



NO. DJB/EE(Plg)Dr./2024/455-463

DATE :- 06/9/24

**INVITATION FOR EXPRESSION OF INTEREST (EOI)**

Delhi Jal Board, invites Expression of Interest (EOI) from the consulting firms/agencies/JVs to provide consultancy services for carrying out Study for improvement in existing sewer network (excluding the scope of work covered in SMP-2031 for unsewered area) and STP/SPS of Delhi.

**1. Introduction:-**

Delhi, the capital city of India, is situated in Northern India on the banks of the river Yamuna. Yamuna River enters Delhi near Palla, traverses about 48 kms. and leaves at Okhla. Delhi is surrounded on the North, West and South by Haryana and on the East by Uttar Pradesh (UP). Total area of Union territory of Delhi is 1486 square kilometers (sq. kms).

DJB supplies around 1000 MGD of potable water to more than 20 million population of Delhi through its network of nine Water Treatment Plants (WTP), 123 Under Ground Reservoirs (UGR) and around 15600 km main/distribution water lines of varying diameters. Besides this, DJB also maintains a sewerage network of about 10720 Km long internal/peripheral sewer lines and 200 km Trunk sewers. Presently, DJB has 38 Sewage Treatment Plants (STP), receiving sewage through 65 Sewage Pumping Stations (SPS), with installed sewage treatment capacity of 712 MGD out of 792 MGD sewage generated in Delhi. The present operational capacity of these STPs is 612 MGD. DJB has extended its sewerage network in 1170 unauthorized colonies out of 1799 such colonies, and the work of providing sewerage facilities in 193 unauthorized colonies is in progress. At present, about 83% of Delhi's population is already connected to sewerage network.

Delhi has witnessed an unprecedented growth in population lately due to immigration and increase in FAR. This has resulted in overloading of existing sewer system leading to increase in complaints of Sewer overflow, blockages, etc. DJB has adopted minimum 300mm dia for sewer line in 2022. Thereafter, replacements of sewer lines are being carried out in piece-meal by Maintenance Wing as per requirement. There is a need for adoption of comprehensive/Holistic and planned approach for improvement/ up-gradation in the existing sewer network on similar lines as per previous studies\*.

**1.1. Objectives**

The objective of the consultancy is to:

- a) Analyze the existing sewer network
- b) Find out deficiency in the existing sewer network
- c) Prepare detailed design report based on present and projected population for design year 2041, for the proposed/augmentation of existing sewer network and checking of adequacy of capacities of existing STP/SPS for catering future discharge and requirement of new STPs/SPS.

The main objective is to implement a sustainable infrastructure of sewer network for the design year 2041.

Currently, Based on physical constraints and zoning criteria, the whole NCT of Delhi has been delineated into 12 (twelve) drainage zones excluding Cantonment and Airport area. The drainage zones are below:

- |                                       |   |
|---------------------------------------|---|
| 1. Shahdara Drainage Zone (SHD)       | 7. Najafgarh Drainage Zone (NJF)          |
| 2. Okhla Drainage Zone (OKH)          | 8. Nilothi Drainage Zone (NLT)            |
| 3. Keshopur Drainage Zone (KSP)       | 9. Narela Drainage Zone (NRL)             |
| 4. Rohini- Rithala Drainage Zone (RR) | 10. South Delhi Drainage Zone (SD)        |
| 5. Coronation Pillar Drainage (COR)   | 11. Outer South Delhi Drainage Zone (OSD) |
| 6. Dwarka Drainage Zone (DWK)         | 12. Kanjhawala-Bawana (KB)                |

**\*Previous Studies ( Soft copy of available details of previous studies will be provided by DJB).**

- I. A study for Up-gradation of Sewerage System for Delhi was assigned to M/s TCE in year 2000 for up-gradation/improvements in the **existing sewerage system** to meet the infrastructural requirements of an expanding population and an augmented water supply system.

The study was assigned in 3 Modules for following zones :

- A. Module – I : Shahdara Drainage Zone & Rithala-Rohini Drainage Zone
- B. Module – II : Okhla Drainage Zone, Keshopur Drainage Zone & Coronation Pillar Drainage Zone
- C. Module – III : Zones of entire Outer Delhi.

- II. A study report for Sewerage Master Plan 2031 for **Unsewered Areas** of Delhi- 2031 was submitted by M/s AECOM in year 2015.

Hence, a techno-economical study and its solution is the need of the hour along with ascertaining the structural safety of the existing sewer system in Delhi.

## **2. Scope of work:-**

The scope of services will include but not limited to the following:

- (a) Establishment of Baseline Conditions through detailed study & reviewing of existing data, DPRs /studies available with DJB.
- (b) Comprehensive study of existing sewer network and assessing infrastructure gap. Checking the adequacy of capacity of existing STP/SPS and Requirement of any augmentation in capacity of existing STP/SPS or new STP/SPS with identification of location and recommendation for improvement in existing sewer network and STP/SPS of DJB.
- (c) Planning and Design for the following drainage zones :



- |                                  |                                     |
|----------------------------------|-------------------------------------|
| 1. Shahdara Drainage Zone        | 7. Najafgarh Drainage Zone          |
| 2. Okhla Drainage Zone           | 8. Nilothi Drainage Zone            |
| 3. Keshopur Drainage Zone        | 9. Narela Drainage Zone             |
| 4. Rohini- Rithala Drainage Zone | 10. South Delhi Drainage Zone       |
| 5. Coronation Pillar Drainage    | 11. Outer South Delhi Drainage Zone |
| 6. Dwarka Drainage Zone          | 12. Kanjhawala-Bawana               |

- (d) Hydraulic networking for the existing sewerage system to ascertain the system deficiency. Thereafter, on the basis of hydraulic modeling, replacement suggestion may be given for the lines which have been outlived or are damaged.
- (e) Topography survey, population projection, planning and design criteria, approach and methodology for GIS data integration and hydraulic modeling, identification of existing Sewer network including sizes, material, depth, alignment, location of outfall points etc.
- (f) **Analysis:** The consultant shall determine the design and the discharge rates based on appropriate projection technique. The designs shall be in compliance with the relevant Indian Standards (as amended up to date, with all correction slips), CPHEEO manual and followed after discussions with the Delhi Jal Board. Prepare network system / model for each drainage zone using the updated information available & analysis of network model through using sewer GEMS or any other relevant software program from the tasks above and the proposed strengthening measures through optimization and analysis of the model. In addition to the above, the drainage of Cantonment and NDMC area shall also be taken into consideration for the purpose of analysis of sewage generated and received at DJB's STPs from these two drainage areas.
- (g) Prepare detailed estimate for strengthening of existing/ proposed sewer network of trunk peripheral & internal sewer lines and existing SPS/STPs and to submit in five sets with Soft copy.
- (h) Preparations of Drawings/Maps for proposed network system.
- (i) Project Management Consultancy (PMC) services covering overall project management, approval of detailed designs, release of good for construction drawings, contract supervision, contract management, assist in defect remediation, dispute resolution, specialized techno-commercial advice during execution of project for ensuring completion of the work in a time bound manner.
- (j) Preparation of Detailed Project Report (DPR) along with detailed engineering designs and cost estimate with O&M arrangements for all the identified drainage zones as given in point (c).
- (k) Assisting the Employer in bidding process and recommendation of the right bidder for award of the works contract.
- (l) Assist the Employer in Commissioning of the works and Recommend to DJB to issue completion certificates after the contractors have satisfactorily completed all work under the terms of the contracts and for final payment of the bills of the Contractors.
- (m) DJB intends to procure the consultancy services as Project Management Consultant (PMC).
- (n) Training of DJB Officers/employee on use of Sewer GEMS or any other software used by the Consultant.

### **3. Manner of submission:**

Firms interested to be considered for short listing may submit in writing their technical capabilities indicating their qualifications to perform similar services (brochures, description of similar domestic and international assignments completed successfully in their own capacity or in a consortium with other firms having adequate required experience), availability of appropriate skilled international and domestic professionals, annual turnover, similar assignments completed & in-hand and other relevant information. The documents indicating the firm's interest in taking up the assignment, with all relevant information as above, including copies of relevant documents for verification and full contact address shall be submitted in triplicate, at the address stated here below by 15:00 hours on or before 05.10.2024.

International Consultants can submit their offer as a joint venture with local firms having adequate experience and resources to offer consultancy of such an extent.

The expression of interest shall be submitted in a sealed cover duly superscribed "Expression of interest for Consultancy Services for carrying out Study for improvement in existing sewer network (excluding the scope of work covered in SMP-2031 for unsewered area) and STP/SPS of Delhi".

4. Delhi Jal Board shall endeavor to complete examination and evaluation for short-listing the consultants within 45 days of the receipt of offers. The short listed consultants will be issued Request for proposal (RFP) document for submission of their proposals.
5. The responsibility of ensuring that expression of interest is received before the time and dates specified, shall rest with the consultant and no responsibility in this regard shall be upon DJB for late entries. DJB shall not accept any explanation for any delay in transit or any reasons in receiving any EoI beyond the last date and time as mentioned in the invitation notice.
6. DJB reserves the right to accept or reject any or all the EoIs without assigning any reason whatsoever.
7. The Expression of Interest with all documents shall be sent to:

Delhi Jal Board Govt. Of N.C.T Of Delhi  
Office Of The Executive Engineer (Plg)Dr.  
Room No.114, Varunalaya Phase-I,  
Jhandewalan, New Delhi-110055  
Mail ID :- [eeplr100@gmail.com](mailto:eeplr100@gmail.com)

Sd-  
**(MUNISH KUMAR)**  
**EXECUTIVE ENGINEER (PLG)DR**

Copy to :-

1. P.A to CEO
2. Member(A)/Member(F)
3. CEN(DR)/CEN(WS)
4. CE(P&D)
5. SE(Plg.)DR
6. EE(EDP) Cell : to upload on DJB official Website
7. DJB Contractor Welfare Association(Regd.)Villa No. 36, block  
BA( Paschimi) Shalimar Bagh, Delhi-110008

  
**EXECUTIVE ENGINEER (PLG)DR**