



Terms of Reference

Hiring of Technical Agency/Consultants for conducting Hydraulic design expert

About WASH Institute

Water, Sanitation and Hygiene Institute (WASH Institute) in Kodaikanal, established in the year 2008, is a registered non-profit technical, training, research and development organization dedicated to providing practical solutions to a wide range of water, sanitation, hygiene and environmental issues across India. Over the years, WASH Institute has carved its own niche in the field of Water, Sanitation and Hygiene as an expert through its quality training programs, grassroots programs, research & advocacy, and Technical Assistance to the ministries. Through its Technical Assistance programme, WASH Institute is providing support to the Ministry of Housing and Urban Affairs (MoHUA) and Ministry of Jal Shakti on Swachh Bharat Mission-Urban and Grameen in collaboration with The Bill & Melinda Gates Foundation and USAID. In addition, it is also providing Technical Assistance to Department of Drinking Water and Sanitation, Ministry of Jal Shakti on Jal Jeevan Mission.

WASH Institute is also providing support to MoHUA and select States on SBM 2.0 under "Support for Urban Water and Sanitation in India (SUWASI)" project since 2022. Under this project WASH Institute is providing Technical Support to States on Used Water Management including FSM. The organization is also providing support to select states) on Liquid Waste Management

WASH Institute is also a key partner of USAID for building skill & capacities of government officials/engineers, private sector players, sanitation workers, NGO professionals and other stakeholders on Faecal Sludge & Septage Management (FSSM).

WASH Institute has been providing access to improved WASH services to marginalized communities and schools by implementing grassroots level CSR projects across 15 locations in 8 states namely Tamil Nadu, Andhra Pradesh, Telangana, Bihar, West Bengal, Karnataka, Haryana, Rajasthan, and Uttar Pradesh. The organization operates from 16 locations spread across 7 States and one Union Territory of India. Key donors of WASH Institute are BMGF, USAID, ITC Limited, HDBFS, HT Parekh Foundation, HCL Foundation, Redington Foundation, and Alstom



About the Project

WASH Institute has identified Kodai Hills, spreading over 194 hilly villages in four blocks namely- Kodaikanal block, Oddanchatram, Palani and Reddiarchatram under Dindigul district–Tamil Nadu for a holistic Drinking Water Supply Project.

The overall population of these hilly villages is around 3,78,241. The total no. of households in the 4 blocks is 1,04,429. The villages are clustered into small hamlets of 50 to 80 households and most of the working population are agricultural workers. Water resources are scarce, and public utilize open wells, springs and streams located near their villages. The usability of borewells is very much limited due to lower yield. These borewells are dug at low depths due to cost issues and they are unable to address the water demand in the region. During summer, water scarcity heightens as wells dry up. Majority of households spend around 2-3 hours each day to collect water. Water is serviced once or twice every week, and most workers utilize well water in the farms for cleaning and bathing purposes. Water serviced by the panchayat is used for drinking and cooking purposes only. During summer, drinking water is purchased by community people ranging from Rs.70-80/Barrel.

As part of preparatory phase of the project, WASH Institute is going to hire Consultant/Agency to do detailed technical study/assessment to assess the technical requirements and feasibility of the proposed interventions in the implementation phase.

Scope of Work:

The scope of work for the Hydraulic Design expert will include but not limited to the following:

1. Making Hydraulic design of conveying main from source to service reservoir
2. Design of pump set with pumping station arrangements
3. Designing distribution systems from service reservoir to FHTC
4. Preparation of detailed pipe network drawing with valves etc.
5. Design of Water Treatment plant in case of spring source
6. Design of IoT based O&M

Deliverables:

The Consultant/Technical agency is expected to provide the following deliverables:

1. Submit Hydraulic design of conveying main from source to service reservoir
2. Prepare & submit design of pump set with pumping station arrangements



3. Prepare & submit hydraulic design of distribution systems from service reservoir to FHTC
4. Prepare & submit detailed pipe network drawing
5. Prepare & submit design of water treatment plant in case of spring source
6. Prepare & submit IoT based operation and maintenance model

Timelines:

The Hydraulic design expert is expected to be complete the work in 45 days from the issuance of work order/signing of agreement

Qualification and Experience:

The consultant/ Technical agency should meet the following minimum requirements:

1. A professional with Civil Engineering background having hydraulic design experience or relevant field
2. At least 10 years of professional experience in hydrogeological surveys, preferably in the region.

Submission:

Interested consultant/Technical Agency may apply to achatterjee@washinstitute.org on or before 15th June 2023 with the following details:

1. A proposal that includes a technical approach, methodology, work plan, and budget.
2. CVs of key personnel, including the project manager, hydrogeologist, and drilling supervisor.
3. A list of previous similar assignments and relevant references.
4. A copy of valid registration, tax clearance certificate, and professional licenses.
5. Service Provider Details form (<https://tinyurl.com/57j6zh7y>) with supporting documents.

Evaluation Criteria:

The evaluation of the proposals will be based on the following criteria:

1. Technical approach and methodology
2. Qualification and Experience
3. Project Management and Timeline
4. Budget