Table 3: Major issues (Partial or non-compliance) of EMP application**

#### 6. Field Visit:

On regular basis RE and ARS (PMDCSC) is supervising the UGD works,. Team Leader visited project sites on weekly basis.



#### 7. Training activity:

Internal induction and tool box training activity has been conducted by contractor (but not on regular basis).

#### 8. Grievance Redressed status:

Table 4: Grievance Redressed status for the month

Sub project	Registers maintained	No. of grievances received +	Action taken
Sewerage Treatment Plant	Yes	No grievances recorded	Ensured to record any grievances and take corrective / preventive action to rectify the issues.

#### 9. Accident Record

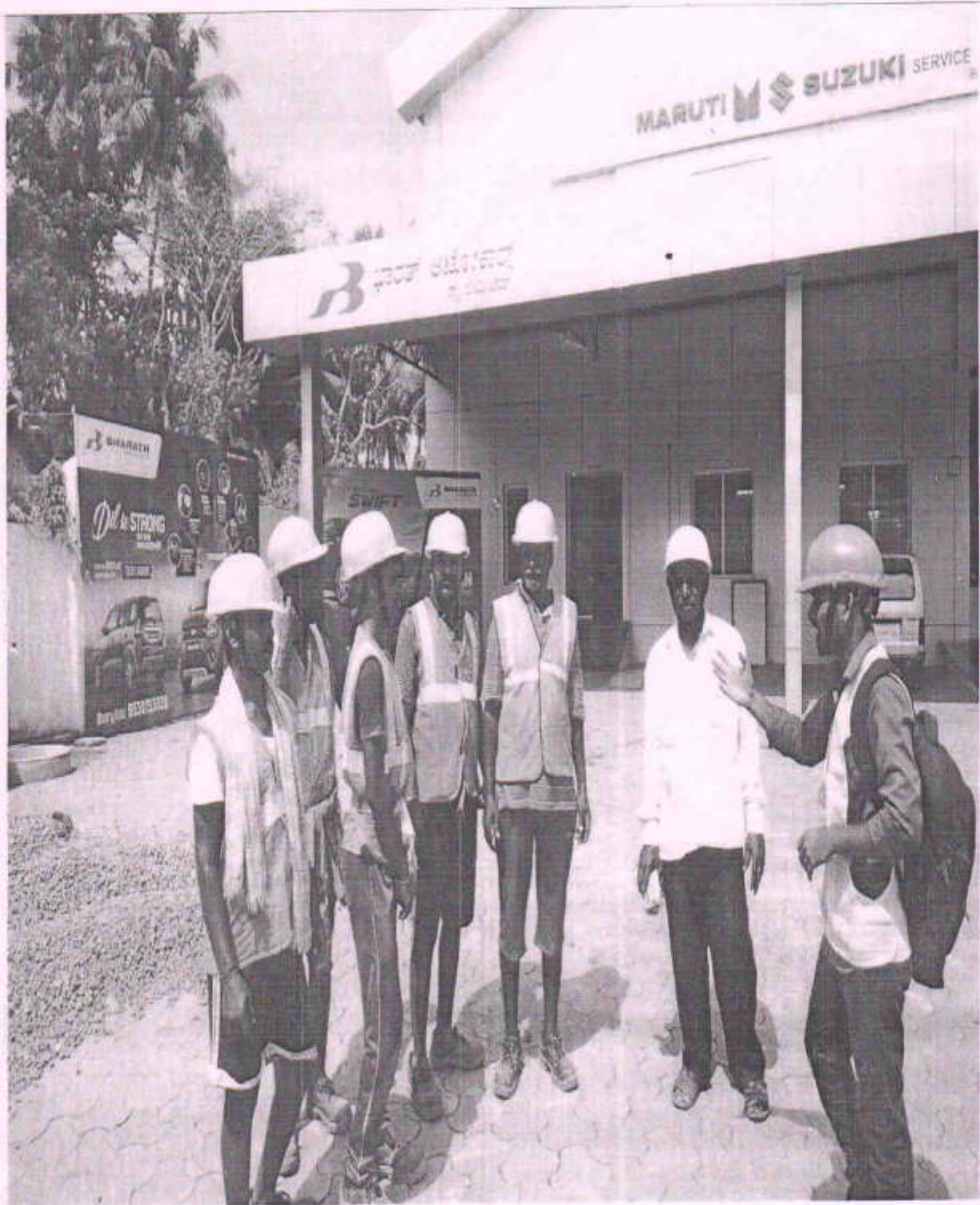
No accident reported in the month

#### 10. Summary and Conclusion

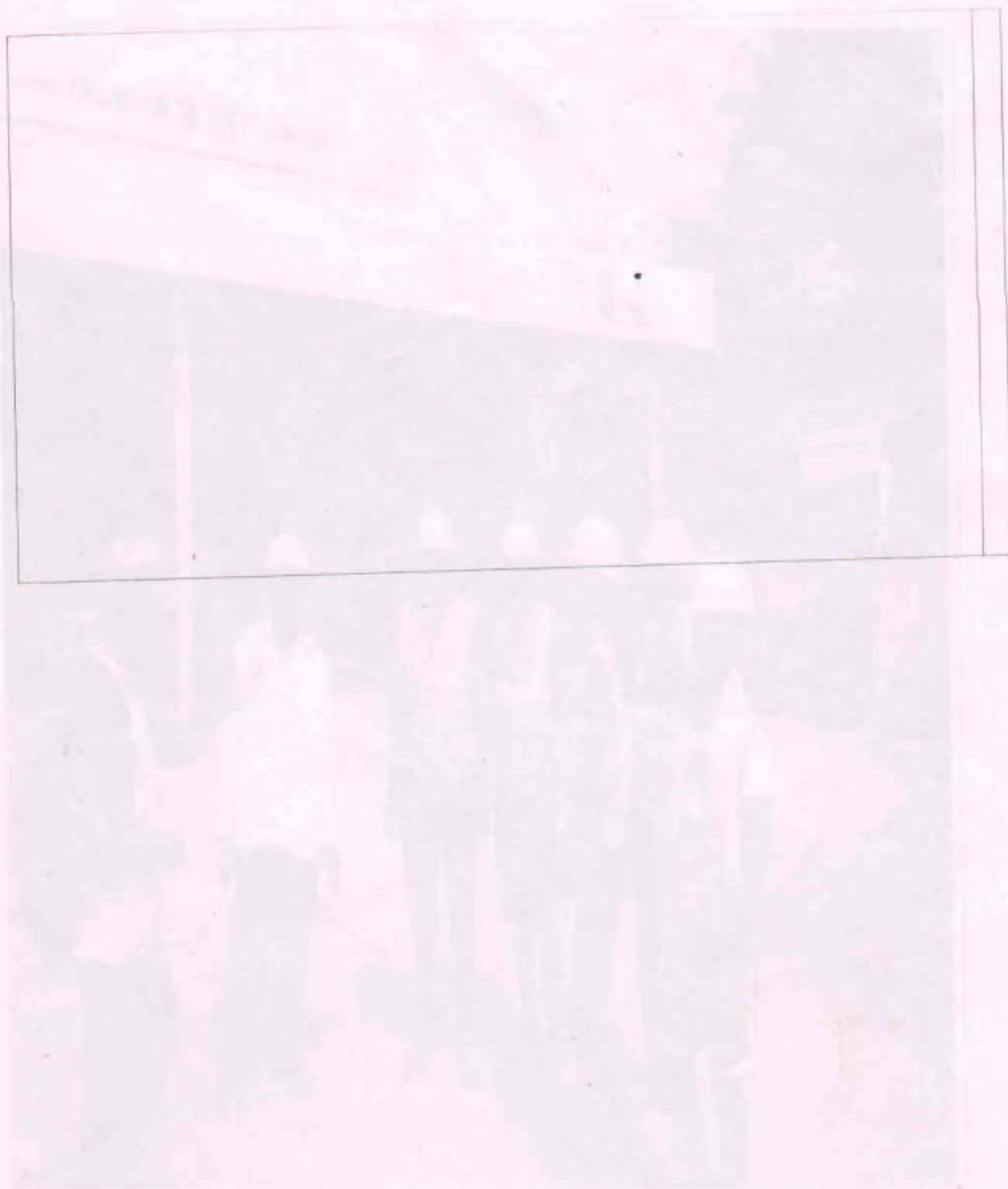
All the HSE mitigations are adopted

- Complete use of PPEs by all workers
- All time use of complete caution tape and barricading at excavated areas.
- Warning boards need to be displayed at all sites with emergency contact numbers.

Annexure 1: Project site Photographs



Tool box training





**GOVERNMENT OF KARNATAKA**  
**DEPARTMENT OF LABOUR**

Licence No : ALC/MNG/CL/VO-105025295/2018-19

Registration No : RGN/CL/MNG-232/2003-01

Assistant Labour  
Commissioner, Mangalore  
Division, Mangalore  
Prakruti Commercial  
Complex 2nd Floor, Opp.  
Bharati Boudi Works Pvt  
Ltd. Kadri road,  
Mangalore-575003

Licence Date: Dec 5 2018

**FORM-VI**

(See Rule 25(1))

1. Licence is hereby granted to **DRS INFRATECH PVT LTD, I-N-6-454/5, DADDAL KAD, NEAR INFOSYS, URWASTORE, ASHOKNAGAR, MANGALORE, 575006** 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 **UGO WORKS** in the establishment of **Commissioner, City Corporation Of Mangalore, Lalbagh, Mangalore**

3. The Licence shall remain in force till : **06/06/2020**

Renewal  
[Rule 28]

Sl no.	Date of licence	Renewal	Date of expiry	Fee paid for Licence Renewal	Next Date of expiry
1	01-07-2019		06-06-2020	LICENCE FEE 1500. PENALTY 375	06/06/2020

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

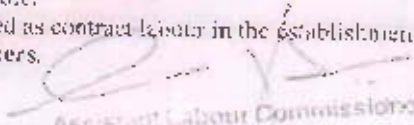
Assistant Labour Commissioner  
Mangalore Division, Mangalore  
MANGALORE DIVISION, MANGALORE

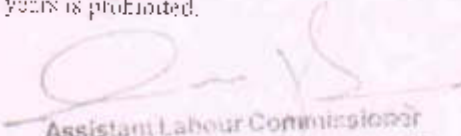


ANNEXURE

The license is subject to the following conditions:-

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

  
Assistant Labour Commissioner  
MANGALORE DIVISION, MANGALORE

  
Assistant Labour Commissioner  
MANGALORE DIVISION, MANGALORE

## **APPENDIX 24 - SITE SPECIFIC EMP- CONSTRUCTION STAGE-KUNDAPURA**



# LAXMI CIVIL ENGINEERING SERVICES PVT. LTD.

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Website : www.lcepl.com, (An ISO 9001 : 2015 Certified Company), CIN NO.: U74210PN2000PTC014696

No: LE/KUIDFC/KIUWMIP/02KDP01/EMP Dec -19/227/2018-19

Date: 30.12.2019

To,  
The Executive Engineer  
KUIDFC-KIUWMIP  
Tranche-2  
PIU, Kundapura

**Sub:-** Construction of works and services for Operation & Management of 24x7 Water Supply System for Kundapura town. Package-02KDP01"- **Submission EMP report for the Month of Dec-2019 reg;**

**Ref:-** 1) LOA letter no. TMC/WSS/CR no. 1 2017-2018 Dated: 28.10.2017  
2) Agreement dated: 19.12.2017

Dear sir,

With reference to the above subject we are here by submitting the EMP report for the month of Dec -2019 for your kind perusal

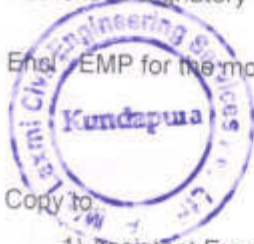
Thanking you & assuring our best services at all times.

For Laxmi Civil Engineering Services Pvt. Ltd.

*C. N. Vardhman*

Authorised Signatory

Enc. EMP for the month of Dec-19



Copy to:

- 1) Assistant Executive Engineer, KIUWMIP, PIU, Kundapura.
- 2) Team Leader, EGIS Consult, Mangalore.



*Forwarded to T-2 EGIS &  
Enr Engg Ravi Varan to check  
& go through into report & report  
accordingly at earliest.*

*AE  
31/12/2019*



# LAXMI CIVIL ENGINEERING SERVICES PVT. LTD.

DEC 2019.

## Environmental Management Plan for Anticipated Impacts – Construction Stage.

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Cost and Source of Funds	Implementation status
Environmental Management Plan (EMP) Implementation Training	Impacts on the environment, workers, and community due to improper implementation of EMP	(i) Project manager and all key workers will be required to undergo EMP implementation including spoils management, standard operating procedures (SOP) for construction works; occupational health and safety (OHS), core labor laws, applicable environmental laws, etc.; and (ii) appointment of Environmental, Health and Safety (EHS) Engineer by contractor prior to start of work.	Construction Contractor/ project implementation unit (PIU)/ Project Management Design and Construction Supervision Consultant (PMDSC)	(i) Certificate of Completion (Safeguards Compliance Orientation) (ii) Posting of Certification of Completion at worksites (iii) Posting of EMP at worksites	Cost of EMP implementation Orientation Training to contractor is responsibility of Program Management Unit (PMU).  Other costs responsibility of contractor.	Project manager and HSE Supervisors are made Aware of all relevant laws And procedures on OHS. EHS person is appointed Before commencement of Work.
Air Quality	Emissions from construction vehicles, equipment, and machinery used for installation of pipelines resulting to dusts and increase in concentration of vehicle-related pollutants such as carbon monoxide, sulphur oxides, particulate matter, nitrous oxides, and hydrocarbons.	(i) Consult with PMU/PMDSC on the designated areas for stockpiling of clay, soils, gravel, and other construction materials; (ii) Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather;  (iii) Use tarpaulins to cover sand and other loose material when transported by trucks; and (iv) Clean wheels and undercarriage of vehicles prior to leaving construction site; and (v) Fit all heavy equipment and machinery with air pollution control devices which are operating correctly.	Construction Contractor	(i) Location of stockpiles (ii) Complaints from sensitive receptors; (iii) Heavy equipment and machinery with air pollution control devices;  (iv) Certification that vehicles are compliant with Air Act	Cost for implementation of mitigation measures	All vehicles used for Operation must Compulsory have PUC Certificates and are in good condition. Water Sprayed on roads to avoid Dust generation on Regular intervals. Separate Water tanker is working Round the clock. Tarpaulins are used to cover the trucks Transporting earth materials Transportation vehicles are Well maintained and clean.
Surface water quality	Mobilization of settled silt materials, and chemical contamination from fuels and lubricants during installation of	(i) Prepare and implement a spoils management plan as the part of the Construction Management Plan; (ii) Avoid stockpiling of earth fill especially during the monsoon	Construction Contractor	(i) Areas for stockpiles, storage of fuels and lubricants and waste materials; (ii) Number of silt traps installed along trenches	Cost for implementation of mitigation measures responsibility of contractor.	Equipments are well maintained and there are No leakages in the machinery. Excavation work is not carried out during Monsoon period. There is no





	<p>pipelines can contaminate nearby</p> <p>surface water quality.</p>	<p>season unless covered by tarpaulins or plastic sheets;</p> <p>(iii) Install temporary silt traps or</p>	<p>leading to water bodies;</p> <p>(iii) Records of surface</p> <p>water quality</p>	<p>Water bodies near present Construction site, While Working near water bodies, Silt traps will be installed, Prepared spoil management Plan, Surface water bodies Are monitored. There is no visible degradation of water bodies in the working area.</p>
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Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Cost and Source of Funds	Implementation status
		sedimentation basins along the drainage leading to the water bodies; (iv) Laying of pipelines during dry season and closing of all trenches before rainy season and avoid any chances of collecting the water in the trenches or pumping; (v) Place storage areas for fuels and lubricants away from any drainage leading to water bodies. Storage structure should consider 110% capacity bund; (vi) Dispose any wastes generated by installation of pipeline in designated sites; and (vii) Conduct surface quality inspection according to the Environmental Management Plan (EMP).		inspection; (iv) Effectiveness of water management measures; (v) No visible degradation to nearby drainages, nallahs or water bodies due to civil works		
	Contamination of coastal water due to works in coastal zone	(i) All earthworks be conducted during dry season to prevent the problem of soil/silt run-off during rains; (ii) Avoid stockpiling of earth fill especially during the monsoon season unless covered by tarpaulins or plastic sheets; (iii) Install temporary silt traps or sedimentation basins along the drainage leading to the water bodies; (iv) Place storage areas for fuels and lubricants away from any drainage leading to water bodies. Storage structure should consider 110% capacity bund; (v) Store fuel, construction chemicals etc., on an impervious floor, also avoid spillage by careful handling; provide spill collection sets for effective spill management & (vi) Dispose any wastes generated by construction activities in designated sites.	Construction Contractor	(i) Areas for stockpiles, storage of fuels and lubricants and waste materials; (ii) Number of silt traps installed along trenches leading to water bodies; (iii) Records of surface water quality inspection; (iv) Effectiveness of water Management measures; (v) No visible degradation to nearby drainages, nallahs or water bodies due to Civil works	Cost for implementation of mitigation measures responsibility of contractor.	Before the start of monsoon, all environmental precautionary measures taken. Records of surface water quality inspection was done.

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Cost and Source of Funds	Implementation status
Noise Levels	Increase in noise level due to earth-moving and excavation equipment, and the transportation of equipment, materials, and people	<p>(i) Plan activities in consultation with PMU/PMDCSC so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance;</p> <p>(ii) Horns should not be used unless it is necessary to warn other road users or animals of the <b>vehicle's approach</b>;</p> <p>(iii) Minimize noise from construction equipment by using vehicle silencers, fitting jackhammers with noise-reducing mufflers, and portable street barriers the sound impact to surrounding sensitive receptor; and</p> <p>(iv) Maintain maximum sound levels not exceeding 80 decibels (dB) when measured at a distance of 10 m or more from the vehicle/s.</p>	Construction Contractor	<p>(i) Complaints from sensitive receptors;</p> <p>(ii) Use of silencers in noise-producing equipment and sound barriers; and</p> <p>(iii) Equivalent day and night time noise levels (Appendix 3)</p>	Cost for implementation of mitigation measures responsibility of contractor.	All vehicles have PUC certificates and are well maintained. Noise generated during operation will be curtailed to 80db(A). Presently no specific complaints are received. All equipments have silencers inbuilt in the noise generated areas.
Landscape and aesthetics	Impacts due to excess excavated earth, excess construction and demolition materials and solid waste such as removed concrete, wood, packaging materials, empty containers, spoils, oils, lubricants, and other	<p>(i) Prepare and implement spoils management plan;</p> <p>(ii) Avoid stockpiling of excess excavated soils;</p> <p>(iii) Coordinate with Kundapura TMC for beneficial uses of excess excavated soils or immediately dispose to designated areas;</p> <p>(iv) Recover used oil and lubricants and reuse or remove from sites;</p>	Construction Contractor	<p>(i) Complaints from sensitive receptors;</p> <p>(ii) Worksite clear of hazardous wastes such as oil/fuel; and</p> <p>(iii) Worksite clear of any excess excavated earth, excess construction materials, and solid waste such as removed concrete</p>	Cost for implementation of mitigation measures responsibility of contractor.	Hazardous materials are not used on site. On completion of work, the site will be made to its near original position. Other excess and unwanted materials will be disposed to a proper dumping site as recognised by authorities. Implemented spoil management Plan.

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Cost and Source of Funds	Implementation status
	similar items.	(v) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas; (vi) Remove all wreckage, rubbish, or temporary structures which are no longer required; and (vii) Request PMU/PMDCSC to report in writing that the necessary environmental restoration work has been adequately performed before acceptance of work.		wood, packaging materials, empty containers.		
Existing Infrastructure and Facilities	Disruption of service and damage to existing infrastructure at specified project location	(i) Obtain from PMU/PMDCSC the list of affected utilities and operators if any; (ii) Prepare a contingency plan to include actions to be done in case of unintentional interruption of service; and (iii) The public should be given notice at least three days in advance and any accidental breaking should be rectified immediately.	Construction Contractor	Existing Utilities Contingency Plan	Cost for implementation of mitigation measures responsibility of contractor.	Prior permission of compitant authorities will be taken before start of any work near public utilites and due protection measures will be taken.
Ecological Resources – Terrestrial	Loss of vegetation and tree cover	(i) Minimize removal of trees by adopting to site condition and with appropriate layout design (e.g., OHT at Kodi); (ii) Big old tree near Halekote OHT site shall not be removed or damaged; (iii) Develop Halekote OHT layout plan to avoid removal of any tree branches; In unavoidable case, limit pruning to the extent possible; contact forest department and plan pruning under their guidance to ensure that pruning do not damage the tree; (iv) For any tree cutting that may	Construction Contractor	PMU/PMDCSC to report in writing the no of trees cut and planted.	Cost for implementation of mitigation measures responsibility of contractor.	Minimise tree cutting will be undertaken only after permission forest dept. Care will be taken for ecological restoration by plantation of double the number of trees that are cut.



Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Cost and Source of Funds	Implementation status
		be required at other sites; obtain prior permission from Forest Department; and (v) Plant and maintain 10 trees for each tree that is removed.				
Accessibility	Traffic problems and conflicts near project locations and haul road	Traffic Management Plan should be part of the Construction Management Plan. (i) Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites; (ii) Schedule transport and hauling activities during non-peak hours; (iii) Locate entry and exit points in areas where there is low potential for traffic congestion; (iv) Keep the site free from all unnecessary obstructions; (v) Drive vehicles in a considerate manner; (vi) Coordinate with Traffic Police for temporary road diversions and with for provision of traffic aids if transportation activities cannot be avoided during peak hours; (vii) Notify affected sensitive receptors 2 days in advance by providing sign boards informing nature and duration of construction works and contact numbers for concerns/complaints; (viii) Plan and execute the work in such a way that the period of disturbance/ loss of access is minimum; and (ix) Provide pedestrian access in all the locations until normalcy is restored.	Construction Contractor	(i) Traffic route during construction works including number of permanent signages, barricades and flagmen on worksite (Appendix 11); (ii) Complaints from sensitive receptors; and (iii) Number of signages placed at project location.	Cost for implementation of mitigation measures  responsibility of contractor.	Traffic management plan is created. Operational planning will be undertaken as per the plan only. Local events and other peak hour traffics are taken in to consideration. Local traffic cell is made aware and an advance notice will also served to the traffic cell.
Socio-Economic –	Impede the access of	(i) Prepare and implement spoils	Construction	(i) Complaints from	Cost for implementation	

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Cost and Source of Funds	Implementation status
Income.	residents and customers to nearby shops	management plan; (ii) Leave spaces for access between mounds of soil; (iii) Provide walkways and metal sheets where required for people; (iv) Increase workforce in front of critical areas such as institutions, place of worship, business establishment, hospitals, and schools; (v) Consult businesses and institutions regarding operating hours and factoring this in work schedules; and (vi) Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.	Contractor	sensitive receptors; (ii) Spoils management plan; and (iii) Number of walkways, signages, and metal sheets placed at project location.	of mitigation measures responsibility of contractor.	Provided sign boards and caution boards to identify the hazards in it. Prepared spoil management plan.
Socio cultural resources	Disturbance to socio cultural resources (religious, educational, health care etc.), access disruptions etc.,	(i) No material should be stocked close to these areas; material shall be brought to the site as and when required; (ii) Conduct work manually with small group of workers and less noise; minimize use of equipment and vehicles; (iii) No work should be conducted near the religious places during religious congregations; (iv) Material transport to the site should be arranged considering school timings; material should be in place before school starts; (v) Notify concerned schools, hospitals etc., 2 weeks prior to the work; conduct a 30-minute awareness program on nature of work, likely disturbances and risks and construction work, mitigation	Construction Contractor	(i) Visual site observations (i) Public complaints	Cost for implementation of mitigation measures responsibility of contractor.	PUC is compulsory for vehicles used for operation. Noise levels are monitored and will be below 80dB(A).

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Cost and Source of Funds	Implementation status
		measures in place, entry restrictions and dos and don'ts; and (vi) Implement all measures suggested elsewhere in this report – dust and noise control, public safety, traffic management, strictly at the sites.				
Socio-Economic Employment	Generation of contractual employment and increase in local revenue	(i) Employ local labor force to the maximum extent, if manpower is available; and (iii) Comply with labor laws	Construction Contractor	(i) Employment records; (ii) Records of sources of materials; and (iii) Compliance to core labor laws (See Appendix 2 of this IEE)	Cost for implementation of mitigation measures responsibility of contractor.	100% local labour force is taken and records maintained. Applicable laws of labour are been taken.
Occupational Health and Safety	Occupational hazards which can arise during work	(i) Comply with all national, state and local core labor laws (Appendix 2); (ii) Develop and implement site-specific occupational health and safety (OHS) Plan, and include in the Construction Management plan. The OHS plan will include measures such as: (a) excluding public from the site; (b) ensuring all workers are provided with and use personal protective equipment like helmet, gumboot, safety belt, gloves, nose mask and ear plugs; (c) OHS Training for all site personnel; (d) documented procedures to be followed for all site activities; and (e) documentation of work-related accidents; (iii) Ensure that qualified first-aid can be provided at all times	Construction Contractor	(i) Site-specific OHS Plan; (ii) Equipped first-aid stations; (iii) Medical insurance coverage for workers; (iv) Number of accidents; (v) Supplies of potable drinking water; (vi) Clean eating areas where workers are not exposed to hazardous or noxious substances; (vii) record of H&S orientation trainings (viii) personal protective equipment; (ix) % of moving equipment outfitted with audible back-up alarms; (x) permanent sign	Cost for implementation of mitigation measures responsibility of contractor.	Organisations OHS plan is already in place. All relevant records are maintained. No reportable accidents has occurred during operational period. All staff are given basic amenities like water, toilets, shelter places, rest areas etc are provided as per local conditions. Provided all required PPEs. Kept permanent signages. Site specific training has been given. Good and clean accommodation are provided to the workers. Kept danger sign boards in all hazardous areas.



Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Cost and Source of Funds	
		<p>Equipped first-aid stations shall be easily accessible throughout the site;</p> <p>(iv) Provide medical insurance coverage for workers;</p> <p>(v) Secure all installations from unauthorized intrusion and accident risks;</p> <p>(vi) Provide supplies of potable drinking water;</p> <p>(vii) Provide clean eating areas where workers are not exposed to hazardous or noxious substances;</p> <p>(viii) Provide health and safety (H&amp;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>(ix) 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>(x) Ensure the visibility of workers through their use of high visibility vests when working in or walking through heavy equipment operating areas;</p> <p>(xi) Ensure moving equipment is outfitted with audible back-up alarms;</p> <p>(xii) Mark and provide sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing high</p>		<p>boards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal.</p> <p>(xi) Compliance to core labor laws (Appendix 2)</p>		



Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Cost and Source of Funds	Implementation status
		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 (xiii) Disallow worker exposure to noise level greater than 85 dB for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.				
Community Health and Safety.	Traffic accidents and vehicle collision with pedestrians during material and waste transportation	(i) Plan routes to avoid times of peak-pedestrian activities; (ii) Liaise with PMU/PMDCSC in identifying high-risk areas on route cards/maps; (iii) Maintain regularly the vehicles and use of manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure; and (iv) Provide road signs and flag persons to warn of on-going trenching activities.	Construction Contractor	(i) Traffic Management Plan; and (ii) Complaints from sensitive receptors	Cost for implementation of mitigation measures responsibility of contractor.	Traffic management plan document is created. Care is being taken to avoid accidents and ensure smooth traffic flow.
Work Camps and worksites	Temporary air and noise pollution from machine operation, water pollution from storage and use of fuels, oils, solvents, and lubricants  Unsanitary and poor living conditions for workers	(i) Consult with PIU before locating workers camps/sheds, and construction plants; as far as possible located at least 200 m from residential areas; (ii) Minimize removal of vegetation and disallow cutting of trees; (iii) Living facilities shall be built with adequate materials, and should be in good condition and free from rubbish and other refuse; (iv) The camp site should be adequately drained to avoid the	Construction Contractor	(i) Complaints from sensitive receptors; (ii) Drinking water and sanitation facilities for employees	Cost for implementation of mitigation measures responsibility of contractor.	Since we have 100% local labour force, there is no need to provide camps or sheds.

Field	Anticipated Impact	Mitigation Measures	Responsible for Mitigation	Monitoring of Mitigation	Cost and Source of Funds	Implementation status
	chance finds	chance finds during excavation work; (ii) Stop work immediately if any finds are suspected to allow further investigation; (iii) Inform archaeological agencies promptly if a find is suspected, and take any action they require to ensure its removal or protection in site; and (iv) Adjacent to important religious sites, undertake excavation and construction work in such a way that no structural damage is caused to the building.			responsibility of contractor.	There are no archaeological site in the operational area.
Submission of EMP implementation report	Unsatisfactory compliance to EMP	(i) Appointment of Environment, Health and Safety (EHS) Engineer to ensure EMP implementation; and (ii) Timely submission of monitoring reports including pictures.	Construction contractor	Availability and competency of appointed supervisor Monthly report	Cost for implementation of mitigation measures responsibility of contractor.	Environmental monitoring plan maintained and kept ready for use.
Post-construction clean-up	Damage due to debris, spoils, excess construction materials	(i) Remove all spoils wreckage, rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required; (ii) All excavated roads shall be reinstated to original condition. (iii) All disrupted utilities restored. (iv) All affected structures rehabilitated/compensated. (v) The area that previously housed the construction camp is to be checked for spills of substances such as oil, paint, etc. and these shall be cleaned up; (vi) All hardened surfaces within	Construction Contractor	PMU/PMDCSC report in writing that (i) worksite is restored to original conditions; (ii) camp has been vacated and restored to pre-project conditions; (iii) all construction related structures not relevant to operation and maintenance (O&M) are removed; and (iv) worksite clean-up is satisfactory.	Cost for implementation of mitigation measures responsibility of contractor.	Post completion of the construction work, the area of operation and the surrounding area will be restored to the nearest origin.

# ANALYSIS OF ACCIDENT

Month DEC 2019

Sl no	DATE	Name of person	Age	Sex	Time	Designation	Company	Agency	Type of accident	Nature of injury	Root cause	Action taken
	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-

No Reportable accident in this month.



*[Signature]*  
CONSULTANT ENGINEER

*[Signature]* ABB  
PIU ENGINEER

Sample	Site/s	Responsibility	Parameter to Monitor	Frequency	Samples
<b>Construction Stage</b>					
Ambient air quality and noise	10 points (shall be selected during construction)	Contractor	SPM, RSPM, SO <sub>x</sub> , NO <sub>x</sub> Day and night time noise (dB) Monitoring method as prescribed by CPCB	Once before start of construction Quarterly (yearly 4-times) during construction period of 24 months – 9 times	80 samples
Noise Level	10 points (shall be selected during construction)	Contractor	Noise level	Once before start of construction Quarterly (yearly 4-times) during construction period of 24 months – 9 times	80 samples
Surface Water Quality	2 points in nearest water bodies/ rivers that are on the downstream side of work sites (exact points to be selected during implementation)	Contractor	River Water quality – standard parameters	Once before start of construction Quarterly (yearly 4-times) during construction	14 samples (@ 2 points in 18 months)
<b>Operation Stage</b>					
Source (raw) water quality	Intake in River	Contractor/ O&M Operator	Water quality parameters (all including pesticides, heavy metals)	Once prior to start of operation and monthly during operation	12 measurements per year
Treated water quality	At the WTP outlet	Contractor/ O&M Operator	All Drinking water parameters	Monthly once during operation	Operating costs (water quality will be tested at the internal laboratory to be established in the project at WTP)
Health and safety during O&M period	All water treatment plants	Contractor / O&M operator	Incidents and near misses during construction and operation against performance targets of zero incident	Monthly	

CPCB = Central Pollution Control Board, dB = decibel, NO<sub>x</sub> = nitrogen oxide, O&M = operation and maintenance, RSPM = respirable suspended particulate matter, SO<sub>x</sub> = sulphur oxide, SPM = suspended particulate matter, WTP = water treatment plant.

Name \_\_\_\_\_

## **APPENDIX 25 - SITE SPECIFIC EMP- CONSTRUCTION STAGE-PUTTUR WSS**





## Site Specific Environmental Management Plan for Anticipated Impacts –Construction – PUTTUR

MONTH:- DECEMBER 2019

Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for Mitigation	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
EMP Implementation Training	Impacts on the environment, workers, and community due to improper implementation of EMP	<p>(i) Project manager and all key workers will be required to undergo EMP implementation including spoils management, Standard operating procedures (SOP) for construction works; occupational health and safety (OHS), core labour laws, applicable environmental laws, etc.</p> <p>(ii) appointment of Environment, Health and Safety (EHS) Engineer by contractor prior to start of work</p>	<p>(i) once prior to the start of construction and as and when the project manager and key workers change</p> <p>(ii) once before the start of work</p>	Construction Contractor/ PIU/ PMDCSC	<p>(i) Certificate of Completion (Safeguards Compliance Orientation)</p> <p>(ii) Posting of Certification of Completion at worksites</p> <p>(iii) Posting of EMP at worksites</p>	RPMU/PMU/ULB	EMP Implementation Orientation Training to contractor is responsibility of PMU.	<p>Project Manager, HSE Officer are made aware of all the relevant Rules and regulations of EHS.</p> <p>HSE officer appointed before commencement of work.</p>
Air Quality	Emissions from construction vehicles, equipment, and machinery used for installation of pipelines resulting to dusts and increase in concentration of vehicle-related pollutants such as carbon monoxide, sulfur oxides, particulate matter, nitrous oxides, and hydrocarbons.	<p>(i) Consult with PIU/PMDSC on the designated areas for stockpiling of clay, soils, gravel, and other construction materials;</p> <p>(ii) Damp down exposed soil and any stockpiled on site by spraying with water when necessary during dry weather;</p> <p>(iii) Use tarpaulins to cover sand and other loose material when transported by trucks;</p> <p>(iv) Clean wheels and undercarriage of vehicles prior to leaving construction site</p> <p>(v) Fit all heavy equipment and machinery with air pollution control devices which are operating correctly</p>	<p>(i) once for each work site</p> <p>(ii) on a daily basis each area</p> <p>(iii) once each truck</p> <p>(iv) once each truck</p> <p>(v) once when the equipment is used</p>	Construction Contractor	<p>(i) Location of stockpiles;</p> <p>(ii) Complaints from sensitive receptors;</p> <p>(iii) Heavy equipment and machinery with air pollution control devices;</p> <p>(iv) Certification that vehicles are compliant with Air Act</p>	PMDSC/PIU/ RPMU/PMU/ULB	implementation of mitigation measures	All vehicles used for operations must compulsorily have PUC certificates and are in good working conditions.



Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for Mitigation	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
			SPM, RSPM, SOx, NOx Day and night time noise (dBA) Monitoring method As prescribed by Central Pollution Control Board Once before start of construction Quarterly (yearly 4-times) during construction period of 24 months – 108 samples					
Surface water quality	Mobilization of settled silt materials, and chemical contamination from fuels and lubricants during installation of pipelines can contaminate nearby surface water quality.	<p>(i) Prepare and implement a spoils management plan as the part of the Construction Management Plan.</p> <p>(ii) Avoid stockpiling of earth fill especially during the monsoon season unless covered by tarpaulins or plastic sheets;</p> <p>(ii) Install temporary silt traps or sedimentation basins along the drainage leading to the water bodies;</p> <p>(iii) Place storage areas for fuels and lubricants away from any drainage leading to water bodies. Storage structure should consider 110% capacity bund;</p> <p>(iv) Dispose any wastes generated by installation of</p>	<p>(i) once before start of works, update as required.</p> <p>(ii) once every day during rainy days</p> <p>(ii) as and when required</p> <p>(iii) once every day</p> <p>(iv) as and when required</p>	Construction Contractor	<p>(i) Areas for stockpiles, storage of fuels and lubricants and waste materials;</p> <p>(ii) Number of silt traps installed along trenches leading to water bodies;</p> <p>(iii) Records of surface water quality inspection;</p> <p>(iv) Effectiveness of water management measures;</p> <p>(v) No visible degradation to nearby drainages, nallahs or waterbodies due to civil works</p>	PMD/CSC/PIU/RPMU/PMU/ULB	Implementation of mitigation measures.	Surface water bodies are monitored.





Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
		pipeline in designated sites; and (v) Conduct surface quality inspection according to the Environmental Management Plan (EMP).	Water quality –standard parameters Once before start of construction. Quarterly (yearly 4-times) during Construction (14 samples)	Mitigation				
Noise Levels	Increase in noise level due to earth-moving and excavation equipment, and the transportation of equipment, materials, and people	(i) Plan activities in consultation with PIU/PMDCSC so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance;  (ii) Horns should not be used unless it is necessary to warn other road users or animals of the vehicle's approach;  (iii) Minimize noise from construction equipment by using vehicle silencers, fitting jackhammers with noise-reducing mufflers, and portable street barriers the sound impact to surrounding sensitive receptor;  (iv) Properly enclose the dismantling area with temporary noise barriers (v) Maintain maximum sound levels not exceeding 80 decibels (dbA) when measured at a distance of 10m or more from the vehicle/s	(i) once for each work site  (ii) every day at each work site  (iii) as and when required at each work site  (iv) as and when required where dismantling takes place  (v) once before using each equipment	Construction Contractor	(i) Complaints from sensitive receptors;  (ii) Use of silencers in noise-producing equipment and sound barriers;  (iii) Equivalent day and night time noise levels (See Appendix 3 of this IEE)	PMDCSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures.	Noise generated during operations will be curtailed to below and noise levels are Monitored.



Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
			Noise level Once before start of construction Quarterly (yearly 4-times) during construction period of 24 months – 108 samples	Mitigation				
Landscape and aesthetics	Impacts due to excess excavated earth, excess construction materials, and solid waste such as removed concrete, wood, packaging materials, empty containers, spoils, oils, lubricants, and other similar items. C & D materials after dismantling of the old WTP and old GLSR are identified	(i) Prepare and implement spoils management plan (ii) Avoid stockpiling of excess excavated soils; (iii) Coordinate with Puttur CMC for beneficial uses of excess excavated soils or immediately dispose to designated areas; (iv) Recover used oil and lubricants and reuse or remove from the sites; (v) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas; (vi) Remove all wreckage, rubbish, or temporary structures which are no longer required; and (vi) Request PMU/PMDSC to report in writing that the necessary environmental restoration work has been adequately performed before acceptance of work. (vii) C & D materials after dismantling of the old WTP and old GLSR shall	(i) once and update as and when required (ii) once every day at stockpile location (iii) once before disposal of soil (iv) once in a month where oil/lubricants are used (v) once every day (vi) once in a month (vi) once work is completed	Construction Contractor	(i) Complaints from sensitive receptors; (ii) Worksite clear of hazardous wastes such as oil/fuel (iiv) Worksite clear of any excess excavated earth, excess construction materials, and solid waste such as removed concrete, wood, packaging materials, empty containers	PMDSC/PIU/RPMU/PMU/ULB	Implementation of mitigation measures.	Hazardous materials are not used on site. And if any debris found it should be removed.

(Signature)



(Signature)

Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
		be managed as per C & D Rules 2016,		Mitigation				
Existing Infrastructure and Facilities	Disruption of service and damage to existing infrastructure at specified project location	(i) Obtain from PIU/PMDCSC the list of affected utilities and operators if any; (ii) Prepare a contingency plan to include actions to be done in case of unintentional interruption of service;(iii) The public should be given notice at least three days in advance and any accidental breaking should be rectified immediately.	(i) once when the service is disrupted (ii) once for the each area disrupted (iii) as and when required when the disruption is planned	Construction Contractor	Existing Utilities Contingency Plan	PMDCSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures.	If any work near public utilities and due protection measures will be taken.
Ecological Resources— Terrestrial	Loss of vegetation and tree cover	Minimal tree cutting is envisaged as part of this sub project. to safeguard any tree removal, following measures to be implemented (i) Minimize removal of vegetation and disallow cutting of trees; (ii) If tree-removal will be required, obtain tree-cutting permit from the Forest Department; and (iii) Plant two native trees for every one that is removed.	Once during design validation; once before removal of trees and after removal of tree after approval of FD; once in quarter after replanning	Construction Contractor	Design validation report; no. of trees cut and no. of trees planned as per direction of FD	PMU/PMDCSC to report in writing the no of trees cut and planted.	Implementation of mitigation measures.	Will be ensured during the construction period
Accessibility	Traffic problems and conflicts near project locations and haul road	Traffic Management Plan (TMP) should be part of the Construction Management Plan. (i) Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites;	Once before the start of work  (i) once for each work site.	Construction Contractor	(i) Traffic route during construction works including number of permanent signages, barricades and flagmen on worksite (Appendix 7);	PMDCSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures.	Traffic management plan is submitted to concerned authorities. Precaution measures as per the plan





Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	
					Activity	Responsibility		
		(ii) Schedule transport and hauling activities during non-peak hours; (iii) Locate entry and exit points in areas where there is low potential for traffic congestion; (iv) Keep the site free from all unnecessary obstructions; (v) Drive vehicles in a considerate manner; (vi) Coordinate with Traffic Police for temporary road diversions and with for provision of traffic aids if transportation activities cannot be avoided during peak hours; (vii) Notify affected sensitive receptors 2 days in advance by providing sign boards informing nature and duration of construction works and contact numbers for concerns/complaints. (viii) Plan and execute the work in such a way that the period of disturbance/loss of access is minimum. (xi) Provide pedestrian access in all the locations until normalcy is restored.	(ii) every day at all work fronts (iii) every day at all work fronts (iv) every day at all work fronts (iv) at all times (vi) everyday in high traffic work sites. (vii) at all work sites once (viii) every day at each work site (x) every day at each work site	Mitigation	(ii) Complaints from sensitive receptors; (iii) Number of signages placed at project location.			Local traffic cell is made aware and an advance information will also be served to the traffic .
Socio-Economic – Income.	Impede the access of residents and customers to nearby shops	(i) Prepare and implement spoils management plan (ii) Leave spaces for access between mounds of soil; and Provide walkways and metal sheets where required for people; (iii) Increase workforce in front of critical areas such	(i) once for each work site (ii) as and when required (iii) as and when required	Construction Contractor	(i) Complaints from sensitive receptors; (ii) Spoils management plan (iii) Number of walkways, signages, and metal sheets placed at project location.	PMDSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures responsibility of contractor.	Will be ensured during the construction period



Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for Mitigation	Monitoring of Mitigation		Cost and Source of Funds	
					Activity	Responsibility		
		<p>as institutions, place of worship, business establishment, hospitals, and schools;</p> <p>(iv) Consult businesses and institutions regarding operating hours and factoring this in work schedules; and</p> <p>(v) Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.</p>	<p>(iv) once at each work site/front</p> <p>(v) once for each work site</p>					
Socio-Economic - Employment	Generation of contractual employment and increase in local revenue	<p>(i) Employ local labor force to the maximum extent, if manpower is available;</p> <p>(ii) Comply with labor laws</p>	<p>(i) once at the beginning of start of construction</p> <p>(ii) everyday</p>	Construction Contractor	<p>(i) Employment records;</p> <p>(ii) Records of sources of materials</p> <p>(iii) Compliance to core labor laws (See appendix 2 of this IEE)</p>	PMD/CSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures responsibility of contractor.	Applicable Labour are been taken..
Occupational Health and Safety	Occupational hazards which can arise during work	<p>(i) Comply with all national, state and local core labor laws (See Appendix 2 of this IEE)</p> <p>(ii) Develop and implement site-specific occupational health and safety (OHS) Plan, and include in the Construction Management plan. The OHS plan will include measures such as: (a) excluding public from the site; (b) ensuring all workers are provided with and use personal protective equipment like helmet, gumboot, safety belt, gloves, nose mask and ear plugs; (c) OHS Training for all site personnel; (d)</p>	<p>(i) every day</p> <p>(ii) once before construction of each component of the water supply system</p>	Construction Contractor	<p>(i) Site-specific OHS Plan;</p> <p>(ii) Equipped first-aid stations;</p> <p>(iii) Medical insurance coverage for workers;</p> <p>(iv) Number of accidents;</p> <p>(v) Supplies of potable drinking water;</p> <p>(vi) Clean eating areas where workers are not exposed to hazardous or noxious substances;</p>	PMD/CSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures responsibility of contractor.	<p>OHS manual plan is already in place.</p> <p>All relevant records are maintained.</p>



Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	
					Activity	Responsibility		
		<p>documented procedures to be followed for all site activities; and (c) documentation of work-related accidents;</p> <p>(ii) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site;</p> <p>(iii) Provide medical insurance coverage for workers;</p> <p>(iv) Secure all installations from unauthorized intrusion and accident risks;</p> <p>(v) Provide supplies of potable drinking water;</p> <p>(vi) Provide clean eating areas where workers are not exposed to hazardous or noxious substances;</p> <p>(vii) Provide health and safety 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; (viii) 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>(ix) Ensure the visibility of workers through their use of high visibility vests when working in or walking</p>	<p>(ii) every day</p> <p>(iii) once after employment renewed annual</p> <p>(iv) every day</p> <p>(v) as and when required</p> <p>(vi) as required</p> <p>(vii) once before starting of work and every month to the key workers changed</p> <p>(viii) when visitor visit the site as authorized by PIU</p> <p>(ix) as and when required</p>	Mitigation	<p>(vii) record of health and safety orientation trainings</p> <p>(viii) personal protective equipment;</p> <p>(ix) % of moving equipment outfitted with audible back-up alarms;</p> <p>(xi) permanent sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal.</p> <p>(xii) Compliance to core labor laws (See appendix 2 of this IEE)</p>			





Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for Mitigation	Monitoring of Mitigation		Cost and Source of Funds	
					Activity	Responsibility		
		<p>through heavy equipment operating areas;</p> <p>(x) Ensure moving equipment is outfitted with audible back-up alarms; (xi) 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 (xii) Disallow worker exposure to noise level greater than 85 dBA for a duration of more than 8 hours per day without hearing protection. The use of hearing protection shall be enforced actively.</p>	<p>(x) every day if fitted with alarms when such equipment is used.</p> <p>(xi) once after construction is completed and revisit and take action following incidents</p> <p>(xii) every day once</p>					
Community Health and Safety.	Traffic accidents and vehicle collision with pedestrians during material and waste transportation	<p>(i) Plan routes to avoid times of peak-pedestrian activities.</p> <p>(ii) Liaise with PIU/PMDSC in identifying high-risk areas on route cards/maps.</p> <p>(iii) Maintain regularly the vehicles and use of manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure.</p>	<p>(i) every day at each work site</p> <p>(ii) every day once especially in dense traffic areas</p> <p>(iii) every day as required</p>	Construction Contractor	<p>(i) Traffic Management Plan;</p> <p>(ii) Complaints from sensitive receptors</p>	PMDSC/PIU/RPMU/PMU/ULB	Implementation of mitigation measures responsibility of contractor.	traffic management plan has been already submitted and is in Implementation stage. care is being taken to avoid accidents.



Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	
					Activity	Responsibility		
		(iv) Provide road signs and flag persons to warn of on-going trenching activities.	(iv) once before commencement of work at each	Mitigation				
Work Camps and worksites	Temporary air and noise pollution from machine operation, water pollution from storage and use of fuels, oils, solvents, and lubricants  Unsanitary and poor living conditions for workers	(i) Consult with PIU before locating workers camps/sheds, and construction plants; as far as possible located at least 200 m from residential areas.  (ii) Minimize removal of vegetation and disallow cutting of trees  (iii) Living facilities shall be built with adequate materials, and should be in good condition and free from rubbish and other refuse  (iv) The camp site should be adequately drained to avoid the accumulation of stagnant water  (v) Provide water and sanitation facilities; water, meeting Indian drinking water standards shall be provided, in adequate quantities (supply of 60- 80 LPCD); all water storage structures must be cleaned regularly and covered properly to avoid any contamination  (vi) Provide separate facilities for men and women; sanitary facilities shall be properly built and well maintained; toilet and bath facilities should be provided on basis of 1 per 15 or less persons	(i) once before locating the same  (ii) once before setup of location  (iii) every day once  (iv) every day once  (v) every day once  (vii) once in the establishment of facility and every day maintenance	Construction Contractor	(i) Complaints from sensitive receptors;  (ii) Drinking water and sanitation facilities for employees	PMD/CSC/PIU/ RPMU/PMU/ULB	implementation of mitigation measures responsibility of contractor	Provided camp/sheds to workers.



Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for Mitigation	Monitoring of Mitigation		Cost and Source of Funds	
					Activity	Responsibility		
		(vii) Train employees in the storage and handling of materials which can potentially cause soil contamination; (viii) Recover used oil and lubricants and reuse or remove from the site; (ix) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas; (x) Remove all wreckage, rubbish, or temporary structures which are no longer required; and (xi) Report in writing that the camp has been vacated and restored to pre- project conditions before acceptance of work. (xii) The work camp details should be included in the Construction Management Plan.	(vii) once before start of work at each worksite and when there is a change in key workers (viii) once every month (ix) every day once (x) as and when required with minimum of once per month (xi) one time once vacated (xii) once before setup and once before change in plan					
Social and Cultural Resources	Risk of archaeological chance finds	(i) Create awareness among the workers and supervisors about the chance finds during excavation work (ii) Stop work immediately if any finds are suspected to allow further investigation (iii) Inform archaeological agencies promptly if a find is suspected, and take any action they require to ensure its removal or protection in site	(i) once before construction and repeat when key workers are changed (ii) as and when required (iii) as and when required (iv) as and when required	Construction Contractor	Records of chance finds	PMDSC/PIU/RPMU/PMU/ULB	Implementation of mitigation measures responsibility of contractor.	There are no archaeological site in the working area.



	Impact			for Mitigation			of Funds	
		(iv) Adjacent to important religious sites, undertake excavation and construction work in such a way that no structural damage is caused to the building.						
Submission of EMP implementation report	Unsatisfactory compliance to EMP	(i) Appointment of EHS engineer to ensure EMP implementation (ii) Timely submission of monitoring reports including pictures	(i) once before start of construction and once after replacement (ii) monthly	Construction contractor	Availability and competency of appointed EHS engineer Monthly report	PMDSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures responsibility of contractor.	Updated and submitted
Post-construction clean-up	Damage due to debris, spoils, excess construction materials	(i) Remove all spoils wreckage, rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required; and  (ii) All excavated roads shall be reinstated to original condition.  (iii) All disrupted utilities restored  (iv) All affected structures rehabilitated/compensated (v) The area that previously housed the construction camp is to be checked for spills of substances such as oil, paint, etc. and these shall be cleaned up.  (vi) All hardened surfaces within the construction camp area shall be ripped, all imported materials removed, and the area shall be topsoiled and regrassed using the guidelines set out in the revegetation	(i) Every day or as and when required  (ii) every day or as and when required  (iii) every day or as and when required (iv) every day or as and when required (v) once after vacating the camp  (vi) once after vacating the site  (vii) once after vacating the site and follow up as required till	Construction Contractor	PMU/PMDSC report in writing that (i) worksite is restored to original conditions; (ii) camp has been vacated and restored to pre-project conditions;  (iii) all construction related structures not relevant to O&M are removed; and (iv) worksite clean-up is satisfactory.	PMDSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures responsibility of contractor.	If any debris found will be restored at dump area.





Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for Mitigation	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
		specification that forms part of this document.  (vii) The contractor must arrange the cancellation of all temporary services. (viii) Request PMU/PMDCSC to report in writing that worksites and camps have been vacated and restored to pre-project conditions before acceptance of work.	completion of task  (viii) once after all above tasks are complete					

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## **APPENDIX 26 - SITE SPECIFIC EMP- CONSTRUCTION STAGE-UDUPI WSS**



Ref: SPPL/SIPL/DRS JV /KUIDFC /UCMC/0150/2019-20

Date:- 31<sup>th</sup> December -2019

To

The Executive Engineer  
KUIDFC-KIUWMIP, Jalsari Tranch-2  
PIU-Udupi

**Sub:** KUIDFC-KIUWMIP-construction work of services for operation and management of 24x7 water supply system for Udupi city -package No 02UDP01"-**Submission of EMP report December 2019,Udupi.**

**Ref:** 1.LOA letter no UCMC/UDUPI/KUIDFC/ADB/udp03/2018-19/Dated 10.10.2018

2.Contract Agreement Dated 16.11.2018

Dear Sir,

In view of the above subject, we hereby submit the EMP report for month December 2019.

Thanking you and assuring you our best services at all times.

For SPPL-SIPL-DRS JV

Authorized Signatory

Encl: Report enclosed



CC: 1. Deputy Project Director, KUIDFC-KIUWMIP, Jalsari Tranch-2, RPMU, Mangaluru  
2.The Commissioner, City Municipal Council, Udupi  
3.Team Leader -Egis India Consulting Engineers Pvt Ltd, Mangaluru



**Construction of Works and Services for Operation and Management of 24X7 Water Supply System for udupi**  
**Site Specific Environmental Management Plan for Anticipated Impacts –Construction – Udupi**



Month: - December 2019

Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for Mitigation	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
EMP Implementation Training	Impacts on the environment, workers, and community due to improper implementation of EMP	(i) Project manager and all key workers will be required to undergo EMP implementation including spoils management, Standard operating procedures (SOP) for construction works; occupational health and safety (OHS), core labor laws, applicable environmental laws, etc.  (ii) appointment of Environment, Health and Safety (EHS) Engineer by contractor prior to start of work	(i) once prior to the start of construction and as and when the project manages and key workers change  (ii) once before the start of work	Construction Contractor / PIU / PMDCSC	(i) Certificate of Completion (Safeguards Compliance Orientation)  (ii) Posting of Certification of Completion at worksites  (iii) Posting of EMP at worksites	RPMU/PMU/ULB	EMP Implementation Orientation Training to contractor is responsibility of PMU.	Project Manager, HSE Officer are made aware of all the relevant Rules and regulations of EHS.  HSE officer appointed before commencement of work.
Air Quality	Emissions from construction vehicles, equipment, and machinery used for installation of pipelines resulting to dusts and increase in concentration of vehicle-related pollutants such as carbon monoxide, sulfur oxides, particulate matter, nitrous oxides, and hydrocarbons.	(i) Consult with PIU/PMDSC on the designated areas for stockpiling of clay, soils, gravel, and other construction materials;  (ii) Damp down exposed soil and any stockpiled-on site by spraying with water when necessary during dry weather;  (iii) Use tarpaulins to cover sand and other loose material when transported by trucks;  (iv) Clean wheels and undercarriage of vehicles prior to leaving construction site  (v) Fit all heavy equipment and machinery with air pollution control devices which are operating correctly	(i) once for each work site  (ii) on a daily basis each area  (iv) once each truck  (v) once when the equipment is used	Construction Contractor	(i) Location of stockpiles;  (ii) Complaints from sensitive receptors;  (iii) Heavy equipment and machinery with air pollution control devices;  (iv) Certification that vehicles are compliant with Air Act	PMDSC/PIU/ RPMU/PMU/ULB	implementation of mitigation measures	All vehicles used for operations must compulsorily have PUC certificates and are in good working conditions. And pre construction Air quality test reports is submitted.

Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
			SPM, RSPM, Sox, NOx Day and night time noise (dBA) Monitoring method As prescribed by Central Pollution Control Board Once before start of construction Quarterly (yearly 4-times) during construction period of 24 months					
Surface water quality	Mobilization of settled silt materials, and chemical contamination from fuels and lubricants during installation of pipelines can contaminate nearby surface water quality.	<p>(i) Prepare and implement a spoils management plan as the part of the Construction Management Plan.</p> <p>(ii) Avoid stockpiling of earth fill especially during the monsoon season unless covered by tarpaulins or plastic sheets;</p> <p>(ii) Install temporary silt traps or sedimentation basins along the drainage leading to the water bodies;</p> <p>(iii) Place storage areas for fuels and lubricants away from any drainage leading to water bodies. Storage structure should consider 110% capacity bund;</p> <p>(iv) Dispose any wastes generated by installation of</p>	<p>(i) once before start of works, updates required.</p> <p>(ii) once every day during rainy days</p> <p>(ii) as and when required</p> <p>(iii) once every day</p> <p>(iv) as and when required</p> <p>(v) Water quality – standard parameters Once before start of construction. Quarterly</p>	Construction Contractor	<p>(i) Areas for stockpiles, storage of fuels and lubricants and waste materials;</p> <p>(ii) Number of silt traps installed along trenches leading to water bodies;</p> <p>(iii) Records of surface water quality inspection;</p> <p>(iv) Effectiveness of water management measures;</p> <p>(v) No visible degradation to nearby drainages, nallahs or waterbodies due to civil works</p>	PMDSC/PIU/RPMU/PMU/ULB	Implementation of mitigation measures.	Surface water bodies are monitored. And pre construction water quality test reports is submitted

Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
		<p>pipeline in designated sites;</p> <p>(v) Conduct surface quality inspection according to the Environmental Management Plan (EMP).</p>						
Noise Levels	Increase in noise level due to earth-moving and excavation equipment, and the transportation of equipment, materials, and people	<p>(i) Plan activities in consultation with PIU/PMDCSC so that activities with the greatest potential to generate noise are conducted during periods of the day which will result in least disturbance;</p> <p>(ii) Horns should not be used unless it is necessary to warn other road users or animals of the vehicle's approach;</p> <p>(iii) Minimize noise from construction equipment by using vehicle silencers, fitting jackhammers with noise-reducing mufflers, and portable street barriers the sound impact to surrounding sensitive receptor;</p> <p>(iv) Properly enclose the dismantling area with temporary noise barriers (v) Maintain maximum sound levels not exceeding 80</p>	<p>(i) once for each work site</p> <p>(ii) every day at each work site</p> <p>(iii) as and when required at each work site</p> <p>(iv) as and when required where dismantling takes place</p> <p>(v) once before using each equipment</p>	Construction Contractor	<p>(i) Complaints from sensitive receptors;</p> <p>(ii) Use of silencers in noise-producing equipment and sound barriers;</p> <p>(iii) Equivalent day and night time noise levels (See Appendix 3 of this IEE)</p>	PMDCSC/PIU/RPMU/PMU/ULB	Implementation of mitigation measures.	Noise generated during operations will be curtailed to below and noise levels are Monitored. And pre construction noise test reports is submitted



Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
			Noise level Once before start of construction Quarterly (yearly 4-times)					
Landscape and aesthetics	Impacts due to excess excavated earth, excess construction materials, and solid waste such as removed concrete, wood, packaging materials, empty containers, spoils, oils, lubricants, and other similar items.	(i) Prepare and implement spoils management plan (ii) Avoid stockpiling of excess excavated soils; (iii) Coordinate with Udupi CMC for beneficial uses of excess excavated soils or immediately dispose to designated areas; (iv) Recover used oil and lubricants and reuse or remove from the sites; (v) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas; (vi) Remove all wreckage, rubbish, or temporary structures which are no longer required; and	(i) once and update as and when required (ii) once every day at stockpile location (iii) once before disposal of soil (iv) once in a month where oil/lubricants are used (v) once every day (vi) once in a month (vi) once work is completed	Construction Contractor	(i) Complaints from sensitive receptors; (ii) Worksite clear of hazardous wastes such as oil/fuel (iv) Worksite clear of any excess excavated earth, excess construction materials, and solid waste such as removed concrete, wood, packaging materials, empty containers	PMDSC/PIU/RPMU/PMU/ULB	Implementation of mitigation measures.	Hazardous materials are not used at site.

Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
Existing Infrastructure and Facilities	Disruption of service and damage to existing infrastructure at specified project location	(i) Obtain from PIU/PMDSC the list of affected utilities and operators if any;  (ii) Prepare a contingency plan to include actions to be done in case of unintentional interruption of service (iii) The public should be given notice at least three days in advance and any accidental breaking should be rectified immediately.	(i) once when the service is disrupted  (ii) once for each area disrupted  (iii) as and when required when the disruption is planned	Construction Contractor	Existing Utilities Contingency Plan	PMDSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures.	If any work near public utilities and due protection measures will be taken.
Ecological Resources – Terrestrial	Loss of vegetation and tree cover	Minimal tree cutting is envisaged as part of this sub project. to safeguard any tree removal, following measures to be implemented  (i) Minimize removal of vegetation and disallow cutting of trees;  (ii) If tree-removal will be required, obtain tree-cutting permit from the Forest Department; and (iii) Plant.	Once during design validation; once before removal of trees and after removal of tree after approval of FD; once in quarter after preplanning.	Construction Contractor	Design validation report; no. of trees cut and no. of trees planned as per direction of FD	PMU/PMDSC to report in writing the no of trees cut and planted.	Implementation of mitigation measures.	Care will be taken for ecological.
Accessibility	Traffic problems and conflicts near project locations and haul road	Traffic Management Plan (TMP) should be part of the Construction Management Plan.  (i) Plan transportation routes so that heavy vehicles do not use narrow local roads, except in the immediate vicinity of delivery sites;	Once before the start of work  (i) once for each work site.	Construction Contractor	(i) Traffic route during construction works including number of permanent signages, barricades and flagmen on worksite (Appendix	PMDSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures.	Traffic management plan is submitted to concerned authorities. Precaution measures as per the plan

Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
		(ii) Schedule transport and hauling activities during non-peak hours; (iii) Locate entry and exit points in areas where there is low potential for traffic congestion; (iv) Keep the site free from all unnecessary obstructions; (v) Drive vehicles in a considerate manner; (vi) Coordinate with Traffic Police for temporary road diversions and with for provision of traffic aids if transportation activities cannot be avoided during peak hours; (vii) Notify affected sensitive receptors 2 days in advance by providing sign boards informing nature and duration of construction works and contact numbers for concerns/complaints. (viii) Plan and execute the work in such a way that the period of disturbance/ loss of access is minimum. (xi) Provide pedestrian	(ii) every day at all work fronts (iii) every day at all work fronts (iv) every day at all work fronts (iv) at all times (vi) every day in high traffic work sites. (vii) at all work sites once (viii) every day at each work site (x) every day at each work site		(ii) Complaints from sensitive receptors; (iii) Number of signages placed at project location.			Local traffic cell is made aware and an advance information will also be served to the traffic.
Socio-Economic – Income.	Impede the access of residents and customers to nearby shops	(i) Prepare and implement spoils management plan (ii) Leave spaces for access between mounds of soil; and Provide walkways and metal sheets where required for people; (iii) Increase workforce in front of critical areas such	(i) once for each work site (ii) as and when required (iii) as and when required	Construction Contractor	(i) Complaints from sensitive receptors; (ii) Spoils management plan (iii) Number of walkways, signages, and metal sheets placed at project location.	PMD/CSC/PIU/RPMU/PMU/ULB	Implementation of mitigation measures responsibility of contractor.	if applicable will be ensure.

Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for Mitigation	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
		<p>as institutions, place of worship, business establishment, hospitals, and schools;</p> <p>(iv) Consult businesses and institutions regarding operating hours and factoring this in work schedules; and</p> <p>(v) Provide sign boards for pedestrians to inform nature and duration of construction works and contact numbers for concerns/complaints.</p>	<p>(iv) once at each work site/front</p> <p>(v) once for each work site</p>					
Socio-Economic - Employment	Generation of contractual employment and increase in local revenue	<p>(i) Employ local labor force to the maximum extent, if manpower is available;</p> <p>(ii) Comply with labor laws</p>	<p>(i) once at the beginning of start of construction</p> <p>(ii) everyday</p>	Construction Contractor	<p>(i) Employment records;</p> <p>(ii) Records of sources of materials</p> <p>(iii) Compliance to core labor laws (See appendix 2 of this IEE)</p>	PMDSC/PIU/RPMU/PMU/UL B	Implementation of mitigation measures responsibility of contractor.	If Applicable will be taken.
Occupational Health and Safety	Occupational hazards which can arise during work	<p>(i) Comply with all national, state and local core labor laws (See Appendix 2 of this IEE)</p> <p>(ii) Develop and implement site-specific occupational health and safety (OHS) Plan, and include in the Construction Management plan. The OHS plan will include measures such as: (a) excluding public from the site; (b) ensuring all workers are provided with and use personal protective equipment like helmet, gumboot, safety belt, gloves, nose mask and ear plugs; (c) OHS Training for all site personnel; (d)</p>	<p>(i) every day</p> <p>(ii) once before construction of each component of the water supply system</p>	Construction Contractor	<p>(i) Site-specific OHS Plan;</p> <p>(ii) Equipped first-aid stations;</p> <p>(iii) Medical insurance coverage for workers;</p> <p>(iv) Number of accidents;</p> <p>(v) Supplies of potable drinking water;</p> <p>(vi) Clean eating areas where workers are not exposed to hazardous or noxious substances;</p>	PMDSC/PIU/RPMU/PMU/UL B	Implementation of mitigation measures responsibility of contractor.	<p>OHS manual plan is already in place.</p> <p>All relevant records are maintained.</p>



Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
		<p>documented procedures to be followed for all site activities; and (e) documentation of work-related accidents;</p> <p>(ii) Ensure that qualified first-aid can be provided at all times. Equipped first-aid stations shall be easily accessible throughout the site;</p> <p>(iii) Provide medical insurance coverage for workers;</p> <p>(iv) Secure all installations from unauthorized intrusion and accident risks;</p> <p>(v) Provide supplies of potable drinking water;</p> <p>(vi) Provide clean eating areas where workers are not exposed to hazardous or noxious substances;</p> <p>(vii) Provide health and safety 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>(viii) 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>(ix) Ensure the visibility of workers through their use of high visibility vests when working in or walking</p>	<p>(ii) every day</p> <p>(iii) once after employment renewed annual</p> <p>(iv) every day</p> <p>(v) as and when required</p> <p>(vi) as required</p> <p>(vii) once before starting of work and every month to the key workers changed</p> <p>(viii) when visitor visit the site as authorized by PIU</p>		<p>(vii) record of health and safety orientation trainings</p> <p>(viii) personal protective equipment;</p> <p>(ix) % of moving equipment outfitted with audible back-up alarms;</p> <p>(xi) permanent sign boards for hazardous areas such as energized electrical devices and lines, service rooms housing high voltage equipment, and areas for storage and disposal.</p> <p>(xii) Compliance to core labor laws (See appendix 2 of this IEE)</p>			



Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
		<p>through heavy equipment operating areas;</p> <p>(x) Ensure moving equipment is outfitted with audible back-up alarms; (xi) 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 (xii) 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</p>	<p>(x) every day if fitted with alarms when such equipment is used.</p> <p>(xi) once after construction is completed and revisit and take action following incidents</p> <p>(xii) every day</p>					
Community Health and Safety.	Traffic accidents and vehicle collision with pedestrians during material and waste transportation	<p>(i) Plan routes to avoid times of peak-pedestrian activities.</p> <p>(ii) Liaise with PIU/PMDCSC in identifying high-risk areas on route cards/maps.</p> <p>(iii) Maintain regularly the vehicles and use of manufacturer-approved parts to minimize potentially serious accidents caused by equipment malfunction or premature failure.</p> <p>(iv) Provide road signs and flag persons to warn of on-going trenching activities.</p>	<p>(i) every day at each work site</p> <p>(ii) every day once especially in dense traffic areas</p> <p>(iii) every day as required</p> <p>(iv) once before commence of work at each work site</p>	Construction Contractor	<p>(i) Traffic Management Plan;</p> <p>(ii) Complaints from sensitive receptors</p>	PMDCSC/PIU/RPMU/PMU/ULB	implementation of mitigation measures responsibility of contractor.	traffic management plan has been already submitted and is in implementation stage. care is being taken to avoid accidents.

Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
Work Camps and worksites	Temporary air and noise pollution from machine operation, water pollution from storage and use of fuels, oils, solvents, and lubricants  Unsanitary and poor living conditions for workers	(i) Consult with PIU before locating workers camps/sheds, and construction plants; as far as possible located at least 200 m from residential areas.	(i) once before locating the same	Construction Contractor	(i) Complaints from sensitive receptors;	PMD/CSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures responsibility of contractor	
		(ii) Minimize removal of vegetation and disallow cutting of trees	(ii) once before setup of location		(ii) Drinking water and sanitation facilities for employees			
		(iii) Living facilities shall be built with adequate materials, and should be in good condition and free from rubbish and other refuse	(iii) every day once					
		(iv) The camp site should be adequately drained to avoid the accumulation of stagnant water						
		(v) Provide water and sanitation facilities; water, meeting Indian drinking water standards shall be provided, in adequate quantities (supply of 60- 80 LPCD); all water storage structures must be cleaned regularly and covered properly to avoid any contamination	(iv) every day once					
		(vi) Provide separate facilities for men and women; sanitary facilities shall be properly build and well maintained; toilet and bath facilities should be provided on basis of 1 per 15 or less persons	(v) every day once					

Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
		<p>(vii) Train employees in the storage and handling of materials which can potentially cause soil contamination;</p> <p>(viii) Recover used oil and lubricants and reuse or remove from the site;</p> <p>(ix) Manage solid waste according to the following preference hierarchy: reuse, recycling and disposal to designated areas;</p> <p>(x) Remove all wreckage, rubbish, or temporary structures which are no longer required;</p> <p>Report in writing that the camp has been vacated and restored to pre-project conditions before acceptance of work.</p> <p>(xii) The work camp details should be included in the</p>	<p>(vii) once before start of work at each worksite and when there is a change in key workers.</p> <p>(viii) once every month (ix) every day once</p> <p>(x) as and when required with minimum of once per month</p> <p>(xi) one time once vacated</p> <p>(xii) once before setup and once before change in plan</p>					
Social and Cultural Resources	Risk of archaeological chance finds	<p>(i) Create awareness among the workers and supervisors about the chance finds during excavation work</p> <p>(ii) Stop work immediately if any finds are suspected to allow further investigation</p> <p>(iii) Inform archaeological agencies promptly if a find is suspected, and take any action they require to ensure its removal or protection in site</p>	<p>(i) once before construction and repeat when key workers are changed</p> <p>(ii) as and when required</p> <p>(iii) as and when required</p> <p>(iv) as and when required</p>	Construction Contractor	Records of chance finds	PMD/CSC/PIU/RPMU/PMU/ULB	Implementation of mitigation measures responsibility of contractor.	There are no archaeological site in the working area.


Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
		(iv) Adjacent to important religious sites, undertake excavation and construction work in such a way that no structural damage is caused to the building.						
Submission of EMP implementation report	Unsatisfactory compliance to EMP	(i) Appointment of EHS engineer to ensure EMP implementation (ii) Timely submission of monitoring reports including pictures	(i) once before start of construction and once after replacement (ii) monthly	Construction contractor	Availability and competency of appointed EHS engineer Monthly report	PMD/CSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures responsibility of contractor.	
Post-construction clean-up	Damage due to debris, spoils, excess construction materials	(i) Remove all spoils wreckage, rubbish, or temporary structures (such as buildings, shelters, and latrines) which are no longer required; and  (ii) All excavated roads shall be reinstated to original condition.  (iii) All disrupted utilities restored  (iv) All affected structures rehabilitated/compensated (v) The area that previously housed the construction camp is to be checked for spills of substances such as oil, paint, etc. and these shall be cleaned up.  (vi) All hardened surfaces within the construction camp area shall be ripped, all imported materials removed, and the area shall be top soiled and regressed using the guidelines set out in the revegetation	(i) every day or as and when required  (ii) every day or as and when required  (iii) every day or as and when required (iv) every day or as and when required (v) once after vacating the camp  (vi) once after vacating the site  (vii) once after vacating the site and follow up as required till	Construction Contractor	PMU/PMD/CSC report in writing that (i) worksite is restored to original conditions; (ii) camp has been vacated and restored to pre-project conditions;  (iii) all construction related structures not relevant to O&M are removed.  (iv) worksite cleanup is satisfactory.	PMD/CSC/PIU/ RPMU/PMU/ULB	Implementation of mitigation measures responsibility of contractor.	If any debris found will be restored at dump area.




Field	Anticipated Impact	Mitigation Measures	Frequency	Responsible for	Monitoring of Mitigation		Cost and Source of Funds	Implementation status
					Activity	Responsibility		
		<p>specification that forms part of this document.</p> <p>(vii) The contractor must arrange the cancellation of all temporary services. (viii) Request PMU/PMDSC to report in writing that worksites and camps have been vacated and restored to pre-project conditions before acceptance of work.</p>	<p>completion of task</p> <p>(vii) once after all above tasks are complete</p>					



## **APPENDIX 27 - SPOIL MANAGEMENT PLAN- PUTTUR**

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	Spoil Management Plan	

Suez Projects Private Limited					
Spoil Management Plan					
Project: Construction of Distribution System for 24x7 Water Supply including Services for Operation and Management for Puttur City, Contract Package No 02PTR01					
		Amruth Yedugani	Vishal Pattanshetti	Ramesh Patil	For Approval
Rev.	Date	Prepared By	Checked By	Validated By	Submission Purpose
00					

	Suez Projects Private Limited	Doc: SPPL/HSE/ SMP-01 Rev. – 1 Jun - 2019 Page 2 of 5
	Spoil Management Plan	

## 1.0 Introduction

This Guideline has been developed for two primary reasons, to provide consistent guidance on spoil management in relation to construction activities and to encourage increased diversion of spoil from landfill.

This Guideline should be used as a resource by property owners, builders and developers to assist in assessing likely waste generation from construction projects and identifying ways to divert any waste generated from landfill.

## 2.0 PURPOSE

This Spoil Management Plan (SMP) has been prepared to manage spoil during construction of the SVC Works. Set spoil management protocols. Outline responsibilities of site personnel involved in spoil management. Provide a process for identifying and managing environmental and other risks associated with spoil handling


## 3.0 Legal and other Requirements

Construction and Demolition waste management rule 2016

ADB Guidelines (Initial Environmental Examination)

## 4.0 Roles and Responsibilities


Position	Responsibilities
Project Manager	Overall responsibilities for implementation of Spoil Management plan
	Overall responsibility for compliance with statutory requirements

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	Spoil Management Plan	

Construction Manager	Day to day implementation of Spoil Management plan
	Day to day co-ordination of the project
Site Engineer	Ensures all equipment is adequately available, maintained and correctly operated
	To carry out action of Spoil management plan
	Report all environmental incidents
HSE Manager	Provide advice on spoil management related issues
	Report any non-compliances in implementing Spoil management plan
All persons involved in project	Comply with requirements of Spoil Management plan
	Exercise duty of care to the environment at all times

## 5.0 Identification and assessment of spoil aspects and impacts

Environmental Aspects	Environmental Impacts
<ul style="list-style-type: none"> <li>Excavation for pipeline laying</li> <li>Demolition of overhead water tank</li> <li>Spoil storage</li> <li>Spoil transportation</li> </ul>	<ul style="list-style-type: none"> <li>Water &amp; air pollution from the dust generated due to excavation, demolition</li> <li>Flora and fauna damage due to sediment run off from spoil excavation</li> <li>Water, soil and air pollution from inappropriate storage, handling and disposal of spoil.</li> <li>Mud-tracking during haulage operations.</li> </ul>

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	Spoil Management Plan	

	<ul style="list-style-type: none"> <li>Noise &amp; vibration impacts from demolition activity</li> </ul>
--	--

## 6.0 Spoil volume, characteristics and minimization

Spoil volume calculations: Estimate the volume Spoil volume calculations: Estimate the volumes of spoils produced from each of the construction sites. Characterization of spoil: Based on the type of spoil; characterization is done (sand stone, mud mix materials, reusable materials)


## 7.0 Spoil reuses, Opportunities, Identification and Assessment

An overview of the assessment methodology to be used is mentioned below. -  
Consideration of likely spoil characteristics - Identification of possible reuse sites -  
Screening of possible reuse opportunities

## 8.0 Onsite Spoil Management Approach

Spoil from the excavations done for pipe laying will be stored on the site in such a way that it will not cause any hinderance to the traffic movement. It will be properly barricaded and necessary caution signage will be displayed. If the spoil is in large quantities which may cause disturbance to traffic movement then it will be transported to dumping site designated by KUIDFC. For excess spoil disposal, site shall be selected preferably from barren, infertile lands. In case agricultural land needs to be selected, written consent from landowners (not lessees) will be obtained. Debris disposal site shall be at least 200 m away from surface water bodies. No



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	Spoil Management Plan	

residential areas shall be located within 50 m downwind side of the site; and site is minimum 250 m away from sensitive locations like settlements, ponds/lakes/ river.

## 9.0 Spoil Transportation Methodology


- Spoil will be transported by registered road trucks.
- Spoil transportation routes will be identified with the help of local authorities of KIUDFC.
- The spoil carrying trucks will be covered with dust nets (green nets) during spoil transportation.
- The drivers will be given training in order to make them aware of requirements of Spoil management plan.

## 10.0 Monitoring, Reporting, Review and Improvements


Volumes of spoil generated will be recorded using a register. Monthly quantities of spoil re-used, and spoil disposed shall be recorded. The report will separate the reused spoil into the quantities of material reused on-site and the quantities of material reused offsite.

Continuous improvement of this Spoil Management Plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

## **APPENDIX 28 - SPOIL MANAGEMENT PLAN- UDUPI**

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	Spoil Management Plan	

Suez Project Private Limited					
Spoil Management Plan					
Project: Construction of Distribution System for 24x7 Water Supply including Services for Operation and Management for Udupi City, Contract Package No 02UDP01					
		Pradeep Shetty	Vishal Pattanshetti	Ramesh Patil	For Approval
Rev.	Date	Prepared By	Checked By	Validated By	Submission Purpose
00					

	Suez Projects Private Limited	Doc: SPPL/HSE/ SMP-01 Rev. – 1 Jun - 2019 Page 2 of 5
	Spoil Management Plan	

## 1.0 Introduction

This Guideline has been developed for two primary reasons, to provide consistent guidance on spoil management in relation to construction activities and to encourage increased diversion of spoil from landfill.

This Guideline should be used as a resource by property owners, builders and developers to assist in assessing likely waste generation from construction projects and identifying ways to divert any waste generated from landfill.

## 2.0 PURPOSE

This Spoil Management Plan (SMP) has been prepared to manage spoil during construction of the SVC Works. Set spoil management protocols. Outline responsibilities of site personnel involved in spoil management. Provide a process for identifying and managing environmental and other risks associated with spoil handling


## 3.0 Legal and other Requirements

Construction and Demolition waste management rule 2016

ADB Guidelines (Initial Environmental Examination)

## 4.0 Roles and Responsibilities

Position	Responsibilities
Project Manager	Overall responsibilities for implementation of Spoil Management plan


	Suez Projects Private Limited	Doc: SPPL/HSE/ SMP-01 Rev. – 1 Jun - 2019 Page 3 of 5
	Spoil Management Plan	

	Overall responsibility for compliance with statutory requirements
Construction Manager	Day to day implementation of Spoil Management plan
	Day to day co-ordination of the project
Site Engineer	Ensures all equipment is adequately available, maintained and correctly operated
	To carry out action of Spoil management plan
	Report all environmental incidents
HSE Manager	Provide advice on spoil management related issues
	Report any non-compliances in implementing Spoil management plan
All persons involved in project	Comply with requirements of Spoil Management plan
	Exercise duty of care to the environment at all times

## 5.0 Identification and assessment of spoil aspects and impacts

Environmental Aspects	Environmental Impacts
<ul style="list-style-type: none"> <li>Excavation for pipeline laying</li> <li>Demolition of overhead water tank</li> <li>Spoil storage</li> <li>Spoil transportation</li> </ul>	<ul style="list-style-type: none"> <li>Water &amp; air pollution from the dust generated due to excavation, demolition</li> <li>Flora and fauna damage due to sediment run off from spoil excavation</li> <li>Water, soil and air pollution from inappropriate storage, handling and disposal of spoil.</li> </ul>



	Suez Projects Private Limited	Doc: SPPL/HSE/ SMP-01 Rev. – 1 Jun - 2019 Page 4 of 5
	Spoil Management Plan	

	<ul style="list-style-type: none"> <li>• Mud-tracking during haulage operations.</li> <li>• Noise &amp; vibration impacts from demolition activity</li> </ul>
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## 6.0 Spoil volume, characteristics and minimization


Spoil volume calculations: Estimate the volume Spoil volume calculations: Estimate the volumes of spoils produced from each of the construction sites. Characterization of spoil: Based on the type of spoil; characterization is done (sand stone, mud mix materials, reusable materials)

## 7.0 Spoil reuses, Opportunities, Identification and Assessment

An overview of the assessment methodology to be used is mentioned below. -  
Consideration of likely spoil characteristics - Identification of possible reuse sites -  
Screening of possible reuse opportunities

## 8.0 Onsite Spoil Management Approach

Spoil from the excavations done for pipe laying will be stored on the site in such a way that it will not cause any hinderance to the traffic movement. It will be properly barricaded and necessary caution signage will be displayed. If the spoil is in large quantities which may cause disturbance to traffic movement then it will be transported to dumping site designated by KUIDFC. For excess spoil disposal, site shall be selected preferably from barren, infertile lands. In case agricultural land needs to be selected, written consent from landowners (not lessees) will be obtained.

	Suez Projects Private Limited	Doc: SPPL/HSE/ SMP-01 Rev. – 1 Jun - 2019 Page 5 of 5
	Spoil Management Plan	

Debris disposal site shall be at least 200 m away from surface water bodies. No residential areas shall be located within 50 m downwind side of the site; and site is minimum 250 m away from sensitive locations like settlements, ponds/lakes/ river.

## 9.0 Spoil Transportation Methodology

- Spoil will be transported by registered road trucks.
- Spoil transportation routes will be identified with the help of local authorities of KIUDFC.
- The spoil carrying trucks will be covered with dust nets (green nets) during spoil transportation.
- The drivers will be given training in order to make them aware of requirements of Spoil management plan.

## 10.0 Monitoring, Reporting, Review and Improvements

Volumes of spoil generated will be recorded using a register. Monthly quantities of spoil re-used, and spoil disposed shall be recorded. The report will separate the reused spoil into the quantities of material reused on-site and the quantities of material reused offsite.

Continuous improvement of this Spoil Management Plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

## **APPENDIX 29 - Permission to Dispose the Waste in the Disposal Land - Mangalore**



Karnataka Urban Infrastructure Development & Finance  
Corpn.Ltd.,  
Karnataka Integrated Urban Water Management and  
Investment Programme - "Jalasiri"-Tranche-2  
Office of the Executive Engineer Programme Implementation  
Unit, Mangaluru  
Email Id : [jalasiritranche2eemng@gmail.com](mailto:jalasiritranche2eemng@gmail.com)

No.KIUWMIP/PIU-MNG/CR-02/2017-18/003

Date: 19-03-2018

The Managing Director  
M/s DRS Infratech Pvt. Ltd.,  
Flat No. S1, Priya Apartments,  
Rajbhawan Road, Somajiguda  
Hyderabad - 500082.

Sir,

Sub: "Replacement of old sewerage pumping mains and Rehabilitation of  
sewerage system for Mangaluru city: Package No: 02MNG02-Excavated  
soil disposal location-reg.

Ref : (1) M/s DRS Infratech Pvt. Ltd., Hyderabad. Letter No:

DRSITPL/KUIDFC /MNG/2017-18/003, Dated: 17-01-2018

(2) Commissioner, MCC Letter No: ಮ.ನ.ಪಾ/ಆರೋ.ವಿ/ಸಿ.ಆರ್-101/2017-18/ಜಿ12

ದಿನಾಂಕ: 03.03.2018

\*\*\*\*\*


In letter cited in ref(1) you had requested location for disposal of  
excess soil during execution of pumping main work.

In this connection as per the direction of Commissioner, MCC vide  
letter in ref(2) you are hereby instructed to dispose excess soil at Pachanady solid  
waste management treatment plant. Also the waste materials like compound debris,  
culverts, etc may be disposed to Kunjathbail reserved/Identified location.

This is for your kind information and necessary action.

Thanking you.

Yours faithfully

 19/03/18  
Executive Engineer

KIUWMIP-PIU

Mangaluru

CC: Project Manager, M/s DRS Infratech Pvt Ltd. ಕು. ಇಂಫ್ರಾ ಡೆ. ಪ್ರಾ.

BY RPAID.



ಮಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

ಲಾಲ್‌ಬಾಗ್, ಎಂ.ಜಿ ರಸ್ತೆ, ಮಂಗಳೂರು - 575 003, ಕರ್ನಾಟಕ, ಭಾರತ.

ಮೋಸ: 0824 2220313 - 18, ಪ್ಯಾಸ್: 0824 2220310

ವೆಬ್‌ಸೈಟ್: [www.mangalorecity.gov.in](http://www.mangalorecity.gov.in)

ಮ.ನ.ಪಾ/ಆರೋ.ವಿ/ಸಿ.ಆರ್-101/2017-18/ಜಿ :

ದಿನಾಂಕ: 03-03-2018

ಇವರಿಗೆ,

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು

ಕೆಯುಎಡಿಎಫ್‌ಸಿ-ಕೆಎಯುಡಬ್ಲ್ಯುಎಂಎವಿ-ಪಿಎಯು.

ಮಲ್ಲಿಕಟ್ಟೆ, ಮಂಗಳೂರು.



ಮಾನ್ಯರೇ,

ವಿಷಯ:-ADB ನೆರವಿನ ಒಳಚರಂಡಿ ಕಾಮಗಾರಿಯಲ್ಲಿ ಬರುವ ಹೆಚ್ಚುವರಿ ಮಣ್ಣನ್ನು  
ವಿಲೇವಾರಿ ಮಾಡಲು ಗುತ್ತಿಗೆದಾರರು ಜಾಗ ಕೋರಿಕೊಂಡಿರುವ ಕುರಿತು.

ಉಲ್ಲೇಖ:-ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು, ಕೆಯು.ಎ.ಡಿ.ಎಫ್‌ಸಿ. ಲಿಮಿಟೆಡ್,

ಮಂಗಳೂರು, ರವರು ಮಾನ್ಯ ಆಯುಕ್ತರು, ಮ.ನ.ಪಾ. ರವರಿಗೆ ಬರೆದಿರುವ  
ಪತ್ರ ಸಂಖ್ಯೆ ಕೆ.ಎ.ಯುಡಬ್ಲ್ಯುಎಂಎವಿ/PIU-MNG/ಸಿ.ಆರ್-02/2017-18/  
166, ದಿನಾಂಕ: 05-02-2018.

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ಮೇಲ್ಕಾಣಿಸಿರುವ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, ಹಾಗೂ ಉಲ್ಲೇಖ ಪತ್ರದಲ್ಲಿ ತಿಳಿಸಿರುವಂತೆ,  
ಎ.ಡಿ.ಬಿ. ನೆರವಿನ ಕೈಮಿಪ್-ಜಲಸಿರಿ ಟ್ಯಾಂಕ್-2 ಯೋಜನೆಯಲ್ಲಿ ಗುತ್ತಿಗೆದಾರರು ಸದರಿ ಕಾಮಗಾರಿಯಲ್ಲಿ  
ಬರುವ ಹೆಚ್ಚುವರಿ ಮಣ್ಣನ್ನು ವಿಲೇವಾರಿ ಮಾಡಲು ಸ್ಥಳೀಯ ಸರ್ಕಾರವನ್ನು ಗುರುತಿಸಿ ಕೊಡಲು ಕೋರಿರುತ್ತಾರೆ.

ಆದರಂತೆ, ಈ ಕಿಂದೆ ಸೂಚಿಸಿರುವಂತೆ ಹೆಚ್ಚುವರಿ ಮಣ್ಣನ್ನು ಪಚ್ಚನಾಡಿ ಪ್ರದೇಶದಲ್ಲಿ ತ್ಯಾಜ್ಯ ಮೇಲೆ  
ಹೊದಿಕೆ ಹಾಕಲು ಉಪಯೋಗಿಸಬಹುದಾಗಿದ್ದು, ಸದರಿ ಹೆಚ್ಚುವರಿ ಮಣ್ಣನ್ನು (Excess Soil) ಪಚ್ಚನಾಡಿ  
ಘನತ್ಯಾಜ್ಯ ಪ್ರದೇಶಕ್ಕೆ ಸಾಗಾಣಿಕೆ ಮಾಡಬಹುದಾಗಿದೆ. ಕಟ್ಟಡ ಭಗ್ನವಶೇಷವನ್ನು ಕುಂಜತ್ತಬೈಲ್ ಪ್ರದೇಶದಲ್ಲಿ  
ಗುರುತಿಸಲಾಗಿರುವ ಪ್ರದೇಶದಲ್ಲಿ ವಿಲೇವಾರಿ ಮಾಡಲು ಅನುಮತಿ ನೀಡಲಾಗಿದೆ.

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ಅಯುಕ್ತರು

ಮಂಗಳೂರು ಮಹಾನಗರಪಾಲಿಕೆ

ABE(400) / MB DRS Infirah

for info & n/a

08/03

08/03



## **APPENDIX 30 - Permission to Dispose the Waste in the Disposal Land - Puttur**

ನಗರಸಭಾ ಕಾರ್ಯಾಲಯ ಪುತ್ತೂರು ದ.ಕ ಜಿಲ್ಲೆ

CITY MUNICIPAL COUNCIL PUTTUR D.K.

Web : www.putturcity.mrc.gov.in

Phone : 08251-230251,

e mail : eo.puttur@gmail.com

ಪು ನಗರಸಭೆ ನೀರಿನಿರ್ದಾರ್/27/2019-20

ದಿನಾಂಕ: 11-09-2019

ರಿಗೆ,

ಕಾರ್ಯಪಾಲಕ ಲಭಿಯಂತರರು

ಕ್ರಿಮಿಪ್ ಟ್ರಾಂಚ್ - 2 ಬಿ.ಐ.ಯು

ಪುತ್ತೂರು

ಮುನ್ಯರೇ,

ವಿಷಯ:

ಎಡಿಬಿ ನೆರವಿನ ಯೋಜನೆಯಡಿ ಪುತ್ತೂರು ನಗರಕ್ಕೆ 24/7 ಕುಡಿಯುವ ನೀರಿನ ಯೋಜನೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಹಳೆಯ 2.3 mld ಸಾಮರ್ಥ್ಯದ ನೀರಿನ ಬುದ್ಧೀಕರಣ ಘಟಕವನ್ನು ತೆರವು ಮಾಡಿದ ಕಟ್ಟಡದ ಡೆಬ್ಬಿಸ್ ಮತ್ತು ವಿಲೇವಾರಿ ಮಾಡಲು ಸ್ಥಳ ಗುರುತಿಸುವ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ:

KIUWMIP/PIU-PTR/CR-21/2018-19/367 ದಿನಾಂಕ:30 08 2019ರ ತಮ್ಮ ಪತ್ರದಂತೆ.

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ಮೇಲಿನ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ನೆಕ್ಕಿಲಾಡಿಯಲ್ಲಿ ಇರುವ 2.3 MLD ಫೆಲ್ಟರ್ ನ ತೆರವು ಮಾಡುವ ಎಲ್ಲಾ ಡೆಬ್ಬಿಸ್ ನಗರಸಭೆಯ ನೆಕ್ಕಿಲಾಡಿ ಮೂಲ ಸ್ಥಾವರದಲ್ಲಿ ಸ.ನಂ.1 66/SA 0.20 ಎಕ್ರೆ 2) 66/SB 0 20 ಎಕ್ರೆ, 3) 114/ 2A3A 0.40 ಎಕ್ರೆ ಸ್ಥಳದಲ್ಲಿ ಖಾಲಿಯಿರುವ ತಗ್ಗು ಪ್ರದೇಶದಲ್ಲಿ ಡೆಬ್ಬಿಸ್ ಮತ್ತು ವಿಲೇ ಮಾಡಬಹುದಾಗಿದೆ ಎಂದು ಈ ಮೂಲಕ ತಿಳಿಸಲಾಗಿದೆ.

ಪೌರಾಯುಕ್ತರು

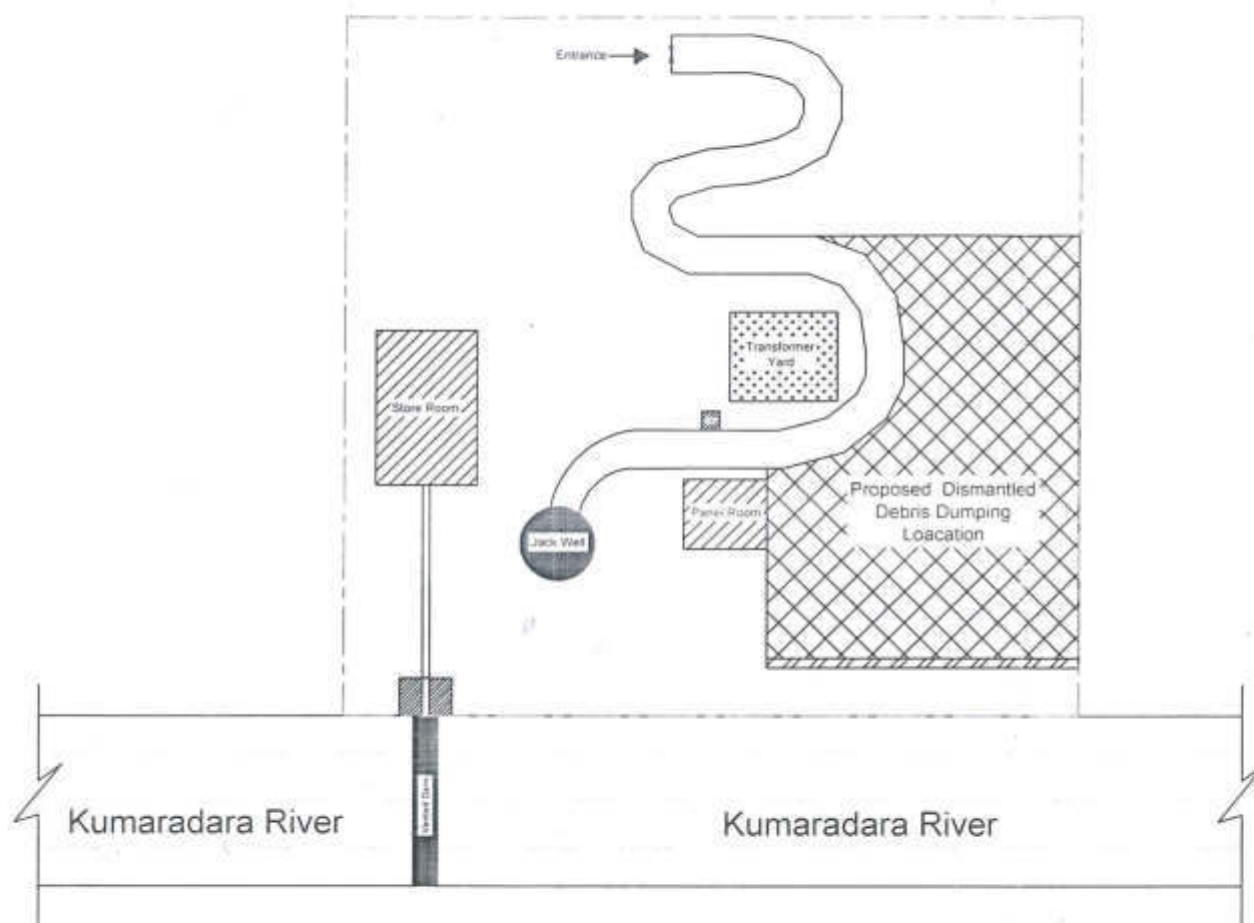
ನಗರಸಭೆ ಪುತ್ತೂರು

ರಿಗೆ,

ಇವುಗಳೊಳಗೆ ನಿರ್ದೇಶಕರು, ಆರ್.ಬಿ.ಎಂ.ಯು ಮಂಗಳೂರು ಇವರಿಗೆ ಮಾಹಿತಿಗಾಗಿ.

Annexure 1 = ಸ್ಥಳದ ನಕ್ಷೆ.

# PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT PROPOSED DUMPING YARD LOCATION AT JACKWELL.



- Notes:
1. Drawing not to scale.
  2. Survey No's - 66/SA (0.20Acre), 66/SB (0.20Acre) - 114/2A3A( 0.40Acre).

*[Signature]*  
 Executive Engineer  
 PIJ-KIJJMMIP-Tranche-2  
 KUIDFC, Puttur.