

# Initial Environmental Examination

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Document stage: Updated  
Project Number: 43253-027  
June 2020

**IND: Karnataka Integrated Urban Water Management Investment Program (Tranche 2) – Improvements for 24x7 Water Supply System – Distribution System for City Municipal Council, Udupi (PART B)**

**Package No: 02UDP01**

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

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## B. Institutional Arrangements

147. **Executing Agency.** KUIDFC is the executing agency responsible for overall technical supervision and execution of all subprojects funded under the Investment Program. Implementation activities is overseen by Program Management Unit (PMU) established in its head office at Bangalore exclusively for KIUWMIP. PMU is supported by Regional PMU (RPMU) established in Mangalore headed by Deputy Project Director, to support and monitor implementation in PIUs of Tranche 2 program towns. PMU and RPMU are staffed with technical, administrative and financial officials, including safeguards specialists, to manage and monitor program implementation.

148. **Implementing Agency.** The implementing agencies are the respective ULBs, in this case City Municipal Council (CMC) of Udupi. Program Implementation Units (PIUs) are set up in each program ULB for implementation of day-to-day activities in the field.

149. Other than the above institutional setup, District Level Implementation Committee (DLIC) will be set up in each district to monitor implementation of subprojects and institutional reforms. The DLIC shall consist of Deputy Commissioner of District, Deputy Project Director, RPMU, Municipal Commissioners' / Chief Officers of ULB and PMDCSC.

150. For the government-funded bulk water supply project, KUIDFC as the executing agency and Udupi CMC as the implementing agency will be responsible for implementation.

151. **Safeguards Implementation.** The SCMU will ensure that all subprojects comply with environmental safeguards. In each regional office in Mangalore and Davangere, a Safeguards Officer will assist in and coordinate safeguard tasks. For enhancing the monitoring role of environmental safeguards, KUIDFC will consider assigning the environmental officers at the regional officers in implementation stage. In each PIU, an Assistant Engineer (safeguards) will coordinate the safeguard tasks at PIU/town level. For Tranche 2, PIUs are established at Kundapura, Mangalore, Puttur, and Udupi. A Project Management, Design and Construction Supervision Consultant (PMDSC) will assist PMU and PIUs in the implementation of the entire investment program including compliance with the EARF and RF. PMDCSC is stationed in Mangalore with the field teams in each of the PIUs. PMDCSC team includes an Environmental Specialist and a Social Development Specialist to prepare, implement and monitor all safeguard activities and ensure safeguards compliance. At the civil works stage, Contractor staff will include Safeguards / Environment, Health and Safety (EHS) engineer to supervise and report on EMP implementation.

152. The responsibility fulfilling environmental requirements of Government of India/Government of Karnataka and conducting required level of environmental assessment as per ADB guidelines lies with the PIUs/ implementing agency, i.e. Udupi CMC. Consultant Team will assist the CMC in this regard.

153. The mitigation measures identified through IEEs and EMP will be incorporated into the Investment Program implementation cycle. Mitigation measures, which are to be implemented by the Contractor, shall form part of the Contract Documents. The other mitigation measures will be implemented by the IA/PIU/PMU as specified in the IEE. During the construction phase, PIU with the support of consultant team will monitor the implementation of the EMP and report to the PMU. Implementation of EMP and other environmental related measures and the results of environmental monitoring conducted during implementation will be reported to ADB through semi-annual

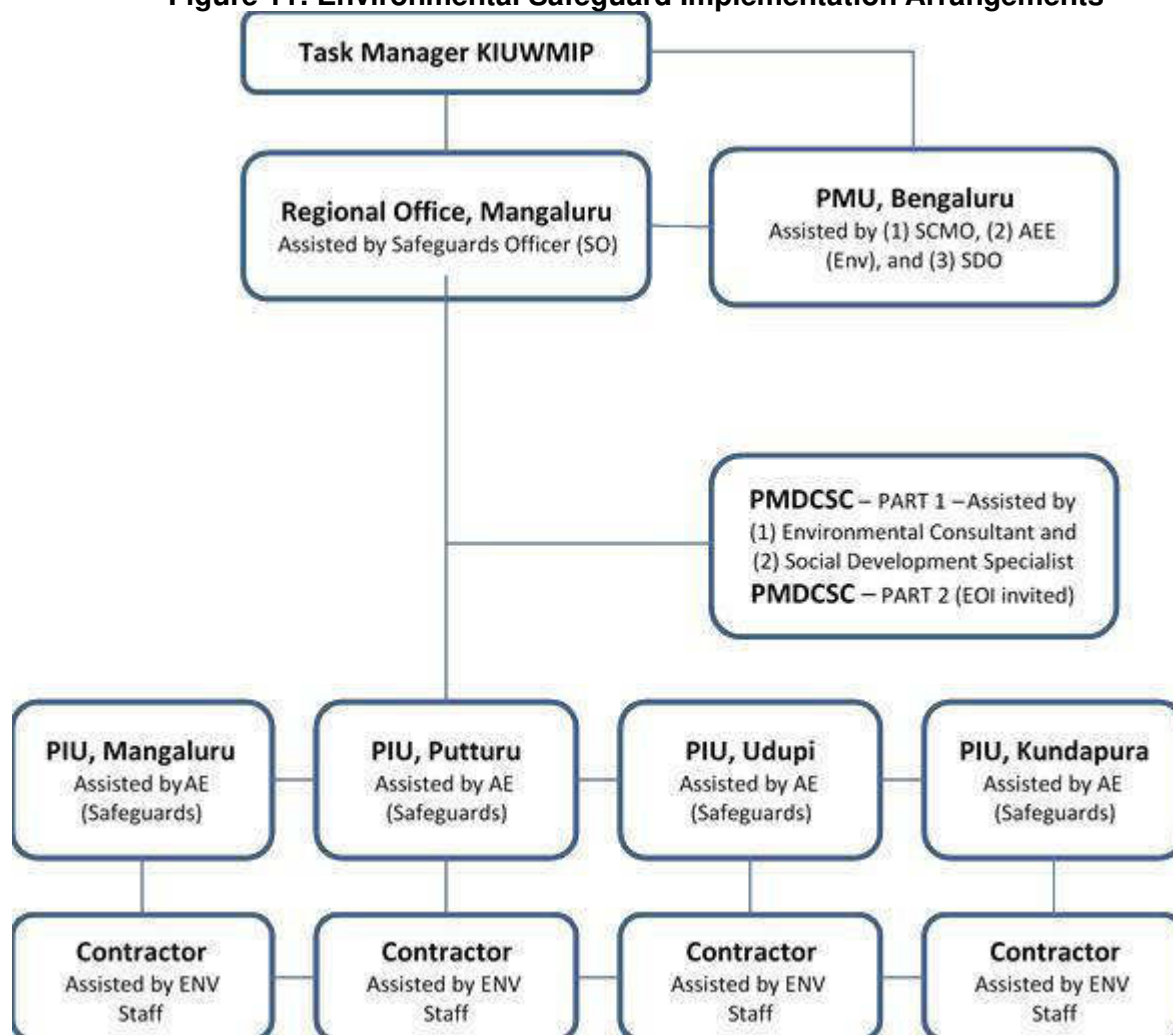
Environmental Monitoring Reports. These will also be made available on executing agency (KUIDFC) website for wider public access.

154. **Consultant Support.** A consultant team (Project Management, Design and Construction Supervision Consultant), based in Mangalore and with field teams in Tranche 2 programs towns will assist PIUs, RPMU and PMU in day-to-day implementation of the investment program. PMDCSC will be involved in all activities including in project planning, preparation, design of subproject and cost estimates, co-ordination, procurement, technical guidance, construction supervision, contract management, safeguards implementation and monitoring, capacity development and training etc., PMDCSC includes an Environmental Specialist consultant to implement the subprojects in compliance with EARF, and will be responsible for all safeguards tasks – preparation, implementation, monitoring and reporting. In each program town, a field team of PMDCSC will be mobilized and will include an Environmental Engineer for day-to-day implementation and monitoring of EMP implementation, and also to assist Environmental Specialist of PMDCSC.

155. **Contractor.** The contractor shall appoint one Safeguards (EHS) Engineer who will be responsible on a day-to-day basis for i) ensuring implementation of EMP ii) Coordinating the CSS and environment specialists (all levels) iii) community liaison, consultation with interested / affected parties and grievance redressal and iv) reporting.

156. KUIDFC will ensure that bidding and contract documents include specific provisions requiring contractors to comply with all: (i) applicable labor laws and core labor standards on (a) prohibition of child labor as defined in national legislation for construction and maintenance activities, on (b) equal pay for equal work of equal value regardless of gender, ethnicity or caste, and on (c) elimination of forced labor; and (ii) the requirement to disseminate information on sexually transmitted diseases including HIV/AIDS to employees and local communities surrounding the project sites.

157. The following Figure 11 and Table 16 summarizes the institutional responsibility of environmental safeguards at all stages of the project.

**Figure 11: Environmental Safeguard Implementation Arrangements**

AE = Assistant Engineer, AEE = ENV = environment, KIUWMIP = Karnataka Integrated Urban Water Management Investment Program, PIU = Program Implementation Unit, PMDCSC = Project Management Design and Construction Supervision Consultant, SCMO = Safeguards and Community Mobilization Officer, SDO = Social Development Officer.

**Table 15: Institutional Roles and Responsibilities**

Responsible Agency	Responsibility		
	Pre-Construction Stage	Construction Stage	Post-Construction
Task Manager	(i) Review rapid environmental assessment (REA) checklists and assign categorization based on ADB Safeguard Policy Statement (SPS) (ii) Review and approve environmental impact assessment (EIA)/initial environmental examination (IEE)	(i) Task Manager is responsible for over-all environmental safeguards compliance of the project (ii) Review and submit to ADB semi-annual monitoring reports (iii) Review and submit Corrective Action Plans to ADB (iv) Organize capacity building programs on environmental safeguards	Compliance monitoring to review the environmental performance of project component, if required and as specified in EMP

Responsible Agency	Responsibility		
	Pre-Construction Stage	Construction Stage	Post-Construction
	<p>(iii) Submit EIA/IEE to ADB for approval and disclosure in ADB website</p> <p>(iv) Ensure approved IEEs are disclosed in Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC) website and summary posted in public areas accessible and understandable by local people.</p> <p>(v) Ensure environmental management plans (EMPs) are included in the bid documents and contracts</p> <p>(vi) Organize an orientation workshop for Project Management Unit (PMU), urban local bodies (ULBs)/ City Municipal Councils (CMCs), and all staff involved in the project implementation on</p> <p>(a) ADB SPS, (b) Government of India national, state, and local environmental laws and regulations, (c) core labor standards, (d) Occupational health and safety (OHS), (e) EMP implementation especially spoil management, working in congested areas, public relations and ongoing consultations, grievance redress, etc.</p> <p>(vii) Assist in addressing any grievances brought about through the Grievance Redress Mechanism in a timely manner as per the IEEs</p> <p>(viii) Organize an induction course for the training of contractors preparing them on EMP implementation, environmental monitoring requirements related to mitigation measures; and taking immediate actions to remedy unexpected</p>	<p>(iv) Coordinate with national and state level government agencies</p> <p>(vi) Assist in addressing any grievances brought about through the Grievance Redress Mechanism in a timely manner as per the IEEs.</p> <p>(i) Assist in the preparation of semi-annual monitoring reports</p> <p>(ii) Monitor and ensure compliance of EMPs as well as any other environmental provisions and conditions.</p> <p>(iv) If necessary prepare Corrective Action Plan and ensure implementation of corrective actions to ensure no environmental impacts;</p> <p>(v) Organize capacity building programs on environmental safeguards at regional / divisional level</p> <p>(vi) Coordinate with regional level government agencies</p> <p>(vii) Assist in addressing any grievances brought about through the Grievance Redress Mechanism in a timely manner as per the IEEs</p> <p>(viii) Assist in overseeing implementation of the EMP during construction including environmental, health and safety monitoring of contractors;</p> <p>(ix) Coordinate with the General Manager, environmental Experts, ULBs/CMCs, NGOs, consultants and contractors on mitigation measures involving the community and affected persons and ensure that environmental concerns and suggestions are incorporated and implemented</p>	
Assistant Executive Engineer (Environment)			Compliance monitoring to review the environmental performance of project component, if required and as specified in EMP

Responsible Agency	Responsibility		
	Pre-Construction Stage	Construction Stage	Post-Construction
	<p>adverse impacts or ineffective mitigation measures found during the course of implementation.</p> <p>(ix) Ensure compliance with all government rules and regulations regarding site and environmental clearances as well as any other environmental requirements</p> <p>(x) Assist PMU, PIUs, and project nongovernment organizations (NGOs) to document and develop good practice construction guidelines to assist the contractors in implementing the provisions of IEE.</p> <p>(xi) Assist in the review of the contractors' implementation plans to ensure compliance with the IEE.</p>		
Safeguards Officer	<p>(i) Coordinate public consultation and information disclosure</p> <p>(ii) Liaise with local offices of regulatory agencies in obtaining clearances/approvals</p> <p>(iii) Assist PMU for clearances obtained at state level</p> <p>(iv) Review and approve contractors' updated EMPs</p> <p>(v) Take necessary action for obtaining rights of way</p> <p>(vi) Inform affected persons on: (a) project cutoff date; (b) public notice for schedule of land acquisition/occupation; (c) entitlement matrix; (d) compensation packages against different categories of loss and tentative schedule of land clearing/acquisition for starts of civil works activities</p> <p>Coordinate valuation of assets such as land, trees of various species, etc.</p>	<p>(i) Oversee day-to-day implementation of EMP by contractors, including compliance with all government rules and regulations</p> <p>(ii) Ensure continuous public consultation and awareness</p> <p>(iii) Coordinate grievance redress process and ensure timely actions by all parties</p> <p>(iv) Review monthly contractors' EMP monitoring reports</p>	<p>(i) Review and forward quarterly monitoring reports to PMU</p> <p>(ii) Inform PMU of unanticipated impacts and formulate corrective action plan</p> <p>(iii) Recommend issuance of work completion certification to the contractor upon verification of satisfactory post-construction clean-up</p> <p>(iv) Take corrective actions when necessary to ensure no adverse impacts</p> <p>Submit monthly social and environmental monitoring reports to PMU</p>

Responsible Agency	Responsibility		
	Pre-Construction Stage	Construction Stage	Post-Construction
Udupi CMC	<p>(i) Conduct initial environmental assessment for proposed project using REA checklists and submit to PMU;</p> <p>(ii) Prepare EIA/IEE based on categorization and submit to PMU for approval;</p> <p>(iii) Ensure IEE is included in bid documents and contract agreements. Ensure cost of EMP implementation is provided;</p> <p>(iv) Disclose approved EIAs/IEEs;</p> <p>(v) Obtain all necessary clearances, permits, consents, NOCs, etc. Ensure compliance to the provisions and conditions;</p> <p>(vi) EMP implementation regarding sites for disposal of wastes, camps, storage areas, quarry sites, etc.; and</p> <p>(i) Ensure contractors undergo EMP Implementation orientation prior to start of civil works.</p>	<p>(i) Ensure EMP implementation is included in measuring works carried out by the contractors and certifying payments;</p> <p>(ii) Ensure Corrective Action Plan is implemented.</p> <p>(ii) Conduct public awareness campaigns and participation programs;</p> <p>(iii) Prepare monthly reports; and</p> <p>(vi) Address any grievances brought about through the Grievance Redress Mechanism in a timely manner as per the IEEs.</p>	<p>(i) Conducting environmental monitoring, as specified in the EMP.</p> <p>(ii) Issuance of clearance for contractor's post-construction activities as specified in the EMP</p>
<p>Consultant Environment Specialist at Udupi CMC Level</p> <p>Construction Consultant Specialist at Udupi CMC level</p>	<p>(i) Assist ULBs/CMCs in preparation of REA checklists and EIAs/IEEs.</p> <p>(ii) Assist ULBs/CMCs in obtaining all necessary clearances, permits, consents, NOCs, etc. Ensure provisions and conditions are incorporated in the IEE and detailed design documents.</p> <p>(iii) Assist in ensuring IEE is included in bid documents and contract agreements. Assist in determining adequacy of cost for EMP implementation.</p> <p>(iv) Assist in addressing any concern related to IEE and EMP.</p> <p>(v) Assist in summarizing IEE and translating to</p>	<p>(i) Monitor EMP implementation,</p> <p>(ii) Recommend corrective action measures for non-compliance by contractors,</p> <p>(iii) Assist in the review of monitoring reports submitted by contractors,</p> <p>(iv) Assist in the preparation of monthly reports, and</p> <p>(v) Assist in addressing any grievances brought about through the GRM in a timely manner as per the IEEs.</p>	<p>(i) Assist in the inspection and verification of contractor's post-construction activities.</p>

Responsible Agency	Responsibility		
	Pre-Construction Stage	Construction Stage	Post-Construction
	language understood by local people.		
Contractors	(i) Ensure EMP implementation cost is included in the methodology. (ii) Undergo EMP implementation orientation prior to award of contract. (iii) Provide EMP implementation orientation to all workers prior to deployment to worksites. (iv) Seek approval for camp sites and sources of materials. (v) Ensure copy of IEE is available at worksites. Summary of IEE is translated to language understood by workers and posted at visible places at all times.	(i) Implement EMP; (ii) Implement corrective actions if necessary; (iii) Prepare and submit monitoring reports including pictures to Udupi CMC; (iv) Comply with all applicable legislation, is conversant with the requirements of the EMP; (v) Brief his staff, employees, and laborer about the requirements of the EMP and provide environmental awareness training to staff, employees, and laborers; (vi) Ensure any sub-contractors/suppliers who are utilized within the context of the contract comply with all requirements of the EMP. The Contractor will be held responsible for non-compliance on their behalf; (vii) Bear the costs of any damages/compensation resulting from non-adherence to the EMP or written site instructions; (viii) Ensure that ULBs/CMCs and PMDCSC are timely informed of any foreseeable activities related to EMP implementation; and (ix) Address any grievances brought about through the Grievance Redress Mechanism in a timely manner as per the IEEs.	(i) Ensure EMP post-construction requirements are satisfactorily complied (ii) Request certification from ULBs/CMCs

### C. Training Needs

158. The following Table 17 presents the outline of capacity building program to ensure EMP implementation. The estimated cost (under PMU cost) is ₹225,000.00 (excluding trainings of contractors which will be part of EMP implementation cost during construction) to be covered by the project's capacity building program. The detailed cost and specific modules will be customized forth available skill set after assessing the capabilities of the target participants and their requirements of the project.



**Table 17: Outline of Capacity Building Program on Environmental Management Plan Implementation**

<b>Description</b>	<b>Target Participants</b>	<b>Estimate (₹)</b>	<b>Cost and Source of Funds</b>
1. Introduction and sensitization to environment issues (1 day) - ADB Safeguards Policy Statement - Government of India and Karnataka applicable safeguard laws, regulations and policies including but not limited to core labor standards, OHS, etc. - Incorporation of EMP into the project design and contracts - Monitoring, reporting and corrective action planning	All staff and consultants involved in the project	15,000	Program Management Unit (PMU) cost
2. EMP implementation (3 days) - Roles and responsibilities - OHS planning and implementation  Wastes management (water, hazardous, solid, excess construction materials, spoils, etc.) - Working in congested areas, - Public relations - Consultations - Grievance redress - Monitoring and corrective action planning - Reporting and disclosure - Post-construction planning	All staff and consultants involved in the project  All contractors prior to award of contract	75,000	PMU cost
3. Plans and Protocols (3 days) - Construction site standard operating procedures (SOP) - Site-specific EMP	All staff and consultants involved in the project	100,000	PMU cost
- Traffic management plan - Spoils management plan - Waste management plan - Chance find protocol - O&M plans - Post-construction plan	All contractors prior to award of contract or during mobilization stage.	35,000	Contractors cost as compliance to contract provisions on EMP implementation (refer to EMP tables)
4. Experiences and best practices sharing - Experiences on EMP implementation - Issues and challenges - Best practices followed	All staff and consultants involved in the project All contractors All nongovernment organizations (NGOs)	35,000	PMU Cost

Description	Target Participants	Estimate (₹)	Cost and Source of Funds
5. Contractors Orientation to Workers on EMP implementation (OHS, core labor laws, spoils management, etc.)	All workers (including manual laborers) of the contractor prior to dispatch to worksite	40,000	Contractors cost as compliance to contract provisions on EMP implementation (refer to EMP tables)
<b>Total cost for Capacity Building Implementation</b>	<b>Program on EMP</b>	<b>300,000</b>	

PMU cost	₹225,000
Contractor Cost	₹75,000
Total cost	₹300,000

#### D. Monitoring and Reporting

159. Prior to commencement of the work, the contractor will submit a compliance report to Udupi CMC ensuring that all identified pre-construction environmental impact mitigation measures as detailed in the EMP will be undertaken. Udupi CMC with the assistance of the environmental consultant will review the report and thereafter ULB will allow commencement of works.

160. During construction, results from internal monitoring by the contractor will be reflected in their weekly EMP implementation reports to the Resident Engineer. These weekly reports will be retained in PMDCSC for reference. Resident Engineer will review and advise contractor for corrective actions if necessary. Monthly report summarizing compliance and corrective measures taken will be prepared by Resident Engineer to be reviewed and endorsed by ULB and consolidated monthly report will be submitted to PMU. Based on monthly reports, PMU will review and submit SEMR to ADB for concurrence (twice a year) EMP implementation progress report (Appendix 10). SEMR will also include monitoring details relating to the implementation of site specific OHS plan and compliance with the KUIDFC COVID19 plan. Once concurrence from the ADB is received the report will be disclosed in the KUIDFC/ULB website.

161. ADB will review project performance against the KUIDFC's commitments as agreed in the legal documents. The extent of ADB's monitoring and supervision activities will be commensurate with the project's risks and impacts. Monitoring and supervising of environmental and social safeguards will be integrated into the project performance management system.

162. ADB's monitoring and supervision activities are carried out on an on-going basis until a Project Completion Report (PCR) is issued. ADB issues a PCR within 1-2 years after the project is physically completed and in operation.

#### E. Environmental Management Plan Implementation Cost

163. Most of the mitigation measures require the contractors to adopt good site practice, which should be part of their normal procedures already, so there are unlikely to be major costs associated with compliance. Regardless of this, any costs of mitigation by the construction

contractors or consultants are included in the budgets for the civil works and do not need to be estimated separately here.

164. Mitigation that is the responsibility of Udupi CMC will be provided as part of their management of the project, so this also does not need to be duplicated here. Cost for the capacity building program is included as part of the project. The EMP cost includes the cost for providing water supply and sanitation facilities for the workers. In addition to this, hard barricades need to be provided at the work sites to prevent any entry of the public or animals into the worksite and to prevent any possible accidents. Table 18 presents the environmental management cost of the subproject.

Table 18: Environmental Management Cost

No.	Particulars	Stages	Unit	Number	Rate	Cost (₹)	Costs Covered By
<b>A</b>	<b>Implementation Staff</b>						
1	Environmental, Health and Safety (EHS) Engineer	Construction	Per month	36	30,000	720,000	Civil works contract
<b>B.</b>	<b>Monitoring Measures</b>						
1	Air quality monitoring	Pre-construction and Construction (pipe laying and overhead tanks or OHTs areas)	Per location	90	5,000	450,000	Civil works contract
2	Noise levels monitoring	Pre-construction and Construction (pipe laying and OHTs areas)	Per location	90	2,500	225,000	Civil works contract
3	Water quality	Pre-construction, Construction and Operation (Treated water, supply water)	Per location	30	10,000	300,000	Civil works contract
	Subtotal (B)					975,000	
<b>C.</b>	<b>Capacity Building</b>						
1	Introduction and sensitization to environment issues	Pre-construction	Lump sum			15,000	PMU
2	EMP implementation	Construction	Lump sum			75,000	PMU
3	Plans and Protocols	Construction	Lump sum			100,000	PMU
			Lump sum			35,000	Civil works contract
4	Experiences and best practices sharing	Construction/ Post-Construction	Lump sum			35,000	PMU
5	Contractors Orientation to Workers on environmental management plan (EMP) implementation (OHS, core labor laws, spoils management, etc.)	Prior to dispatch to worksite	Lumpsum			40,000	Civil works contract
	Subtotal (C)					300,000	

	<b>D. Civil Works</b>						
1	Construction of shelters for workers.	Construction	Lump sum			300,000	Civil works contract
2	Providing Water Supply Facility for the workers	Construction	Lump sum			200,000	Civil works contract
3	Providing Sanitation Facility for the workers	Construction	Lump sum			200,000	Civil works contract
4	Barricades at the worksite (MS Sheet of 20 gauge of size 5 x 3 m, having vertical support by MS flat (65 x 65 x 6 mm) along the sides and at 1.5 m and 3.5m, horizontal support by MS flat (65 x 65 x 6 mm) along the sides and at the center, supported by 50mm MS hollow pies of 4 m height at the ends and at the center.	Construction	Per unit	10	15,000	150,000	Civil works contract
5	Retro reflectorized Traffic Signs as per IRC:67, M 15 grade, 80 x 60 mm rectangular; fixed over Aluminum sheeting supported on MS angle iron.	Construction	Per unit	6	3500	21,000	Civil works contract
6	Retro reflectorized Traffic Signs as per IRC:67, M 15 grade, 60 x 60 mm square; fixed over Aluminum sheeting supported on MS angle iron.	Construction	Per unit	6	3000	18,000	Civil works contract
	Subtotal (D)					889,000	
	Total (A+B+C+D)					3,244,000	
	PMU cost	₹190,000					
	Contractor Cost	₹3,054,000					
	<b>Total</b>	<b>₹3,244,000</b>					

## IX. CONCLUSION AND RECOMMENDATIONS

165. The process described in this document has assessed the environmental impacts of all elements of the Udupi Water Supply subproject. All potential impacts were identified in relation to pre-construction, construction, and operation phases. Planning principles and design considerations have been reviewed and incorporated into the site planning process whenever possible. Subproject is unlikely to have any significant impacts in relation to design or location.

166. The subproject components are located in Udupi urban area. No private land required for this subproject. There are no environmentally-sensitive areas such as protected areas, wetlands, mangroves, or estuaries in or near the subproject locations. The bulk water system component sites are located mostly outside the urban area – intake site is located on existing KNNL intake on the bank of River Varahi, and water treatment plant (WTP) site is located 6 km from existing intake. WTP site located in a directly purchased land<sup>7</sup> but the area and its surroundings have already been developed and not considered environmentally-sensitive area. The transmission pipeline will be laid along roads ROW.

167. At present, River Swarna is the main source of water supply of Udupi, and under the government-funded bulk water supply project, it is proposed develop an additional source (River Varahi) because the flow in River Swarna is very low during summer season (available only for duration of 101 days from February to May). The proposed new source, together with the existing, will ensure adequate water supply for Udupi throughout the year. The Varahi Hydal Power Project (VHPP) and an irrigation weir is located on the upstream site of proposed intake. VHPP discharges 1,100 cubic feet per second (cusec) of water into river course throughout year, of which 800 cusec is for irrigation use and remaining 300 cusec is available for drinking and river flow purposes. At present, Kundapura is the only major town in the downstream of the proposed Udupi intake. Kundapura is also utilizing River Varahi with a total demand of 7.6 million liters per day (MLD) or 3.9 cusec. With Udupi's design demand of 48 MLD or 20 cusec, the combined demand of the two towns is 23.9 cusec or 7.97% of the available flow. Thus 92% of remaining flow or 74 cusec will be available for downstream users. Therefore, there are no significant impacts related to source sustainability or downstream impacts.

168. No significant impacts are anticipated either due to location or design of the subproject as the sites are selected and fixed ensuring components are not located in environmentally-sensitive areas. However due to the project sites being in urban areas and nature of open cut method for pipelaying works, unavoidable impacts include (i) health and safety hazards to workers during construction and operation; (ii) noise and dust from construction activities; (iii) increased road traffic due to interference of construction activities; (iv) soil erosion/silt runoff from construction waste soils;<sup>8</sup> and (v) increased sewage flow due to increased water supply. These impacts during construction and operation can be mitigated through good and high-quality construction and operations and maintenance (O&M) practices. In the operational phase, all facilities and infrastructure will operate with routine maintenance, which should not affect the environment. Facilities will need to be repaired from time to time, but environmental impacts will be much less than those of the construction period as the work will be affecting small areas only.

169. Mitigation will be assured by a program of environmental monitoring conducted during construction and operation to ensure that all measures are implemented, and to determine

<sup>7</sup> The WTP site is a directly purchased land and not part of any protected or environmentally sensitive area.

<sup>8</sup> Quantity of waste soil to be generated from pipe laying works and OHT excavation is about 154,763 cubic meter (m<sup>3</sup>). Based on discussions with design engineers and PMDCSC, 90-95% of the waste soil will be utilized for refill and remaining soil (~15,476 m<sup>3</sup>) will need to be disposed-off safely

whether the environment is protected as intended. This will include observations on- and off-site, document checks, and interviews with workers and beneficiaries, and any requirements for remedial action will be reported to PMU. There will also be longer-term surveys to monitor the expected improvements in the quality of domestic water and the health of the population. There will also be regular and periodic monitoring surveys for quality of water (at intake, reservoirs and at consumer end).

170. The public participation processes undertaken during project design ensured stakeholders are engaged during the preparation of the IEE. The planned information disclosure measures and process for carrying out consultation with affected people will facilitate their participation during project implementation.

171. The project's grievance redressal mechanism will provide the citizens with a platform for redressal of their grievances, and describes the informal and formal channels, time frame, and mechanisms for resolving complaints about environmental performance. The EMP will assist the PMU, PIU, PMDCSC and contractors in mitigating the environmental impacts, and guide them in the environmentally sound execution of the proposed project. The EMP will also ensure efficient lines of communication between the implementing agency, project management unit, and contractors.

172. The citizens of the Udipi will be the major beneficiaries of this subproject as the environmental condition and over-all health of the community will be improved. With the improved bulk water supply, they will be provided with a constant supply of better quality water, piped into their homes. The replacement of old distribution lines shall avoid cross contamination and have positive benefit on health by avoiding diseases such as diarrhoea and dysentery, resulting in less expenses on healthcare, improve working days and their economic status.

173. The Udipi Water Supply System subproject is unlikely to cause significant adverse impacts. The potential impacts that are associated with design, construction, and operation can be mitigated to standard levels without difficulty through proper engineering design and the incorporation or application of recommended mitigation measures and procedures.

174. Based on the findings of the IEE, there are no significant impacts and the subproject as Category "B" is confirmed. No further study or detailed environmental impact assessment (EIA) is required to comply with ADB SPS (2009). This IEE is prepared based on detailed engineering design and needs to be updated in future (during design validation, preconstruction and construction phases) for changes in project components, design locations or construction processes.

175. Environmental Clearance requirement per Government of India Environmental Impact Assessment Act and its Notifications are not applicable to this subproject. No environment-related statutory clearance or permissions required for ADB-funded components. The government-funded bulk water intake will require permission from Irrigation and while the land for the WTP will be directly purchased.

### RAPID ENVIRONMENTAL ASSESSMENT CHECKLIST

**Table A1. Rapid Environmental Assessment Checklist of Udupi Water Supply Subproject  
– 24 x 7 Water Supply Distribution Network for Udupi**

SCREENING QUESTIONS	Yes	No	REMARKS
A. Project Siting Is the project area			
▪ Densely populated?	X		Subproject activities extend to the entire City including the densely populated areas at Udupi are Manipal, Shivalli, Malpe, Parkala, Thenkapete, Siribeedu, Bailoor, Santhekatte, Kalyanpura, Kakkunje, Ambalpaday, Brahamagiri, Karavali Junction There are no major negative impacts envisaged, because water supply network will be located in unused government lands alongside the existing roads and can be constructed without causing disturbance to houses and commercial establishments. In narrow streets, disruption to road users is likely, and measures like best activity scheduling/ traffic management, alternative routes, and prior information to road users, houses and shops will minimize the impact to acceptable levels. The construction of the new overhead storage reservoir site is located on the outskirts
▪ Heavy with development activities?	X		Udupi is a developing City; urban expansion is considerable.
▪ Adjacent to or within any environmentally sensitive areas?		x	
▪ Cultural heritage site		x	
▪ Protected Area		x	
▪ Wetland		x	
▪ Mangrove		x	
▪ Estuarine		x	
▪ Buffer zone of protected area		x	
▪ Special area for protecting biodiversity		x	
▪ Bay		x	
B. Potential Environmental Impacts Will the Project cause			
▪ Pollution of raw water supply from upstream wastewater discharge from communities, industries, agriculture, and soil erosion runoff?		x	Subproject will utilize the existing surface sources; no source improvement / augmentation proposed in the subproject
▪ Impairment of historical/cultural monuments/ areas and loss/damage to these sites?		x	There is no historical / cultural monument in the project location.
▪ Hazard of land subsidence caused by excessive ground water pumping?		x	No ground water source will be used for this project.
▪ Social conflicts arising from displacement of communities?		x	The subproject for Udupi Water Supply Scheme requires seven lands, and all are government land



SCREENING QUESTIONS	Yes	No	REMARKS
▪ Conflicts in abstraction of raw water for water supply with other beneficial water uses for surface and ground waters?		x	No source improvement/ augmentation proposed in the subproject
▪ Unsatisfactory raw water supply (e.g. excessive pathogens or mineral constituents)?		x	Subproject involves supply of treated water.
▪ Delivery of unsafe water to distribution system?		X	Subproject involves distribution of treated water supplies
▪ Inadequate protection of intake works or wells, leading to pollution of water supply? ▪ Over pumping of ground water, leading to salinization and ground subsidence?  ▪ Excessive algal growth in storage reservoir?  ▪ Increase in production of sewage beyond capabilities of community facilities?  ▪ Inadequate disposal of sludge from water treatment plants? ▪ Inadequate buffer zone around pumping and treatment plants to alleviate noise and other possible nuisances and protect facilities? ▪ Impairments associated with transmission lines and access roads?	x	X X X X x x	Subproject will utilize the existing surface sources; no source improvement/augmentation proposed in the subproject No ground water is proposed to be abstracted. Regular cleaning of storage reservoir shall be ensured to avoid algal growth in the reservoir Sewerage system of adequate capacity including treatment is being designed by KIUWMIP Backwash water reuse plant and sludge management taken up under the government-funded bulk water supply project  Anticipated during construction activities. However, impacts are temporary and short in duration. The EMP includes measure to mitigate impacts.
▪ Health hazards arising from inadequate design of facilities for receiving, storing, and handling of chlorine and other hazardous chemicals.		x	Subproject does not include the design and construction of chlorine facilities and receiving, storing and handling of other hazardous chemicals.
▪ Health and safety hazards to workers from the management of chlorine used for disinfection and other contaminants?		x	In the existing WTP, the Chlorination system is not working properly. Hence the new (one working +one standby) chlorinators are proposed.
▪ Dislocation or involuntary resettlement of people	x		There may be temporary disturbance to business and squatters/vendors during construction. A resettlement plan shall mitigate/compensate these impacts.
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		x	Not applicable

SCREENING QUESTIONS	Yes	No	REMARKS
▪ Noise and dust from construction activities?	x		Short term impact on air quality due to dust generation during construction activities is anticipated. Appropriate dust suppression measures will be taken to minimize dust generation due to construction activities at site. No significant increase in noise level is anticipated due to construction. All equipment and machineries will conform to the Statutory norms.
▪ Increased road traffic due to interference of construction activities?	x		Proper traffic management and planning will be ensured during construction.
▪ continuing soil erosion/silt runoff from construction operations?	x		Construction work during monsoon shall be carried out with due care so that silt run off due to construction operation is prevented. No construction will be allowed during rains.
▪ delivery of unsafe water due to poor O&M treatment processes (especially mud accumulations in filters) and inadequate chlorination due to lack of adequate monitoring of chlorine residuals in distribution systems?		x	Trained and skilled staff will be deployed for O&M. Also, quality of treated water will be regularly monitored through water sample testing to ensure delivery of safe water to consumers
▪ Delivery of water to distribution system, which is corrosive due to inadequate attention to feeding of corrective chemicals?		x	HDPE pipes will be used for distribution system and are noncorrosive in nature.
▪ accidental leakage of chlorine gas?		x	Safety measures are considered
▪ Excessive abstraction of water affecting downstream water users?		x	Subproject will utilize the existing surface sources; no source improvement / augmentation proposed in the subproject.
▪ competing uses of water?		x	Not applicable.
▪ increased sewage flow due to increased water supply	x		Presently Udupi covers only 17% sewerage system. For entire Udupi it is proposed to take up in this project. its in planning stage.
▪ increased volume of sullage (wastewater from cooking and washing) and sludge from wastewater treatment plant	x		Sewerage system of adequate capacity including treatment is being proposed under KIUWMIP
▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?		x	No such impact anticipated as the import of workforce will be limited to skilled workers; local communities in the vicinity of the project would be employed as much as possible.
▪ social conflicts if workers from other regions or countries are hired?		x	Not anticipated as local communities within the project vicinity will be employed as much as possible.

SCREENING QUESTIONS	Yes	No	REMARKS
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<p>risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during operation and construction?</p>		x	Not applicable. Construction will not involve use of explosives and chemicals.
<p>community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning.</p>		x	Operational area will be clearly demarcated and access will be controlled. Only workers and project concerned members will be allowed to visit the operational sites

## **ENVIRONMENTAL AND LABOR RELATED LEGISLATIONS IN INDIA**

### **1. Environmental Related Legislations**

1. The Water (Prevention and Control of Pollution) Act, 1974, amended 1988
2. The Water (Prevention and Control of Pollution) Rules, 1975
3. The Water (Prevention and Control of Pollution) Cess Rules, 1971
4. The Air (Prevention and Control of Pollution) Act 1981, amended 1987
5. The Air (Prevention and Control of Pollution) Rules, 1982
6. The Environment (Protection) Act, 1986, amended in 1991 and including the following Rules/Notification issued under this Act
7. The Environment (Protection) Rules, 1986, including amendments
8. The Solid Wastes Management Rules, 2016
9. The Hazardous Wastes (Management and Handling) Rules, 1989
10. The Bio-Medical Waste (Management and Handling) Rules, 1998
11. Noise Pollution (Regulation and Control) Rules, 2000,
12. Wild Life (Protection) Amendment Act, 2002
13. Environmental Impact Assessment Notification, 2006
14. Environmental Standards of Central Pollution Control Board (CPCB)
15. The Indian Wildlife (Protection) Act, 1972, amended 1993
16. The Wildlife (Protection) Rules, 1995
17. The Indian Forest Act, 1927
18. Forest (Conservation) Act, 1980, amended 1988
19. Forest (Conservation) Rules, 1981 amended 1992 and 2003
20. Guidelines for Diversion of Forest Lands for Non-Forest Purpose under the Forest (Conservation) Act, 1980
21. Ancient Monuments and Archaeological Sites and Remains Act 1958
22. Ancient Monuments and Archaeological Sites and Remains Rules 1959
23. Government of India Notification of 1992 under the above-stated Rules
24. Coastal Regulation Zone (CRZ) Notification from MOEF.

### **2. Salient Features of Major Labor Laws in India**

#### **Including Amendments Issued from Time to Time Applicable to Establishments Engaged in Construction of Civil Works**

- (i) Workmen Compensation Act, 1923 - The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- (ii) Payment of Gratuity Act, 1972 - Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years' service or more or on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.
- (iii) Employees' PF and Miscellaneous Provisions Act, 1952 - The Act provides for monthly contributions by the employer plus workers @10 % or 8.33 %. The benefits payable under the Act are:
  - (a) Pension or family pension on retirement or death as the case may be;
  - (b) deposit linked insurance on the death in harness of the worker; and
  - (c) payment of PF accumulation on retirement/death, etc.

- (iv) Maternity Benefit Act, 1951 - The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage, etc.
- (v) Contract Labor (Regulation and Abolition) Act, 1970 - The Act provides for certain welfare measures to be provided by the Contractor to contract labor and in case the Contractor fails to provide, the same are required to be provided by the Principal Employer by Law. The principal employer is required to take Certificate of Registration and the Contractor is required to take a License from the designated Officer. The Act is applicable to the establishments or Contractor of principal employer if they employ 20 or more contract labor.
- (vi) Minimum Wages Act, 1948 - The employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employment.
- (vii) Payment of Wages Act, 1936 - It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- (viii) Equal Remuneration Act, 1979 - The Act provides for payment of equal wages for work of equal nature to Male and Female workers and not for making discrimination against Female employees in the matters of transfers, training and promotions, etc.
- (ix) Payment of Bonus Act, 1965 - The Act is applicable to all establishments employing 20 or more workmen. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing ₹3,500 per month or less. The bonus to be paid to employees getting ₹2,500 per month or above up to ₹3,500 per month shall be worked out by taking wages as ₹2,500 per month only. The Act does not apply to certain establishments. The newly set up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of the Act.
- (x) Industrial Disputes Act, 1947 - The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- (xi) Industrial Employment (Standing Orders) Act, 1946 - It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the employer on matters provided in the Act and get the same certified by the designated Authority.
- (xii) Trade Unions Act, 1926 - The Act lays down the procedure for registration of trade unions of workmen and employees. The trade unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- (xiii) Child Labor (Prohibition and Regulation) Act, 1986 - The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of child labor is prohibited in Building and Construction Industry.
- (xiv) Inter-State Migrant Workmen's (Regulation of Employment and Conditions of Service) Act, 1979 - The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The inter-state migrant workmen, in an establishment to which this Act

becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home up to the establishment and back, etc.

The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and the Cess Act of 1996 - All the establishments who carry on any building or other construction work and employ 10 or more workers are covered under this Act. All such establishments are required to pay Cess at rate not exceeding 2% of the cost of construction as may be notified by the Government. The employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodation for workers near the workplace etc. The employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

## APPLICABLE AMBIENT AIR QUALITY AND NOISE STANDARDS

**Table 1: Applicable Ambient Air Quality Standards**

Parameter	Location <sup>a</sup>	Applicable Standards Per ADB SPS <sup>e</sup> (µg/m <sup>3</sup> )
PM <sub>10</sub>	Industrial Residential, Rural and Other Areas	20 (Annual) <sup>c</sup> 50 (24-hr) <sup>c</sup>
	Sensitive Area	20 (Annual) <sup>c</sup> 50 (24-hr) <sup>c</sup>
PM <sub>25</sub>	Industrial Residential, Rural and Other Areas	10 (Annual) <sup>c</sup> 25 (24-hr) <sup>c</sup>
	Sensitive Area	10 (Annual) <sup>c</sup> 25 (24-hr) <sup>c</sup>
SO <sub>2</sub>	Industrial Residential, Rural and Other Areas	50 (Annual) <sup>b</sup> 20 (24-hr) <sup>c</sup> 500 (10-min) <sup>c</sup>
	Sensitive Area	20 (Annual) <sup>b</sup> 20 (24-hr) <sup>c</sup> 500 (10-min) <sup>c</sup>
NO <sub>2</sub>	Industrial Residential, Rural and Other Areas	40 (Annual) <sup>b</sup> 80 (24-hr) <sup>b</sup> 200 (1-hr) <sup>c</sup>
	Sensitive Area	30 (Annual) <sup>b</sup> 80 (24-hr) <sup>b</sup> 200 (1-hr) <sup>c</sup>
CO	Industrial Residential, Rural and Other Areas	2,000 (8-hr) <sup>b</sup> 4,000 (1-hr) <sup>b</sup> 100,000 (15-min) <sup>d</sup>
	Sensitive Area	2,000 (8-hr) <sup>b</sup> 4,000 (1-hr) <sup>b</sup> 100,000 (15-min) <sup>d</sup>
Ozone (O <sub>3</sub> )	Industrial Residential, Rural and Other Areas	100 (8-hr) <sup>b</sup> 180 (1-hr) <sup>b</sup>
	Sensitive Area	100 (8-hr) <sup>b</sup> 180 (1-hr) <sup>b</sup>
Lead (Pb)	Industrial, Residential, Rural and Other Areas	0.5 (Annual) <sup>b</sup> 1.0 (24-hr) <sup>b</sup>
	Sensitive Area	0.5 (Annual) <sup>b</sup> 1.0 (24-hr) <sup>b</sup>
Ammonia (NH <sub>3</sub> )	Industrial Residential, Rural and Other Areas	100 (Annual) <sup>b</sup> 400 (24-hr) <sup>b</sup>
	Sensitive Area	100 (Annual) <sup>b</sup> 400 (24-hr) <sup>b</sup>
Benzene (C <sub>6</sub> H <sub>6</sub> )	Industrial Residential, Rural and Other Areas	5 (Annual) <sup>b</sup>
	Sensitive Area	5 (Annual) <sup>b</sup>
Benzo(o)pyrene (BaP) particulate phase only	Industrial Residential, Rural and Other Areas	0.001 (Annual) <sup>b</sup>
	Sensitive Area	0.001 (Annual) <sup>b</sup>
Arsenic (As)	Industrial Residential, Rural and Other Areas	0.006 (Annual) <sup>b</sup>
	Sensitive Area	0.006 (Annual) <sup>b</sup>

Nickel (Ni)	Industrial Residential, Rural and Other Areas	0.02 (Annual) <sup>b</sup>
	Sensitive Area	0.02 (Annual) <sup>b</sup>

<sup>a</sup> Sensitive area refers to such areas notified by the India Central Government.

<sup>b</sup> Notification by Ministry of Environment and Forests, Government of India Environment (Protection) Seventh Amendment Rules, 2009.

<sup>c</sup> WHO Air quality guidelines for particulate matter, ozone, nitrogen dioxide and sulfur dioxide. *Global update 2005*. WHO. 2006.

<sup>d</sup> Air Quality Guidelines for Europe Second Edition. WHO 2000.

<sup>e</sup> Per ADB SPS, the government shall achieve whichever of the ambient air quality standards is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, the executing agency of the government will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in ADB SPS.

**Table 2: Applicable Ambient Noise Standards**

Receptor/ Source	Applicable Standards Per ADB SPS <sup>a</sup> (dBA)	
	Day time	Night time
Industrial area	70 <sup>b</sup>	70 <sup>b</sup>
Commercial area	65 <sup>c</sup>	55 <sup>c</sup>
Residential Area	55 <sup>c</sup>	45 <sup>c</sup>
Silent Zone	50 <sup>c</sup>	40 <sup>c</sup>

<sup>a</sup> Per ADB SPS, the government shall achieve whichever of the ambient air quality standards is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, the executing agency of the government will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in ADB SPS.

<sup>b</sup> Guidelines for Community Noise. WHO. 1999.

<sup>c</sup> Noise Pollution (Regulation and Control) Rules, 2002 as amended up to 2010.



### APPLICABLE STANDARDS FOR DISCHARGE OF ENVIRONMENTAL POLLUTANTS (EFFLUENT)

Pollutants	Units	Applicable Standard per ADB SPS <sup>a, b, c</sup>
pH	pH	6 – 9 <sup>b</sup>
BOD	mg/l	20 <sup>a</sup>
COD	mg/l	125 <sup>b</sup>
Total nitrogen	mg/l	10 <sup>b</sup>
Total phosphorus	mg/l	2 <sup>b</sup>
Oil and grease	mg/l	10 <sup>b</sup>
Total suspended solids	mg/l	<50 <sup>a</sup>
Total coliform bacteria	MPN <sup>b</sup> / 100 ml	400a <sup>b</sup>

<sup>a</sup> Environment (Protection) Amendment Rules, 2017

<sup>b</sup> Health-based guideline values

<sup>c</sup> Per ADB SPS, the government shall achieve whichever of the ambient air quality standards is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, the executing agency of the government will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in ADB SPS.

## APPLICABLE DRINKING WATER STANDARDS

Group	Parameter	Unit	Applicable Standards Per ADB SPS <sup>a, c, d</sup>
	<b>Parameter</b>		
Physical	Turbidity	NTU	1 (5) <sup>a</sup>
	pH		6.5 – 8.5 <sup>a</sup>
	Color	Hazen units	5 (15) <sup>a</sup>
	Taste and Odor		Agreeable <sup>a</sup>
	TDS	mg/l	500 (2,000) <sup>a</sup>
	Iron	mg/l	0.3 <sup>a</sup>
	Manganese	mg/l	0.1 (0.3) <sup>a</sup>
	Arsenic	mg/l	0.01 <sup>a</sup>
	Cadmium	mg/l	0.003 <sup>a</sup>
	Chromium	mg/l	0.05 <sup>a</sup>
	Cyanide	mg/l	0.05 <sup>a</sup>
	Fluoride	mg/l	1 (1.5) <sup>a</sup>
	Lead	mg/l	0.01 <sup>a</sup>
	Ammonia	mg/l	0.5 <sup>a</sup>
Chemical	Chloride	mg/l	250 (1,000) <sup>a</sup>
	Sulphate	mg/l	200 (400) <sup>a</sup>
	Nitrate	mg/l	45 <sup>a</sup>
	Copper	mg/l	0.05 (1.5) <sup>a</sup>
	Total Hardness	mg/l	200 (600) <sup>a</sup>
	Calcium	mg/l	75 (200) <sup>a</sup>
	Zinc	mg/l	5 (15) <sup>a</sup>
	Mercury	mg/l	0.001 <sup>a</sup>
	Aluminum	mg/l	0.1 (0.3) <sup>a</sup>
	Residual Chlorine	mg/l	0.2 <sup>a</sup>
Micro Germs	E-coli	MPN/100ml	Must not be detectable in any 100 ml sample <sup>a</sup>
	Total Coliform	MPN/100ml	

a <sup>a</sup> Bureau of India Standard 10200: 2012.

b <sup>b</sup> Health-based guideline values.

c <sup>c</sup> Per ADB SPS, the government shall achieve whichever of the ambient air quality standards is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, the executing agency of the government will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in ADB SPS.

d <sup>d</sup> Figures in parenthesis are maximum limits allowed in the absence of alternate source.

e .

### **SAMPLE OUTLINE SPOILS (CONSTRUCTION WASTE) MANAGEMENT PLAN**

- The Spoil Management Plan should be site specific and be part of the monthly Construction Management Plan.
- The contractor, in consultation with the PIU, has to find out appropriate location/s for the disposal of the excess soil generated. The spoils should be deposited only at these sites.
- Further precautions need to be taken in case of the contaminated spoils
- The vehicle carrying the spoil should be covered properly.
- The spoils generating from each site should be removed on the same day or immediately after the work is complete. The site / road should be restored to the original condition.

#### **I. Spoils information**

The spoil information contains the details like (i) type/material; (ii) potential contamination by that type; (iii) expected volume (site/component specific); and (iv) spoil classification, etc.

#### **II. Spoils management**

The Spoil Management section gives the details of (i) transportation of spoil; (ii) disposal site details; (iii) precautions taken; (iv) volume of contaminated spoil, if present; and (v) suggested reuse of disposal of the spoil.

#### **III. Documentation**

The volume of spoil generated (site specific, date wise), site disposed, reuse/disposal details should be documented properly.

## **TRAFFIC MANAGEMENT PLANNING**

### **A. Principles for TMP around the Water Pipes Construction Sites**

One of the prime objectives of this TMP is to ensure the safety of all the road users along the work zone, and to address the following issues:

- (i) the safety of pedestrians, bicyclists, and motorists travelling through the construction zone;
- (ii) protection of work crews from hazards associated with moving traffic;
- (iii) mitigation of the adverse impact on road capacity and delays to the road users;
- (iv) maintenance of access to adjoining properties; and
- (v) Addressing issues that may delay the project.

### **B. Operating Policies for Traffic Management Planning**

The following principles will help promote safe and efficient movement for all road users (motorists, bicyclists, and pedestrians, including persons with disabilities) through and around work zones while reasonably protecting workers and equipment.

- (i) Make traffic safety and temporary traffic control an integral and high-priority element of every project from planning through design, construction, and maintenance.
- (ii) Inhibit traffic movement as little as possible.
- (iii) Provide clear and positive guidance to drivers, bicyclists, and pedestrians as they approach and travel through the temporary traffic control zone.
- (iv) Inspect traffic control elements routinely, both day and night, and make modifications when necessary.
- (v) Pay increased attention to roadside safety in the vicinity of temporary traffic control zones.
- (vi) Train all persons that select, place, and maintain temporary traffic control devices.
- (vii) Keep the public well informed.
- (viii) Make appropriate accommodation for abutting property owners, residents, businesses, emergency services, railroads, commercial vehicles, and transit operations.

Figures A2 to Figure A12 illustrate the operating policy for TMP for the construction of water pipes and the sewers along various types of roads.

### **C. Analyze the impact due to street closure:**

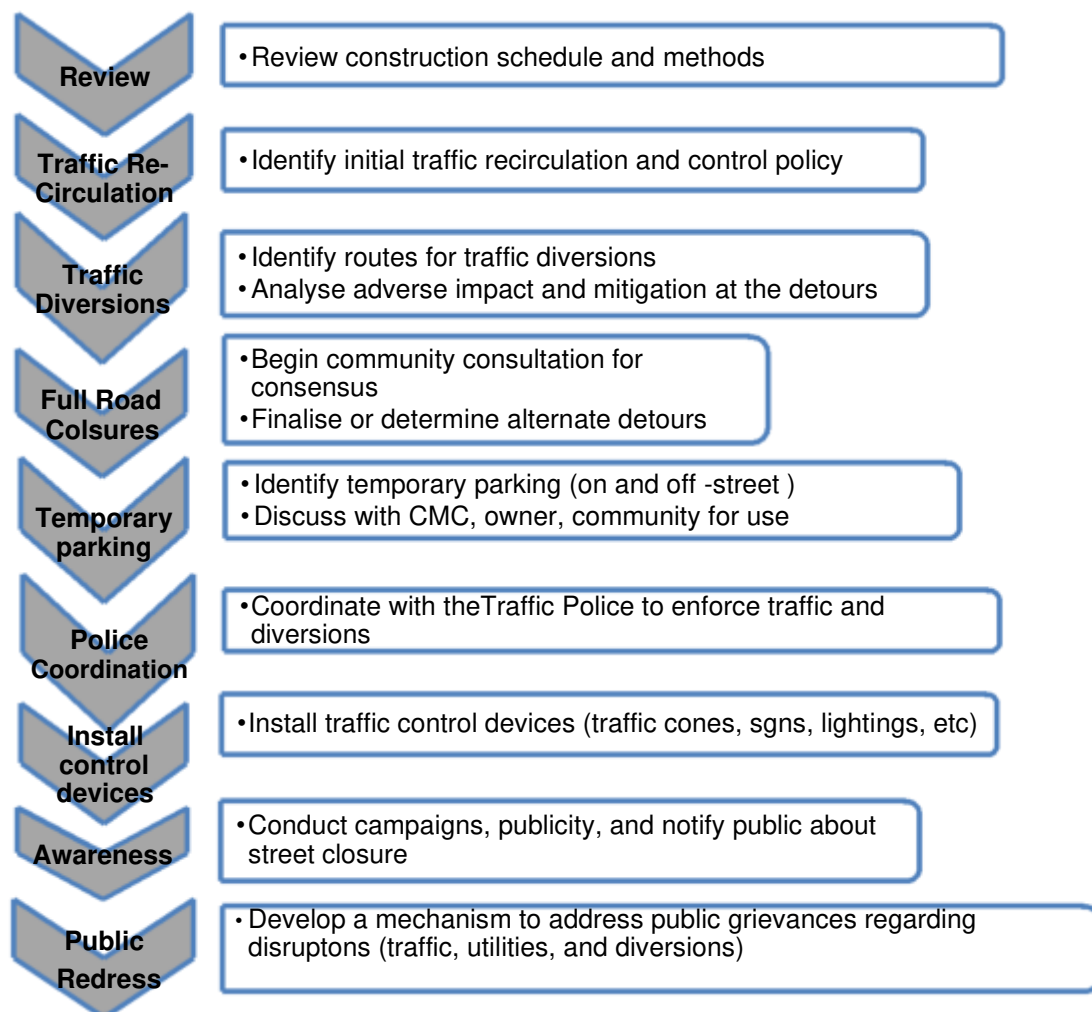
Apart from the capacity analysis, a final decision to close a particular street and divert the traffic should involve the following steps:

- (i) Approval from the Udupi Corporation / Public Works Department (PWD) to use the local streets as detours;
- (ii) consultation with businesses, community members, traffic police, PWD, etc., regarding the mitigation measures necessary at the detours where the road is diverted during the construction;

- (iii) determining of the maximum number of days allowed for road closure, and incorporation of such provisions into the contract documents;
- (iv) determining if additional traffic control or temporary improvements are needed along the detour route;
- (v) considering how access will be provided to the worksite;
- (vi) contacting emergency service, school officials, and transit authorities to determine if there are impacts to their operations; and
- (vii) Developing a notification program to the public so that the closure is not a surprise. As part of this program, the public should be advised of alternate routes that commuters can take or will have to take as result of the traffic diversion.

If full road-closure of certain streets within the area is not feasible due to inadequate capacity of the Detour Street or public opposition, the full closure can be restricted to weekends with the construction commencing on Saturday night and ending on Monday morning prior to the morning peak period.

**Figure A1: Policy Steps for the TMP**



## **D. Public Awareness and Notifications**

As per discussions in the previous sections, there will be travel delays during the constructions, as is the case with most construction projects, although on a reduced scale if utilities and traffic management are properly coordinated. There are additional grounds for travel delays in the area, as most of the streets lack sufficient capacity to accommodate additional traffic from diverted traffic as a result of street closures to accommodate the works.

The awareness campaign and the prior notification for the public will be a continuous activity which the project will carry out to compensate for the above delays and minimize public claims as result of these problems. These activities will take place sufficiently in advance of the time when the roadblocks or traffic diversions take place at the particular streets. The reason for this is to allow sufficient time for the public and residents to understand the changes to their travel plans. The project will notify the public about the roadblocks and traffic diversion through public notices, ward level meetings and City level meeting with the elected representatives.

The PIU will also conduct an awareness campaign to educate the public about the following issues:

- (i) Traffic control devices in place at the work zones (signs, traffic cones, barriers, etc.);
- (ii) Defensive driving behavior along the work zones; and
- (iii) Reduced speeds enforced at the work zones and traffic diversions.

It may be necessary to conduct the awareness programs/campaigns on road safety during construction.

The campaign will cater to all types of target groups i.e. children, adults, and drivers. Therefore, these campaigns will be conducted in schools and community centers. In addition, the project will publish a brochure for public information. These brochures will be widely circulated around the area and will also be available at the PIU, and the contractor's site office. The text of the brochure should be concise to be effective, with a lot of graphics. It will serve the following purpose:

- (i) Explain why the brochure was prepared, along with a brief description of the project;
- (ii) Advise the public to expect the unexpected;
- (iii) Educate the public about the various traffic control devices and safety measures adopted at the work zones;
- (iv) Educate the public about the safe road user behavior to emulate at the work zones;
- (v) Tell the public how to stay informed or where to inquire about road safety issues at the work zones (name, telephone, mobile number of the contact person; and
- (vi) Indicate the office hours of relevant offices.

## **E. Install traffic Control Devices at the Work Zones and Traffic Diversion Routes**

The purpose of installing traffic control devices at the work zones is to delineate these areas to warn, inform, and direct the road users about a hazard ahead, and to protect them as well as the workers. As proper delineation is a key to achieve the above objective, it is important to install good traffic signs at the work zones. The following traffic control devices are used in work zones:

- Signs
- Pavement Markings
- Channelizing Devices
- Arrow Panels
- Warning Lights

Procedures for installing traffic control devices at any work zone vary, depending on road configuration, location of the work, construction activity, duration, traffic speed and volume, and pedestrian traffic. Work will take place along major roads, and the minor internal roads. As such, the traffic volume and road geometry vary. The main roads carry considerable traffic; internal roads in the new subproject sites and alignments are wide but in old City roads very narrow and carry considerable traffic. However, regardless of where the construction takes place, all the work zones should be cordoned off, and traffic shifted away at least with traffic cones, barricades, and temporary signs (temporary “STOP” and “GO”).

Figures A2 to A12 illustrate a typical set-up for installing traffic control devices at the work zone of the area, depending on the location of work on the road way, and road geometrics:

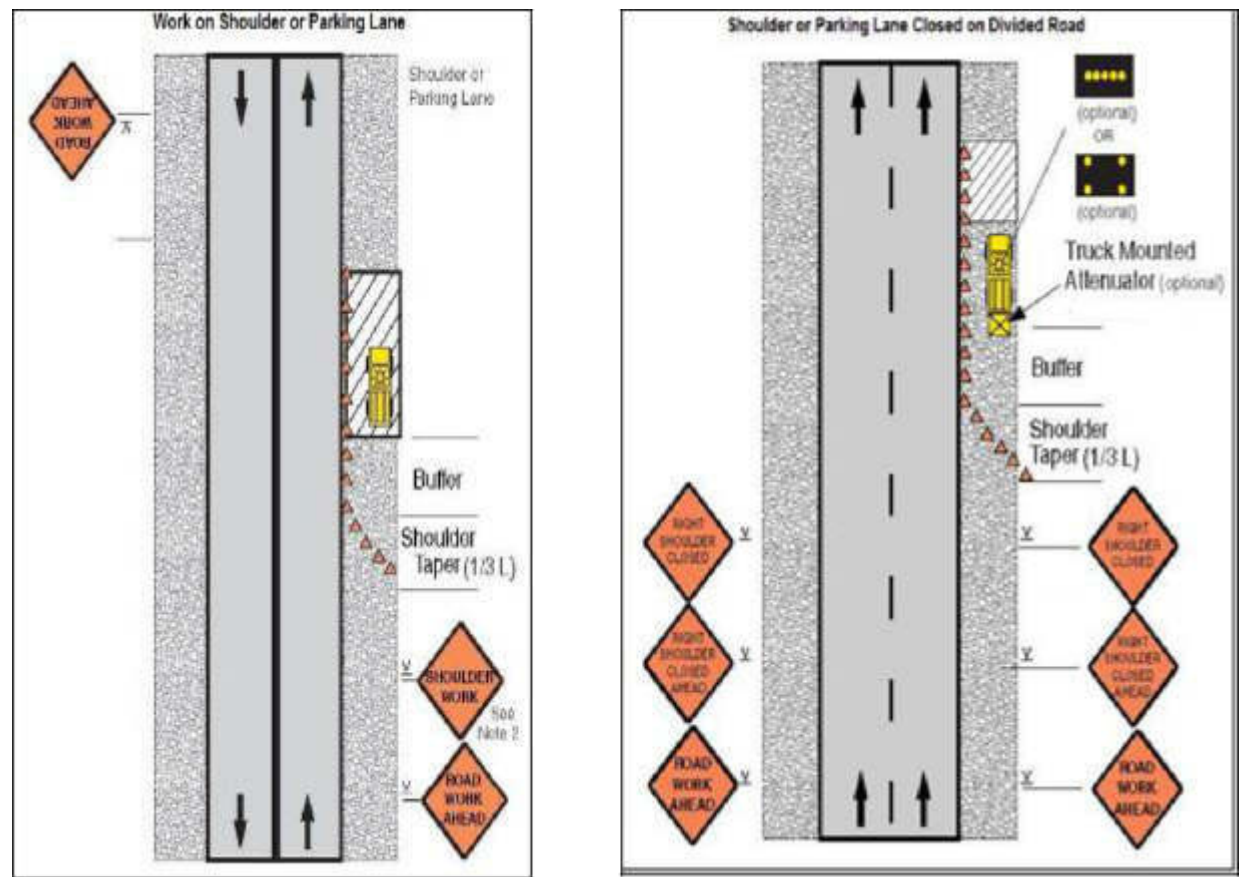
- Work on shoulder or parking lane
- Shoulder or parking lane closed on divided road
- Work in Travel lane
- Lane closure on road with low volume
- Lane closure on a two-line road with low volume (with yield sign)
- Lane closure on a two-line road with low volume (one flagger operation)
- Lane closure on a two-lane road (two flagger operation)
- Lane closure on a four-lane undivided Road
- Lane closure on divided roadway
- Half road closure on multi-lane roadway
- Street closure with detour

The work zone should take into consideration the space required for a buffer zone between the workers and the traffic (lateral and longitudinal) and the transition space required for delineation, as applicable. For the works, a 30 cm clearance between the traffic and the temporary STOP and GO signs should be provided. In addition, at least 60 cm is necessary to install the temporary traffic signs and cones.

Traffic police should regulate traffic away from the work zone and enforce the traffic diversion result from full street closure in certain areas during construction. Flaggers/ personnel should be equipped with reflective jackets at all times and have traffic control batons (preferably the LED type) for regulating the traffic during night time.

In addition to the delineation devices, all the construction workers should wear fluorescent safety vests and helmets in order to be visible to the motorists at all times. There should be provision for lighting beacons and illumination for night constructions.

**Figure A2 and A3: Work on Shoulder or Parking Lane and Shoulder or Parking Lane Closed on Divided Road**





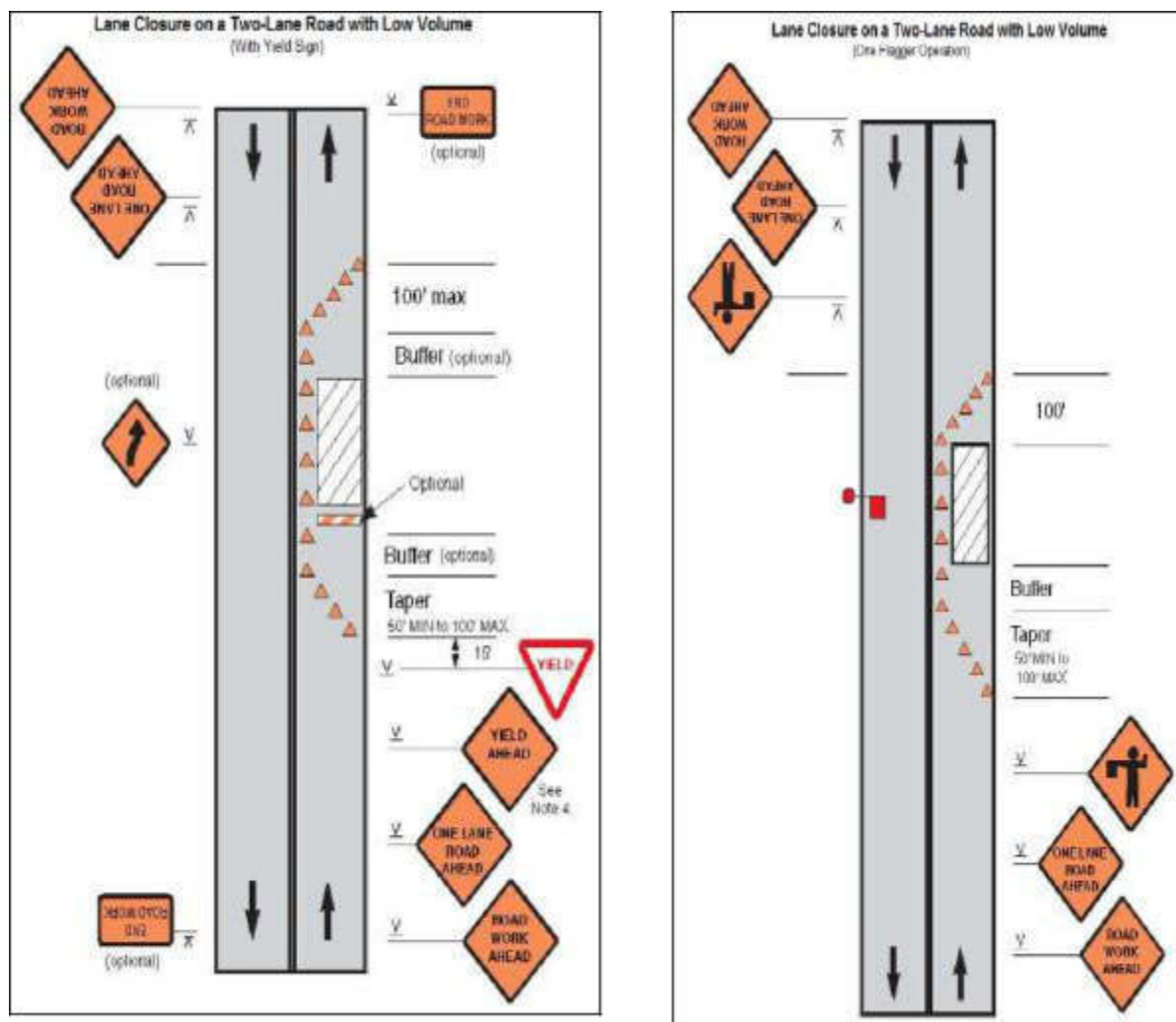
**Work in Travel Lane**  
(Maintaining Two-way Traffic, 35 MPH or Less)

Shifting Taper ( $\frac{1}{2}$  L)  
Buffer  
Shifting Taper ( $\frac{1}{2}$  L)

**Lane Closure on Road with Low Volume**  
(No Flagger, Traffic Self-Regulating, 35 MPH or Less)

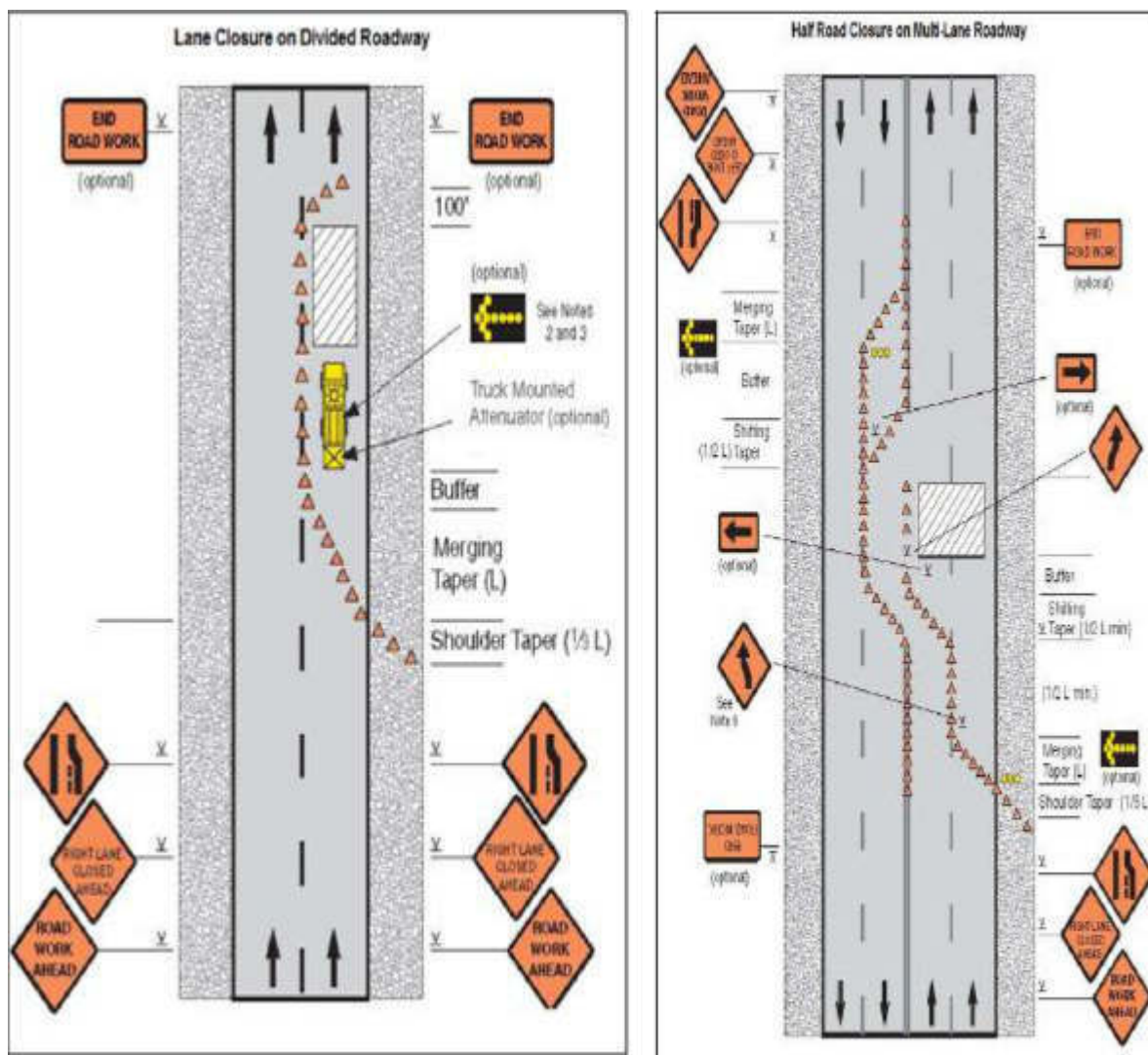
Shifting Taper ( $\frac{1}{2}$  L)  
Buffer (optional)  
Taper 50' Min. to 100' Max.

**Figure A6 and A7: Lane closure on a two-line road with low volume (with yield sign) and Lane closure on a two-line road with low volume (one flagger operation)**

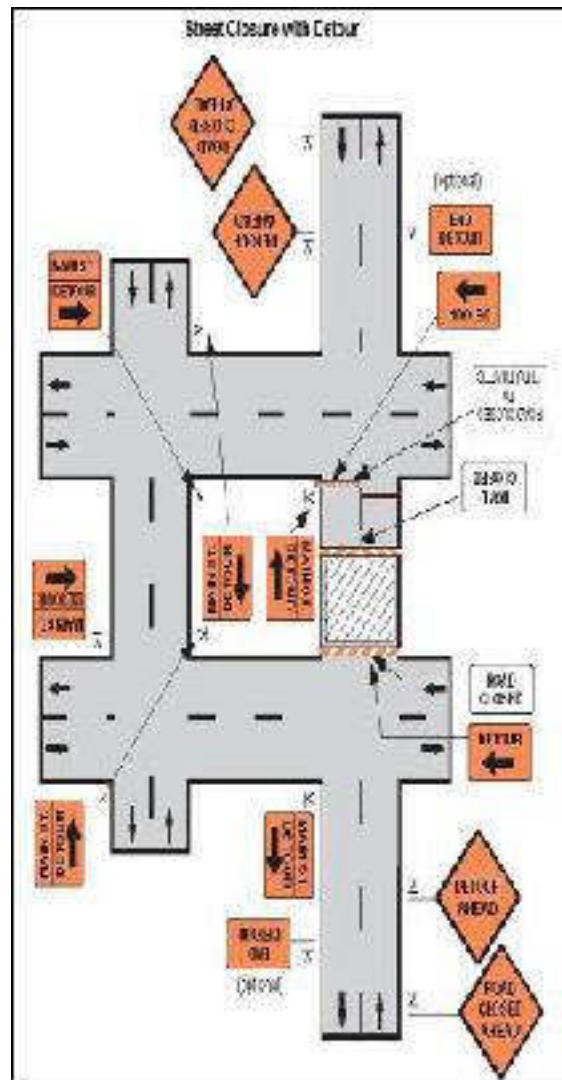




**Figure A10 and A11: Lane Closure on Divided Roadway and Half Road Closure on Multi-lane Roadway**



### Figure A12: Street Closure with Detour



## URBAN LOCAL BODY'S RESOLUTION FOR THE PREPARATION OF DETAILED PROJECT REPORT FOR WATER SUPPLY UNDER ADB ASSISTANCE

ಉಸಸ/ಸಿ4/ಸಿಆರ್ / 2015-17

ದಿನಾಂಕ: 05.04.2015

ರಿಗೆ,

ಹ.ಕೆ.ಡಬ್ಲ್ಯು ಕನ್ಸಲ್ಟಿಂಗ್ ಇಂಜಿನಿಯರಿಂಗ್  
ಅಮೃತೇಶ್ವರಿ ಕಾಂಪೌಂಡ್  
ತೊಂಗರೋಕೆರಿ ಮಂಗಳೂರು

ವಿಷಯ:- ಉಪಕಿ ನಗರಸಭಾ ಪ್ರಾಕ್ಟಿಯಲ್ಲಿ ಎಡಿಟ 2ನೇ ಹಂತದ  
ನೀರು ಸರಬರಾಜು ಯೋಜನೆಯ ಡಿಪಿಆರ್ ನ್ನು ತಯಾರಿಸಿದ ಬಗ್ಗೆ.

- ಉಲ್ಲೇಖ:-1) ದಿನಾಂಕ 01.03.2015ರ ಪತ್ರ : ಉಸಸ-ಸಿ4/ಸಿಆರ್/2015-16  
2) ದಿನಾಂಕ 30.01.2016ರ ಸಾಮಾನ್ಯ ಸಭೆಯ ನಿರ್ಣಯ  
ಸಂಖ್ಯೆ 640  
3) ಹ.ಕೆ.ಡಬ್ಲ್ಯು ಕನ್ಸಲ್ಟಿಂಗ್ ಇವರ ಕಂಪ್ಲೈನ್ಸ್ ರಿಮೋಟ್  
ದಿನಾಂಕ 22.03.2016, 23-35-00020/03-16/385  
4) ಹ.ಕೆ.ಡಬ್ಲ್ಯು ಕನ್ಸಲ್ಟಿಂಗ್ ಇವರ ದಿನಾಂಕ 4.12.2016 ರಿಮೋಟ್  
ಸರ್ವೆ ಮಾಪಲು ವಿನಂತಿ ಪತ್ರ, 23-35-00020/12-15/296

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ಮೇಲಿನ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, ಉಲ್ಲೇಖ (1)ರಲ್ಲಿ ಸೂಚಿಸಿದ  
observation ಗಳಿಗೆ M/S GKW Consult ಇವರು ಉಲ್ಲೇಖ(3)ರಲ್ಲಿ ಅನುಷ್ಠಾನ  
ಪರದಿ ಕೊಟ್ಟಿರುತ್ತಾರೆ. ಉಲ್ಲೇಖ (1)ರ ಪತ್ರದಲ್ಲಿ 6 ಮೇಲ್ಕಂಡ ಸಂಗ್ರಹಣಾ ತೊಟ್ಟಿಯ ಬೈಕಿ,  
4 ಮೇಲ್ಕಂಡ ಸಂಗ್ರಹಣಾ ತೊಟ್ಟಿಗೆ ಬದಲ ಸ್ಥಳಗಳನ್ನು ತೋರಿಸಿದ್ದು, ತೋರಿಸಿರುವಂತಹ  
4 ಸ್ಥಳಗಳಲ್ಲಿ ಎರಡು ಸ್ಥಳಗಳು ಮೇಲ್ಕಂಡ ಸಂಗ್ರಹಣಾ ತೊಟ್ಟಿಯನ್ನು ನಿರ್ಮಿಸಲು  
ಅಂತಿಮವಾಗಿ ಸೂಕ್ತವಾಗಿರುವುದೆಂದು ಉಲ್ಲೇಖ(3)ರಲ್ಲಿ ತಿಳಿಸಿರುತ್ತಾರೆ.

ತದನಂತರ ಉಲ್ಲೇಖ(4)ರಂತೆ ದಿನಾಂಕ 28.03.2016 ಹಾಗೂ 29.03.2016  
ರಂದು ಕಂದಾಯ ಇಲಾಖೆಯ ಸರ್ವೆಯರ್‌ಗಳಿಂದ ಆಗತ್ಯವಿರುವ ಸ್ಥಳಗಳಲ್ಲಿ  
ಸರ್ವೆಯನ್ನು ಮಾಡಲಾಗಿದ್ದು, ಡಿ.ಸಿ.ಎಂ ಕಾಲನಿ(ವಲಯ 38) ಹಾಗೂ ವಿ.ಹಿ ನಗರದಲ್ಲಿ  
(ವಲಯ 4) ಗುರುತಿಸಿದ ಸ್ಥಳಗಳು ಖಾಲಿ ಮಾಡಲ್ಪಟ್ಟಿರುತ್ತದೆ ಎಂದು ತಿಳಿದು  
ಬಂದಿರುತ್ತದೆ. ಈ ಸ್ಥಳಗಳಿಗೆ ಐದರಲ್ಲಿ ದಿನಾಂಕ 01.03.2016ರಂದು ಐದರೂ ಸರಕಾರಿ  
ಸ್ಥಳಗಳನ್ನು (ಇಂದ್ರಿಯ ಮತ್ತು ಮಣಿಪಾಲ)ದಲ್ಲಿ ಗುರುತಿಸಲಾಗಿದೆ. ಅದಲ್ಲದೆ ವಲಯ 3-  
ಅಯನ್ನು ಉಪವಲಯ ಮಾಡಿ ಅದಕ್ಕೆ ಗೊರಲ್ಟ ಅಸ್ತತ್ವ ಎಂದು ಇರುವಂತಹ ಸರಕಾರಿ  
ಜಾಗದಲ್ಲಿ ಇನ್ನೊಂದು ಮೇಲ್ಕಂಡ ಸ್ಥಾನದ ಮಾಪಲು ಸ್ಥಳವಿರುತ್ತದೆ ಈ ಈ ಮೂರು  
ಸ್ಥಳಗಳಲ್ಲಿ ಮೇಲ್ಕಂಡ ನೀರು ಸಂಗ್ರಹಣಾ ತೊಟ್ಟಿಯನ್ನು ನಿರ್ಮಿಸಲು ಅಂತಿಮವಾಗಿ  
ಕಾರ್ಯ ಸಾಧನೆಯನ್ನು ಪರಿಶೀಲಿಸಿ ಸೂಕ್ತವೆಂದು ಕಂಡುಬಂದಲ್ಲಿ ಅದನ್ನು ಪರಿಗಣಿಸಿ  
ವಿಸ್ತೃತವಾದ ಯೋಜನಾ ಪರದಿ (ಡಿ.ಪಿ.ಆರ್)ಯನ್ನು ತಯಾರಿಸಿ ಸಲ್ಲಿಸಲು ಕೋರಲಾಗಿದೆ.

ತಮ್ಮ ಪತ್ರ ಉಲ್ಲೇಖ(3)ರಲ್ಲಿ ಸೂಚಿಸಿ ಅನಿರೀಕ್ಷಿತ ಹಾಲ ಇರುವ ಎತ್ತರದಿಂದ 1.5  
ಮೀ ಎತ್ತರಕ್ಕೆ ಎತ್ತರಿಸಿ ಯಾಂತ್ರಿಕ ಕಟ್ಟಡದ ಬಾಗಿಲುಗಳನ್ನು ಅಳವಡಿಸುವ  
ಕಾಮಗಾರಿಯನ್ನು ಅಮೃತ್ ಯೋಜನೆಯಲ್ಲಿ ಪರಿಗಣಿಸಲು ತಿಳಿಸಿರುತ್ತಾರೆ. ಆದರೆ ಈ  
ಕಾಮಗಾರಿಯು ಅಮೃತ್ ಯೋಜನೆಯಲ್ಲಿ ಪರಿಗಣಿಸದೇ ಇರುವುದರಿಂದ ಪ್ರಸ್ತುತ  
ಮಾಡುತ್ತಿರುವ ವಿಸ್ತೃತ ಯೋಜನಾ ಪರದಿಯಲ್ಲಿ ಸೇರಿಸಿ ಪೇಜಾಗಿ ಕೋರಲಾಗಿದೆ.

ಪೌರಾಯುಕ್ತರು  
ಉಪಕಿ ನಗರಸಭೆ



### STAKEHOLDER CONSULTATION MEETINGS AT VARIOUS SITES IN UDUPI

Name of the ULB: City Municipal Council Udupi

Project components: 24x7 water supply for Udupi

Water supply subproject: Laying of water supply distribution network and construction of overhead tanks in Udupi

Date: 20 October 2016

Public consultation was conducted in the surrounding areas of all 7 proposed OHTs' construction sites and also distribution network areas. It was observed that there were no social safeguards issues in those areas. However, during construction, focus will be given for RPF of ADB to address the social safeguards issues if any.

#### Photographs of Public Consultation

<p>Anganawadi Manipal. Ward Councillor Mr. Narasimha Nayak (First person from left side), Executive Engineer- KIUWMIP, Social Development Officers were present in the consultation.</p>	
<p>Public consultation- Veterinary Hospital Manipal along with Ward Councilor</p>	
<p>Public consultation with the shop owners at Mannampalla, Manipal</p>	

Consultation with Smt. Ammanni Ramanna Shetty Memorial Hall and Sri. Siddi Vinayaka temple  
Kolambe Volakadu Udupi



Public Consultations in Kolambe Volakadu, Udupi





Consultation with the local residents by the Ward Councillors Mrs. Jyothi and Mr. Chandrakanth (Second person from right side), Executive Engineer KUIWMIP and Social Development Officer in Kakkunje



Ward Councillor Mrs. Shobha (First person from the left side) and Mr. Chandrakanth (Fifth person from the left side) and also local residents in Public consultation at Santhekatte, Udupi



Public Consultation in Santhekatte Udupi



## Public Consultation in Indrali, Udupi



## Door to Door Public consultation in Vyvahar Garden along with Ward Counsellor Mrs..Hemalatha Hilari Jathan, Executive Engineer KUIWMIP and Social Development Officer

Photographs of Public Consultation – Raw Water Pipe Alignment  
(Government funded of Bulk Water Supply Project)

Consultation with the villager of Kulunje village

Consultation with the vegetable shop Hebri Road,



 <p>Consultation with the shop owner Hebri Road, Haladi</p>	<p>Haladi</p>  <p>Consultation with the Ex- Gram Panchayat Vice President of Haladi in his shop.</p>
 <p>Consultation with the shop owner of Chirodi Village</p>	 <p>Consultation with the flower stall owner of Shiroor Moorkai, Heggube Village</p>
 <p>Consultation with shop owner in Kukkehalli Village</p>	

**Table A9.1: Public Consultation**

<b>No.</b>	<b>Name and Address of the Person Consulted</b>	<b>Contact No.</b>	<b>Present Condition of Water Supply</b>	<b>What Improvement is Required in the Present Condition</b>	<b>Contacted Person is the Beneficiary of the Proposed Project Yes/ No</b>	<b>Proposed Project Cause Any Social Issue? Yes/ No</b>	<b>Suggestions for the Proposed Project</b>
1	Mrs. Lalitha W/o Sathish Anganawadi Teacher, Anganawadi centre Adarsha Nagar-2 Near Veterinary Hospital Manipal	9482252922	Daily 6AM to 10.30 AM	24x7 water supply	Yes	No	Project need to be completed as soon as possible.
2	Ms. Swathi D/o Kumar Veterinary Hospital Manipal	9448134852	Daily 6AM to 10.30 AM	24x7 water supply	Yes	No	Project need to be completed as soon as possible.
3	Mr. Amith S/o Alfans D'souza Ananth Nagar 2 <sup>nd</sup> Stage Manipal	9008759342	Daily 6AM to 10.30 AM	24x7 water supply	Yes	No	Project need to be completed as soon as possible.
4	Mr. Ramanda Nayak S/o Raghunatha Nayak	9880041374	Daily 6AM to 10.30 AM	24x7 water supply	Yes	No	Project need to be completed as soon as possible.
5	Mr. Fieem S/o Kayyam Ananth Nagar	9663039865	Daily 6AM to 10.30 AM	24x7 water supply	Yes	No	Project need to be completed as an earliest.
6	Mrs. Shalini Varnekar W/o Ramakanth Varnekar Door No 129/16A Ananth Nagar Manipal	8277032878	Daily 6AM to 10.30 AM	24x7 water supply	Yes	No	Project need to be completed as soon as possible.
7	Mr. Vijaya Suvarna S/o Narayana Bangera Sri Devi Nagara Kakkunje Kunjibettu Post Shivalli Village Udupi	9844952723	Daily 6AM to 10.30 AM	24x7 water supply	Yes	No	Project need to be completed as soon as an earliest.
8	Mr. Sunil Shetty	8971150687	Daily 6AM	24x7 water	Yes	No	Project need

S/o Laxman Shetty Sri. Durga Nilaya Door No		to 10.30 AM	supply			to be completed as
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Appendix 9

No.	Name and Address of the Person Consulted	Contact No.	Present Condition of Water Supply	What Improvement is Required in the Present Condition	Contacted Person is the Beneficiary of the Proposed Project Yes/ No	Proposed Project Cause Any Social Issue? Yes/ No	Suggestions for the Proposed Project
	11-3B Post Santhekatte Ambagilu Udupi						soon as an earliest.
9	Mr. Ganesh N Suvarna S/o Narayana Bangera Devi Nagara Kunjibettu Post Shivalli Village Udupi	9880274732	Daily 6AM to 10.30 AM	24x7 water supply	Yes	No	Project need to be completed as soon as possible.
10	Mrs. Lalitha W/o Bhaskar Poojari Mathrushri Nilaya Shivalli village Kunjibettu Post Udupi	9901622684	Daily 6AM to 10.30 AM	24x7 water supply	Yes	No	Project need to be completed as soon as possible.
11	Mr. Srinivas Acharya S/o Padmanabha Acharya Post Kunjibettu Shivalli village Udupi	9632475277	Daily 6AM to 10.30 AM	24x7 water supply	Yes	No	Project need to be completed as soon as possible.
12	Mr. Sathish Palan S/o Appu Taxi stand Santhekatte Udupi	9845387100	No water supply from the CMC	24x7 water supply	Yes	No	Project need to be completed as soon as possible.
13	Mr. T. Ramesh Pai S/o Gopalakrishna Pai Kote Road Kalyanpura Udupi	9243966432	No water supply from the CMC	24x7 water supply	Yes	No	Project need to be completed as soon as possible.
14	Mr. Sampath S/o Balakrishna Taxi stand Santhekatte Udupi	9591178782	No water supply from the CMC	24x7 water supply	Yes	No	Project need to be completed as soon as possible.
15	Mr. Baburaya Achari S/o Ramakrishna Achari Nejar Kelarkatte Santhekatte Udupi	9845863661	No water supply from the CMC	24x7 water supply	Yes	No	Project need to be completed as soon as possible.

16	Mr. Ramesh S/o Kogganna Naik Kelarbetu Santhekatte Udupi	9945727033	No water supply from the CMC	24x7 water supply	Yes	No	Project need to be completed as soon as possible.
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Appendix 9

No.	Name and Address of the Person Consulted	Contact No.	Present Condition of Water Supply	What Improvement is Required in the Present Condition	Contacted Person is the Beneficiary of the Proposed Project Yes/ No	Proposed Project Cause Any Social Issue? Yes/ No	Suggestions for the Proposed Project
17	Mr. Ramesh S/o Nadu Hindu Crematorium Indrali Udupi	9902574072	Daily 6AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as an earliest.
18	Mr. B. G Pai S/o Annappa Pai Sri. Malasa krupa No 11 Vyavahar Gardens Kukkikatte Udupi	9900404721 0820-2592669	Daily 6AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as an earliest.
19	Mr. S Vishwanath Prabhu S/o Late S. Gopal Rao Door No 2-159/C Namrtha Vyavahar Garden Kukkikatte Udupi	8123719475 0820-2592652	Daily 6AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as an earliest.
20	Mr. Sridhara Acharya S/o Giriappa Acharya Door No 2/157/A Near Vyavahar Garden Manchi Mulasthan Udupi	9886997878	Daily 6AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as an earliest.
21	Mrs. Mercina W/o Nelson Door No 2-154C Manchi Mulasthan Road Kukkikatte Udupi	9880156361	Daily 6AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as an earliest.
22	Mr. Rafiq S/o Imamsaheb Door No 2-155A Kukkikatte Udupi	8970276871	Daily 6AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as an earliest.
23	Mrs. Ammanniyamma W/o A. P Jayagopal Kolambe Bailur Udupi	9964330800	Daily 7 AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as early as possible.
24	Mrs. Laxmi W/o T. R Venkatesh Door No 5-2-39C	9972019562	Daily 7 AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as

	Kolambe Bailur 76 Badagabettu Udupi						early as possible.
25	Mr. Murugan S/o P. Raju Door No 5-2-39D Kolambe Bailur	8710031012	Daily 7 AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as early as possible.

Appendix 9

No.	Name and Address of the Person Consulted	Contact No.	Present Condition of Water Supply	What Improvement is Required in the Present Condition	Contacted Person is the Beneficiary of the Proposed Project Yes/ No	Proposed Project Cause Any Social Issue? Yes/ No	Suggestions for the Proposed Project
26	Mrs. Chithra W/o Ganesh Door No 5-2-39 Kolambe Bailur 76 Badagabettu Udupi	8453838757	Daily 7 AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as early as possible.
27	Mrs. Pushpa W/o Gopal Door No 5- 2-46C Kolambe Bailur 76 Badagabettu Udupi	9743651316	Daily 7 AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as early as an earliest.
28	Mrs. Shantha W/o Armuga Door No 5-2-39 Kolambe Bailur 76 Badagabettu Udupi	9035035641	Daily 7 AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as early as an earliest.
29	Mr. Chandrahas Shetty Smt. Ammanni Ramanna Shetty Memorial Hall and Sri. Siddi Vinayaka temple Kolambe Volakadu Udupi	9880125757 0820- 2522513	Daily 7 AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as early as possible.
30	Mr. Mohammed Zabir S/o K. Hassansaheb Popular Seat covers Indrali Udupi	9880941924	Daily 7 AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as early as possible.
31	Mr. Rajendra S/o Srinivas Vittal laundry Indrali Udupi	9008000909	Daily 7 AM to 11 AM	24x7 water supply	Yes	No	Project need to be completed as early as possible.
32	Mrs. Parvathi	7760231030	Daily 7 AM	24x7 water	Yes	No	Project need

	Ganesh sweets Indrali Udupi		to 11 AM	supply			to be completed as early as possible.
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## PROCEEDINGS OF PUBLIC CONSULTATIONS (CITY AND WARD LEVEL)

### TOWN LEVEL PUBLIC CONSULTATION HELD 2 FEBRUARY 2018

A city level public consultation workshop for the KUIWMIP 24x7 water supply to Udupi city was held on 2 February 2018 at Sathyamurthi auditorium hall, CMC Udupi, 2 February 2018.

Sri. Pramod Madhwaraj, Minister for Fisheries, Youth Empowerment and Sports was the chief guest of the public consultation workshop. Municipal Commissioner, President of CMC Udupi, GKW Consultants GmbH, Mangalore, Executive engineer of PIU and Engineers of KIUWMIP, Engineers of CMC and the project stakeholders were present.

Sri. Pramod Madhwaraj, inaugurated and addressed the gathering stating that all efforts would be made to take people into confidence for the effective implementation of the project. He stated that 24x7 water supply and electricity supply were promised pre-election, that the promise of 24x7 electricity promise has been fulfilled and that action has been initiated to draw water from the Varahi river to supply water to Udupi. He stated that the Chief Minister of Karnataka laid the first foundation stone for implementation of 24x7 water supply on 08 January 2018. He described the obstacles faced in the process of getting approvals for the project and his efforts to sanction the water supply project for Udupi. He suggested that if any local inconveniences or objections arose during project implementation they would be solved through negotiations and settlements. He requested that to have a better coordination between the City Municipal Council and KUIDFC, the PIU should have its office at the CMC. He requested the concerned government departments to support for effective implementation of the project.

Sri. Prabhakar Sharma, Deputy Project Director of RPMU Mangalore, Karnataka Urban Infrastructure Development and Finance Corporation, described the project in detail to the audience. He explained that 24x7 water supply and UGD project are approved with financial assistance of ADB (KIUWMIP) and Government of India (AMRUT). Mr Sharma explained that the objective of the public consultation workshop is to discuss project details with the stakeholders before the project implementation (as per the guidelines of ADB). He explained that the project has been divided into three packages. A tender has been called for the first package to draw water from Varahi and the other two packages are at the DPR preparation stage. He indicated that land acquisition will be required for UGD work and consequently, it will undertaken in the second phase. KUIDFC will be implementing the project and its office will be at the Deputy Commissioner's Office, Rajathadri Manipal and all required technical and non-technical staffs have been recruited. He stated that all civil works will be implemented in 30 months and contractor will have O&M contract for eight years. The DPD requested all the participants to participate in the discussion and to provide suggestions for the effective implementation of the project.

**GKW Consultant:** Design Engineers of GKW Consult GmbH made a presentation on KIUWMIP and AMRUT projects and the amount allotted for 24x7 water supply and UGD civil works. The consultants explained the present existing water supply project and the demand requirement.



**Questions raised by the elected representatives:**

1. Only 4 months in a year water will be lifted from the proposed Varahi river and rest of the months the pumps installed for lifting water and is there a chance of pump sets will be spoiled due to non-usage.
  - a. The consultants replied that the pumps installed to lift water from Varahi river will be run 1-2 hours once in 15 days.
2. AEE of Udupi CMC expressed his concern about present scarcity of water during summer and he told that at present from Swarna project phase 1 9 MLD and from Swarna phase 2 27 MLD water is supplied to Udupi city and there is acute shortage of drinking water during the months of March, April and May and the stored water from Swarna river is not sufficient for the above months. Moreover, in some years, the inflow of water in Swarna river stopped during the month of January itself. The present design is prepared based on the assumption that during the above months every day 20 Million litres of water can be taken from Swarna river and the same quantity of water is reduced while estimating the quantity of water to be pumped from the river Varahi. He also told that tender also called for the water supply project of Udupi city and he suggested to make necessary modifications for the tender called to include the above mentioned 20 MLD water as an addition for the proposed water supply and also suggested to increase the capacity of the pipeline to lift the additional 20 MLD water from Varahi river.

The Public Consultation workshop was ended with vote of thanks by the Municipal Commissioner.

Sd/-

President

Udupi CMC

True copy

Sd/-

Municipal Commissioner

CMC

photos of City Level Public Consultation held at Udupi on 02-04-2018





**Pictures of the Town Level Public Consultation**

Signature Sheets for the Town Level Public Consultation 02.02.2018
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Sl. No.	Particulars	Amount
1	Salaries and Wages	10000
2	Provision for Depreciation	5000
3	Provision for Bad Debts	2000
4	Provision for Sinking Fund	1500
5	Provision for Contingencies	1000
6	Provision for Income Tax	800
7	Provision for Corporation Tax	700
8	Provision for Gift Tax	600
9	Provision for Estate Duty	500
10	Provision for Capital Gains Tax	400
11	Provision for Stamp Duty	300
12	Provision for Land Tax	200
13	Provision for Income Tax	100
14	Provision for Corporation Tax	100
15	Provision for Gift Tax	100
16	Provision for Estate Duty	100
17	Provision for Capital Gains Tax	100
18	Provision for Stamp Duty	100
19	Provision for Land Tax	100
20	Provision for Income Tax	100
21	Provision for Corporation Tax	100
22	Provision for Gift Tax	100
23	Provision for Estate Duty	100
24	Provision for Capital Gains Tax	100
25	Provision for Stamp Duty	100
26	Provision for Land Tax	100
27	Provision for Income Tax	100
28	Provision for Corporation Tax	100
29	Provision for Gift Tax	100
30	Provision for Estate Duty	100
31	Provision for Capital Gains Tax	100
32	Provision for Stamp Duty	100
33	Provision for Land Tax	100
34	Provision for Income Tax	100
35	Provision for Corporation Tax	100
36	Provision for Gift Tax	100
37	Provision for Estate Duty	100
38	Provision for Capital Gains Tax	100
39	Provision for Stamp Duty	100
40	Provision for Land Tax	100
41	Provision for Income Tax	100
42	Provision for Corporation Tax	100
43	Provision for Gift Tax	100
44	Provision for Estate Duty	100
45	Provision for Capital Gains Tax	100
46	Provision for Stamp Duty	100
47	Provision for Land Tax	100
48	Provision for Income Tax	100
49	Provision for Corporation Tax	100
50	Provision for Gift Tax	100
51	Provision for Estate Duty	100
52	Provision for Capital Gains Tax	100
53	Provision for Stamp Duty	100
54	Provision for Land Tax	100
55	Provision for Income Tax	100
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57	Provision for Gift Tax	100
58	Provision for Estate Duty	100
59	Provision for Capital Gains Tax	100
60	Provision for Stamp Duty	100
61	Provision for Land Tax	100
62	Provision for Income Tax	100
63	Provision for Corporation Tax	100
64	Provision for Gift Tax	100
65	Provision for Estate Duty	100
66	Provision for Capital Gains Tax	100
67	Provision for Stamp Duty	100
68	Provision for Land Tax	100
69	Provision for Income Tax	100
70	Provision for Corporation Tax	100
71	Provision for Gift Tax	100
72	Provision for Estate Duty	100
73	Provision for Capital Gains Tax	100
74	Provision for Stamp Duty	100
75	Provision for Land Tax	100
76	Provision for Income Tax	100
77	Provision for Corporation Tax	100
78	Provision for Gift Tax	100
79	Provision for Estate Duty	100
80	Provision for Capital Gains Tax	100
81	Provision for Stamp Duty	100
82	Provision for Land Tax	100
83	Provision for Income Tax	100
84	Provision for Corporation Tax	100
85	Provision for Gift Tax	100
86	Provision for Estate Duty	100
87	Provision for Capital Gains Tax	100
88	Provision for Stamp Duty	100
89	Provision for Land Tax	100
90	Provision for Income Tax	100
91	Provision for Corporation Tax	100
92	Provision for Gift Tax	100
93	Provision for Estate Duty	100
94	Provision for Capital Gains Tax	100
95	Provision for Stamp Duty	100
96	Provision for Land Tax	100
97	Provision for Income Tax	100
98	Provision for Corporation Tax	100
99	Provision for Gift Tax	100
100	Provision for Estate Duty	100

name	Room	area
1. HODGINS, C. W. A. S. (1st floor)		1st floor
2. HODGINS, C. W. A. S. (2nd floor)		2nd floor
3. HODGINS, C. W. A. S. (3rd floor)		3rd floor
4. HODGINS, C. W. A. S. (4th floor)		4th floor
5. HODGINS, C. W. A. S. (5th floor)		5th floor
6. HODGINS, C. W. A. S. (6th floor)		6th floor
7. HODGINS, C. W. A. S. (7th floor)		7th floor
8. HODGINS, C. W. A. S. (8th floor)		8th floor
9. HODGINS, C. W. A. S. (9th floor)		9th floor
10. HODGINS, C. W. A. S. (10th floor)		10th floor
11. HODGINS, C. W. A. S. (11th floor)		11th floor
12. HODGINS, C. W. A. S. (12th floor)		12th floor
13. HODGINS, C. W. A. S. (13th floor)		13th floor
14. HODGINS, C. W. A. S. (14th floor)		14th floor
15. HODGINS, C. W. A. S. (15th floor)		15th floor
16. HODGINS, C. W. A. S. (16th floor)		16th floor
17. HODGINS, C. W. A. S. (17th floor)		17th floor
18. HODGINS, C. W. A. S. (18th floor)		18th floor
19. HODGINS, C. W. A. S. (19th floor)		19th floor
20. HODGINS, C. W. A. S. (20th floor)		20th floor









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2	Parakeet	1	
3	Parakeet	1	
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48	Parakeet	1	
49	Parakeet	1	
50	Parakeet	1	

City Municipal Council, Lahore

Public Consultation on: 02.02.2019

Date: 02/11/2019

Details of Public Consultation Meeting Notice served to the participants

Sl. No.	Name and Address	Contact No.	Signature
1	Mrs. Samina B. Puri Makhlasi, Kotla Vandana Bunkar Bakki/Rawal, Lahore	9900405761	
4	Mrs. Gulshan Achiya Kutkhatke Musli, Fort/Lahore Lahore	7153263360	
3	Mrs. Gulshan Achiya D. no 8, 15-A Musli, Fort/Lahore Kutkhatke, Lahore	9826775778	
4	Mrs. Deepak Kumar Chakrabarti, Government near Dardani, Government Musli, Lahore	9638917009 9460231070	
5	Mrs. Kamal H. Puri Dardani, Samra Road Musli, Lahore	7446811508	
6	Mrs. Kamal Puri Gurgaon Road P. Dardani Dardani, near Dardani Government, Lahore	9907610006	
7	Mrs. Sanjay Government Musli Lahore	8907306600	
8	Mrs. Deepak Kumar D. no 129/16A Gurgaon Road Musli, Lahore	9277749379	



### Signature Sheets for the Town Level Public Consultation 02.02.2018

No.	Name and Address	Signature	Signature
1	Mr. [Name], [Address]	[Signature]	[Signature]
2	Mr. [Name], [Address]	[Signature]	[Signature]
3	Mr. [Name], [Address]	[Signature]	[Signature]
4	Mr. [Name], [Address]	[Signature]	[Signature]
5	Mr. [Name], [Address]	[Signature]	[Signature]
6	Mr. [Name], [Address]	[Signature]	[Signature]
7	Mr. [Name], [Address]	[Signature]	[Signature]
8	Mr. [Name], [Address]	[Signature]	[Signature]
9	Mr. [Name], [Address]	[Signature]	[Signature]
10	Mr. [Name], [Address]	[Signature]	[Signature]

### Signature Sheets for the Town Level Public Consultation 02.02.2018

No.	Name and Address	Signature	Signature
1	Mr. [Name], [Address]	[Signature]	[Signature]
2	Mr. [Name], [Address]	[Signature]	[Signature]
3	Mr. [Name], [Address]	[Signature]	[Signature]
4	Mr. [Name], [Address]	[Signature]	[Signature]
5	Mr. [Name], [Address]	[Signature]	[Signature]
6	Mr. [Name], [Address]	[Signature]	[Signature]
7	Mr. [Name], [Address]	[Signature]	[Signature]
8	Mr. [Name], [Address]	[Signature]	[Signature]
9	Mr. [Name], [Address]	[Signature]	[Signature]
10	Mr. [Name], [Address]	[Signature]	[Signature]







## **Signature Sheets for the Town Level Public Consultation 02.02.2018**

[illegible]

City Marketing Board, Udupi

Public Consultation on 02.03.2019  
 Date 21.1.2019

**Details of Public Consultation Meetings Notice Issued to the participants**

Sl No.	Name and Address	Contact No.	Signature
1	Mr. Hemanta G. Pai Mhalasa, Katta Vengalor Taluk Kudathur (Udupi)	9900406781	
2	Mr. Subhram Acharya Kudathur Mushki, Poothottam Udupi	7353363360	
3	Mr. Subhram Acharya D. No 2, 129 A Mushki, Poothottam Kudathur, Udupi	9886979798	SG Acharya
4	Mr. Deepak Kumar Ankur, Poothottam near Poothottam Kudathur, Udupi	9652979009 9488291070	
5	Mr. Kumar H. Prady Indrani Temple Road Mushki Udupi	9448216506	
6	Mr. Ramesh Bannam Gowri Bili P. Poothottam Indrani, near Indrani Bannamthottam Udupi	9909618005	
7	Mr. Suresh Poothottam 156-2nd Udupi	890730660	Suresh
8	Mr. Deepak Vennakar D. No 127/16 A Ramaiah Ankur, Poothottam Udupi	927798939	



ಅಂತಿಮ (ಫೈನಲ್) ಹಂತದಲ್ಲಿ 77 ಮಂದಿಗಳು ನಿರ್ಣಯಗೊಂಡಿದ್ದು, ಮಂಡಳಿಯವರು ಕಾರ್ಯದ ಮುಂದುವರಿದು ಬಂದಾಗ ಒಟ್ಟು 12 ಸಭೆಗಳ ನಡೆಸಿಕೊಂಡು ಅಂತಿಮ 42 ಮಂದಿಗಳು ಸಭೆ ನಿರ್ಣಯ ಮಾಡಿಕೊಂಡು ಮಂಡಳಿಯವರು.

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1. **Methodological approach**

[illegible]

2. *Anteil gewählter Abgeordneter*

30. 2016-17-2017-18-2018-19-2019-20-2020-21-2021-22-2022-23-2023-24-2024-25-2025-26-2026-27-2027-28-2028-29-2029-30-2030-31-2031-32-2032-33-2033-34-2034-35-2035-36-2036-37-2037-38-2038-39-2039-40-2040-41-2041-42-2042-43-2043-44-2044-45-2045-46-2046-47-2047-48-2048-49-2049-50-2050-51-2051-52-2052-53-2053-54-2054-55-2055-56-2056-57-2057-58-2058-59-2059-60-2060-61-2061-62-2062-63-2063-64-2064-65-2065-66-2066-67-2067-68-2068-69-2069-70-2070-71-2071-72-2072-73-2073-74-2074-75-2075-76-2076-77-2077-78-2078-79-2079-80-2080-81-2081-82-2082-83-2083-84-2084-85-2085-86-2086-87-2087-88-2088-89-2089-90-2090-91-2091-92-2092-93-2093-94-2094-95-2095-96-2096-97-2097-98-2098-99-2099-2100-2101-2102-2103-2104-2105-2106-2107-2108-2109-2110-2111-2112-2113-2114-2115-2116-2117-2118-2119-2120-2121-2122-2123-2124-2125-2126-2127-2128-2129-2130-2131-2132-2133-2134-2135-2136-2137-2138-2139-2140-2141-2142-2143-2144-2145-2146-2147-2148-2149-2150-2151-2152-2153-2154-2155-2156-2157-2158-2159-2160-2161-2162-2163-2164-2165-2166-2167-2168-2169-2170-2171-2172-2173-2174-2175-2176-2177-2178-2179-2180-2181-2182-2183-2184-2185-2186-2187-2188-2189-2190-2191-2192-2193-2194-2195-2196-2197-2198-2199-2200-2201-2202-2203-2204-2205-2206-2207-2208-2209-2210-2211-2212-2213-2214-2215-2216-2217-2218-2219-2220-2221-2222-2223-2224-2225-2226-2227-2228-2229-2230-2231-2232-2233-2234-2235-2236-2237-2238-2239-2240-2241-2242-2243-2244-2245-2246-2247-2248-2249-2250-2251-2252-2253-2254-2255-2256-2257-2258-2259-2260-2261-2262-2263-2264-2265-2266-2267-2268-2269-2270-2271-2272-2273-2274-2275-2276-2277-2278-2279-2280-2281-2282-2283-2284-2285-2286-2287-2288-2289-2290-2291-2292-2293-2294-2295-2296-2297-2298-2299-2300-2301-2302-2303-2304-2305-2306-2307-2308-2309-2310-2311-2312-2313-2314-2315-2316-2317-2318-2319-2320-2321-2322-2323-2324-2325-2326-2327-2328-2329-2330-2331-2332-2333-2334-2335-2336-2337-2338-2339-2340-2341-2342-2343-2344-2345-2346-2347-2348-2349-2350-2351-2352-2353-2354-2355-2356-2357-2358-2359-2360-2361-2362-2363-2364-2365-2366-2367-2368-2369-2370-2371-2372-2373-2374-2375-2376-2377-2378-2379-2380-2381-2382-2383-2384-2385-2386-2387-2388-2389-2390-2391-2392-2393-2394-2395-2396-2397-2398-2399-2400-2401-2402-2403-2404-2405-2406-2407-2408-2409-2410-2411-2412-2413-2414-2415-2416-2417-2418-2419-2420-2421-2422-2423-2424-2425-2426-2427-2428-2429-2430-2431-2432-2433-2434-2435-2436-2437-2438-2439-2440-2441-2442-2443-2444-2445-2446-2447-2448-2449-2450-2451-2452-2453-2454-2455-2456-2457-2458-2459-2460-2461-2462-2463-2464-2465-2466-2467-2468-2469-2470-2471-2472-2473-2474-2475-2476-2477-2478-2479-2480-2481-2482-2483-2484-2485-2486-2487-2488-2489-2490-2491-2492-2493-2494-2495-2496-2497-2498-2499-2500-2501-2502-2503-2504-2505-2506-2507-2508-2509-2510-2511-2512-2513-2514-2515-2516-2517-2518-2519-2520-2521-2522-2523-2524-2525-2526-2527-2528-2529-2530-2531-2532-2533-2534-2535-2536-2537-2538-2539-2540-2541-2542-2543-2544-2545-2546-2547-2548-2549-2550-2551-2552-2553-2554-2555-2556-2557-2558-2559-2560-2561-2562-2563-2564-2565-2566-2567-2568-2569-2570-2571-2572-2573-2574-2575-2576-2577-2578-2579-2580-2581-2582-2583-2584-2585-2586-2587-2588-2589-2590-2591-2592-2593-2594-2595-2596-2597-2598-2599-2600-2601-2602-2603-2604-2605-2606-2607-2608-2609-2610-2611-2612-2613-2614-2615-2616-2617-2618-2619-2620-2621-2622-2623-2624-2625-2626-2627-2628-2629-2630-2631-2632-2633-2634-2635-2636-2637-2638-2639-2640-2641-2642-2643-2644-2645-2646-2647-2648-2649-2650-2651-2652-2653-2654-2655-2656-2657-2658-2659-2660-2661-2662-2663-2664-2665-2666-2667-2668-2669-2670-2671-2672-2673-2674-2675-2676-2677-2678-2679-2680-2681-2682-2683-2684-2685-2686-2687-2688-2689-2690-2691-2692-2693-2694-2695-2696-2697-2698-2699-2700-2701-2702-2703-2704-2705-2706-2707-2708-2709-2710-2711-2712-2713-2714-2715-2716-2717-2718-2719-2720-2721-2722-2723-2724-2725-2726-2727-2728-2729-2730-2731-2732-2733-2734-2735-2736-2737-2738-2739-2740-2741-2742-2743-2744-2745-2746-2747-2748-2749-2750-2751-2752-2753-2754-2755-2756-2757-2758-2759-2760-2761-2762-2763-2764-2765-2766-2767-2768-2769-2770-2771-2772-2773-2774-2775-2776-2777-2778-2779-2780-2781-2782-2783-2

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[illegible][webmaster@cs.cmu.edu](mailto:webmaster@cs.cmu.edu)

One is that the government should not try to force citizens to work, because  
working for the government is not a right, it is a duty.

આથી, આગામી વર્ષે, આજે રાત્રે ૩૧ ના રાત્રે સંવત્સરના  
આગામી વર્ષે ૩૧ ના રાત્રે સંવત્સરના આગામી વર્ષે ૩૧ ના રાત્રે સંવત્સરના

[illegible]

ප්‍රකාශන: 2019/01/01


  
 DEPARTMENT OF HEALTH AND HUMAN SERVICES

**Photographs of Ward Level Public Consultation, Kadavoor, 21.02.2018**



**Signature Sheets for the Ward Level Public Consultation, Kadavoor, 21.02.2018**





## **Minutes of Ward Level Public Consultation for Ward No 14,15,16,17,18, 19 & 20**

Date of the Meeting : 18-12-2018 at 11.30 AM  
Place of the meeting : R.S.B Hall , Manipal  
Wards Covered for Consultation : Participants from Ward No. 14,15,16,17,18,19 & 20

### **Deatils of the participants:**

#### **A. Client**

1. Mr. Anand Kallollikar - Commissioner, City Municipal Council , Udupi .
2. Mr. A.S Ramakrishnayya - Assistant Executive engineer, KUIDFC-KIUWMIP, PIU Udupi.
3. Mr. SudharshanNalwady - Assistant engineer, KUIDFC-KIUWMIP, Udupi.
4. Mr.Raghavendra - Assistant engineer Environment, City Municipal Council , Udupi.
5. Mr. Rohan Alva -Accounts superintendent,KUIDFC-KIUWMIP, Udupi.
6. Mr. Sanjeeva- Social Development Officer KUIDFC-KIUWMIP-RPMU, Mangaluru
7. Mr. Prathap Shetty –Amruth Engineer, City Municipal Council , Udupi.
8. Mr. Karunakar – Health inspector, City Municipal Council , Udupi.

#### **B. Councilors**

1. Smt. Vijaya Laxmi ward No:14
2. Sri. Manjunath Ward No: 17
3. Smt. Kalpana Sudhama Ward No:18
4. Smt. Bharathi Prashanth Ward No: 19
5. Sri Ashok Nayak .M Ward No:20

#### **C. Consultants**

- M/s GKW Consultants GmbH , Mangaluru;
1. Mr. Balakrishna M.R Social Development Specialist
  2. Mr. Shivaram , Consultant Engineer
- M/s EGIS India CONSULTING Engineers Pvt Ltd;
1. Mr. Prakash B , Construction Supervision Specialist
  2. Mr. SadanandKamati , Construction Supervision Specialist

#### **D. Others**

- a. Ward citizens , Senior citizens and Press reporters

#### **E. Participants attended : 30 No's( As per attendance)**

Mr. Karunakar Health inspector, City Municipal Council, Udupi welcomed the gathering and requested the dignitary to the stage .

Environment Engineer CMC, explained the need for the public consultation workshop as per the ADB Norms, and gave a brief outline of the 3 Packages that are to be taken under AMRUT as well as ADB. The purpose of this workshop is to give information to the public of Udupi City and also to have a free interaction with them.

M/s GKW Consultants GmbH, Consultant Engineer and Egis India consultants gave a detailed presentation about the 3 Packages and informed out of this 2 packages tender already been awarded to contractors and work will start shortly. The remaining one package tender is

invited and the tender process will be completed by end of January. Both the Packages 1 & 3 Will be completed within 36 Months and the contractor will be involved in O&M Process for the future 8 years .

Assistant Executive engineer, KUIDFC-KIUWMIP, PIU Udupi requested the public to give their suggestions and feedback on the work.

Q1. Kushal Shetty, Ex-Vice President CMC, Udupi told that as per his information Tender for Package 3 only has been awarded and Package :1 Tender Process was not completed. He felt that Package: 3 without Package: 1 will be of no use to udupi.

Ans: A.E.E PIU Udupi informed him that both the Packages: 1 and 3 tender has been awarded to the contractor and both will be completed simultaneously. The work will start shortly.

Q2. Mr. Uppendra Nayak, Ex President Z.P Udupi told that CMC members need to be given a detailed presentation by technical experts on this work, and also asked about the status of the 2<sup>nd</sup> Package due to the Realignment of National Highway .

Ans: Environment Engineer CMC, replied to this saying that the detailed presentation of the 3 Packages was given to the CMC members by M/s GKW Consultants and there after approval was received from CMC. As far as realignment of N.H works will not cause a problem to our pipeline as it is taken along the old alignment.

Q3. Mr. Narasimha Nayak , Ex-Member, CMC the Proposed OHT in our project is in manapalla and may cause difficulty in water distribution to manchi and surrounding places which are at higher level .

Ans: M/s GKW Consultants GmbH, Consultant Engineer informed him that there will be 7 OHT's in the proposed project and during the design validation period before commencing construction a detailed technical study of all areas will be done to ensure free and proper distribution of water.

Q4. Mr. Ravindra Nair , Eshwar Nagar told that in the presentation just given you have spoken about 24x7 water distribution but the actual situation is even during the monsoon season Udupi doesn't get 24x7 water and also ADB have funded this project will they impose conditions to raise the water Tariff to the citizens .

Ans: Environment Engineer CMC, replied that the 2046 years projected population has been taken as base and on completion of this project 24X7 water distribution is possible. Though ABD has funded the project the authority to fix the tariff lies only with the CMC.

Q6. Mr. Nithyananda Nayak, Manchi told that as per our presentation you have promised to provide water supply to the enroute villages and areas which come along the pipeline alignment. But he had doubts on this will happen after the project is completed.

Ans: Environment Engineer CMC, replied that when the pipeline laying is completed, connection points will be given to enroute villages and areas and they will also get water supply along with udupi city.

Q7. Mr. AllwynD'souza , Public Relation Officer –BJP told that as per the present situation in Manipal Major portion of water is supplied to Manipal Educational Institutions and the public share of the water is very less. He suggested not to repeat the same with the proposed project.

Ward level public consultation at RSB Hall, Manipal was concluded with vote of thanks to all the participants by Social Development Officer KUIDFC-KIUWMIP-RPMU, Mangaluru



### **Minutes of Ward Level Public Consultation for Ward No 30,31,32,33,35 and 28**

Date of Meeting :19-12-2018 at 11.30 AM  
 Place of meeting : Town Hall (Mini Hall) ,Ajjarkadu Udupi  
 Wards Covered : Participants from Ward No. 30,31,32,33,35 and 28

#### **Deatils of the participants:**

##### **A. Client**

1. Mr. A.S Ramakrishnayya - Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi.
2. Mr. K Ganesh -Assistant Executive EngineerCity Municipal Council , Udupi.
- 3.Mr.Raghavendra - Assistant Engineer Environment, City Municipal Council , Udupi.
2. Mr. SudharshanNalwade - Assistant Engineer, KUIDFC-KIUWMIP, Udupi.
3. Mr. Rohan Alva -Accounts Superintendent,KUIDFC-KIUWMIP, Udupi.

##### **B. Councilors**

1. **Smt. Savitha Harish Ram Bhandaryward No:28**
2. **Smt. Rajini Hebbar Ward No:30**
3. **Smt. Rashmi Chittaranjan Bhat Ward No:33**
4. **Sri. Harish Shetty Ward No:35**

##### **C. Consultants**

**M/s GKW Consultants GmbH , Mangaluru;**

1. Mr. Shivaram , Consultant Engineer

**M/s EGIS India CONSULTING Engineers Pvt Ltd;**

1. Mr. SadanandKamati , Construction Supervision Specialist

##### **D. Others**

Ward citizens , Senior citizens and Press reporters

##### **E. Participants attended : 21 No's( As per attendance enclosed)**

1. Mr. Shivaram , Consultant Engineer,M/s GKW Consultants GmbH ,Mangaluru welcomed the gathering and requested the dignitary to the stage.

Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi, explained the need for the public consultation workshop as per the ADB Norms, and gave a brief outline of the 3 Packages that are to be taken along with funding under AMRUT as well as ADB. The purpose of this workshop is to give information regarding the project to the public of Udupi City and also to have a free interaction with them. Udupi faces scarcity of water for 4 months from January to April due to shortage of water in Swarna Rive, Hence this project, to supply water from Varahi was taken up. He further said that the present Project along with 7 Over Head Tank's will be completed in 3 ½ years excluding an initial period of 6 month's for Design Validation by the contractor. Once this project is completed the drinking water problem of udupi town will be solved.

Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi requested the public to give their suggestions and feedback on the Project.

- Q1. Sri. Srinivas Shetty Tonse, informed that he has been hearing about supply of varahi river water to udupi from the last 10 -12 years, whether a specific date can be given when this project will be implemented ?
- Ans: Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU udupi informed there will be an initial period of 6 Months for design validation by the contractor and immediately after that the construction work will start and the work will be completed in 3 years.
- Q2. Sri G.S Lazarus enquired whether the existing pipe lines will be disturbed while laying new pipe lines or not?
- Ans: Assistant Executive Engineer, City Municipal Council, Udupi informed that the town is divided into 17 zones and along with 7 Over Head Tank's and 384 Kms of new pipeline will be laid under this project . He also informed there will be no disturbance in the present supply of water as existing pipelines will not be touched.
- Q3. Smt. Padma Kini, Court Back Road enquired about number of Over Head Tanks situated presently in Ajjarkad and Bhramhagiri and whether any new Over Head tanks are proposed in this area?
- Ans: Assistant Executive Engineer, City Municipal Council, Udupi replied that at present there are 2 Over Head tanks in Ajjarkad area and no new Over Head tanks are proposed in this area.
- Q4. Smt. Veda. V. Bhat Ajjarkad complained about very low pressure water supply presently resulting in improper distribution of water in their area.
- Ans: Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU udupi replied that in this project there are 7 OHT's proposed and before executing the work there will be Design validation study of all areas and measures will be taken to ensure equal and proper distribution of water to all areas .
- Q6. Sri. Venkat Ramana, Court Back Road asked whether instead of this project the existing Baje dam Height can be increased.
- Ans: Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU udupi replied that in this regard study was conducted and it was found that height increasing was technically and economically not feasible.

Ward level public consultation at Town Hall (Mini Hall) ,Ajjarkadu Udupi was concluded with vote of thanks to all the participants by Mr. Shivaram , Consultant Engineer, M/s GKW Consultants GmbH ,Mangaluru





## **Minutes of Ward Level Public Consultation for Ward No 29& 34**

Date of Meeting : 22-12-2018 at 11.30 AM  
Place of meeting : Sathyamurthy Hall, CMC building Udupi  
Wards Covered for Consultation workshop : Participants from Ward No. 29 and 34

### **Deatils of the participants:**

#### **A. Client**

1. Mr. A.S Ramakrishnayya - Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi.
2. Mr.Raghavendra - Assistant Engineer Environment, City Municipal Council , Udupi.
3. Mr. SudharshanNalwade - Assistant Engineer, KUIDFC-KIUWMIP, Udupi.
4. Mr. Rohan Alva -Accounts Superintendent,KUIDFC-KIUWMIP, Udupi.
5. Mr. Prathap Shetty –Amruth Project Engineer, City Municipal Council , Udupi.

#### **B. Councillors**

1. Sri. T.J Hegde ward No:34
2. Smt. ManasaC.Pai Ward No:29
3. Smt. Amrutha Krishnamurthy Ward No:32

#### **C. Consultants**

M/s GKW Consultants GmbH , Mangaluru;

1. Mr. Shivaram , Consultant Engineer

M/s EGIS India CONSULTING Engineers Pvt Ltd;

1. Mr. SadanandKamati , Construction Supervision Specialist

#### **D. Others**

- a. Ward citizens , Senior citizens and Press reporters

#### **E. Participants attended : 20 No's( As per attendance)**

1. Mr. Raghavendra - Assistant Engineer Environment, City Municipal Council , Udupi welcomed the gathering and requested the dignitary to the stage.

Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi, informed that udupi receives water from swarna river for 8 months and there is shortage of water for 4 months from January to April . The rivers madisalu, Sita and Udyavara which flow near to udupi are non perennial rivers and run dry during summer, so Varahi River was identified for supply of water for above 4 months. This project has been taken up with estimated population of year 2046 as base and will be completed in 3 and half years and it will fulfil the drinking water problem of udupi. He also requested the public to bear and cooperate with the minor problems if any during the implementation of this project.



Mr. Shiva ram, Consultant Engineer, GKW Consultants Mangaluru gave a detailed presentation on the technical and the financial aspects of the project. He told the highlights of this project are

- Project taken up under Amruth and ADB scheme.
- Construction of 7 new Over Head Tanks.
- Installation of Bulk flow meters to measure input and output of water which will also avoid pilferage of water.
- Pipelines are designed along existing roads and does not require any land acquisition

Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi requested the public to give their suggestions and feedback on the Project.

Q1: Sri. T.J Hegde, member of City Municipal Council, Udupi informed that there is opposition to this project from some farmers / local leaders of kundapur, what is the status of the same?

Whether funds for this project is already sanctioned or not?

Ans: Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi replied that the Raitha Sanga as well as some local leaders of Kundapur oppose the project under the impression that this project will take away water meant for irrigation of surrounding farms, and have also appealed to the court .We have informed the court and as well as them that water availability in varahi river is 40.46 Cum out of which 31.15 Cum is required for irrigation of agricultural lands. The balance 9.46 Cum flows to the sea out of which we are drawing 0.47 Cum (41 MLD) for udupi which is negligible quantity .So this will not affect the irrigation project of Kundapur and the same is being conveyed to them. The funds for this project is already sanctioned and with KUIDFC as nodal agency a High power committee is constituted in Bangalore to release the funds.

Q2: Sri. T.J Hegde, continued and would like to know whether there is an agreement with enroute villages for supply of water and will there be reduction in availability of water to udupi after giving water to these villages.

Ans: Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi replied for this project permission from PWD and RDPR has been received. The 41 MLD water proposed under this project includes the water requirement for the enroute 12 Villages along with the demand of udupi.

Q3: Smt. Amrutha Krishnamurthy Kinnimulky, member of City Municipal Council, Udupi asked how many Over head Tanks are proposed under this project and their locations ?

Ans: Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupireplied that 7 new Over Head Tanks will be constructed at 1. Near to Anganvadi , Manipal 2. Manapalla –Manipal 3.Manchi 4.Near AmmaniRammanna Shetty Hall, Kolambe 5. Kakkunje6. Indraliand 7. Santhekatte

Q4: Sri. T.J Hegde, informed as per CMC norms 135 Litres water Per Head is required for each person what is the present situation and what is the solution for the same?

Ans: Assistant Engineer Environment, City Municipal Council , Udupi explained that at present udupi city has Nearly 19,000 House connections and 2600 commercial connections and every day 135 Litres water Per Head is being supplied for 8-9 month in a year. The remaining 3 months of Summer time water can't be supplied as required and this short fall will be fulfilled after the completion of proposed project.

Ward level public consultation workshop at Sathyamurthy Hall, CMC building Udupi was concluded with vote of thanks to all the participants by Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi



## **Minutes of Ward Level Public Consultation for Ward No 25,26&27**

Date of Meeting : 22-12-2018 at 03.30 PM  
 Place of meeting : U. Kamala Bai- Higher Primary School Kadiyali  
 Wards Covered for Consultation workshop : Participants from Ward No. 25,26 and 27

### **Deatils of the participants:**

#### **A. Client**

1. Mr. A.S Ramakrishnayya - Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi.
2. Mr. Ganesh -Assistant Executive Engineer,City Municipal Council , Udupi.
3. Mr.Raghavendra - Assistant Engineer Environment,City Municipal Council , Udupi.
4. Mr. Sudarshan Nalwade - Assistant Engineer, KUIDFC-KIUWMIP, Udupi.
5. Mr. Rohan Alva -Accounts Superintendent,KUIDFC-KIUWMIP, Udupi.
6. Mr. Prathap Shetty –Amruth Project Engineer,City Municipal Council , Udupi.

#### **B. Councillors**

1. **Sri. Girish . M. Anchan ward No:25**
2. **Smt. Geetha D .Shet Ward No:26**
3. **Sri. Prabhakar Poojari Ward No:27**

#### **C. Consultants**

**M/s GKW Consultants GmbH , Mangaluru;**

1. Mr. Shivaram , Consultant Engineer

**M/s EGIS India CONSULTING Engineers Pvt Ltd;**

1. Mr. SadanandKamati , Construction Supervision Specialist

#### **D. Others**

- a. Ward citizens , Senior citizens and Press reporters

#### **E. Participants attended : 14 No's( As per attendance)**

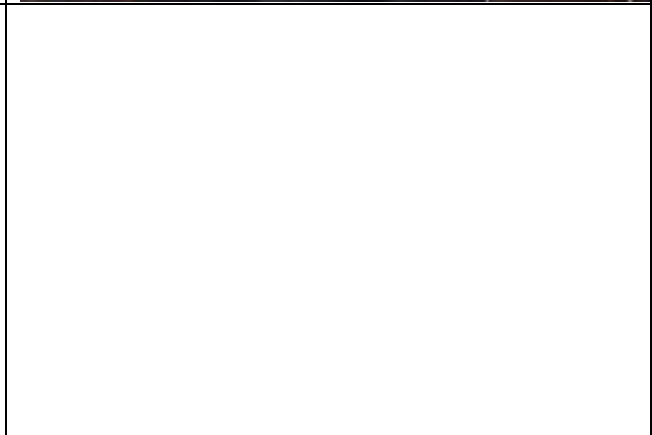
1. Mr. Raghavendra - Assistant Engineer Environment,City Municipal Council , Udupi welcomed the gathering and requested the dignitary to the stage.

Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi, informed the public about the project, the residence of KEB colony informed him that right now their ward is not getting water and need immediate solution for that and they are not intrested about this project which will take 3 years to complete . Mr. Prabhakar Poojari member of City Municipal Council , Udupi. Gunddi bail urged them, that this project is very important to solve the water problem of udupi and requested them to listen to the officials . The public then told to inform the elected members about the project and they in turn will get information from them.

Mr. Prabhakar poojari requested KUIDFC and CMC officials to give a detailed presentation to the 3 ward councillors .As suggested by him the officials and consultants gave a detailed presentation about the project and answered all the queries

Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi informed that the purpose of this public consultation workshop is to give full details about the project in a transparent manner with the public and to execute the project with full confidence of the public. Mr. Prabhakar poojari replied that ultimately citizens question us the elected representatives for any problem and told they will tell their ward people details about the project and suggested that we complete the project as early as possible.

Ward level public consultation workshop at U. Kamala Bai- Higher Primary School Kadiyali Udupi was concluded with vote of thanks to all the participants by Assistant Executive Engineer, KUIDFC-KIUWMIP, PIU Udupi



## **Minutes of Ward Level Public Consultation for Ward No 21,22,23 & 24**

### **Date of the meeting: 18.12.2018**

Place of the meeting: AmmanniRamanna Kalyan Mantap Udupi

Time: 3.30 PM

Wards covered for consultation: participants from Ward No 21, 22, 23, and 24

Details of the participants:

#### **A. Client:**

1. Mr. Ramakrishna, AEE, PIU Udupi
2. Mr. Sudarshan, AE, PIU Udupi
3. Mr. Sanjeev, Social Development Officer, RPMU Mangalore

#### **B. Councilors:**

1. Mr.ChandrashekarSherigar- Ward No 21
2. Mr. Vijaya PoojariBailur- Ward No 22
3. Mr. Krishna Rao Kodancha- Ward No 23
4. Mr. Raju- Ward No 24

#### **C. Consultants:**

##### **GKW:**

1. Mr. Balakrishna M. R, Social Development Specialist
2. Mr. Shivaram, Resident Engineer

##### **EGIS:**

1. Mr. Prakash. B, Construction Supervision Specialist
2. Mr. Sadanand, Construction Supervision Specialist

Participants attended: 9 Nos (As per attendance)

**Brief history:** This was the **first Ward level meeting** in Ward No 21, 22, 23 and 24 to create awareness among the local residents who are going to be benefitted from the 24X7 water supply project under KIUWMIP- Jalasiri of KUIDFC.

Mr. Sanjeev, SDO of RPMU Mangalore welcomed the participants. Mr. Ramakrishna, AEE of Udupi PIU explained about the sub project components of KIUWMIP project and also associated projects for Udupi water supply project details as follows(based on previous alignment ):

- The Karnataka Urban Development and Coastal Environment Management Project (KUDCEMP) was implemented to serve the water supply demand of Udupi city.
- The current capacity of existing WTP is 27.24 MLD which is not sufficient to meet the water demand of Udupi city by 2046.
- To fulfill the current shortage and future demands upto 2046 for Udupi CMC, KIUWMIP undertake a new project 24X7 Bulk Water Supply and Distribution Network including 8 years of O & M for Udupi City with the assistance of ADB. Udupi water supply project will be implemented with the financial assistance of

ADB, AMRUT and Karnataka Government fund. The scope of the project funded by ADB is as follows:

- A new WTP of 30 MLD capacity in addition to the existing 27.24 MLD capacity of WTP.
- Laying of 7.47 kms of Clear water feeder mains for distribution of water from GLSR to newly proposed OHTs
- Construction of 7 Elevated Storage Reservoirs for storage of treated water prior to distribution.
- Laying of 358.17 kms of Distribution network pipe ranging from 63mm dia to 350 mm dia HDPE pipes proposed for the uncovered areas of all zones and rider lines.
- Installation of House service connections. Replacement of 16,870 non-functioning water meters for existing connections and 15,000 new water supply connections to un-covered households.

After completion of the above session, there was question- answer session for better understanding of the project for the different stakeholders.

1. Mr. Krishna Rao Kodancha told that Baje dam was constructed to supply water to Udupi from Swarna River. The water storage capacity of the dam when it was constructed and the present storage capacity should be assessed. His opinion was that due to silt stored the dam, the storage capacity of the dam is reduced. He suggested for de silting of the dam for increasing the water storage capacity. Mr. Ramakrishna replied that the river consisting of rocks and deep areas within the river and because of which water is not flowing properly after the rainy season. He also told de silting of the Baje dam is not a good solution for water supply.
2. Mr. Sathish PoojariKukkikatte expressed that the Ward level Public Consultation is organized by CMC Udupi. But none of the CMC Officers attended the meeting. He expressed his unhappiness in the meeting. Mr. Ramakrishna, AEE of PIU Udupi told that the CMC Municipal Commissioner and other Officers attended the Ward level Public Consultation in the morning today at Manipal and they could not attend the present meeting because they involved themselves for preparing the answers for the questions raised in State Assembly session in Belgaum. Mr. Sathish Poojari also suggested that vide publicity should have given for conducting Ward level Public Consultation and one more well planned Ward level Public Consultation needs to be organized in the same place.
3. Mr. Dinesh Nayak Chitpadi explained that there is acute shortage of water during Summer 4 months and 24X7 water supply will be benefitted after 3 years from now. He urged that intermediate actions from the CMC should be taken to provide water during Summer and he wanted know what action will be taken by CMC in this regard. In continuation he also told that there is wastage of water due leakages in the pipes and if it is addressed CMC can improve the water supply systems prevailing now. Mr. Ramakrishna, AEE of PIU replied that if the civilians found any wastage of water in part of the city, they should

inform the Environment Engineer Raghavendra directly on his cell phone to take appropriate action.

4. Councilor Mr. Chandrashekar Sherigar told that construction of OHT at Manipal will not supply water to the elevated areas of Indira Nagar and surrounding areas. Mr. Shivaram, GKW Engineer replied that Udupi city has been covered under different zones to supply water and based on the requirements and technical feasibilities project has been designed. More over before starting of the construction work design validation will be done to ensure the technical feasibility of the project.
5. Mr. Raju, CMC Councilor explained that in Kasturi Nagar area in his Ward water supply pipe lines damaged due to National High way Authorities work. He wanted to know whether restoration work will be done under KIUWMIP project. AEE of PIU Mr. Ramakrishna replied that it cannot be taken up in this project and they need to approach the CMC to address the issue.
6. Mr. Krishna Rao Kodenchu urged to complete the 24X7 water supply civil works within the stipulated time. He also suggested to clean the existing open wells in the city to improve the water source.  
The Ward level Public Consultation is ended with vote of thanks by Mr. Sanjeev, SDO of RPMU of KUIDFC Mangalore.

Sd-

Commissioner

CMC Udupi







Photographs of Ward Level Public Consultation, Kukehalli, 07.03.2018



Signature Sheets for the Ward Level Public Consultation, Kukehalli, 07.03.2018

ಕುಕೆಹಳ್ಳಿ, 07.03.2018 ರಂದು ನಡೆದ ಸಾರ್ವಜನಿಕ ಸಭೆಯ ಸಹಿಪತ್ರ

ಸಭೆಯಲ್ಲಿ ಹಾಜರಿ ಇದ್ದವರ ಹೆಸರುಗಳು ಮತ್ತು ಸಹಿಗಳು:

1. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
2. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
3. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
4. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
5. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
6. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
7. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
8. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
9. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
10. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
11. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
12. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
13. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
14. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
15. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
16. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
17. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
18. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
19. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
20. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ

ಹತ್ತಿರ ಸಹಿ: \_\_\_\_\_

ಸಾರ್ವಜನಿಕ ಸಭೆಯ ಸಹಿಪತ್ರ

ಕುಕೆಹಳ್ಳಿ

ಸಭೆಯಲ್ಲಿ ಹಾಜರಿ ಇದ್ದವರ ಹೆಸರುಗಳು ಮತ್ತು ಸಹಿಗಳು:

1. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
2. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
3. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
4. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
5. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
6. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
7. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
8. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
9. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
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14. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
15. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
16. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
17. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
18. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
19. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ
20. ಶ್ರೀಮತಿ. ಸುಷ್ಮಾ	ಸಹಿ

ಹತ್ತಿರ ಸಹಿ: \_\_\_\_\_

ಸಾರ್ವಜನಿಕ ಸಭೆಯ ಸಹಿಪತ್ರ



[illegible]

**Photographs of the Ward Level Public Consultation, Kadoor, 03.03.2018**





[illegible]

**Photographs of Ward Level Public Consultation, Cherkady, 05.03.2018**



**Signature Sheets of Ward Level Public Consultation, Cherkady, 05.03.2018**

[illegible]

## CONSULTATION/ DISCUSSIONS WITH STAKEHOLDERS/ COMMUNITY ALONG ASSOCIATED FACILITY- BULKALIGNMENT

No	Name and address of the person consulted	Contact No	Will the project cause any	Suggestions for the proposed project
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			<b>social issue?</b>	
<b>1</b>	Mr. Gopalakrishna S/o ShankaraGaniga DurgashreeKulunje Village and Post	9449469874	No	Welcomes the project. Pipe line should be laid in the ROW of the existing road.
<b>2</b>	Mr. Bhaskar S/o Thimmappa S. Kanchan ,Vegetable shop, Hebri Road Haladi	9880719159	No	Welcomes the project. He will inform villagers about the proposed subproject implementation.
<b>3</b>	Mr. Sanjeeva S/o GanapaKulal DurgashreeStores,Hebri Road, Haladi	9663262495	No	Welcomes the project. Trenches should be closed immediately after completion of the pipe laying work.
<b>4</b>	Mr. Durga Naik S/o Kalu Naik Ex- Vice president Gram Panchayat Haladi, 76 Haladi Village, 28 Haladi Post Kundapura Taluk, Udupi District	9743575981	No	Welcomes the project. Planks should be provided during implementation of civil work. Access roads to the connecting villages should not be blocked.
<b>5</b>	Mr. Shankar Shetty S/o Sanjeeva Shetty Petty shop besides Theertha Vinayaka Temple Arch, Chirodi village, Avarse Post, Kundapura Taluk, Udupi District	9902781804	No	Welcomes the project. He is aware of the proposed sub since the survey for preparation of DPR.
<b>6</b>	Mr. JayakaraPoojari S/o KushalaPoojari Friends Flower stall, ShiroorMoorkai, Heggunje village, Mandarthi Post, Kundapura Taluk, Udupi District	9740948611	No	Welcomes the project. He has observed the survey for DPR preparation.
<b>7</b>	Mrs. Sharada W/o Ganesh Upadhaya Hotel Krishna Bhavan, Kokkarne, Bramhavara Taluk, Udupi District	0820- 2598628	No	Welcomes the project. Information should be provided about details of construction
<b>8</b>	Mrs. Vishalakshi W/o Chandayya Shetty Sarvodaya dialing point, Kukkehalli, Udupi District.	9591892653	No	Welcomes the project. She is aware of the project because she interacted during survey for preparation for DPR. She indicated that water to their village should be provided from the proposed project.



**PHOTOGRAPHS OF CONSULTATION/ DISCUSSIONS WITH STAKEHOLDERS/ ALONG  
ASSOCIATED FACILITY-BULK ALIGNMENT**



Consultation with the villager of Kulunje village



Consultation with the vegetable shop Hebri Road, Haladi



Consultation with the shop owner Hebri Road, Haladi



Consultation with the Ex- Gram Panchayat Vice- president of Haladi in his shop.



Consultation with the shop owner of Chirodi Village



Consultation with the flower stall owner of ShiroorMoorkai, Heggube Village



Consultation with shop owner in Kukkehalli Village

## APPENDIX10: ASSOCIATED PROJECT RELATED DOCUMENTS- WTP SITE

List of Proposals Submitted Online by User Agencies

**Help**

Using this report, you can view details of proposals. Click on Proposal no to view detail of FORM-A part. Click on to print.

☒ Allocation of fresh forest land (Form-A)
 ☐ Application Under Section 2(ii)
 ☐ Renewal of lease (Form-

Proposal Year:   
 Region:   
 Category:

Enter value for Search:

SEARCH

Note:- All areas are in Hectares(ha.)

Sno.	State Name	Proposal No.	RO/Ministry File Number	Proposal Name	Category	User Agency Name	Area (ha.)	Proposal Status	Proposal received electronically
1	Karnataka	FP/KA/WATER/33386/2018	HA	For construction of Water Treatment Plant for 24* Drinking Water Supply to Udipi City in Kundapura Division, Udupi District	Drinking Water	CITY MUNICIPAL COUNCIL UDUPI	2305	Draft	30 Apr 2018

[\(HTTPS://SWACHHBHARAT.MYGOV.IN/\)](https://swachhbharat.mygov.in/)

[Digital India \(HTTP://WWW.DIGITALINDIA.GOV.IN\)](http://www.digitalindia.gov.in)

[\(HTTPS://DATA.GOV.IN/\)](https://data.gov.in/)

[\(HTTPS://INDIA.GOV.IN/\)](https://india.gov.in/)

[\(HTTPS://WWW.MYGOV.IN/\)](https://www.mygov.in/)

[\(HTTP://MEITY.GOV.IN/\)](http://meity.gov.in/)

[\(HTTP://WWW.PMINdia.GOV.IN/IN/\)](http://www.pmindia.gov.in/)

[\(HTTP://WWW.NIC.IN/\)](http://www.nic.in/)

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For any Technical support, Please Contact: EPCO, NIC, New Delhi, monitoring-fc@nic.gov.in

28/11/2018

Timeline

**Timeline Details**

**Proposal received date at each stage of flow.**

**A. General Details**

(i). Proposal No. : FP/KA/WATER/33396/2018

(ii). Name of Project for which Forest Land is required : For construction of Water Treatment Plant for 24\*7 Drinking Water Supply to Udupi City in Kandalpura Division, Udupi District

(iii). Short narrative of the proposal and Project/scheme for which the forest land is required : Diversion of 0.951 ha. of Decreed Forest land in Sy No. 79(1AP) of Anjar Village, Udupi Range and Taluk, Udupi District, Kandalpura Forest Division for construction of Water Treatment Plant for 24\*7 Drinking Water Supply to Udupi City.

(iv). State : Karnataka

(v). Category of the Project : Drinking Water

(vi). Shape of forest land proposed to be diverted : Non Linear

(vii). Area of forest land proposed for diversion (a) Ha. (b) 2.08

**B. Time Line**

Proposal No.	Submitted by User Agency	Query for Shortcoming (if any) by Nodal Officer	Resubmission of Proposal by User Agency	Query by Nodal Officer for submitting Hard Copies	Uploading by U.A. of copies of receipt received from DFO & DC.	Division	Circle	Nodal Office	State Government	Regional Office	Stage-I Approval	Stage-II Approval
FP/KA/WATER/33396/2018	30/04/2018	01/09/2018 24/05/2018	13/11/2018 03/08/2018	26/11/2018								

**C. Essential Details Sought History**

Communication between Regional Office & State Government	Communication between State Government & Nodal Officer	Communication between Nodal Officer & Circle	Communication between Circle & Division	Communication between Division & User Agency

NOTE:- Proposal is pending with User Agency for submitting hard copy of proposal.

<http://Forest.karnataka.gov.in/Forest/apply/Proposal/FP/KA/WATER/33396/2018>

Copy of revised online application made to the Ministry of Environment and Forest in Dec 2018 requesting conversion of land at Anjaru village, Udupi for the construction of the Water Treatment Plant.

# **APPENDIX11: ASSOCIATED PROJECT RELATED- DOCUMENTS FOR USE OF WATER FROM VARAHI RIVER FROM KNNL**

Letter from DPD, RPMU Mangalore to KNNL requesting a No Objection Certificate (NOC) regarding the withdrawal of water from intake well on the Varahi river for water supply to Udupi, considering no impact on downstream villages.

	<p>Karnataka Urban Infrastructure Development &amp; Finance Corp. Ltd., Karnataka Integrated Urban Water Management and Investment Programme (KIUWMIP) "Jalasiri" - Tranche 2 Regional Programme Management Unit (RPMU), First Floor, Mangalore City Corporation Commercial Complex, Malikatta Kachi, Mangaluru - 575002 E-mail : <a href="mailto:jalasiritranch2dpd@gmail.com">jalasiritranch2dpd@gmail.com</a> Tel : 0824-2981109</p>
No.KIUWMIP/RPMU/CR 56/2016-17	Date:11-10-2017
<p>Executive Engineer Karnataka Neeravari Nigam Limited No.2 Varahi Project Zone Siddapura,Udupi Dist-576229</p>	
<p>Sir,</p>	
<p>Sub: NOC for affect of abandoned Jack well near Bharthkal in Haladi Village to intake water to Supply Drinking Water to Udupi City from Varahi River on downstream villages</p>	
<p>You are kindly requested to provide NOC(No Objection Certificate) certifying that the abandoned Jack well near Bharthkal in Haladi Village to intake water to Supply Drinking Water to Udupi City from Varahi River on downstream villages <b>will not adversely affect</b> the downstream villages such as Kullanje, Halady, Vander, Kukkehalli, Avarse, Haluvalli,Pejamogaru, Kadur, Kakkunje, Billadi, Cherkadi and 33 Shiroor villages.</p>	
<p>Regards</p>	
<p>Yours Sincerely              (S.A.Prabhakara Sharma)            Deputy Project Director            KUIDFC- KIUWMIP (Jalasiri)            RPMU            Mangaluru</p>	



පිටුව: 6-08-207

बालगङ्गाधर,

2) de K.R. WMP/R/PAU/CR/56/2016-17/174. Dated 12-03-2017.

陳一申 謝國興 謝

1. The first step in the process of the investigation is to identify the problem. This is done by gathering information about the situation and the people involved. The next step is to analyze the information and determine the cause of the problem. This is done by looking at the data and identifying patterns. The third step is to develop a plan of action. This is done by deciding what needs to be done to solve the problem. The fourth step is to implement the plan. This is done by putting the plan into action. The fifth step is to evaluate the results. This is done by looking at the data and seeing if the problem has been solved. The sixth step is to make adjustments. This is done by making changes to the plan if necessary. The seventh step is to document the results. This is done by writing a report about the investigation. The eighth step is to share the results. This is done by presenting the report to the people involved. The ninth step is to follow up. This is done by checking back on the situation to see if the problem has been solved. The tenth step is to conclude. This is done by summarizing the findings of the investigation.

[illegible]

ಇವು ವಿಶ್ವವಿದ್ಯಾಲಯ  
ಕರ್ನಾಟಕ ವಿಶ್ವವಿದ್ಯಾಲಯ  
ವ್ಯವಸ್ಥಾಪಕ ನಿರ್ದೇಶಕರು,  
KUI/DEC, ಬೆಂಗಳೂರು.

ಪ್ರತಿಭಟನೆ

1. The first paragraph of the report states that the purpose of the study is to determine the effect of the new curriculum on the learning of the subject of Science in the primary schools of the district of ...

Translation**M.D, KUIDFC letter to Chief Engineer, KNNL requesting handover of abandoned jack well to Udupi city**

No: KUIDFC/ KIUWMIP/T2/Udupi/2014-15/234

Date

16 August 2017

To,

The Chief Engineer,  
Karnataka Neeravari Nigam  
Upper Tunga Project Zone  
Sagara Road, Shivamogga- 577201

Sir,

**Sub: Hand over of the Abandoned Jack well near Bharthkal in Haladi Village to Supply Drinking Water to Udupi City from Varahi River.**

**Ref:** 1. Proceedings of the Meeting of Secretary, Urban Development, Government of Karnataka dated 09 August 2017.

2. No. KIUWMIP/RPMU/CR/ 56/2016-17/174, dated 14 August 2017

\*\*\*\*\*

With reference to the above, presently water being lifted from Swarna River at Baje and treated drinking water is supplied to the residents of Udupi City. But the storage capacity of the vented dam constructed at Baje is not sufficient to supply water during summer as per the demand.

In this regard it was verified, possibility of constructing a new vented dam for Swarna River near Shimra village to supply drinking water as per the demand of Udupi City. But it was found that if vented dam constructed at Shimra village, there is a possibility of private properties being submerged and also the project is economically not viable. Therefore, it was decided that it is better to prepare the DPR as per reference (1) by using the existing abandoned Jack well near Bharathkal in Haladi village which is under Karnataka Irrigation Corporation Limited. In this regard, DPR has been prepared to supply water to the existing WTP at Baje by Karnataka Urban Infrastructure Development and Finance Corporation through AMRUT assistance. Therefore, you are requested to hand over the abandoned Jack well including the existing machineries which is near Bharathkal in Haladi village to the Municipal Commissioner, City Municipal Council, Udupi.

Yours faithfully

-Sd-

A B Ibrahim  
Managing Director  
KUIDFC, Bengaluru

Copy to:

1. The Secretary, Urban Development Department Government of Karnataka, VikasaSoudha, Bengaluru for kind information.
2. The Joint Managing Director, KUIDFC, Bengaluru for information.

Letter from MD, Karnataka Neeravari Nigam (KNN) permitting the use of 41 MLD water from Varahi River to Udupi city

**ಕರ್ನಾಟಕ ನೀರಾವರಿ ನಿಗಮ ಸೀಮಿತ**  
(ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಉದ್ಯಮ)  
**Karnataka Neeravari Nigam Limited**  
(A Government of Karnataka Enterprise)

ದಿನಾಂಕ: 15.12.2017.

ಸಂಖ್ಯೆ: ಕೆಎನ್‌ಎನ್/238/ಉದಿವಿ/2017-16/  
ಇವರಿಗೆ,  
ಸರ್ಕಾರದ ಕಾರ್ಯದರ್ಶಿಗಳು,  
ಜಲಸಂಪನ್ಮೂಲ ಇಲಾಖೆ,  
ವಿಶಾಸನಸೌಧ,  
ಬೆಂಗಳೂರು.

ಮಾನ್ಯರೇ,

ವಿಷಯ: ಉಡುಪಿ ನಗರಕ್ಕೆ ವಾರಾಹಿ ನದಿಯಿಂದ 41 ಎಂಎಲ್‌ಡಿ ಪ್ರಮಾಣದ ನೀರನ್ನು ಉಪಯೋಗಿಸಿಕೊಳ್ಳಲು ಅನುಮತಿ ನೀಡುವ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ: ಮುಖ್ಯ ಇಂಜಿನಿಯರ್, ಶಿವಮೊಗ್ಗ ಇವರ ಪತ್ರ ಸಂಖ್ಯೆ:3081, ದಿ:26.10.2017.

\*\*\*\*\*

ಮೇಲಿನ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, ಉಲ್ಲೇಖಿತ ಪತ್ರದಲ್ಲಿ ಮುಖ್ಯ ಇಂಜಿನಿಯರ್‌ರವರು ಉಡುಪಿ ನಗರಕ್ಕೆ ವಾರಾಹಿ ನದಿಯಿಂದ 41 ಎಂಎಲ್‌ಡಿ ಪ್ರಮಾಣದ ನೀರನ್ನು ಉಪಯೋಗಿಸಿಕೊಳ್ಳಲು ಅನುಮತಿ ನೀಡುವಂತೆ ಕೋರಿ ಪ್ರಸ್ತಾವನೆಯನ್ನು ಅನುಮೋದನೆಗಾಗಿ ಸಲ್ಲಿಸಿದ್ದು, ತಳೆಕಂಡಂತೆ ವರದಿ ಮಾಡಿರುತ್ತಾರೆ.

ವಾರಾಹಿ ನದಿಯಲ್ಲಿ 41 ಎಂಎಲ್‌ಡಿ ಪ್ರಮಾಣಕ್ಕಿಂತ ಹೆಚ್ಚಿನ ಪ್ರಮಾಣದ ನೀರು ಹರಿಯುತ್ತಿದ್ದು, ಅಂದರೆ ಗೇಜ್ ಪ್ರಕಾರ 6.75% dependable yield 40.61 cumecs ಇರುವುದರಿಂದ, ಉಡುಪಿ ನಗರಕ್ಕೆ ಕುಡಿಯುವ ನೀರು ಸರಬರಾಜು ಯೋಜನೆಗೆ ವಾರಾಹಿ ನದಿಯಿಂದ 41 ಎಂಎಲ್‌ಡಿ ಪ್ರಮಾಣದ ನೀರನ್ನು ಉಪಯೋಗಿಸಲು ಅನುಮತಿ ನೀಡಬಹುದಾಗಿರುತ್ತದೆಂದು ಅಭಿಪ್ರಾಯಪಡುತ್ತಾ, ಅನುಮೋದನೆ ದೊರಕಿಸಿಕೊಡುವಂತೆ ಕೋರಿ ಪ್ರಸ್ತಾವನೆಯನ್ನು ಶಿಫಾರಸ್ಸಿನೊಂದಿಗೆ ಸಲ್ಲಿಸಿರುತ್ತಾರೆ.

ರಾಷ್ಟ್ರೀಯ ಜಲನೀತಿಯಸ್ಥಯ ಕುಡಿಯುವ ನೀರಿಗೆ ಪ್ರಥಮ ಆದ್ಯತೆ ನೀಡಬೇಕಾಗಿರುವುದರಿಂದ ಉಡುಪಿ ನಗರಕ್ಕೆ ವಾರಾಹಿ ನದಿಯಿಂದ 41 ಎಂಎಲ್‌ಡಿ ಪ್ರಮಾಣದ ನೀರನ್ನು ಉಪಯೋಗಿಸಲು ಅನುಮತಿಯನ್ನು ನೀಡಬಹುದಾಗಿದೆ. ಸದರಿ ಪ್ರಸ್ತಾವನೆಯನ್ನು ತಮ್ಮ ಅಭಿಗಾಹನೆಗಾಗಿ ಮತ್ತು ಮುಂದಿನ ಸೂಕ್ತ ಕ್ರಮಕ್ಕಾಗಿ ಸಲ್ಲಿಸಲಾಗಿದೆ.

ಅದಕೆ: ಮೇಲಿನಂತೆ.

ತಮ್ಮ ವಿಶ್ವಾಸ,  
ಪ್ರಮಾಣದ ಕಾರ್ಯದರ್ಶಿಗಳು,  
ಕರ್ನಾಟಕ ನೀರಾವರಿ ನಿಗಮ, ಬೆಂಗಳೂರು.

ಪ್ರತಿಯನ್ನು ಮುಖ್ಯ ಇಂಜಿನಿಯರ್, ಕರ್ನಾಟಕ ನೀರಾವರಿ ನಿಗಮ, ತುಂಗಾ ಮೇಲ್ದಂಡೆ ಯೋಜನಾ ವಲಯ, ಶಿವಮೊಗ್ಗ ಇವರ ಮಾಹಿತಿಗಾಗಿ ಕಳುಹಿಸಿದೆ.

*A Concern for Water.*

Regd. Office: 4th Floor, Coffee Board Building, No. 1, Dr. B.R. Ambedkar Veedhi, Bangalore - 560 001 Ph: 22281077  
Fax: 22386015 - CIN: U85110KA1998SGC024503 Website: www.knneeravari.com

## APPENDIX 13

## Karnataka Neeravari Nigam Limited

---

No:KNN/238/TVP/2017-16/

Dated:15.12.2017

To

Secretary to Government  
Water Resource Department  
VikasaSoudha , Bengaluru

Sir,

Sub: Request for sanction Permission to use 41MLD Water from Varahi River  
to Udupi city

Ref: Letter no:3081 Dated :26.10.2017 from Chief Engineer, Shivamoga.

\*\*\*\*\*

In the reference cited on subject mentioned above, the Chief Engineer Shivamoga has submitted proposal requesting to grant permission for the use of 41 MLD water from Varahi River to Udupi city and submitted report as here below.

It is reported that inVarahi River the water flow is more than 41 MLD ie: as per gauge @75% dependable yield 40.61cumecs , hence opined that 41 MLD water can be used for providing drinking water supply for Udupi city and submitted the proposal for grant of permission.

Since first preference shall be given for drinking water as per the National Water Policy , the permission to use the 41 MLD water from Varahi River to Udupi city may be granted and the proposal submitted is enclosed herewith for further necessary action.

Yours faithfully

Managing Director  
KNNL ,Bengaluru



## APPENDIX 14: SEMI ANNUAL ENVIRONMENTAL MONITORING REPORT TEMPLATE

### MONITORING AND REPORTING FORMATS

#### SEMI-ANNUAL ENVIRONMENTAL MONITORING REPORT TEMPLATE

#### I. INTRODUCTION

- Overall project description and objectives
- Environmental category as per ADB Safeguard Policy Statement, 2009
- Environmental category of each subproject as per national laws and regulations
- Project Safeguards Team

Name	Designation/Office	Email Address	Contact Number
1. PMU			
2. PIUs			
3. Consultants			

- Overall project and sub-project progress and status
- Description of subprojects (package-wise) and status of implementation (preliminary, detailed design, on-going construction, completed, and/or O&M stage)

Package Number	Components/List of Works	Status of Implementation (Preliminary Design/Detailed Design/On-going Construction/Completed/O&M) <sup>a</sup>	Contract Status (specify if under bidding or contract awarded)	If On-going Construction	
				%Physical Progress	Expected Completion Date

<sup>a</sup> If on-going construction, include % physical progress and expected date of completion.

#### II. COMPLIANCE STATUS WITH NATIONAL/STATE/LOCAL STATUTORY ENVIRONMENTAL REQUIREMENTS<sup>1</sup>

<sup>1</sup> All statutory clearance/s, no-objection certificates, permit/s, etc. should be obtained prior to award of contract/s. Attach as appendix all clearance obtained during the reporting period. If already reported, specify in the “remarks” column.

Package No.	Subproject Name	Statutory Environmental Requirements <sup>a</sup>	Status of Compliance <sup>b</sup>	Validity if obtained	Action Required	Specific Conditions that will require environmental monitoring as per Environment Clearance, Consent/Permit to Establish <sup>c</sup>

<sup>a</sup> Specify (environmental clearance? Permit/consent to establish? Forest clearance? Etc.)

<sup>b</sup> Specify if obtained, submitted and awaiting approval, application not yet submitted

<sup>c</sup> Example: Environmental Clearance requires ambient air quality monitoring, Forest Clearance/Tree-cutting Permit requires 2 trees for every tree, etc.

### III. COMPLIANCE STATUS WITH ENVIRONMENTAL LOAN COVENANTS

No. (List schedule and paragraph number of Loan Agreement)	Covenant	Status of Compliance	Action Required

### IV. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT PLAN (REFER TO EMP TABLES IN APPROVED IEE/S)

- Confirm if IEE/s require contractors to submit site-specific EMP/construction EMPs. If not, describe the methodology of monitoring each package under implementation.

#### Package-Wise Implementation Status

Package Number	Components	Design Status (Preliminary Design Stage/Detailed Design Completed)	Final IEE based on Detailed Design				Site-specific EMP (or Construction EMP) approved by Project Director? (Yes/No)	Remarks
			Not yet due (detailed design not yet completed)	Submitted to ADB (Provide Date of Submission)	Disclosed on project website (Provide Link)	Final IEE provided to Contractor/s (Yes/No)		

- Identify the role/s of Safeguards Team including schedule of on-site verification of reports submitted by consultants and contractors.
- For each package, provide name/s and contact details of contractor/s' nodal person/s for environmental safeguards.

- Include as appendix all supporting documents including signed monthly environmental site inspection reports prepared by consultants and/or contractors.
- With reference to approved EMP/site-specific EMP/construction EMP, complete the table below
- Provide the monitoring results as per the parameters outlined in the approved EMP (or site-specific EMP/construction EMP when applicable).
- In addition to the table on EMP implementation, the main text of the report should discuss in details the following items:
  - (i) **Grievance Redress Mechanism.** Provide information on establishment of grievance redress mechanism and capacity of grievance redress committee to address project-related issues/complaints. Include as appendix Notification of the GRM (town-wise if applicable).
  - (ii) Complaints Received during the Reporting Period. Provide information on number, nature, and resolution of complaints received during reporting period. Attach records as per GRM in the approved IEE. Identify safeguards team member/s involved in the GRM process. Attach minutes of meetings (ensure English translation is provided).
    - a. Confirm if any dust was noted to escape the site boundaries and identify dust suppression techniques followed for site/s.
    - b. Identify muddy water was escaping site boundaries or muddy tracks were seen on adjacent roads.
    - c. Identify type of erosion and sediment control measures installed on site/s, condition of erosion and sediment control measures including if these were intact following heavy rain;
    - d. Identify designated areas for concrete works, chemical storage, construction materials, and refueling. Attach photographs of each area.
    - e. Confirm spill kits on site and site procedure for handling emergencies.
    - f. Identify any chemical stored on site and provide information on storage condition. Attach photograph.
    - g. Describe management of stockpiles (construction materials, excavated soils, spoils, etc.). Provide photographs.
    - h. Describe management of solid and liquid wastes on-site (quantity generated, transport, storage and disposal). Provide photographs.
    - i. Provide information on barricades, signages, and on-site boards. Provide photographs.
    - j. Provide information on
    - k. Checking if there are any activities being under taken out of working hours and how that is being managed.

**Summary of Environmental Monitoring Activities (for the Reporting Period)<sup>a</sup>**

<b>Impacts (List from IEE)</b>	<b>Mitigation Measures (List from IEE)</b>	<b>Parameters Monitored (As a minimum those identified in the IEE should be monitored)</b>	<b>Method of Monitoring</b>	<b>Location of Monitoring</b>	<b>Date of Monitoring Conducted</b>	<b>Name of Person Who Conducted the Monitoring</b>
<b>Design Phase</b>						
<b>Pre-Construction Phase</b>						
<b>Construction Phase</b>						
<b>Operational Phase</b>						

<sup>a</sup> Attach Laboratory Results and Sampling Map/Locations.

### Overall Compliance With CEMP/ EMP

No.	Sub-Project Name	EMP/ CEMP Part of Contract Documents (Y/N)	CEMP/ EMP Being Implemented (Y/N)	Status of Implementation (Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfactory)	Action Proposed and Additional Measures Required

#### V. APPROACH AND METHODOLOGY FOR ENVIRONMENTAL MONITORING OF THE PROJECT

- Brief description on the approach and methodology used for environmental monitoring of each sub-project

#### VI. MONITORING OF ENVIRONMENTAL IMPACTS ON PROJECT SURROUNDINGS (AMBIENT AIR, WATER QUALITY AND NOISE LEVELS)

- Brief discussion on the basis for monitoring
- Indicate type and location of environmental parameters to be monitored
- Indicate the method of monitoring and equipment to be used
- Provide monitoring results and an analysis of results in relation to baseline data and statutory requirements

As a minimum the results should be presented as per the tables below.

#### Air Quality Results

Site No.	Date of Testing	Site Location	Parameters (Government Standards)		
			PM10 µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>

Site No.	Date of Testing	Site Location	Parameters (Monitoring Results)		
			PM10 µg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>

#### Water Quality Results

Site No.	Date of Sampling	Site Location	Parameters (Government Standards)					
			pH	Conductivity µS/cm	BOD mg/L	TSS mg/L	TN mg/L	TP mg/L

Site No.	Date of Sampling	Site Location	Parameters (Monitoring Results)					
			pH	Conductivity µS/cm	BOD mg/L	TSS mg/L	TN mg/L	TP mg/L


### Noise Quality Results

Site No.	Date of Testing	Site Location	LAeq (dBA) (Government Standard)	
			Day Time	Night Time

Site No.	Date of Testing	Site Location	LAeq (dBA) (Monitoring Results)	
			Day Time	Night Time

## VII. SUMMARY OF KEY ISSUES AND REMEDIAL ACTIONS

Summary of follow up time-bound actions to be taken within a set timeframe.

## IX. APPENDIXES

- Photos
- Summary of consultations
- Copies of environmental clearances and permits
- Sample of environmental site inspection report
- Other

## SAMPLE ENVIRONMENTAL SITE INSPECTION REPORT

Project Name  
Contract Number

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
TITLE: \_\_\_\_\_ DMA: \_\_\_\_\_  
LOCATION: \_\_\_\_\_ GROUP: \_\_\_\_\_

WEATHER CONDITION:

\_\_\_\_\_

INITIAL SITE CONDITION: \_\_\_\_\_

CONCLUDING SITE CONDITION:

Satisfactory \_\_\_\_\_ Unsatisfactory \_\_\_\_\_ Incident \_\_\_\_\_ Resolved \_\_\_\_\_ Unresolved \_\_\_\_\_

INCIDENT:  
Nature of incident:

\_\_\_\_\_

Intervention Steps:

\_\_\_\_\_

Incident Issues

Resolution

Project Activity Stage	Survey	
	Design	
	Implementation	
	Pre-Commissioning	
	Guarantee Period	

Inspection

Emissions	Waste Minimization
Air Quality	Reuse and Recycling
Noise pollution	Dust and Litter Control
Hazardous Substances	Trees and Vegetation

Site Restored to Original Condition      Yes      ☐      No      ☐

Signature \_\_\_\_\_

Sign off \_\_\_\_\_

Name \_\_\_\_\_  
Position \_\_\_\_\_

Name \_\_\_\_\_  
Position \_\_\_\_\_

### SAMPLE CHECKLIST FOR CONSTRUCTION SAFETY

No.	Safety Issues	Yes	No	Non-Compliance	Corrective Action	Penalty	Remarks
1	Appointment of qualified EHS engineer						
2	Approval for construction safety management plan by the PMDCSC						
3	Approval for traffic management/control plan in accordance with IRC: SP: 55-2001						
4	Maintenance of the existing road stretches handed over to the contractor.						
5	Provision of temporary traffic barriers/barricades/caution tapes in construction zones						
6	Provision of traffic signboards						
7	Provision for flags and warning lights						
9	Providing plastic crash barrier						
10	Provision of adequate staging, form work, and access (ladders with handrail) for works at a height of more than 3 m						
11	Provision of adequate shoring / bracing/barricading/lighting for all deep excavations of more than 3 m depth.						
12	Demarcations (fencing, guarding, and watching) at construction sites						
13	Provision for sufficient lighting, especially for night time work						
14	Arrangements for controlled access and entry to construction zones						
15	Safety arrangements for road users/pedestrians						
16	Arrangements for detouring traffic to alternate facilities						
17	Regular inspection of work zone traffic control devices by authorized contractor personnel						
18	Construction workers' safety - Provision of personnel protective equipment						
19	A. Helmets						
	B. Safety shoes						
	C. Dust masks						
	D. Hand gloves						
	E. Safety belts						
	F. Reflective jackets						
	G. Earplugs for labor						

				Non-	Corrective		
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No.	Safety Issues	Yes	No	Compliance	Action	Penalty	Remarks
20	Workers employed on bituminous works, stone crushers, concrete batching plants, etc. provided with protective goggles, gloves, gumboots, etc.						
21	Workers engaged in welding work shall be provided with welder protective shields						
22	All vehicles are provided with reverse horns.						
23	All scaffolds, ladders, and other safety devices shall be maintained in safe and sound condition.						
24	Regular health check-up for labor/contractor's personnel						
25	Ensuring sanitary conditions and all waste disposal procedures and methods in the camps.						
26	The contractor shall provide adequate circuit for traffic flow around construction areas, control speed of construction vehicles through road safety and training of drivers, provide adequate signage, barriers, and flag persons for traffic control						
27	Provision of insurance coverage for the contractor's personnel						

Contractor

Consultant

## APPENDIX 15: ENVIRONMENTAL AUDIT OF THE EXISTING WATER TREATMENT PLANT IN UDUPI

### I. Introduction

The objectives of this environmental audit are to (i) assess the compliance of the existing water treatment plant (WTP) to be rehabilitated/augmented during the implementation of KIUWMIP with environmental legislation; (ii) improve environmental performance through monitoring the effectiveness of the management system; and (iii) increase the Udupi CMC's knowledge of itself and its activities, thus increasing its ability to continually improve and minimize future potential liabilities.

The environmental audit was carried out for the existing WTP. The methodology adopted for this audit was to initially review existing plans and technical information and list various activities being carried out in the WTP. Due diligence was carried out to physically check whether environmental performance, health and safety, etc. were in compliance with national and state prescribed standards and guidelines. Team visited the WTP and observed operations. Meetings and discussions with key personnel were held in the various stages of the audit. Various documentations regarding the operational aspects were also checked.

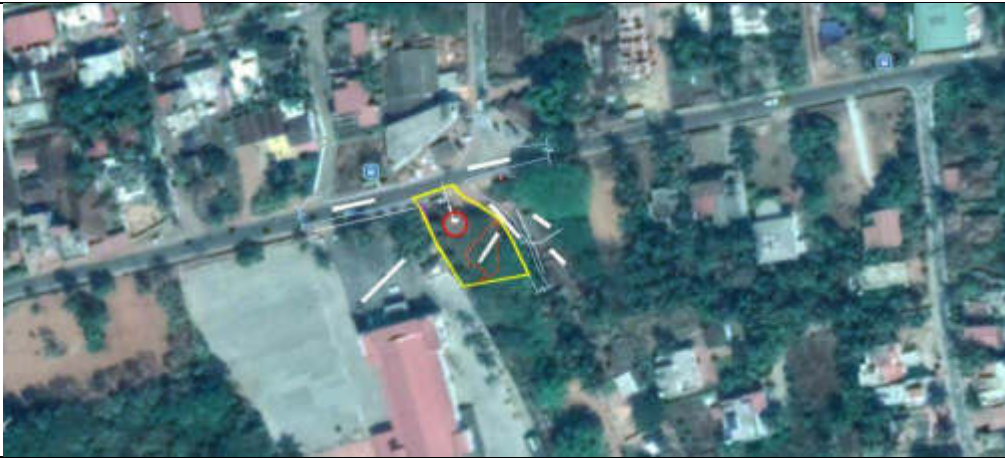
### II. Description of Existing Water Treatment Plant at Udupi

Location	Udupi City Latitude:13°33'N Longitude:74°74'E
Start of operation (year)	2006
Owned by	CMC, Udupi
Contact person and designation	Mr. Ragavendra Environmental Engineer +919448507244
Capacity	27.24 million liters per day (MLD)
Water supply source	River Swarna, (intake well is 12 km from Udupi)
Water treatment process	Technology: The treatment process is conventional, and has following units: Cascade Aerator, Raw Water Channel with Parshall Flume or continuous flow measurement, Coagulant & Flocculent chemical make up tanks, Flash Mixing tank, Clariflocculator including a flocculation zone in the center, six sand filters, Chlorination system and Clear water Sump & pump house.  Materials: All civil structures are made of reinforced cement concrete, and mechanical units like the of HYSD steel. Process: the water from raw water pumping main enters into the inlet, and the first unit is cascade aerator. After aeration water passes through Parshall flume, where flow is measured. Coagulant and flocculent chemicals (alum and Lime) are added to the water, and mixed in the flash mixer tank, and then flows into Clariflocculator and Clarified water flows into sand filters (3 numbers) for filtration and the filtered water is disinfected with chlorine and allowed to flow into clear water tank from where water pumped into service reservoirs for distribution.
Backwash water and sludge management	-filter backwash water is let into open drains as there is no recycling of backwash into inlet - the settled sludge from the bottom of the clarifier tank is periodically flushed into the drains. -the untreated backwash and sludge flushing ultimately reaches and disposed off into drain.

### Chlorination system

Chlorine dosage system is not properly working; there are no safety precautions in place. Chlorination done at Master Balancing reservoir at Manipal instead of WTP site.

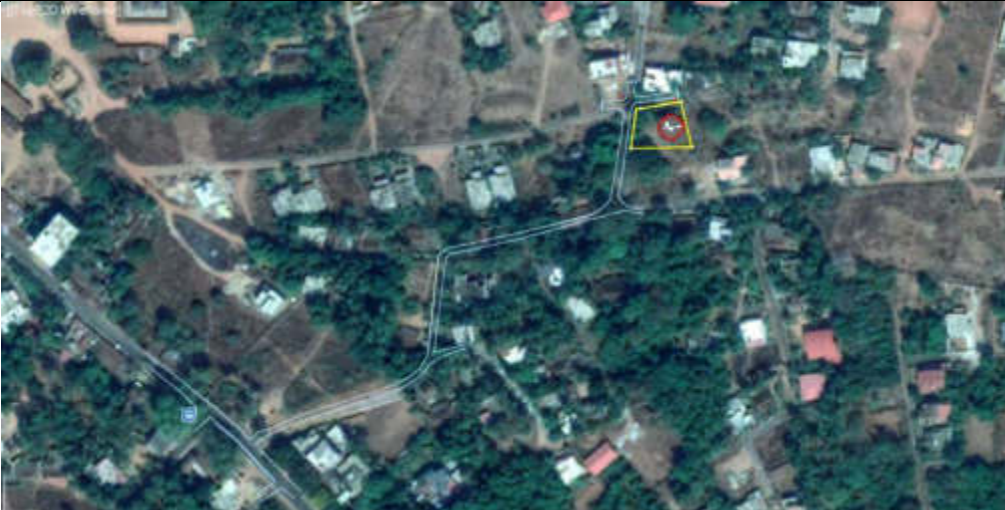
Chlorine cylinders (900 kg tonners) are used which is placed at one side of the room. No safety systems like leak detection or emergency alarm or lime slurry pit available in the facility. Operators are not aware of safety measures or actions to be performed during any emergency.

**APPENDIX 16: AMBIENT AIR QUALITY AND NOISE LEVEL LOCATIONS**

LOCATION 1: OHT NEAR AMMANI RAMA SHETTY HALL ZONE 7B

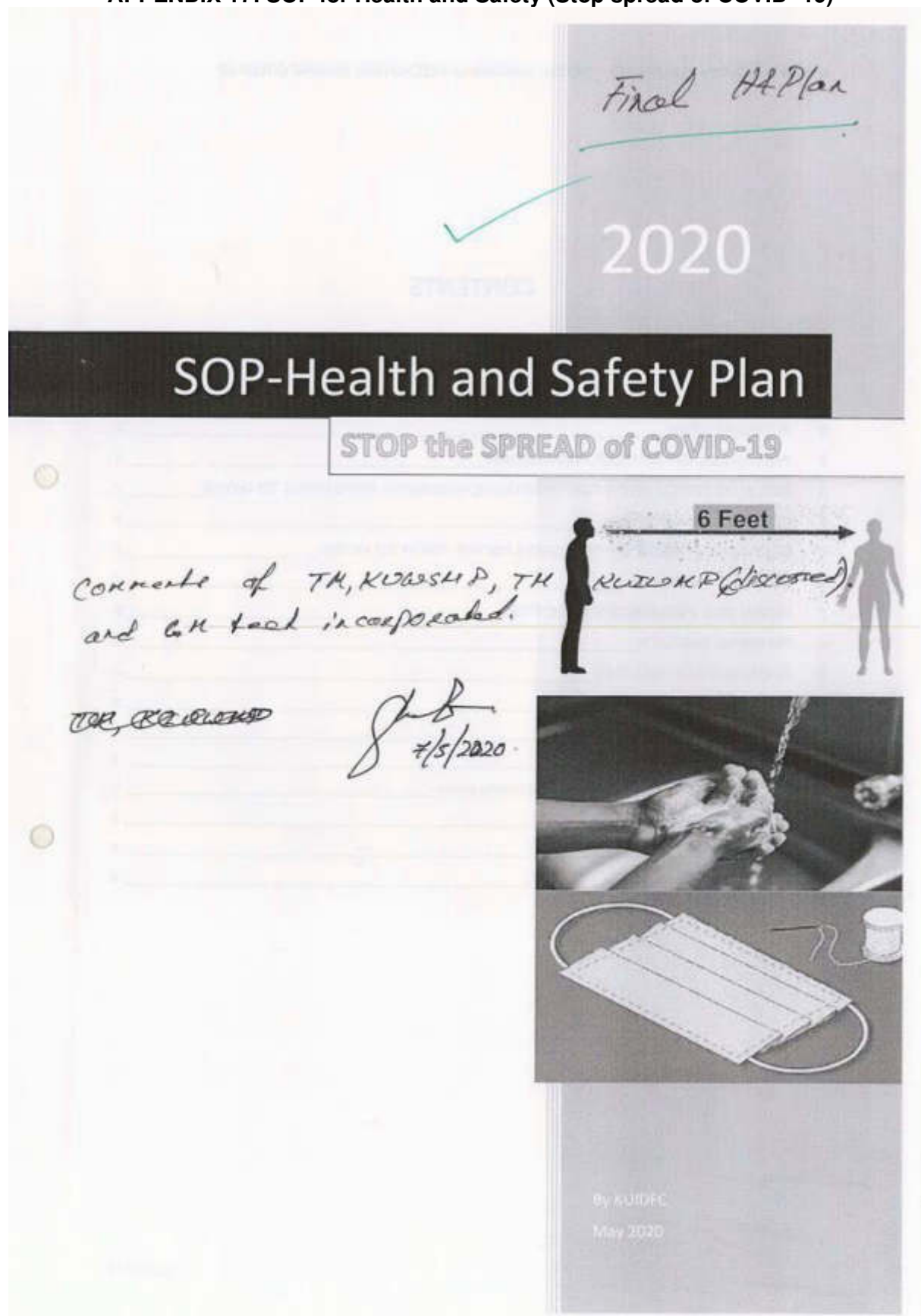


LOCATION 2: OHT INDRALI ZONE-8B



LOCATION 3: OHT INDRALI ZONE-8B

## APPENDIX 17: SOP for Health and Safety (Stop spread of COVID -19)



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## 1 INTRODUCTION<sup>1</sup>

- This document is intended to supplement formal H&S policies, procedures and plans that the contractor/agency has in place for its employees and staff working on KUIDFC projects. Hence, this document is not intended to replace any formalized procedures currently in place for the Contractor. Where this guideline does not meet or exceed the standards put forth by the Contractor, the Contractor shall abide by the most stringent procedure available.
- This approved project specific Health and Safety Plan (H&SP) shall be modified to require that the COVID-19 Officer<sup>2</sup> at the Contractor's worksite (appointed by Contractor and agreed by PIU) submit a written daily report to the Client's Representative (PIU Head). The COVID-19 Officer shall certify that the Contractor and all subcontractors are in full compliance with these guidelines.
- The COVID-19 officer should be present on site at all times, when the work is on at the premise.
- Any issue of non-compliance with these guidelines shall be a basis for the suspension of work. The Contractor will be required to submit a corrective action plan (on the next day or immediately as per the nature of issue) detailing each issue of non-conformance and a plan to rectify the issue(s). The Contractor will not be allowed to resume work until the plan is approved by the Client (PIU). Any (additional) issues of non-conformance may be subject to action against the Contractor's health & safety/safeguard clauses of the contract.
- Construction sites operating during the Covid-19 pandemic need to ensure that they are protecting their WORKFORCE and minimising the risk of spread of infection.
- This guidance is intended to introduce consistent measures on sites of all sizes in line with the Government's recommendations on social distancing.
- These are exceptional circumstances and the industry must remain abreast of and comply with the latest Government advice on COVID-19 at all times.
- The health and safety requirements of any construction activity must also not be compromised at this time. If an activity cannot be undertaken safely due to a lack of suitably qualified personnel being available or social distancing being implemented, it should not take place.
- It is to be noted that emergency services are also under great pressure and may not be in a position to respond as quickly as usual.
- Sites should remind the workforce at every opportunity of the Worksite Procedures which are aimed at protecting them, their colleagues, their families and the Karnataka population.

**If a worksite is not consistently implementing the measures in this document, it may be required to shut down, till corrective measures are implemented and approved by employer.**

<sup>1</sup> This document may be made available in the local language, and the salient features would be displayed through signages at the appropriate locations throughout work sites and stretches by the Contractor for wider dissemination and awareness.

<sup>2</sup> The existing safeguards officer OR health & safety officer OR supervisor of the contractor OR PMC-team member can be designated as COVID-19 officer by undergoing the training available at

(a) <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/training/online-training>

(b) <https://openwho.org/courses/eprotect-acute-respiratory-infections>

(c) <https://openwho.org/courses/COVID-19-IPC-EN>

## Health and Safety Plan (H&SP) – TAKING MAXIMUM PRECAUTION DURING COVID-19

### 2 PRINCIPLES OF WORKER PROTECTION

- Consistently practice social distancing
- Cover coughs and sneezes
- Maintain hand hygiene
- Clean surfaces frequently

### 3 MAXIMUM PRECAUTION FOR PERSONS/LABOURERS REPORTING TO WORK

- IF SICK, STAY HOME!
- IF SICK, GO HOME!
- IF SOMEONE SICK, SEND THEM HOME AND REPORT TO COVID OFFICER !

Contractor to provide face masks (of the type approved by Government for use to protect persons from COVID-19) to all persons working in or visiting the worksite. This along with procedures set out in this document is for maximum precaution to protect all persons/labourers at all times.

### 4 COVID-19 TYPICAL SYMPTOMS

- Fever
- Cough
- Shortness of Breath
- Sore Throat

**All persons at the worksite should have their temperature screened by COVID-19 officer with Infrared Thermometer daily before start of work (handheld non-contact), twice a day (both morning and evening)**

### 5 SELF-ATTESTATION BY PERSONS/LABOUR PRIOR TO WORK

Prior to starting a work (on daily basis), each labour /worker will self-attest to the supervisor:

- no signs of COVID-19 symptoms within the past 24 hours.
- No contact with an individual diagnosed with COVID-19. (contact means living with a positive person, being within 6 ft of positive person OR sharing things of positive person)
- Not undergone quarantine or isolation (in case of any labourer /worker who has been quarantined or isolated previously, the engagement shall be only after obtaining the requisite clearance)

The engagement of workers falling in the high-risk category such as workers over the age of 55 years, with underlying medical conditions or health issues, etc. should be done only after obtaining the requisite clearance from trained and registered medical practitioners.

The self-attestation would be verified in collaboration with trained and registered medical practitioners deployed at site through discussions with laborers /workers and/or preliminary checks such as temperature checks, etc. prior to their engagement at site.

In addition, the Contractor shall mandatorily follow all medical test requirements for the workers prior to their engagement and/or mobilization at site as per the guidelines issued by the Central and State government agencies and WHO from time to time.



**Persons/Labourers showing COVID-19 symptoms or not providing self-attestation shall be directed to leave the work site and transported to/report to the fever clinic/quarantine centre immediately, at the cost of contractor. Labour not to return to the work site until cleared by fever clinic/quarantine centre.**

## 6 GENERAL DIRECTION

- No handshake, Only Namaste
- Non-essential physical work that requires close contact between workers should not be carried out
- Work requiring physical contact should not be carried out. Scope for automation/mechanisation shall be explored in such cases
- Plan all other work to avoid contact between workers and/or ensure social distancing
- Wash hands often (every 1-2 hrs or as frequently as possible) with soap for at least 20 seconds
- Use hand sanitizer
- No person should enter the work site other than the authorized persons mentioned by supervisor during start of work
- Everyone at work site should practice social distancing by maintaining a minimum distance of 6-feet from others<sup>3</sup> at all times to eliminate the potential of cross contamination.
- Avoid face to face meetings – critical situations requiring in-person discussion must follow social distancing i.e., 6 ft from others.
- Conduct all meetings via conference calls/video, if possible. Do not convene meetings of more than 10 people. Recommend use of cell phones, texting, web meeting sites and conference calls for project discussion
- All individual work group meetings/ talks should follow social distancing
- At each job briefing /toolbox talk, employees are to be asked if they are experiencing any symptoms, and are sent home if they reply in positive
- Each worksite should display laminated COVID-19 safety guidelines and handwashing instructions at suitable locations
- All restroom /toilet facilities should be cleaned (min twice a day), and handwashing facility must be provided with soap, hand sanitizer and paper towels
- All surfaces should be regularly cleaned, including mobiles, tabletops /surfaces, door handles, laptops, records, etc.
- All common areas and meeting areas are to be regularly cleaned (min twice a day) and disinfected at least twice a day
- All persons to maintain their own water bottle, and should not be shared.
- To avoid external contamination, it is recommended everyone bring food from home
- Please maintain Social Distancing separation during breaks and lunch.
- Cover coughing or sneezing with a tissue, then throw the tissue in the trash and wash hands, if no tissue is available then cough /sneeze into your upper sleeves or elbow. Do not cough or sneeze into your hands.
- Clean your hands after coughing or sneezing thoroughly by using soap and water (minimum for 20 seconds). If soap and water are not available, please use a hand sanitizer. The Contractor shall ensure adequate quantities of sanitizer and soap are

<sup>3</sup> Social distancing may not be practical for undertaking certain specific activities within the workplace. It is therefore important to review the work method statements for these types of activities to assess impact and how to find safe ways of doing in line with best available guidance.

## Health and Safety Plan (H&SP) – TAKING MAXIMUM PRECAUTION DURING COVID-19

made available at all locations including site offices, meeting rooms, corridors, washrooms /toilets, etc. as appropriate.

- Avoid touching eyes, nose, and mouth with your hands
- To avoid sharing germs, please clean up after Yourself. DO NOT make others responsible for moving, unpacking and packing up your personal belongings
- If you or a family member is feeling ill, stay home!<sup>4</sup>
- Work schedules are adjusted to provide time for proper cleaning and disinfecting as required.
- Ensure separate disposal of used masks/used hand tissues, etc.

### 7 WORK-SITE PREVENTION PRACTICES

- At the start of each shift, confirm with all employees that they are healthy and inform all workers of reusable and disposable PPE
- Outside person(s) should be strictly prohibited at worksite
- All construction workers will be required to wear cut-resistant gloves or the equivalent.
- Use of eye protection (reusable safety goggles/face shields) is recommended. The supply of eye protection equipment to the workers is considered as a standard part of PPE during construction works.
- In work conditions where required **social distancing is impossible** to achieve, such employees shall be supplied with standard face mask, gloves, and eye protection.
- All employees shall drive to work site in a single occupant vehicle. Staff shall not ride together in the same vehicle
- When entering a machine or vehicle which you are not sure whether you were the last person to enter, make sure that you wipe down the interior and door handles with disinfectant (with 1% sodium hypochlorite solution daily) prior to entry. Adequate quantity of the disinfectant shall be provided by the Contractor at all such site-specific locations.
- Workers should maintain separation of 6' from each other.
- Multi person activities will be limited where feasible (two persons lifting activities)
- Gathering places on the site such as sheds and/or break areas will be eliminated, and instead small break areas will be used with seating limited to ensure social distancing.
- Contact the cleaning person of the worksite and ensure proper COVID-19 sanitation processes. Increase cleaning/disinfection visits to at least 2 times a day. Cleaning person(s) to be provided with gloves, gown and face mask for each cycle of cleaning. The Contractor shall make available adequate supply of PPE and chemicals while the threat of COVID-19 continues.
- Clean all high contact surfaces a minimum of twice a day in order to minimize the spread of germs in areas that people touch frequently. This includes but is not limited to desks, laptops and vehicles
- All employees to maintain good health by getting adequate sleep; eating a balanced, healthy diet, avoid alcohol/tobacco; and consume plenty of fluids.
- Continuation of works in construction project with workers available on site and no workers to be brought in from outside, without prior approval of Deputy Commissioner of originating and destination locations.

<sup>4</sup> The workers with no sick-leave would be supported with additional leave while affected by COVID-19 by the Contractor. The workers who have to stay home because of COVID19 affected family member(s), the Contractor shall pay for the days for staying away from the work.



## Health and Safety Plan (H&SP) – TAKING MAXIMUM PRECAUTION DURING COVID-19

- The site offices shall have adequate ventilation. The air conditioning or ventilation systems installed at the site offices would have high-efficiency air filters to reduce the risk of infection. The frequency of air changes may be increased for areas where close personal proximity cannot be fully prevented such as control rooms, elevators, waiting rooms, etc.
- The Contractor shall carry out contactless temperature checks for the workers prior to site entrance, during working hours and after site works to identify persons showing signs of being unwell with the COVID-19 symptoms

### 8 WASHING FACILITY

- All worksites should have access to toilet and hand washing facility.
- Providing hand cleaning facilities at entrances and exits. There should be soap and water wherever possible or hand sanitiser if water is not available
- Washing facility with hot water, and soap at fire hydrants or other water sources to be used for frequent handwashing for all onsite employees
- All onsite workers must help to maintain and keep stations clean
- If a worker notices soap or towels are running low or out, immediately notify supervisors. Proactively supervisor should make sure shortage situation never occurs.
- Garbage bins to be placed next to the hand wash facility for discarding of used tissues/towels with regular removal and disposal facility (end of each day)

### 9 CLEANING PROCEDURES

Increase cleaning/disinfection visits to at least 2 times a day. Cleaning person(s) to be provided with gloves, gown and face mask for each cycle of cleaning.

Each worksite should have enhanced cleaning and disinfection procedures that are posted and shared including sheds, gates, equipment, vehicles, etc. and shall be posted at all entry points to the sites, and throughout the project site. These include common areas and high touch points like

- Taps and washing facilities
- Toilet flush and seats
- Door handles and push plates
- Handrails on staircases and corridors
- Lift and hoist controls
- Machinery and equipment controls
- Food preparation and eating surfaces
- Telephone equipment / mobiles
- Keyboards, photocopiers and other office equipment

Re-usable PPE should be thoroughly cleaned after use and not shared between workers

### 10 LABOUR CAMP

Contractor shall follow a zero-tolerance policy on wearing of masks.

Masks (homemade<sup>5</sup> can be thought of) to be provided to all the persons/labourers for use at the camp site as well as at the worksite. Increase cleaning/disinfection visits to at least 2 times

<sup>5</sup> Advisory on use of Homemade Protective Cover for Face & Mouth by GOI

## Health and Safety Plan (H&SP) – TAKING MAXIMUM PRECAUTION DURING COVID-19

a day. Cleaning person(s) to be provided with disposable gloves, gown and face mask for each cycle of cleaning.

### 10.1 Toilet Facility

- Restrict the number of people using toilet facility at any one time e.g. appoint one welfare attendant among the labours.
- Wash hands before and after using the facilities
- Enhance the cleaning regimes for toilet facilities particularly door handles, locks and the toilet flush
- Portable toilets should be avoided wherever possible, but where in use these should be cleaned and emptied more frequently
- Provide suitable and sufficient rubbish bins for hand towels with regular removal and disposal.

### 10.2 Eating/snacks Arrangements

- With eateries having been closed (restricted) across Karnataka, providing permanent (till society is safe from COVID-19) on-camp/off-camp cook/helpers can be implemented. Make sure that the "Guidelines for food handling, preparation and distribution during COVID-19" and its regular updates are being followed.
- Whilst there is a requirement for construction camps to provide a means of heating food and making hot water, these are exceptional circumstances and where it is not possible to introduce a means of keeping equipment clean between use, etc. must be removed from use.
- Contractor to arrange all daily need items and grocery at site itself and no worker is allowed to go to shops for daily need items.
- Dedicated eating areas should be identified on camp to reduce food waste and contamination
- Break times should be staggered to reduce congestion and contact at all times
- Hand cleaning facilities or hand sanitiser should be available at the entrance of any room where people eat and should be used by workers when entering and leaving the area
- Workers should sit 2 metres apart from each other whilst eating and avoid all contact
- Where catering is provided on camp, it should provide pre-prepared and wrapped food only
  - Payments should be taken by contactless options wherever possible
  - Crockery, eating utensils, cups etc. should be avoided wherever possible
- Drinking water should be provided with enhanced cleaning measures of the tap mechanism introduced
- Tables should be cleaned between each use
- All rubbish should be put straight in the bin and not left for someone else to clear up; only covered pedal operated bins should be used and the bins should be cleared and cleaned regularly, with strict adherence to safety protocols for disposal and hygiene maintenance (including proper PPE's such as gloves, mask and apron worn by the waste handler/cleaner and disposal at a designated place);
- All areas used for eating must be thoroughly cleaned at the end of each break and shift, including chairs, door handles, etc.

### 10.3 Changing Facilities, Showers and Drying Areas

- Introduce staggered start and finish times to reduce congestion and contact at all times
- Introduce enhanced cleaning of all facilities throughout the day and at the end of each day



# Health and Safety Plan (H&SP) – TAKING MAXIMUM PRECAUTION DURING COVID-19

- Consider increasing the number or size of facilities available on camp if possible
- Based on the size of each facility, determine how many people can use it at any one time to maintain a distance of two metres
- Provide suitable and sufficient garbage bins in these areas with regular removal and disposal.
- Visitor log should be strictly maintained that the labour camp.

**COVID-19 officer will ensure compliance with prevention issues at the labour camp(s).**

## 11 UPDATES ON COVID-19

The Contractor shall be in touch with the Department of Health & Family Welfare and Labour Department to identify any potential worksite exposures relating to COVID-19, including:

- Strictly follow the guidelines issues by Ministry of health and OSHA
- Other workers, vendors, inspectors, or visitors to the worksite with close contact to the individual
- Labour Camps / Work areas such as designated workstations or rooms /sheds
- Work tools and equipment
- Common areas such as break rooms, tables and sanitary facilities
- Take up insitu health check up camps

Also refer the following websites from time to time for regular updates.

<https://www.mohfw.gov.in/>

<https://karunadu.karnataka.gov.in/hfw/Pages/home.aspx>

This document can be updated from time to time based on the advisories or directions of the Govt.

## 12 TRAINING

- RPMU/PIU to ensure all workers get training on above requirements before start of any construction activity
- During construction period frequent visual and verbal reminders to workers can improve compliance with hand hygiene practices and thus reduce rates of infection. Handwashing posters should also be displayed at work site and labour camps

## 13 EMERGENCY CONTACT

- Provide emergency contact number(s) at work site and labour camp for reporting COVID-19 symptoms

Ensure all staff and personal use enrol and use the Aarogya Setu app, recommended by GOI for tracking COVID-19 patients.

N. SRINIVAS  
General Manager (Technical)  
K.U.I.D.F.C Limited  
Govt. of Karnataka Undertaking  
Bangalore - 560 038.

Managing Director  
K.U.I.D.F.C, Bangalore

KUIDFC-8

**SOUTH ASIA REGIONAL DEPARTMENT  
SAFEGUARDS INFORMATION LOG FOR SAUW PROJECTS**

<b>Project:</b>	IND: Karnataka Integrated Urban Water Management Investment Program (Tranche 2) – Improvements for 24x7 Water Supply System – Distribution System for City Municipal Council, Udupi.		
<b>Loan No.:</b>	43253-027	<b>Package No.:</b>	02UDP01
<b>Components:</b>	(i) clear water feeder mains of 24.543 kilometer (km) of diameter 100 millimeters (mm) to 355 mm to feed to new overhead tanks (OHTs); (ii) 7 OHTs of total storage capacity 6.85 ml; (iii) distribution network of 321.487 km (diameter 63 mm to 450 mm); and, (iv) replacement of 18,737 existing meters and providing new metered house service connections of 17,715 for uncovered households.		
<b>Contract Type:</b>	Design validation, item rate contract.		
<b>Date of IEE:</b>	June 2020		
<b>Draft IEE</b>	<b>Updated/Revised IEE</b>		<b>Others</b>
Karnataka Urban Infrastructure Development and Finance Corporation, Government of Karnataka has submitted IEE in May 2018 for Improvements for 24 x 7 Water Supply System for City Municipal Council in Udupi– Project 2	To be updated/revised/finalized during implementation based on detailed engineering design.  Contractors will be required to develop site-specific environmental management plan (SEMP) which will be approved by PIU/PMU before the contractors cannot commence civil works. The SEMP/s are to be included in the final IEEs and to be monitored and reported to ADB thru the semi-annual monitoring reports.		This version of the IEE is updated by contractors after change in alignment and developing site-specific environmental management plan (SEMP) in consultations with PIU and PMU. The SEMP/s are included in the updated IEEs and to be monitored and reported to ADB thru the semi-annual monitoring reports.

S. No	Activity	Status		Comments / Next Steps (include date accomplished or obtained, if applicable)
		Yes	No	
1.	Environmental assessment has been prepared	<input checked="" type="checkbox"/>		<p>The Environmental Assessment has been conducted for the proposed Water Supply distribution system improvement using the field reconnaissance surveys and secondary environmental baseline information for Improvements for 24 x 7 Water Supply System for City Municipal Council in Udupi” proposed under the tranche-2.</p> <p>Based on the project activities, the identified impacts are mitigated through suitable management measures that have been suggested in the EMP for various stages of the project viz. Design stage, Pre-construction stage, Construction stage and Operation stage.</p> <p>This updated_IEE is updated and submitted for review during validation of detailed design by contractor.</p>

2.	Environmental assessment based on latest project components and design	Yes	No	<p>The final IEE will be prepared based on proposed subproject components and on ground validation by contractor.</p> <p>The design validation is still under process and some minor variation may come in design. Final IEE will be prepared after validation is completed.</p>
		<input checked="" type="checkbox"/>		
3.	Statutory Requirements		Forest Clearance	<p><b>Not applicable</b>, as per IEE, the WTP site located a forest land but the area and its surroundings have already been developed and not considered environmentally-sensitive area. The transmission pipeline will be laid along roads right-of-way. The proposed WTP site which is an associated facility, is located adjacent to existing WTP, in a notified forest land, therefore requires permission from forest department. The diversion of forest land is already applied and copy of same is attached in Appendix 10 of IEE.</p>
			No Objection Certificate	<p>Based on detailed design, the details of following permission to be updated in the Final IEE</p> <p>CTE and CTO for Establishment of Hot mix plants, Crushers and Batching plants, Storage, DG set, Authorization from pollution control board for handling and transport of hazardous materials, environmental clearance in for new (if any) quarries and borrow areas, NoC from the private landowners for the temporary storage of construction materials/ construction camp and NOC from PWD and other departments for road cutting for pipe laying, Temporary traffic diversion measure.</p> <p>Water abstraction and construction of jackwell require permission of Irrigation Department.</p> <p>NOC form Railways and NH is required for following.</p> <p>(i) At Indrali Railway over Bridge Chainage in between 690/8 and 690/9, 300 mm dia distribution line HDPE pipe passing for 30 m length.</p> <p>(ii) At Kukkikatte Railway over bridge chainage in between 693/2 and 693/3, 273.1 mm dia MS clear water transmission main passing for 35 m span.</p> <p>(iii) At Korangrapadi Alevoor railway over bridge chainage in between 693/7 and 693/8, 110 mm dia rider line passing for 37 m span.</p> <p>(iv) In NH-66, 110 mm dia for 4,365 m, 150mm dia en-route village to Udyavara for 120 m, to Kadekar village for 220 m, 350 mm dia DI pipe for 435 m, 355.6 mm dia MS pipe for 2,145 m.</p>

			<p>(v) In NH-169A, 110 mm dia rider line for 855 m, 160 mm dia HDPE pipe for 677 m, 200 mm dia for 805 m, 250 mm dia for 250 m, 300 mm dia for 2,136 m, 150 mm dia DI pumping main for 230 m.</p> <p>(vi) SH-37, 110 mm dia 410 m, 273.1 mm dia gravity transmission main for 1,156 m and 150 mm dia for 368 m.</p> <p>Along with the applicable clearance for the subproject. The Contractor should obtain the NoC from the private land owners for the temporary storage of construction materials/ construction camp.</p> <p>The Contractor is also required to obtain:</p> <p>(i) Labour license from Labour department for the construction labours.</p> <p>(ii) PUC certificate from for the construction vehicles.</p>
		Site Location Clearance	<p><u>Following to be Include in the SEMP:</u></p> <ul style="list-style-type: none"> <li>Details for pipe laying on roads, a road closure and road-wise detailed traffic diversion plan, identification of spoil dumping site.</li> <li>Table containing dia of pipe, width of road and ownership for road cutting permission to be updated in IEE and NOC status to be updated in progress reports</li> </ul>
		Environmental Compliance Certificate	<b>Not applicable</b> , the components are not listed in the Schedule 1 of the EIA Notification Act and its rules and regulations.
		Permit to Construct (or equivalent)	<p><u>Under Water (Prevention and Control of Pollution) Act of 1974, Rules of 1975, and amendments, the components of Water Supply projects in Karnataka are exempted from taking CTE and CTO from Pollution Control board.</u></p> <p>Under Air (Prevention and Control of Pollution) Act of 1981, Rules of 1982 and amendments, the <u>CTE and CTO from KSPCB is required for (i) Batch mixing plant, DG set.</u></p> <p><u>If contractor is procuring from third party, contractor has to ensure that third party is having CTE/CTO from KSPCB and Contractor to collect the copy of these and submit to PIU for approval.</u></p> <p><u>CTE to be obtained prior to start of construction and CTO to be obtained prior to commissioning. CTO renewal to be undertaken during operations stage.</u></p>
		Permit to Operate (or equivalent)	
		Others – tree cutting	<p>At one OHT site, there are 10 Trees, which needs to be cut. Compensatory plantation as stipulated in the tree cutting permission shall be adhered</p> <p>Final IEE to include status of permissions from forest and Irrigation department</p>



			Others – ASI protected monuments/ sites	There are no protected monuments near project area in Udupi. However, in case of chance finds, measures are suggested in Environmental Management Plan (EMP) to take prompt action to ensure its removal or protection in situ.
5.	Policy, legal, and administrative framework	Adequate	Not Adequate	
			<input checked="" type="checkbox"/>	
			National regulation/ law on EIA	<b>Not applicable.</b> The components are not listed in Schedule 1 of the EIA Notification thus and Environmental Clearance is not required.
			National, state, local laws, rules and regulations related to environmental pollution, OHS, core labor standards, etc.	The national rules regulation is specified in table 3 of the draft IEE.
			Environmental agency	<b>Environmental Clearance:</b> this subproject is exempted from Environmental Clearance and hence the role of the Environmental agencies (MoEF&CC and SEIAA) is not envisaged
			Relevant international environmental agreements	As per the ADB, SPS 2009, this subproject is categorized as “B” and accordingly the IEE is prepared. The implementation of the subproject should comply with the loan covenant which includes the Environmental Safeguard measures.  Any International conventions and treaties as applicable may be included in the Final IEE.
			Environmental standards (IFC’s EHS Guidelines)	<b>Applicable,</b> though equivalent environmental legislations (National and State) are adopted in this subproject, it is clearly mentioned in the Draft IEE, that the PMU and PIU should adopt stringent measures as specified in the World Bank Group’s Environment, Health and Safety Guidelines.  Appendix 3 to appendix 6 provided the applicable standards as per ADB’s SPS 2009.
6.	Anticipated environmental impacts and mitigation measures	Impacts and risks:	Mitigation Measures:	
			Yes	No
		Biodiversity conservation		
		Pollution prevention and abatement	<input checked="" type="checkbox"/>	
				<b>Not applicable:</b> As per IEE, WTP site located a forest land but the area and its surroundings have already been developed and not considered environmentally-sensitive area. The transmission pipeline will be laid along roads right-of-way.  Based on the predicted impacts from the proposed water supply subproject construction activities, suitable EMP (including pollution prevention and abatement measures) for various stages of the project viz. Design stage, Pre-

					<p>construction stage, Construction stage and Operation stage has been prepared to mitigate significant environmental impacts.</p> <p>The total cost to implement EMP for water supply system is <b>₹3,244,000</b>.</p> <p>Google map of identified sample monitoring sites are also updated in IEE.</p> <p>The Final IEE and SEMP should provide specific information on how contractors integrated the requirements in the EMPs to detailed engineering design.</p>
		Health and safety	<input checked="" type="checkbox"/>		<p>A section on Occupational Health and Safety is included in the draft IEE, which covers site-specific occupational health and safety plan, use of personal protective equipment's (PPE's), OH &amp;S Training, International Standards such as the World Bank Group's Environment, Health and Safety Guidelines etc.</p> <p>The Final IEE and SEMP should provide specific information on (i) how contractor will implement occupational health and safety; (ii) contractor to confirm appointment/delegation of Site Health and Safety Officer; and (iii) Contractor will update site specific H&amp;S plan including guidelines for COVID -19 of KUIDFC (attached as annexure) and state and central government. The contractor will also take approval for this site-specific H&amp;S plan from PMU before start of construction.</p>
		Physical cultural resources		<input checked="" type="checkbox"/>	<p>There are no protected monuments near project area in Udupi.</p> <p>Training to be given to contractor for chance find and action to ensure its removal or protection in situ in case of any new finding.</p>
		Cumulative impacts		<input checked="" type="checkbox"/>	<p>The proposed subproject is to provide 24x7 water supply at a rate of 135 LPCD at consumer end, it will have a positive impact among the community. However, the same subproject will lead to the generation of wastewater/ sewage as well, which will have a negative impact to the environment.</p> <p>As per IEE Presently Udupi covers only 17% sewerage system. For entire Udupi it is proposed to take up in this project and its in planning stage.</p>
		Transboundary impacts	<input checked="" type="checkbox"/>		Not applicable
7.		Addressed	Not Addr	None	

	Impacts from Associated Facilities <sup>10</sup>		essed		Table 9 of IEE provides corrective action plan for environmental compliance of Existing Water Treatment Plant at Udupi  Monitoring of corrective action plan to be submitted with monitoring reports
8.	Analysis of Alternatives	Yes	No	<input checked="" type="checkbox"/>	<b>Not applicable</b> , this is a Category "B" Project. Due to the constraints in the availability of land, only feasible alignment is chosen for the subproject
9.	EMP budget included	Yes	No	<input checked="" type="checkbox"/>	The total cost to implement EMP for water supply system is ₹3,244,000 is included in IEE.  Detail of cost estimation for EMP budget to be updated in final IEE.
10	EMP implementation integrated in PAM and Bid documents	Yes	No		PAM is for approval by ADB as part of the loan processing documents. Bid documents (Particular/Specific Conditions of the Contract) provisions related to environmental safeguards have been included.
11	Consultation and Participation	Yes	No	<input checked="" type="checkbox"/>	Meaningful public consultation to be conducted during implementation and updated in Final IEE.
12	Grievance Redress Mechanism	Yes	No	<input checked="" type="checkbox"/>	Section VII of the IEE, provide details of grievance redress mechanism (GRM) and GRC. The GRC for the project will be headed by a Special Land Acquisition Officer/Assistant Commissioner of the concerned sub-Division as Chairman of the sub Division with members as follows: (i) ULB Commissioners/Chief Officer of the concerned ULB towns, (ii) Deputy Project Director as member Secretary and Convener, (iii) PMDCSC Engineer, (iv) Affected Community member/NGO, (v) Safeguards Officer of RPMU Mangalore will shoulder responsibility of keeping records of grievances/ complaints in details. Safeguards Officer will be responsible for coordinating with all GRC members and the displaced persons for grievance redressal.
13	Disclosure		Endorsement to disclose on ADB website		The updated IEE may be disclosed at ADB website.
			Disclosed on project website		The updated IEE may be disclosed at Project website.
			Relevant information available to stakeholders and affected people in		The stakeholder's consultation and subsequent press release has helped the project information to reach the local people to some extent. However, upon disclosing the safeguard

<sup>10</sup> ADB SPS (Appendix 1 para 6) defines associated facilities as not funded as part of the project (funding may be provided separately by the borrower/client or by third parties), and whose viability and existence depend exclusively on the project and whose goods or services are essential for successful operation of the project.

		language and form they understand		documents, the project relevant information shall be better understood by the local people
14	Mobilized PMU Environment Specialist	<b>Yes</b> <input checked="" type="checkbox"/>	<b>No</b>	Mr. Shashisekhar SP, PMU – KUIDFC, Environmental expert
15	Mobilized PIU Environment Specialist	<b>Yes</b>	<b>No</b> <input checked="" type="checkbox"/>	
16	Mobilized Environment Consultant at PMU level (PMC team)	<b>Yes</b> <input checked="" type="checkbox"/>	No	Mr Rafiuddin Malik, PMDCSC - Environment Expert
17	Mobilized Environment Consultant at PIU level (CMSC team)	<b>Yes</b> <input checked="" type="checkbox"/>	<b>No</b>	
18	Awareness training on compliance to safeguard requirements	<b>Yes</b> <input checked="" type="checkbox"/>	<b>No</b>	Table 17 of IEE Outlines the details of training and capacity building program on EMP Implementation The training/ workshop to be conducted by the environmental safeguard's specialists of PMU/PIU.
19	Others/ Remarks	Based on the review of the IEE shared by, KIUWMIP- KUIDFC, the following observations are made <ul style="list-style-type: none"><li>Final IEE to provide details of (i) proposed sites/locations for construction work camps, storage areas, hauling roads, lay down areas, disposal areas for solid and hazardous wastes.</li><li>Meaningful public consultations conducted.</li><li>In the Final IEE please ensure that consultations are made along with sensitive receptors along the pipe's alignments.</li><li>The final IEE to be updated with updated location/alignment maps and latest site pictures</li><li>Contractor to update site specific H&amp;S plan including guidelines for COVID -19 of KUIDFC and state and central government. The contractor will also take approval for this site-specific H&amp;S plan from PMU before start of construction.</li></ul>		

Prepared by:	Govind Singh Rathore, Environmental Safeguard Specialist, (ADB consultant)
Date:	20/05/2020

Noted and Checked By: Anik Ajmera, Environment Consultant, Urban and Water Division, South Asia Urban Department

Documents/References: The updated IEE dated June 2020