



CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD
CHENNAI- 600 028

CONTRACT NO: CNT/WSS/MWB/3498/2022-23

REQUEST FOR PROPOSAL

FOR

CONSULTANCY FOR “CONDUCTING CONSULTANCY STUDIES FOR REHABILITATION AND REVAMPING WORKS INCLUDING PREPARATION OF DETAILED PROJECT REPORT (DPR), PROCESS DESIGNS DETAILED ESTIMATES AND PREPARATION OF BID DOCUMENTS FOR 300MLD WATER TREATMENT PLANT AT PUZHAI AND 14MLD SURAPET WATER TREATMENT PLANT”

SUPERINTENDING ENGINEER (CONTRACTS & MONITORING)
CHENNAI METROPOLITAN WATER SUPPLY & SEWERAGE BOARD

**Commissionerate of Municipal Administration, Urban Administrative
Building Santhome High Road, MRC Nagar, Raja Annamalaipuram,
Chennai 600 028 Telephone: 044 –29520299, 044- 28451300 Fax : 044 –
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SECTION - 1

CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD

NOTICE INVITING TENDER (NIT) THROUGH E-TENDER

TENDER NO. CNT/WSS/MWB/3498/2022-23

Consultancy for “Conducting consultancy studies for rehabilitation and revamping works including preparation of Detailed Project Report (DPR), process designs and detailed estimates, preparation of bid documents for 300MLD Water Treatment Plant at Puzhal and 14 MLD Surapet Water Treatment Plant”.

1. CMWSS Board now invites proposals for Consultancy for the “Conducting consultancy studies for rehabilitation and revamping works including preparation of Detailed Project Report (DPR), process designs and detailed estimates, preparation of bid documents for 300MLD Water Treatment Plant at Puzhal and 14 MLD Surapet Water Treatment Plant”.
2. The source of fund for this Consultancy work is from the CMWSS Board fund.
3. The terms of Reference (TOR) and Data sheet mentioning the requirement of key professional staff are furnished in the Request for Proposal
4. Request for Proposal will be available and e-bid submission is permitted through online tender portal/website www.tntenders.gov.in. Bid documents available in the portal from 15.12.2022 to **29.12.2022 upto 03.00PM. Bid submission closing date 29.12.2022 upto 03.00PM. Date and time for opening the bid on 30.12.2022 after 03.30PM.** If the office happens to be closed on the date of receipt of the proposals as specified, the proposals will be opened on the next working day at the same time and venue. A pre-bid meeting open to all prospective firms will be held on **20.12.2022 @ 11.30hrs** in the OFFICE OF THE SUPERINTENDING ENGINEER (CONTRACTS & MONITORING), CMWSS BOARD, 3rd Floor, Commissionerate of Municipal Administration, Urban Administrative Building, Santhome High Road, MRC Nagar, Raja Annamalaipuram, Chennai-600 028. The Clarification/Amendments if any in the Pre-bid meeting will be published only in the following web sites www.tntenders.gov.in. The prospective firms will have an opportunity to obtain clarification regarding the scope of the work, terms of reference, contract conditions and any other pertinent information
5. Consortium Proposals are accepted for this consultancy.
6. Interested consultants may reach the website www.tntenders.gov and can upload the Request for Proposal (RfP) in the form in the portal .
7. Validity of Bid – **90 days** after the date for bid submission.
8. Single cover Bidding procedure will be adopted conforming to the Tamil Nadu Transparency in Tenders Act, 1998 and Rules, 2000. The consultant will be selected in accordance with the procedures set out in the document.

9. **Bid Security** : Rs.43,000/- (Rupees Forty Three Thousand only). Proposals without Bid Security will be summarily rejected.

10. A pre-bid meeting will be held on 20.12.2022 **at 11.30 hrs** at the office of CMWSSB at the address mentioned below:

11. Contract period for completion of the consultancy : **Total 3 months**

12. Address for Information, Receipt & Opening of Proposals:

OFFICE OF THE SUPERINTENDING ENGINEER (CONTRACTS&MONITORING),
CMWSSB, 3rd Floor, Commissionerate of Municipal Administration,
Urban Administrative Building, Santhome High Road, MRCNagar,
RajaAnnamalaipuram, Chennai-600028

PhoneNo.044-28451300, 044-29520299, Extn.254

Email:secandm@gmail.com

SECTION – 2

INFORMATION TO CONSULTANTS

1. INTRODUCTION

1.1 Chennai Metropolitan Water Supply and Sewage Board (CMWSSB) responsible for development and regulation of water supply and sewage services in the Chennai Metropolitan Areas, known shortly as CMWSSB, provides water supply and sewage treatment to the city of Chennai and areas around it. The Major water sources of Chennai city is through surface water sources namely Poondi Lake, Red Hills Lake, Chembarambakkam Lake, Cholavaram Lake & Veeranam Lake In addition to the above surface water sources the following Desalination Plant (Sea water) sources are also available namely Minjur DSP & Nemmeli DSP totaling to about 1494 MLD Capacity of Water and the operational capacity plants are reported to be about 1140 MLD

During early 1990s, the raw water was received from Redhills Lake and was treated in the water treatment plant at Kilpauk having a capacity of 270 MLD. In 1995, under First Chennai project, CMWSSB awarded the work to M/s. Hindustan Dorr -Oliver (HDO) Limited the entire EPC for a 300 MLD Water Treatment Plant at Red hills to augment city water supply. The project site of 300 MLD WTP was commissioned during the year 1996 at Puzhal. Raw water is drawn from the Redhillslake by gravity to roughing filters and pumped to the WTP. The treated water is pumped and distributed to the water distribution stations of Chennai city. Similarly, the Surapet water treatment plant of 14 MLD capacity was taken over from TWAD Board from 01.08.2009 for further Operation and maintenance by CMWSSB. Raw water for this plant is also from Redhillslake. The plants have almost served for about more than 26 years (Puzhal WTP at Red hills) and about 60 years in case of Surapet WTP plant. The scheme comprises of the following major treatment units like Roughing filters, Inlet chamber, Clariflocculator, Rapid Gravity Sand Filters & Chlorination system comprising vacuum chlorinators and booster pumps.

At present over a period of about 26 years the plant civil structures are not in sound position. Water leakages noticed in the inlet bay, Clariflocculator structure and rapid sand filter bed area. The Electrical and mechanical machineries such as HT centrifugal pump sets, HT & LT DG sets are wear and tear condition due to continuous operation, aging and outdated model. The milk of lime plant, Alum solution plant and chlorination plant dosing pump, agitating system are completely dilapidated condition and breakdowns are occurred frequently. The solution transfer pipe line for the above plants are fully corroded and repeated blockages/ leaks occurred. In the rapid sand filter bed out of 24 nos of filter beds only 13 nos of filter bed are renovated during the year 2011. At present all the beds filter media were attain its maximum service and need replacement of filter media and also replace all the valve and shutters of inlet, outlet and drain system in filter beds. SCADA system and Pneumatic valve operation will be renovated by updated version of electrically

operated systems with instrumentations control panel on line quality measuring instruments with a remote indication.

Even though repeated fault occurred, maintenance works are being carried out and maintain the treated water quality as per standard. Since the treatment plant machineries and pipes were served for nearly 26 years, the plant needs immediate rehabilitation for efficient operation and treated optimum quantity in future.

In order to address this present issue in the existing water treatment operations and also keeping in view of the city's expanding growth and future water demand into account, necessary actions are to be taken for rehabilitation and revamping works for this two above mentioned WTPs in terms of process performance and also capacity enhancement. Hence, it is proposed to conduct consultancy studies for rehabilitation and revamping works including preparation of DPR, process designs and detailed estimates for 300MLD Water Treatment Plant at Puzhal and 14MLD Water Treatment Plant at Surapet.

The Chennai Metropolitan Water Supply & Sewerage Board otherwise called Metrowater or CMWSSB (client) now invites online proposals from eligible consultants for award of **Consultancy for** "Conducting consultancy studies for rehabilitation and revamping works including preparation of Detailed Project Report (DPR), process designs and detailed estimates, preparation of bid documents for 300MLD Water Treatment Plant at Puzhal and 14 MLD Surapet Water Treatment Plant".

- 1.1 The Consultants are invited to submit a technical and a financial proposal as specified in the Data Sheet (the proposal) for this Assignment.
- 1.2 The Assignment shall be implemented in accordance with the Terms and Conditions specified in the Data Sheet and other sections of the Document.
- 1.3 The Consultants must familiarize themselves with local conditions and take them into account in preparing their proposals. To obtain first hand information on the Assignment and on the local conditions, Consultants are encouraged to pay a visit to the Client before submitting a proposal and attend a pre-proposal meeting specified in the Data Sheet.
- 1.4 The Client will provide the inputs specified in the Data Sheet, and will assist the Consultants in obtaining licenses and permits needed to carry out the services, and make available relevant project data and reports.
- 1.5 Please note that (i) the costs of preparing the proposal and of negotiating the contract, including a visit to the Client, are not reimbursable as a direct cost of the Assignment; and (ii) the Client is not bound to accept any of the proposals submitted.

1.6 The Client requires that Consultants provide professional, objective and impartial advice and at all times hold the Client's interests paramount, without any consideration for future work, and strictly avoid conflicts with other assignments or their own corporate interests. Consultants shall not be hired for any assignment that would be in conflict with their prior or current obligations to other clients, or that may place them in a position of not being able to carry out the assignment in the best interest of the Client.

1.7 It is the Client's policy to require that the Consultants observe the highest standard of ethics during selection and execution of any contracts. In pursuance of this policy, the Client:

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the selection process or in contract execution; and
 - (ii) "fraudulent practice" means a misrepresentation of facts in or to influence a selection process or the execution of a contract to the detriment of the Client, and includes collusive practices among consultants (prior to or after submission of proposals) designed to establish prices at artificial, non-competitive levels and to deprive the Client of the benefits of free and open competition.
- (b) Will reject a proposal for award if it determines that the firm recommended for award has engaged in corrupt or fraudulent activities in competing for the contract in question;
- (c) Will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a contract;
- (d) Conflict of Interest: No Firm with a Conflict of Interest will be eligible to participate in this tender.

1.7.1. A Consultancy Firm or prospective tenderer shall be deemed to have a Conflict of Interest, if,-

- a) any other prospective tenderer or a member of consortium or any associate or constituent thereof have common controlling shareholders or other ownership interest; or
- b) a constituent of such prospective tenderer is also a constituent of another prospective tenderer.

Provided that 'constituent' in such cases will not include the provider of a proprietary technology to more than one applicant; or

- c) such prospective tenderer, or any associate thereof receives or has received any direct or indirect subsidy, grant, concessional loan or subordinated debt from any other Applicant or Respondent, or any associate thereof has provided any such subsidy, grant, concessional loan or subordinated debt to any other Applicant or Respondent, its member or any associate thereof; or
- d) such prospective tenderer has the same legal representative for purposes of the Tender Proceedings as any other prospective tenderer; or
- e) such prospective tenderer, its member or any associate thereof, has a relationship with another prospective tenderer, or any associate thereof, directly or through common third party/ parties, that puts either or both of them in a position to have access to each other's information about, or to influence the Response of either or each other; or
- f) such prospective tenderer, its member or any associate thereof, has participated as a consultant to CMWSS Board in the preparation of any documents, design or technical specifications of the Project; or
- g) if any legal, financial or technical advisor of CMWSS Board in relation to the Project is engaged by the prospective tenderer, its member or any associate thereof, as the case may be, in any manner for matters related to or incidental to the Project:

1.8 Consultants shall furnish information as described in the financial proposal submission form on commissions and gratuities, if any, paid or to be paid to agents relating to this proposal, and to contract execution if the firm is awarded the contract.

1.9 Bid Security:

1.9.1 The bidder shall furnish a bid security of Rs.43,000/- (Rupees Forty Three Thousand only) for the Consultancy work. The tenderer should submit the bid security by online transfer only through NIC portal. The tenderer shall submit scanned copy of online on line transaction statement towards bid security along with Request for Proposal

1.9.2 The bid security may be forfeited

- (a) If the consultant withdraws the proposal after opening of Technical proposal during the period of validity.
- (b) If the consultant does not accept the corrections of bid price as given in 1.10.3 below.
- (c) In case of a successful consultant, if the consultant fails within the specified time limit to:

- (i) Sign the Agreement

1.10. Correction of Errors:

Bids determined to be substantially responsive will be checked by the client for any arithmetic errors.

DOCUMENTS COMPRISING THE PROPOSALS

- 2.1** Consultants requiring a clarification of the Documents must notify the Client, in writing, well in advance i.e. two days prior to the date of submission of the bid. Any request for clarification must be sent in writing, by surface -mail, E-mail to the Client's address indicated in the Data Sheet. The client will respond in writing, by e-mail or to such requests and copies of the response will be sent to all Consultants who have purchased the documents but without identifying its source.
- 2.2** At any time before the submission of proposals, the Client may, for any reason, whether at its own initiative or in response to a clarification requested by a consulting firm, modify the Documents by amendment. The amendment will be notified in writing, to all the consulting firms and will be binding on them. The Client may also at its discretion extend the deadline for the submission of proposals.

3 PREPARATION OF PROPOSAL

- 3.1** Consultants are requested to submit a technical and a financial proposal
- 3.1.1.** The consultants are required to furnish the Bid Security as detailed in 1.9.1 and data sheet

Technical Proposal

- 3.2** In preparing the Technical Proposal, Consultants are expected to examine all terms and instructions included in the Documents in detail. Material deficiencies in providing the information requested may result in rejection of a proposal.
- 3.3** While preparing the technical proposal, Consultants must give particular attention to the following:
 - i) If a firm considers that it does not have all the expertise for the assignment, it may obtain expertise by associating with individual consultant(s) and / or other things or entities in a joint venture/ consortium relationship as appropriate.
 - ii) For assignments on a staff-time basis, the estimated number of professional staff-months is given in the Data Sheet. The proposal shall, however, be based on the number of professional staff-months estimated by the firm.

- iii) It is desirable that the majority of key professional staff proposed be permanent employees of the firm unless otherwise indicated in the data sheet or have an extended and stable working relation with it.
- iv) Proposed professional staff must have at least the experience indicated in the Data sheet, preferably under conditions similar to those prevailing in Tamil Nadu, India.
- v) Alternative professional staff shall not be proposed and only one Curriculum Vitae may be submitted for each position;
- vi) A good working knowledge of the Language specified in the Data Sheet is essential for key professional staff on this Assignment.
- vii) Reports to be issued by the Consultants as part of this assignment must be in the Language(s) specified in the Data Sheet.

3.4 The Technical Proposal should provide the following information, using the attached Standard Forms (Section 3)

- i) A brief description of the Consultant's organization and an outline of recent experience on assignments (Section 3 B) of a similar nature. For each assignment, the outline should indicate, inter alia, the profiles and names of the staff provided, duration of the assignment, contract amount and firm's involvement along with the client certificate for having satisfactorily completed that assignment/ consultancy.
- ii) Any comments or suggestions on the ToR and on the data, a list of services and facilities to be provided by the client (Section 3C).
- iii) A description of the methodology and work plan for performing the assignment. (Section 3 D)
- iv) The list of the proposed staff team by speciality, the tasks that would be assigned to each staff team member and their timing. (Section E)
- v) Curriculum Vitae (C.V.) of the proposed professional staff has to be signed by the authorized representative submitting the proposal (Section 3 F). Key information should include no. of years working for the firm/entity and degree of responsibility held in various assignments during the last ten years.
- vi) Estimates of the total staff effort (professional and support-staff; staff time) to be provided to carry out the assignment, supported by bar chart diagrams showing

the time proposed for each professional staff team member. (Section 3 G and 3 H)

- vii) A detailed description of the proposed methodology, staffing and monitoring of training, if the Data Sheet specifies training as a component of the assignment.
- viii) Any additional information requested in the Data Sheet.

3.5 The technical proposal must not include any financial information.

Financial Proposal

3.6 In preparing the financial proposal, Consultant is expected to take in to account the requirements and conditions of the documents. The Financial Proposal should follow Standard Forms. (Section 4). It lists all costs associated with the Assignment, including

- (a) remuneration for staff (in Indian Rupee in the field and at headquarters),
- (b) reimbursable such as subsistence transportation and services and equipment, insurance, printing of documents, surveys etc. If appropriate these cost should be broken down by activity and only in Indian Rupees.

3.7 The financial proposal should clearly identify, as a separate amount, the local taxes, duties, fees, levies and other impositions imposed under the applicable law, on the Consultants, the sub-consultants and their personnel unless the Data Sheet specifies otherwise.

3.8 Costs shall be expressed only in Indian Rupees.

3.9 Commissions and gratuities, if any, paid or to be paid by Consultants and related to the Assignment will be listed in the Financial Proposal submission form. (Section 4 A)

3.10 The Data Sheet indicates how long the proposals must remain valid after the submission date. During this period, the Consultant is expected to keep available the professional staff proposed for the assignment. The Client will make its best effort to complete negotiation within this period. If the client wishes to extend the validity period of the proposals, the Consultants who do not agree have the right not to extend the validity of their proposals.

Procedure for E-submission

- 3.11. Bidder should do the registration in the tender site using the option available. Then the Digital signature registration has to be done with three-token, after logging into the site. The e-token may be obtained from one of the authorized Certifying authorities such as SIFY/TCS/n Code etc. The list of address of the DSC vendors can be seen in [https://tntenders.gov.in/nicgep/app?component=%24DirectLink_0&page=DSCInfo&service=direct&session=T&sp=SDSC Address.pdf](https://tntenders.gov.in/nicgep/app?component=%24DirectLink_0&page=DSCInfo&service=direct&session=T&sp=SDSCAddress.pdf)

Bidder then should login to the site using user id and the corresponding passwords.

- i. The e-token that is registered should be used by the bidder and should not be misused by others.
- ii. After downloading the tender schedules, the Bidder should go through them carefully and then submit the documents as directed, otherwise, the bid will be rejected.
- iii. If there are any clarifications, this may be obtained on line through the e-tender site, or thro' the contact details. Bidder should take into account the corrigendum published before submitting the bids online.
- iv. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender schedule and they should be in the prescribed format.
- v. The bidder should read all the terms & conditions mentioned in the bid document and accept the same to proceed further to submit the bids.
- vi. The Bidder has to submit the tender document online well in advance before the prescribed time to avoid any delay or problem during thee-submission process.
- vii. The CMWSS Board will not be held responsible for any sort of delay or the technical difficulty faced In the submission of tenders online by the bidders.
- viii. The bidder should submit the bid documents by online mode through the site (<https://tntenders.gov.in>)
- ix. The online Bidding super scribed as Technical and financial and should follow the form given in the "Supplementary Information for Firms
- x. The online bidding super scribed as "Price Bid" contains Price Bid Documents.

- xi. The Bid shall be digitally signed using DSC token on behalf of the Bidder. All pages of the Bid where entries or amendments have been made shall be digitally signed using DSC token while uploading the bid.
- xii. The tendering system will give an ACKNOWLEDGEMENT Message only after successful uploading of all the required bid documents. The ACKNOWLEDGEMENT is the bid summary. With the Bid No., Date & Time of submission of the bid with all other relevant details. The documents submitted by the bidders will be digitally signed with the e-token of the bidder and then submitted.
- xiii. The ACKNOWLEDGEMENT should be printed and to be kept as a token of the submission of the bid. The ACKNOWLEDGMENT will act as a proof of bid submission for a tender floated and will also act as an entry point to participate in the bid opening date.
- xiv. Bidder should log into the site well in advance for bid submission so that he submits the bid in time i.e. on or before the bid submission time. If there is any delay, due to other issues, bidder only is responsible.
- xv. Each document to be uploaded through online for the tenders should be less than 2 MB, If any document is more than 2 MB, it can be reduced through zip format and the same can be uploaded. It may be however noted that. If the file size is less than 1 MB the transaction uploading time will be very fast.
- xvi. The time setting fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time only, during bid submission.
- xvii. All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not be viewable by unauthorized persons during bid submission & not be viewable by anyone until the time of bid opening. Overall, the submitted tender documents become readable only after the tender opening by the authorized individual.
- xviii. The Confidentiality of the bids is maintained since the secured Socket layer 128 bit encryption technology is used. Data storage encryption of sensitive fields is done.

3.12. The "Technical" and "Financial" proposals must be submitted in online through two separate formats following the formats/schedules given.

The Technical and Financial proposal must be submitted in the prescribed format shall contain the digitally signed document using DSC token in the online bidding .

- 3.13 The Bidders have to download the bid documents from the Tenders Portal and submit the bids by Online through NIC Portal.

The Submission of Proposals:

- 3.13 The proposals shall be uploaded in two parts, viz, Technical and financial and should follow the form given in the "Supplementary Information for Firms." The proposal shall be submitted to online only..

4. Opening of proposal

- 4.1 The proposal containing Technical & Financial will be opened by the officials of CMWSS Board in its office at **15.30 hours on 30.12.2022.**

5. PROPOSAL EVALUATION

General

- 5.1 From the time the bids are opened to the time the contract is awarded, if any consultant wishes to contact the Client on any matter related to its proposal, it should do so in writing at the address indicated in the Data Sheet. Any effort by the firm to influence the Client in the Client's proposal evaluation, proposal comparison or contract award decisions may result in the rejection of the Consultant's proposal.
- 5.2 A two-stage procedure will be adopted in evaluating the proposals: (i) a technical evaluation, which will be carried out and; (ii) a financial evaluation of these Consultants who have scored the Minimum marks to pass in the Technical bid as indicated in the Data sheet.

Evaluation of Technical & Financial Proposal

- 5.3 CMWSSB will carry out the evaluation proposals on the basis of their responsiveness to the TOR, applying the evaluation criteria and point system specified in the Data Sheet. Each responsive proposal will be attributed a technical score (St). A proposal to be considered unsuitable shall be rejected at this stage if it does not respond to important aspects of the Terms of Reference or if it fails to achieve the minimum technical score as indicated in the Data Sheet. The consultants that have secured the minimum technical score will be taken up further financial evaluation.

The lowest financial proposal (Fm) will be given a financial score (Sf) of 100 points. The financial scores of all the proposals will be computed as follows: $S_f = 100 \times F_m/F$ (Fm is the lowest price among the Consultancy Firms and F is the price of the proposal under consideration of the Consultancy Firm).

- 5.4** Proposals will finally be ranked according to their combined technical (St) and financial (Sf) scores using a weight of 70 % for technical proposal and 30% for financial proposal.

$$S = St \times 0.70 + Sf \times 0.30$$

- 5.5** The Consultant securing the highest combined score will be invited for negotiations.

6. NEGOTIATIONS

- 6.1** Negotiations will be held at the address indicated in the Data Sheet. The aim is to reach agreement on all points and sign a contract.
- 6.2** Negotiations will include a discussion of the technical proposal, the proposed methodology (work plan), staffing , Manmonths cost and any suggestions made by the firm to improve the Terms of References (ToRs). The Client and firm will then work out agreed final ToR, the staffing and bar charts that will indicate activities, staff, periods in the field and in the home office, staff months, logistics and reporting. The agreed Work Plan and final ToR will then be incorporated in the “Description of Services” and form part of the Contract. Special attention will be paid to optimize the required outputs from the Consultants within the available budget and to define clearly the inputs required from the Client to ensure satisfactory implementation of the Assignment.
- 6.3** Prior to the expiry period of proposal validity, the Client will notify the successful Consultant who has submitted the proposal with the highest combined score by registered letter, E-Mail or facsimile and invite it to negotiate the contract.
- 6.4** Having selected Consultants, among other things, on the basis of an evaluation of proposed key professional staff, the Client expects to negotiate a contract on the basis of the experts named in the proposal and, prior to contract negotiations, will require assurances that this experts will be actually available. The Client will not consider substitutions during contract negotiations except in cases of unexpected delays in the

starting date or incapacity of key professional staff for reasons of health. If this is not a case and if it is established that key staffs were offered in the proposal without confirming their availability, the firm may be disqualified.

7.0. AWARD OF CONTRACT

- 7.1. The Contract will be awarded after negotiations with the successful Consultant. Upon successful completion, the Client will promptly inform the other Consultants that their proposals have not been retained.
- 7.2. SD Not applicable.
- 7.3. The selected Consultant is expected to commence the Assignment on the date and at the location specified in the Data Sheet.

8. CONFIDENTIALITY

Information relating to evaluation of proposals and recommendations concerning awards shall not be disclosed to the Consultants who submitted the proposals or to other persons not officially concerned with the process, until the winning firm has been notified that it has been awarded the contract.

DATA SHEET
Information to Consultants

Clause Reference

1.1 The name of the Client: **Chennai Metropolitan Water Supply and Sewerage Board (CMWSS Board)**

The method of selection is : **Quality-and-Cost Based Selection (QCBS)** as indicated in the document.

The name of the Assignment is: “Conducting consultancy studies for rehabilitation and revamping works including preparation of Detailed Project Report (DPR), process designs and detailed estimates, preparation of bid documents for 300MLD Water Treatment Plant at Puzhal and 14 MLD Surapet Water Treatment Plant.”

1.2 Technical and Financial Proposals are required: **Yes.** to be uploaded.(single cover system)

1.3 Bid Security:

The bidder shall furnish a bid security of Rs.43,000/- (Rupees Forty Three Thousand only) for the Consultancy work. The tenderer should submit the bid security by online transfer only through NIC portal. The tenderer shall submit scanned copy of online on line transaction statement towards bid security along with Request for Proposal

1.4 Duration of the Assignment is : **3 months**

1.5 Pre-proposal meeting : **Yes**

Date, Time & Venue : **20.12.2022 on @ 11.30 hours**
CMWSS Board, Commissionerate of Municipal Administration,
Urban Administrative Building
Santhome High Road, MRC Nagar, Raja Annamalaipuram, Chennai 600 028

The name and address of the Official is : **Superintending Engineer,**
(Contracts & Monitoring)

Commissionerate of Municipal Administration, Urban Administrative Building Santhome High Road, MRC Nagar, Raja Annamalaipuram, Chennai 600 028

1.6. Language prepared ; **English. Reports must be written in English**

2.0 The Documents are : **TORs, Draft form of Contract, Appendices etc., for the rehabilitaion consultancy**

2.1 (i) Majority of key professional Staff to be Permanent employees of the consultants } : Preferable

(ii) The minimum required experience of the proposed key staff is in : Table-1

Table – 1

A. During the Implementation of the Project:

The C.V.s of the following key personnel will be considered for evaluation

Sl. No	Category Name	Minimum educational qualification and Discipline	Over all Year s of Expe rienc e (min)	Qualification and expertise required	No required	Estimated Man months
1	Team leader/ Chief Consultant	Masters Degree in Civil / Structural/ Environmental.	15	Should have overall experience of not less than 15 years and served as senior level for a minimum period of 3 years in at least one work of consultancy for preparing Design/ rehabilitation and revamping works including preparation of Detailed Project Report (DPR), process designs and detailed estimates, preparation of bid documents for a minimum of 75 MLD capacity Water Treatment Plant.	1	3
2	Process expert	Master's Degree in Chemical /Environmental Engineering		Specialization in Water treatment with experience in the design and implementation of similar Water treatment projects	1	3

Sl. No	Category Name	Minimum educational qualification and Discipline	Over all Years of Experience (min)	Qualification and expertise required	No required	Estimated Man months
			10	not less than 75 mld capacity.		
3	Civil Structural Expert	Master's Degree in civil / Structural Engineering	10	Should have served as Project Consultant for a minimum period of 3 years in Water treatment plants of not less than 75 MLD capacity in design and structural consultancy	1	3
4	Electrical expert	Master's Degree in Electrical & Electronics, Engineering.	10	Should have served as Project Consultant for a minimum period of 3 years in Water Treatment Plants of not less than 75 mld capacity.	1	3
5	Mechanical expert	Master's Degree in Mechanical Engineering	10	Should have served as Project Consultant for a minimum period of 3 years in Water Treatment Plants of not less than 75 mld capacity.	1	3
6	Instrumentation expert	Master's Degree in Instrumentation Engineering	5	Should have served as Project Consultant for a minimum period of 2 years in Water Treatment Plants of not less than 75 mld capacity	1	2
7	Contract Procurement /estimate expert	Masters in Civil /Mechanical / Electrical	10	Should have experience for preparing estimating, billing schedules and coordinating for other relevant inputs related to legal, financial and commercial issues and should familiar in FIDIC / IFC / World Bank Procurement guidelines. Experience in preferably in water/wastewater sectors is	1	3

Sl. No	Category Name	Minimum educational qualification and Discipline	Over all Years of Experience (min)	Qualification and expertise required	No required	Estimated Man months
				preferable		
8	Hydraulic Design expert	Masters in Civil / Mechanical Engineering	7	Should have experience in hydraulic design / fluid mechanics in Water/ Sewer treatment plants.	1	2
9	Draftsman-AutoCAD & GIS base map works	Bachelors in Civil Engineering	5	Should have experience in Auto CAD and GIS based works for Water/ Sewer treatment plants, etc. or any similar projects	1	2

Note: The above key personnel are the minimum requirement as estimated by the client. However, the Consultants may increase the strength of key personnel and other supporting staff required as per method of consultancy. However, no additional payment will be made. The Consultants shall indicate the name of the personnel who has to be awarded marks for evaluation purpose.

2.2 The no. of points to be given under each of the evaluation criteria are as follows:

	Points
i) Specific Experience of the Consultancy firm related to the assignment	- 30
ii) Qualifications and Competence of the key staff for the assignment	- 70
Total	<u>100</u>

- i. **Specific Experience of the Consultancy firm related to the assignment** (Experience of the firms during the last 10 years will be considered during the evaluation). For the Projects other than similar / Relevant to the assignment, no marks would be awarded. **30**

The Consultancy firm should have experience in consultancy for Design and rehabilitation and revamping works including preparation of Detailed Project Report (DPR), process designs and detailed estimates, preparation of bid documents for a minimum of 75MLD **would be considered for evaluation.**

The marks for following items will be awarded as follows:

- (i) Experience in Design or rehabilitation and revamping works of water treatment plant of capacity **75 MLD and above** (only plants designed and rehabilitation and successful implement under this consultancy and functioning Currently will be taken into account for evaluation.) 100

3 or more projects = 100
 2 Projects = 80
 1 Project = 60

ii. Qualifications and Competence of the key staff for the assignment- Points 70

The following key staff only will be evaluated. The respective weightages are :

Table – 2

S. No	Key Professionals	Maximum marks assigned for scoring of 70 marks for each category
1	Team leader	18
2	Process expert	11
3.	Civil Structural Expert	10
4	Electrical expert	8
5	Mechanical expert	10
6	Instrumentation expert	4
7	Contract/ Procurement expert/Estimation	4
8	Hydraulic Design expert	3
9	Draftsman- AutoCAD & GIS base map works	2
	Total	70

The qualification of staff will be evaluated based on the following criteria:

Technical Experts		
(A) General Qualifications		35
(B) Adequacy for the assignment		<u>65</u>
	Total	<u>100</u>

I Team leader --SL.No.1 of Table – 1 **100**

A. General Qualifications **35**

- i. Education
 - Ph.D = 12
 - Master's degree = 10
- ii Work Experience in Design of Water Treatment plants
 - Above 15 years = 23
 - 10 to 12 years = 18
 - 7 to 9 years = 15

(B) Adequacy for the assignment **65**

- i Experience in Design, Rehabilitation, preparing DPR & Bid documents for Water Treatment Plant which should have been implemented and functioning.
 - 5 or more Projects = 65
 - 3 Projects = 50
 - 2 Projects = 40

II Engineering --SL.No.2 to 8 of Table – 1 **100**

A. General Qualifications **35**

- i. Education
 - Ph.D = 12
 - Master's degree = 10
- ii Work Experience in Design of Water Treatment plants
 - Above 10 years = 23
 - 5 to 10 years = 18
 - 3 to 5 years = 15

(B) Adequacy for the assignment **65**

- i Experience in Design, Rehabilitation, preparing DPR & Bid documents for Water Treatment Plant and which should have been implemented and functioning.
 - 5 or more Projects = 65
 - 3 Projects = 50
 - 2 Projects = 40

III Engineering –Experience in AutoCAD & GIS base map (For SL. No.9 of Table – 1)
100

A. General Qualifications **35**

- i. Education
- | | |
|------------------|------|
| Masters degree | = 12 |
| Bachelors degree | = 10 |
- ii Work Experience in Design & rehabilitation of Projects
- | | |
|---------------|------|
| Above 7 years | = 23 |
| 5 to 6 years | = 18 |
| 3 to 4 years | = 15 |

(B) Adequacy for the assignment **65**

- (i) Work experience in Projects
- | | |
|--------------------|------|
| 3 or more Projects | = 65 |
| 2 Projects | = 50 |
| 1 Project | = 40 |

Note: The marks assignment on the above basis for individual key staff of various categories will be added and then the total score would be used for calculating the proportionate marks to each category of each staff equivalent on the maximum marks indicated in the table-2 and then totalled.

The minimum technical score required to pass is 70

Only the firm getting minimum pass marks of 70 will be considered for opening of financial package.

The formula for determining the financial scores is the following:

($S_f = 100 \times F_m/F$, in which S_f is the financial score, F_m is the lowest price among the Consultancy Firms and F is the price of the proposal under consideration of the Consultancy Firm).

The weights given to the technical and financial proposals are:

T = 0.70 and F = 0.30

The Consultant securing the highest combined score will be invited for negotiations.

2.2.1 The Address for negotiation is: SUPERINTENDING ENGINEER
(CONTRACTS & MONITORING)

CMWSSB

Commissionerate of Municipal Administration,
Urban Administrative Building Santhome High Road,
MRC Nagar, Raja Annamalaipuram,
Chennai 600 028

2.2.2 Commencement of Assignment: The assignment is expected to commence immediately on receipt of Letter of Acceptance for this work.

2.2.3 The assignment location is at 300 MLD WTP at Puzhal & 16MLD WTP at Surapet, Chennai, Tamilnadu, India.

SECTION - 3 TECHNICAL PROPOSAL - STANDARD FORMS

3A	Technical Proposal submission form
3B	Firm's references
3C	Comments and suggestions of Consultants on the Terms of Reference and on data services and facilities to be provided by the client
3D	Description of methodology and work plan for performing the assignment
3E	Composition of the Team Personnel and task(s) of each Team Member
3F	Format of Curriculum Vitae (CV) for proposed professional staff
3G	Time schedule for professional personnel
3H	Activity (work) schedule

3A -TECHNICAL PROPOSAL SUBMISSION FORM

From

To

Sir,

Sub: Consultancy Service for “Conducting consultancy studies for rehabilitation and revamping works including preparation of Detailed Project Report (DPR), process designs and detailed estimates, preparation of bid documents for 300MLD Water Treatment Plant at Puzhal and 14 MLD Surapet Water Treatment Plant”- Technical Proposal.

I/We the undersigned, offer to provide the consulting services for the above in accordance with your Request for Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal, and a Financial Proposal in the E-tender. Our proposal is binding upon us and subject to the modifications resulting from contract negotiations.

Yours faithfully,

Authorized Signature

Name and Title of Signatory

Name of the firm

Address

3 B – FIRM’S REFERENCES

Relevant Services carried out in the Last ten years that best illustrate Qualifications

Using the format below providing information on each reference assignment for which your firm/entity either individually or as a joint venture, was legally contracted.

Assignment Name : Country/location :

Location within Country : Professional staff provided
by your firm/entity :

Name of Client : No. of Staff

Address : No. of Staff-Months, duration of
assignment :

Start Date (Month/Year) : Completion Date(Month/Year):

Approx. value of Services : Name of the joint venture, if any:

No. of Months of Professional
Staff provided by JV :

Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:

Narrative Description of Project : **

****The Client Certificate for having satisfactorily completed the Assignment / Consultancy has to be enclosed for each work.**

Description of Actual Services Provided by your Staff:

Consultants'/ Firm's Name:

3C – COMMENTS AND SUGGESTIONS OF CONSULTANTS ON THE TERMS OF REFERENCE AND ON DATA SERVICES AND FACILITIES TO BE PROVIDED BY THE CLIENT.

On the Terms of Reference

- 1
- 2
- 3
- 4
- 5

On the Data, services and facilities to be provided by the client indicated in the Terms of References

- 1
- 2
- 3
- 4
- 5

**3D - DESCRIPTION OF THE METHODOLOGY AND WORK PLAN FOR PERFORMING THE
ASSIGNMENT**

**3 E- COMPOSITION OF THE TEAM PERSONNEL AND TASK(S) OF
EACH TEAM MEMBER**

1 Technical/Managerial Staff

S.No.	Name	Position	Task
1.			
2.			
3.			
4.			
5.			
..			
..			
..			
..			

2 Support Staff

S.No.	Name	Position	Task
1.			
2.			
3.			
4.			
5.			
..			
..			

**3 F- FORMAT OF CURRICULUM VITAE (CV) FOR
PROPOSED PROFESSIONAL STAFF**

Proposed position :-----
Name of firm :-----
Name of Staff :-----
Profession :-----
Date of Birth :-----
Years with Firm :----- Nationality :
Membership of Professional Societies:-----
Detailed Tasks Assigned -----

Key Qualifications

*(Give an outline of staff member's experience and training most pertinent to tasks on assignment. Describe **degree of responsibility held** by staff member on relevant previous assignments and give dates and locations. Use upto half a page).*

Education

(Summarize College/University and other specialized education of staff member, giving names of colleges, dates attended and degrees obtained, Use up to a quarter page).

Employment Record *(Starting with present position, list in reversed order, every employment held. List all positions held by staff member since graduation, giving dates names of employing organization, title of positions held and location of assignments. For experience in last ten years, also give types of activities performed along with client references. Use up to three-quarters of a page).*

Language

(Indicate proficiency in speaking reading and writing of each language by "excellent", "good", "fair", or "poor").

Certification

I, the undersigned, certify that to the best of my knowledge and belief, this bio-data correctly described myself, my qualifications and my experience.

-----Date:-----

Signature of Staff Member and authorized official from the firm

3 G – TIME SCHEDULE FOR PROFESSIONAL PERSONNEL

Sl .N o	Name	Position	Repor ts Due / Activiti es	Weekly wise (in the form of bar chart)														Number weeks	
				1	2	3	4	5	-	-	12		13
1																			Subtotal (1)
2																			Subtotal (2)
3																			Subtotal (3)
4																			Subtotal (4)
5																			
6																			
7																			
8																			
9																			

: :

Signature:

Reports Due :

(Authorized Representative)

Activities Duration:

Full Name & Address:

3 H. ACTIVITY (WORK) SCHEDULE

Sl. No	Item of Activity (Work)	Weekly wise program (in the form of chart)														
		1	2	3	4	5	-	10	11	13

SECTION 4 - FINANCIAL PROPOSAL – STANDARD FORMS

4 A - Financial Proposal submission form

4 B - Summary of Cost

4A – FINANCIAL PROPOSAL SUBMISSION FORM

FROM

TO

Sir,

Sub: Engaging Consultants for “Conducting consultancy studies for rehabilitation and revamping works including preparation of Detailed Project Report (DPR), process designs and detailed estimates, preparation of bid documents for 300MLD Water Treatment Plant at Puzhal and 14 MLD Surapet Water Treatment Plant”- Financial Proposal.

We, the undersigned, offer to provide the consulting services for the above in accordance with your Request for Proposal.

Our financial proposal shall be binding upon us subject to the modifications resulting from contract negotiations.

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely “Prevention of Corruption Act 1988”.

We remain,

Yours sincerely,

Authorized Signature:
Name and Title of Signatory:
Name & Address of the Firm:

4 B- SUMMARY OF COSTS

During the period of Conducting consultancy studies for rehabilitation and revamping works including preparation of Detailed Project Report (DPR), process designs and detailed estimates, preparation of bid documents for 300MLD Water Treatment Plant at Puzhal and 14 MLD Surapet Water Treatment Plant. Name of the Key & non key personals should be attached separately.

Cost Estimate of Services

I. Remuneration to Staff:

S. No.	Descriptions of activity	Quantity/ nos	Rate Amt in Rs	Man Months/ days	GST@18%	Total Cost Amount in Rs
I	Key Professionals					
1	Team leader	1		3		
2	Process expert	1		3		
3	Civil Structural Expert	1		3		
4	Electrical expert	1		3		
5	Mechanical expert	1		3		
6	Instrumentation expert	1		2		
7	Contract/ Procurement expert/Estimation	1		3		
8	Hydraulic Design expert	1		2		
9	Draftsman- AutoCAD & GIS base map works	1		2		
II	Non-Key Staffs					
10	Supporting staff	4		3		
III	Conveyance & transportation cost - Local & site			Days		
11	Cost towards vehicle hire cost / transport for travel at site - for site visit & inspection meetings (to & fro) for the experts and support	90		90		

S. No.	Descriptions of activity	Quantity/nos	Rate Amt in Rs	Man Months/days	GST@18%	Total Cost Amount in Rs
	engineer for field survey and related works.					
IV	Admin, Office expenses, reports printing and documentation			Per		
12	Towards printing of inception report, DPR, drawings & GPS mapping	10		sets		
V	Field survey works			per		
13	Carry out topographical survey for the two WTP sites capturing of existing infrastructures in the WTP site, including preparation of plant layout, etc	1		Job		
14	Geotechnical/ soil investigation works for the two WTP including preparation of soil investigation reports	1		Job		
15	Carry out structural stability test for existing structures in the two WTP sites	1		Job		
16	Key Professionals Water sampling test - External NABL accredited lab	10		nos		
	Total					

Note: Payment will be made as per stipulations of the special contract conditions (SCC).

SECTION-5

TERMS OF REFERENCE

1.0 OBJECTIVE

The objective of the consultancy is to conduct studies for rehabilitation and modification works including preparation of DPR, process designs and detailed estimates for the existing 300MLD Water Treatment Plant and 14MLD Surapet Water Treatment Plant in Puzhal and Surapet respectively in Chennai.

2.0 SCOPE OF WORK

The scope of this consultancy work includes but is not limited to:

- I. Conducting prefeasibility studies to rehabilitate the existing 300 MLD Water Treatment Plant and Surapet Water Treatment Plant and also to enhance the Treatment quantity by drawal of sufficient quantity water from Redhills lake.
- II. Topographic Survey of the site and preparation of topo – drawings.
- III. Soil Investigation Report, rainfall, wind and temperature.
- IV. Analyze the quality of the Raw water and study the characteristics of raw water by doing lab analysis.
- V. Study the 300 MLD Water Treatment Plant and Surapet Water Treatment Plant design (Physical and Functional)
 - a) the design characteristics of individual units and electromechanical components in the 300 MLD Water Treatment Plant and Surapet Water Treatment Plant.
 - b) Drawings and flow diagrams with retention times
 - c) The basis for Design criteria viz. maximum raw water drawal from Redhillslake, quantities estimated, quality of treated water as per standards.
 - d) To study and ensure the drawal of maximum raw water to produce 300MLD treated water
- VI. Analyze the stability of all the Civil & Mechanical structures of the 300 MLD Water Treatment Plant and Surapet Water Treatment Plant and provide a detailed report in the interim report.
- VII. Study and suggest right type of equipment/ machinery for the 300 MLD Water Treatment Plant and Surapet Water Treatment Plant to be rehabilitated.
- VIII. to assess each and every unit of the existing civil structures and also assess the each and every equipment of the existing Mechanical, Electrical & Instrumentation units.
- IX. to determine/suggest whether every unit of the existing civil structures to be strengthened or reconstructed.

- X. to determine/suggest whether every unit of the existing equipment of the Mechanical, Electrical & Instrumentation units to be replaced or retained and also to specify the conditions and age of the existing equipments.
- XI. Preparation of detailed design including process for all the units including Civil works, Mechanical, Electrical & Instrumentation works that has to be rehabilitated in 300 MLD Water Treatment Plant and Surapet Water Treatment Plant and also all the existing conveying and transmission main of 300 MLD Water Treatment Plant and Surapet Water Treatment Plant in order to treat the raw water received as per the treatment parameters prescribed by ISO 10500:2012 for potable water supply to the public.
- XII. Evaluate various process alternatives taking into account, Cost (Capital and Operation) as well as land requirement and recommend least cost solution.
- XIII. The Conceptual design of WTP – should contain
 - a) Process
 - b) Sizing of additional process units
 - c) Freezing of Hydraulic levels for the critical components and appropriate data required for the additional units
- XIV. The complete design and detailed engineering drawing for all the Civil & Mechanical components to be strengthened / reconstructed shall be submitted showing the ground levels, size of the pipes, invert level of pipes, route, flow direction, transmission arrangement of treated water including hydraulic design and other required details deemed fit to be included in the rehabilitation DPR.
- XV. Suggest items/ machinery/ equipment/ component along with detailed specification, justification, project report, cost estimate and financial & economic analysis.
- XVI. Alternate plans for the management of raw water during up-gradation works without affecting treatment process.
- XVII. Prepare cost estimates for all components. Detailed item rate estimates have to be based on CMWSSB Schedule of rate/ market rate analysis and shall be prepared for each item of the work. Estimate shall be framed for material and labour separately for each component of the project.
- XVIII. Detailed Design, drawings and Detailed Technical Specifications for all mechanical equipments and off site piping valves and fittings.
- XIX. Detailed Design and Detailed Technical Specifications for all Electrical Equipments and Single Line Diagram (SLD).
- XX. Detailed Design and Detailed Technical Specifications for Instrumentation equipment, Instrumentation control Philosophy and Instrumentation Schematics with drawings and updated operation manuals.
- XXI. Detailed specifications for providing SCADA and Telemetry system for online monitoring of all the equipment's of Water Treatment plant and process parameters of water in various stage of treatment including inlet and outlet parameters within the control room and also to be accessed remotely through an internet connect on our office computer or laptop and even cell phone or tablet. The SCADA system installed should collect and

store information for reporting, troubleshooting, maintenance indications and other relevant data required for efficient operation of water treatment plant.

- XXII. Assessment of power requirement for the plant, detailed design and drawings for electrical sub-station and preparation of Yard drawing including distribution arrangements to the process units, lighting etc by energy efficiency method.
- XXIII. Detailed Design, drawings and Technical Specifications for buildings and all other civil structures.
- XXIV. Detailed Design, drawings and specifications for in-plant roads, drainage, utilities, gardening and landscaping.
- XXV. Detailed Technical specifications for all construction materials, construction methodology and stage wise test to be carried out prior to acceptance.
- XXVI. Survey of the possible suppliers of the equipments, piping and materials who would be in a position to supply the equipments and pipes based on the design and sizing criteria both international and indigenous and recommend 6 to 8 vendors of repute with lead time for supply of equipments and materials.
- XXVII. Detailed technical specifications for surface preparations and painting for civil, mechanical, electrical, piping and instrumentation works.
- XXVIII. Layout of the workshop with detailed specifications for maintenance facilities including specifications of the workshop equipment, type and quantity.
- XXIX. Recommend necessary performance tests to assess the quality of Treated Water and to identify the efficiency of the operating units.
- XXX. Detailed Design, drawings and Detailed Technical Specifications for Sludge Treatment and disposal method as per the advance technology.
- XXXI. Preparation of detailed Cost Estimate supported with cost analysis for all the components of the Rehabilitation of 300MLD Water Treatment Plant and 14MLD Surapet Water Treatment Plant.
- XXXII. Preparation of detailed comprehensive Operation & Maintenance Cost Estimate for 10 years.
- XXXIII. Providing operation manual and Standard Operational Procedures (SOPs) Preparation of the business model for the sustainable operation of the WTP.
- XXXIV. Assist the CMWSS Board in furnishing the required documents for getting necessary approval from Funding agency/concerned authorities for the approval of DPR.
- XXXV. Detailed Engineering and Technical Specifications and cost estimate for any other system or sub-system that would be required for effective operation of 300MLD Water Treatment Plant and 14MLD Surapet Water Treatment Plant.
- XXXVI. Necessary assistance should be rendered by the consultant for getting approvals from statutory departments like CMDA, TNPCB, TNEB, CEIG and other agencies.
- XXXVII. Any further field data & details necessary for completion of DPR should be furnished by the Consultants.
- XXXVIII. The Consultant should also furnish an Activity Chart / PERT Chart indicating the critical activities for monitoring the Project activities.

- XXXIX. The consultant should also study and furnish recommendation regarding reuse of sludge in the water treatment plants.
- XL. Preparation of bid documents for the work of rehabilitation of 300MLD WTP at Puzhal and 14 MLD Surapet WTP above work.

3.0. TIMEFRAME FOR OUTPUTS& PAYMENT SCHEDULE

The overall assignment implementation schedule is 3 months as detailed below:

S.No	Outputs	Timeline	Payment %
1.	InceptionReport- The report includes basic details of the projects with methodology and work plan and way forward	30 days from award of consultancy	20% of award cost
2.	Draft DPR - The report includes Draft design, cost estimate and drawings for each component.	60 days from award of consultancy	30% of award cost
3.	Final DPR incorporating the comments on Draft DPR along with detailed design, Cost Estimates and drawings - The report includes Detailed final design and estimate containing final detailed design along with flow chart, drawings, cost estimates, operating system for each component.	90 days from award of consultancy	40% of award cost
4.	Draft Bid documents and BoQ- The output includes Draft Bid documents, Tender drawings GPS mappings with digitalization and BoQ	90 days from award of consultancy	10% of award cost

- 3.1 10 copies of all designs, drawings in Auto CAD, reports, photographs and other documents(MS Word Format) with both hard and soft should be submitted.
- 3.2 On completion, the Consultant shall supply to the client 10 sets of all final drawings, specifications in hard copy and four sets in soft copy.
- 3.2 Consultant shall assist to get necessary clearances required for the rehabilitation of the 300MLD Puzhal WTP and 14MLD Surapet WTP including MLP from various statutory bodies.
- 3.4 Consultant shall assist during the proof checking of the designs by the third party agency appointed by the client if required.

4 Copy of the degree certificate / educational qualifications has to be enclosed with the C.V

B 5. Miscellaneous.

- a) Consultant has to make his own arrangements for office accommodation transport communications and equipment for the consultancy study. No office accommodation will be provided by CMWSS Board for the consultancy study.
- b) The consultants will have to make their own arrangements for necessary computer software and hardware and transportation facilities.

C 6 Review Committees to monitor the consultants' works:

The works under this Project would be reviewed by the Special Committee comprising the following Officers every month:

- 1. Engineering Director, CMWSSB - Chairman
 - 2. Chief Engineer (O&M) II ,CMWSSB - Member
 - 3. Superintending Engineer WT&T - Convener
 - 4. Superintending Engineer , P&D - Member
 - 5. Executive Engineer, RO-II - Member
- & Tender Scrutiny committee members.

The consultant has to make detailed presentations whenever the review meeting convened to review.

SECTION 6 – STANDARD FORM OF CONTRACT

CONTRACT FOR CONSULTANT'S SERVICES

between

(Name of Client)

and

(Name of Consultants)

Dated _____

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I. FORM OF CONTRACT

CONTRACT FOR CONSULTANTS' SERVICES

This CONTRACT for the "Consultancy for Construction Management and Supervision including Third party inspection for the proposed Construction of 150 MLD capacity Sea Water Reverse Osmosis Desalination Plant at Nemmeli, East Coast Road, South of Chennai, Tamil Nadu and its Product Water Conveyance pipeline from the Plant and upto Pallavaram and all allied works" (hereinafter called the "Contract") is made the ----- day of the month of-----, between on the one hand **Chennai Metropolitan Water Supply and Sewerage Board (CMWSS Board), No:1, Pumping Station Road, Chintadripet, Chennai- 600 002, India** (herein after called the "Client) and on the other hand, -----

----- (hereinafter called the "Consultants").

[Note: If the Consultants consist of more than one entity, the above should be partially amended to read as follows:

... (hereinafter called the "Client") and on the other hand, a joint venture consisting of the following entities, each of which will be jointly and severally liable to the Client for all the Consultants' obligations under this Contract, namely----- and----- (hereinafter called the "Consultants.")]

WHEREAS

- a) The Client has requested the Consultants to provide certain consulting services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the "Services")
- b) The Consultants, having represented to the Client that they have the required professional skills, personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE the parties hereto hereby agree as follows;

1. The following documents attached hereto shall be deemed to form an integral part of this Contract
 - (a) The General Conditions of Contract (hereinafter called "GCC");

- (b) The Special Conditions of Contract (hereinafter called "**SCC**");
- (c) Terms of Reference.
- (d) Information to Consultants
- (e) The following Appendices:

- Appendix A : Description of the Services
- Appendix B :Consultant, Sub consultants and Key persons
- Appendix C : Review Committee
- Appendix D : Terms of Payment
- Appendix E : Project Implementation Team

The mutual rights and obligation of the Client and the Consultants shall be as set forth in the Contract; in particular:

- (a) The Consultants shall carry out the Services in accordance with the provisions of the Contract; and
- (b) The Client shall make payments to the Consultants in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

FOR AND ON BEHALF OF
(NAME OF THE CLIENT/ CMWSS Board)

By _____
(Authorised Representative)

FOR AND ON BEHALF OF
(NAME OF THE CONSULTANTS)

By _____
(Authorised Representative)

(Note: If the Consultants consist of more than one entity, all of these entities should appear as signatories, e.g. in the following manner)

FOR AND ON BEHALF OF EACH OF
THE MEMBERS OF THE CONSULTANTS

(Name of the Member)

By _____
(Authorised Representative)

(Name of the Member)

By

Authorised Representative

etc.

II. GENERAL CONDITIONS OF CONTRACT

1. GENERAL PROVISIONS

1.1 Definitions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) "Applicable Law" means the laws and any other instruments having the force of law in the State of Tamil Nadu, India.
- (b) "Contract" means "Conducting consultancy studies for rehabilitation and revamping works including preparation of Detailed Project Report (DPR), process designs and detailed estimates, preparation of bid documents for 300MLD Water Treatment Plant at Puzhal and 14 MLD Surapet Water Treatment Plant"
- (c) "Effective Date" means the date on which this Contract comes into force and effect pursuant to Clause GCC 2.1;
- (d) "GCC" means these General Conditions of Contract;
- (e) "Government" means the Government of the Client's country (GOI/GOTN)
- (f) "Currency" means the Indian Rupees
- (g) "Member", in case the Consultants consist of a joint venture of more than one entity, means any of these entities, and "Members" means all of these entities'
- (h) "Personnel" means persons hired by the Consultants or by any Sub-Consultant as employees and assigned to the performance of the Services or any part thereof;
- (i) "Party" means the Client or the Consultants, as the case may be and Parties means both of them;

- (j) "Services" means the work to be performed by the Consultants pursuant to this Contract for the purpose of the Project, as described in Appendix A hereto;
- (k) "SCC" means the Special Conditions of Contract by which these General conditions of contract may be amended or supplemented;
- (l) "Project": means - "Conducting consultancy studies for rehabilitation and revamping works including preparation of Detailed Project Report (DPR), process designs and detailed estimates, preparation of bid documents for 300MLD Water Treatment Plant at Puzhal and 14 MLD Surapet Water Treatment Plant".
- (m) "Sub-Consultant" means any entity to which the Consultants sub contract any part of the Services in accordance with the provisions of Clause GCC 3.7; and
- (n) "Third Party" means any person or entity other than the Government.

1.2 Relation between the Parties

Nothing contained herein shall be construed as establishing a relation of master and servant or of agent and principal as between the Client and the Consultants. The Consultants, subject to this Contract, have complete charge of Personnel and Sub-consultants if any, performing the services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

1.3 LAW GOVERNING CONTRACT

This contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Indian Law.

1.4 Language

This contract has been executed in the language specified in the SCC, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this contract.

1.5 Headings

The headings shall not limit, alter or affect the meaning of this contract.

1.6 Notices

- 1.6.1 Any notice, request or consent required or permitted to be given or made pursuant to this contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the party to whom the communication is addressed, or when sent by registered mail, telex or facsimile to such party at the address specified in the SCC.

Notice will be deemed to be effective as follows:

- (a) In the case of personal delivery or registered mail, on delivery;
 - (b) In the case of tele fax / E-Mail, 72 hours following confirmed transmission
- 1.6.2 A party may change its address for notice hereunder by giving the other party notice of such change pursuant to the provisions listed above in Clause GCC 1.

1.7 Location

The Services shall be performed at such locations as are specified in Appendix A hereto and, where the location of a particular task is not so specified, at such locations, as the Client may approve.

1.8 Authority of member in charge

In case the Consultants consist of a joint venture of more than one entity, the Members hereby authorize the entity specified in the SCC to act on their behalf in exercising all the Consultants' rights and obligations towards the Client under this Contract, including without limitation the receiving of instructions and payments from the Client.

1.9 Authorised Representatives

Any action required or permitted to be taken, and any document required or permitted to be executed, under this contract by the Client or the Consultants may be taken or executed by the officials specified in the SCC.

1.10 Taxes and Duties

Unless otherwise specified in the SCC, the Consultants, Sub-Consultants and Personnel shall pay such taxes, duties, fees and other impositions as may be levied under the Applicable Law.

2 COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT

2.1 Effectiveness of Contract

This contract shall come into force and effect on the date (the "Effective Date") of the Client's notice to the Consultants instructing the Consultants to begin carrying out the services. This notice shall confirm that the effectiveness conditions, if any listed in the SCC have been met.

2.2 Termination of Contract for Failure to Become Effective

If this contract has not become effective within such time period after the date of the contract signed by the parties, then the Client may, by not less than two (2) weeks' written notice to the Consultant declare this contract to be null and void and in the event of such declaration by the Client, the Consultant shall have no claim against the Client with respect hereto.

2.3 Commencement of Services

The Consultants shall begin carrying out the Services not later than one week after the effective date.

2.4 Expiration of Contract

Unless terminated earlier pursuant to Clause 2.9 hereof, this contract shall expire when services have been completed and all payments have been made.

2.5 Entire Agreement

This contract contains all covenants, stipulations and provisions agreed by the parties. No agent or representative of either Party has authority to make, and the Parties shall

not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.

2.6 Modification

Modification of the terms and conditions of this contract, including any modification of the scope of the Services, may only be made by written agreement between the Parties and shall not be effective otherwise. Pursuant to Clause 7.2 hereof, however, each party shall give due consideration to any proposals for modification made by the other Party.

2.7 Force Majeure

2.7.1 Definition

- (a) For the purpose of this contract, "Force Majeure" means an event which is beyond the reasonable control of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are solely restricted to the staff of the Consultants or Sub consultants) confiscation or any other action by Government Agencies.
- (b) Force Majeure shall not include (1) any event which is caused by the negligence or intentional action of a Party or such party's sub-Consultants or agents or employees, nor (2) any event which a diligent party could reasonably have been expected to both (in) take into account at the time of the conclusion of this contract and (in) avoid or overcome in the carrying out of its obligations hereunder.
- (c) Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

2.7.2. No Breach of Contract

The failure of a party to fulfill any of its obligations hereunder shall not be considered to be a breach, or default under, this Contract insofar as such inability arises from an

event of Force Majeure provided that the party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract.

2.7.3. Measures to be Taken

- (a) A Party affected by an event of Force Majeure shall take all reasonable measures to remove such Party's inability to fulfill its obligations hereunder with a minimum of delay.
- (b) A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any event not later than fourteen (14) days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give notice of the restoration of normal conditions as soon as possible.
- (c) The parties shall take all reasonable measures to minimize the consequences of any event of Force Majeure.

2.7.4. Extension of Time

Any period within which a Party shall, pursuant to this contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as result of Force Majeure.

2.7.5. Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultants shall be entitled to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Services after the end of such period

2.7.6. Consultation

Not later than thirty (30) days after the Consultants, as the result of an event of Force Majeure, have become unable to perform a material portion of the Services, the Parties

shall consult with each other with a view to agreeing on appropriate measures to be taken in the circumstances.

2.8 Suspension

The Client may, by written notice of suspension to the Consultants, suspend all payments to the Consultants hereunder if the Consultants fail to perform any of their obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension shall specify the nature of the failure and (ii) shall request the Consultants to remedy such failure within a period not exceeding thirty (30) days after receipt by the Consultants of such notice of suspension.

2.9 Termination

2.9.1 By the Client

The Client may, by not less than Fifteen (15) days and written notice of termination to the Consultants (except in the event listed in paragraph (f) below, for which there shall be a written notice of not less than Thirty (30) days), such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (g) of this Clause 2.9.1 terminate this contract:

- (a) if the Consultants fail to remedy a failure in the performance of their obligations hereunder, as specified in a notice of suspension pursuant to Clause 2.8 herein above, within Fifteen (15) days of receipt of such notice of suspension or within such further period as the Client may have subsequently approved in writing;
- (b) if the Consultants become (or, if the, Consultants consist of more than one entity, if any of their Members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- (c) if the Consultants fail to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause 8 hereof;

- (d) if the Consultants submit to the Client a statement which has a material effect on the rights, obligations or interests of the Client and which the Consultants know to be false;
- (e) if, as the result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than Thirty (30) days; or
- (f) if the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.
- (g) if the Consultant, in the judgment of the Client has engaged in corrupt or fraudulent practices in completing for in executing the Contract. For the purpose of this Clause:

“corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the selection process or in contract execution.

“fraudulent practice” means a misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of the Clients, and includes collusive practice among Consultants (prior to or after submission of proposals) designed to establish prices at artificial non-competitive levels and to deprive the Clients of the benefits of free and open competition.

2.9.2 Cessation of Rights and Obligations

Upon termination of this contract pursuant to Clause 2.2. or 2.9 hereof, or upon expiration of this contract pursuant to Clause 2.4 hereof, all rights and obligations of the Parties hereunder shall cease, except:

- (i) such rights and obligations as may have accrued on the date of termination or expiration
- (ii) the obligation of confidentiality set forth in Clause 3.3 hereof;
- (iii) the Consultants' obligation to permit inspection, copying and auditing of their accounts and records set forth in Clause 3.6 (ii) hereof; and
- (iv) any right which a Party may have under the Applicable Law.

2.9.3 Cessation of Services

Upon termination of this contract by notice pursuant to Clauses 2.9.1 hereof, the consultants shall, immediately upon receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultants and equipment and materials furnished by the Client, the Consultants shall proceed as provided, respectively, by clauses 3.9 or 3.10 hereof.

2.9.4. Payment upon Termination

Upon termination of this contract pursuant to Clauses 2.9.1 hereof, the Client shall make the following payments to the Consultants (after offsetting against these payments any amount that may be due from the Consultant to the Client).

- (a) remuneration pursuant to Clause 6 hereof for Services satisfactorily performed prior to the effective date of termination
- (b) reimbursable expenditures pursuant to Clause 6 hereof for expenditure actually incurred prior to the effective date of termination; and
- (c) except in the case of termination pursuant to paragraphs (a) through (d) of Clause 2.9.1 hereof, reimbursement of any reasonable cost incident to the prompt and orderly termination of the Contract.

2.9.5 Disputes about Events of Termination

If the Consultant disputes whether an event specified in paragraphs (a) through (e) of Clause 2.9.1 hereof has occurred, then the Consultant, may within Thirty (30) days after receipt of notice of termination from the Client, refer the matter to arbitration pursuant to Clause 8 hereof, and this Contract shall not be terminated on account of such event except in accordance with the terms of any resulting arbitral award.

3. OBLIGATIONS OF THE CONSULTANTS

3.1 General

3.1.1 Standard of Performance

The Consultants shall perform the Services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional techniques and practices and shall observe sound management practices, and employ appropriate advanced technology and safe and effective equipment, machinery, materials and methods. The Consultants shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with Sub-Consultants or Third Parties.

3.1.2 Law Governing Services

The Consultants shall perform the Services in accordance with the Applicable Law in India and shall take all practicable steps to ensure that any Sub-consultants, as well as the Personnel of the Consultants and any Sub-Consultants or agents of the Consultants and Sub-Consultants comply with the Applicable Law. in India. The Consultants shall be conversant with laws / local customs and respect them.

3.2 Conflict of Interests

3.2.1 Consultants not to Benefit from Commissions, Discounts, etc.

The remuneration of the Consultants pursuant to Clause 6 hereof shall constitute the Consultants' sole remuneration in connection with this Contract for the Services and, subject to Clause 3.2.2. hereof, the Consultant shall not accept for their own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations hereunder, and the Consultants shall use their best efforts to ensure that any Sub consultants, as well as the Personnel and agents of either of them, similarly shall not receive any such additional remuneration.

3.2.2 Procurement Rules of Funding Agencies

If the Consultants, as part of the Services, have the responsibility of advising the Client on the procurement of goods, works or services, the Consultants shall comply with any applicable procurement guidelines of funding agencies and shall at all times exercise such responsibility in the best interest of the Client. Any discounts or commissions obtained by the Consultants in the exercise of such procurement responsibility shall be for the account of the Client.

3.2.3 Consultants and Affiliates not to engage in Certain Activities

The Consultants agree that, during the term of this Contract and after its termination, the Consultants and any entity affiliated with the Consultants, as well as any Sub-consultant and any entity affiliated with such Sub-consultant, shall be disqualified from providing goods, works or services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.

3.2.4 Prohibition of Conflicting Activities

The Consultants shall not engage, and shall cause their Personnel as well as their Sub-Consultants and their Personnel not to engage, either directly or indirectly, in any of the following activities.

- (a) during the term of this Contract, any business or professional activities in the Government's country which would conflict with the activities assigned to them under this Contract; and
- (b) For a period of two years after the expiration of this Contract, the Consultants shall not engage, and shall cause their Personnel as well as their Sub-Consultants and their Personnel not to engage, in the activity of a purchaser (directly or indirectly) of the assets on which they advised the Client under this Contract nor in the activity of an adviser (directly or indirectly) of potential purchasers of such assets. The Consultants also agree that their affiliates shall be disqualified for the same period of time from engaging in the said activities.

3.3 Confidentiality

The Consultants, their Sub-consultants and the Personnel of either of them shall not, either during the term or after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Service, this contract or the Client's business or operations without the prior written consent of the Client.

3.4 Liability of the Consultants

The Consultants shall be liable to the Clients for the performance of the services in accordance with the provision of this contract and for any loss suffered by the Client as a result of default of the Consultants in such performance. Limit of the liability to the consultants is restricted to the final contract price

The Client shall be indemnified by the Consultants for any damage to Third Parties caused by the Consultants or any person or firm acting on behalf of the Consultants in carrying out the services.

The Consultant will be levied liquidated damages for non compliance with respect to engaging key personnel or for the absence of key personnel for continuous period of 7 days and above double the monthly wages proposed till the personnel returns to duty.

If the consultant terminate the contract in between the contract period, then the performance security furnished by the consultant shall be forfeited. The remaining part of the Consultancy services will be carried out /completed at the Risk & Cost of this consultancy firm by engaging a suitable consultancy Firm.

3.5 Insurance to be taken out by the Consultants

The Consultants (a) shall take out and maintain, and shall cause any Sub-consultants to take out and maintain, at their (or the Sub-consultants' as the case may be) own cost by on terms and conditions approved by the Client, insurance against the risks, and for the coverage, as shall be specified in the SC; and (b) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums have been paid.

The minimum insurance cover for loss or damage to the equipment and physical property in connection with this contract, personal injury or death is Rs.3,00,000/- per occurrence, with the number of occurrences limited to 4. After each occurrence, the

Consultant will pay additional premium necessary to make insurance valid for 4 occurrences always.

3.6 Accounting, Inspection and auditing

The Consultants (i) shall keep accurate and systematic accounts and records in respect of the Services hereunder, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time charges and cost, and the bases thereof; (ii) shall permit the Client or its designated representative periodically, and up to one year from the expiration or termination of this Contract, to inspect the same and make copies thereof as well as to have them audited by auditors appointed by the Client.

3.7 Consultants' Actions Requiring Client's Prior Approval

The Consultants shall obtain the Client's prior approval in writing before taking any of the following actions:

- (a) Appointing such members of the Personnel as are listed in Appendix C ("Consultants' Sub consultants and Key Personnel") merely by title but not by name;
- (b) Entering into a subcontract for the performance of any part of the Services it being understood (i) that the selection of the Sub-consultants and the terms and conditions of the subcontract shall been approved in writing by the Client prior to the execution of the subcontract, and (ii) that the Consultants shall remain fully liable for the performance of the Services by the Sub-Consultant and its Personnel pursuant to this contract; and
- (c) Any other action that may be specified in the SCC.

3.8 Reporting Obligations

The Consultants shall submit to the Client the reports and documents specified in Appendix B hereto in the form in the numbers and within the time periods set forth in the said Appendix.

3.9 Documents Prepared by the Consultants to be the Property of the Client

All plans, drawings, specifications, designs, reports and other documents and software prepared by the Consultants for the Client under this Contract and in performing the Services shall become and remain the property of the Client, and the Consultants shall, not later than Fifteen (15) days upon termination or expiration of this contract, deliver all such documents to the Client, together with a detailed inventory thereof. The Consultants shall not use these documents for any other purpose without the prior approval of the Client.

3.10 Equipment and Materials Furnished by the Client

Equipment and materials made available to the Consultants by the Client, or purchased by the Consultants with funds provided by the Client, shall be the property of the Client and shall be marked accordingly. Upon termination or expiration of this contract, the Consultants shall make available to the Client an inventory of such equipment and materials and shall return such equipment and materials to Client not later than Fifteen (15) days. While in possession of such equipment and materials, the Consultants, unless otherwise instructed by the Client in writing, shall insure them at the expense of the Client in an amount equal to their full replacement value.

4 CONSULTANTS' PERSONNEL AND SUB-CONSULTANTS

4.1 General

The Consultants shall employ and provide such qualified and experienced Personnel and Sub-Consultant as are required to carry out the Services.

4.2 Description of Personnel

- (a) The titles, agreed job descriptions, minimum qualifications and estimated periods of engagement in the carrying out of the Services of each of the Consultants' Key Personnel are described in Appendix C. The Key Personnel and Sub-Consultants listed by title as well as by name in Appendix C are hereby approved by the Client.
- (b) If required to comply with the provisions of Clause 3.1.1 hereof this Contract, adjustments with respect to the estimated periods of engagement of Key

Personnel set forth in Appendix C may be made by the Consultants by written notice to the Client, provided (i) that such adjustments shall not alter the originally estimated period of engagement of any individual by more than 10% or one week, whichever is larger, and (ii) that the aggregate of such adjustments shall not cause payments under this contract. Any other such adjustments shall only be made with the Client's written approval.

- (c) If additional work is required beyond the scope of the Services specified in Appendix A, the estimated periods of engagement of Key Personnel set forth in Appendix C may be increased by agreement in writing between the Client and the Consultants.

4.3 Approval of Personnel

The Key Personnel and Sub-consultants listed by title as well as by name in Appendix C, which the Consultants propose to use in the carrying out of the Service, shall be submitted to the Client for review and approval.

4.4 Working hours, Overtime, Leave etc.

The key Personnel shall not be entitled to be paid for overtime nor to be paid for sick leave or vacation leave. The Consultants' remuneration shall be deemed to cover these items. All leave to be allowed to the Personnel, is included in the staff-months of service set forth in Appendix C. Any taking of leave by Personnel shall be subject to the prior approval by the Consultants who shall ensure that absence for leave purposes will not delay the progress and adequate supervision of the Services.

4.5 Removal and/or Replacement of Personnel

- (a) Except as the Client may otherwise agree no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Client/ Consultants, it becomes necessary to replace any of the Personnel, the Consultants shall forthwith provide as a replacement a person of equivalent or higher qualification.

- (b) If the Client (i) finds that any of the Personnel has committed serious misconduct or has been charged with having committed a criminal action, or (ii) has reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultants shall, at the Client's written request specifying the grounds therefore, forthwith provide as a replacement a person of equivalent or better qualifications.
- (c) Each member of the staff appointed by the Consultants shall be under probation for a period of 1 month. If his performance is found to be not satisfactory within this period, the Client shall have the right to ask for replacement of such person at the Consultants' cost and the Consultants will not be entitled to recover any cost on account of the Service of this person during the probation period.

5. OBLIGATIONS OF THE CLIENT

5.1 Assistance and Exemptions

Unless otherwise specified in the SCC, the Client shall use its best efforts to ensure to;

- (d) Provide the Consultants, Sub-consultants and Personnel, the work permits and such other documents as shall be necessary to enable the Consultants, Sub-consultants or Personnel to perform the Services;
- (e) Issue to officials, agents and representatives of the Government all such instructions as may be necessary or appropriate for the prompt and effective implementation of the Services;
- (f) Provide to the Consultants, Sub-consultants and Personnel any such other assistance as may be specified in the SCC.

5.2 Access to Land

The Client warrants that the Consultants shall have, free of charge, unimpeded access to all land in respect of which access is required for the performance of the Services

5.3 Change in the Applicable Law

If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties, which increases or decreases the cost or reimbursable expenses incurred by the Consultants in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultants under this Contract shall be increased or decreased accordingly as per actuals and corresponding adjustments shall be made to the Lump sum Remuneration specified in Clause 6.1 of G.C.C. below.

Note: The successful bidder has to furnish percentage of taxes and duties actually considered while furnishing Grand summary of cost in 4B of Financial proposal. This will be the basis for any change during the consultancy period.

6. PAYMENTS TO THE CONSULTANTS

6.1 Mode of Billing and Payment

Billings and payments in respect of the services shall be made as follows:

- (a) Mobilization advance payment not applicable

6.2 Payment Details

TIME FRAME FOR OUTPUTS& PAYMENT SCHEDULE

The overall assignment implementation schedule is 3 months as detailed below:

S.No	Outputs	Timeline	Payment %
1.	Inception Report- The report includes basic details of the projects with methodology and work plan and way forward	30 days from award of consultancy	20% of award cost
2.	Draft DPR - The report includes Draft design, cost estimate and drawings for each component.	60 days from award of consultancy	30% of award cost
3.	Final DPR incorporating the comments on Draft DPR along with detailed design, Cost Estimates and drawings - The report includes Detailed final design and estimate containing final detailed design along with flow chart, drawings, cost	90 days from award of consultancy	40% of award cost

	estimates, operating system for each component.		
4.	Draft Bid documents and BOQ- The output includes Draft Bid documents, Tender drawings GPS mappings with digitalization and BOQ	90 days from award of consultancy	10% of award cost

6.3 10 copies of all designs, drawings in Auto CAD, reports, photographs and other documents(MS Word Format) with both hard and soft should be submitted.

On completion, the Consultant shall supply to the client 10 sets of all final drawings, specifications in hard copy and four sets in soft copy.

6.4 Consultant shall assist to get necessary clearances required for the rehabilitation of the

300MLD Puzhal WTP and 14MLD Surapet WTP including MLP from various statutory bodies.

6.5 Consultant shall assist during the proof checking of the designs by the third party agency appointed by the client if required. Copy of the degree certificate / educational qualifications has to be enclosed with the C.V

6.6 All payments under this Contract shall be made to the account of the Consultants specified in the **SCC**.

7. FAIRNESS AND GOOD FAITH

7.1 Good Faith

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensue the realization of the objectives of this Contract.

7.2 Operation of the Contract

The Parties recognize that it is impractical in this contract to provide for every contingency which may arise during the life of the contract, and the parties hereby agree that it is their intention that this contract shall operate fairly as between them, and without detriment to the interest of either of them, and that, if during the term of this contract either Party believes that this contract is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or

causes of such unfairness but no failure to agree on any action pursuant to this Clause shall give rise to dispute subject to arbitration in accordance with Clause 8 hereof.

8 SETTLEMENT OF DISPUTES

8.1 Disputes

If the Contractor believes that a decision taken by the Engineer was either outside the authority given to the Engineer by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 14 days of the notification of the Engineer's decision.

8.2 Procedure for Disputes

8.2.1 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

8.2.2 The Adjudicator shall be paid daily at the rate specified in the Contract Data together with reimbursable expenses of the types specified in the Contract Data and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision will be final and binding.

8.2.3 The arbitration shall be conducted in accordance with the arbitration procedure stated in the Special Conditions of the Contract.

8.3 Replacement of Adjudicator

Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not fulfilling his functions in accordance with the provisions of the Contract, a new Adjudicator will be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority designated in the Contract Data at the request of either party, within 14 days of receipt of such request.

8.4 Miscellaneous

In any arbitration proceeding hereunder

- (a) Proceedings shall, unless otherwise agreed by the Parties, be held in Chennai.
- (b) The English language shall be the official language for all purposes.
- (c) The decision of the sole arbitrator or of a majority of the arbitrators (or of the third arbitrator if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement.

III. SPECIAL CONDITIONS OF CONTRACT

Number of GCC Clause

A. AMENDMENT OF, AND SUPPLEMENTS TO, CLAUSES IN THE GENERAL CONDITIONS

- 1.1 Language is : English
- 1.2 The addresses are
Client : Chennai Metropolitan Water Supply and
Sewerage Board
Commissionerate of Municipal Administration,
Urban Administrative Building Santhome High
Road, MRC Nagar, Raja Annamalaipuram, Chennai
600 028
- Attention : Chief Engineer(O&M-II)
- E – Mail : **secandm@gmail.com** :
- :
- :
- 1.3 The Member in charge is: *(Note: If the Consultants consist of a joint venture of more than one entity, the name of the entity whose address is specified in SCC 1.6.1 should be inserted here. If the Consultants consist only one entity, this Clause 1.8 should be deleted from the SCC.)*
- 1.4 The Authorized Representatives are:
For the Client: Chief Engineer(O&M-II)
For the Consultant: -----
- 1.5 The Consultants and the Personnel shall pay the taxes, duties, fees, levies and other impositions levied under the existing, amended or enacted laws during life of this contract and the Client shall perform such duties in regard to the deduction of such tax as may be lawfully imposed.

Consultants may appoint a tax consultant at their own cost to deal with matters of income tax for the Consultants and their staff.

The Consultants shall seek the information necessary to allow them to calculate their approximate liability for the applicable taxes, duties and impositions from an Indian Income Tax Consultants.

- 2.1 The date on which this Contract shall come into effect immediately from the date of letter of acceptance.
- 2.2 The date for commencement of services is 7 days after being declared effective
- 2.3. The period of consultancy shall be 3 months from the effective date.
- 2.4 SD not applicable.
- 2.5 The Consultants shall not use these documents for purposes unrelated to the Contract without the prior written approval of the Client.

The details of account for the Local currency

Account Number :
Type of Account :
Name & Address of
The Bank (Branch) :

The payments shall be made as per section V. clause 6.2.

IV. APPENDICES

APPENDIX A - DESCRIPTION OF THE SERVICES

“Consultancy for Conducting consultancy studies for rehabilitation and revamping works including preparation of Detailed Project Report (DPR), process designs and detailed estimates, preparation of bid documents for 300MLD Water Treatment Plant at Puzhal and 14 MLD Surapet Water Treatment Plant ”

OBJECTIVE

The objective of the consultancy is to conduct studies for rehabilitation and modification works including preparation of DPR, process designs and detailed estimates for the existing 300MLD Water Treatment Plant and 14MLD Surapet Water Treatment Plant in Puzhal and Surapet respectively in Chennai.

SCOPE OF WORK

The scope of this consultancy work includes but is not limited to:

- I Conducting prefeasibility studies to rehabilitate the existing 300 MLD Water Treatment Plant and Surapet Water Treatment Plant and also to enhance the Treatment quantity by drawal of sufficient quantity water from Redhills lake.
- II Topographic Survey of the site and preparation of topo – drawings.
- III. Soil Investigation Report, rainfall, wind and temperature.
- IV. Analyze the quality of the Raw water and study the characteristics of raw water by doing lab analysis.
- V. Study the 300 MLD Water Treatment Plant and Surapet Water Treatment Plant design (Physical and Functional)
 - a) the design characteristics of individual units and electromechanical components in the 300 MLD Water Treatment Plant and Surapet Water Treatment Plant.
 - b) Drawings and flow diagrams with retention times
 - c) The basis for Design criteria viz. maximum raw water drawal from Redhillslake, quantities estimated, quality of treated water as per standards.
 - d) To study and ensure the drawal of maximum raw water to produce 300MLD treated water

- VI. Analyze the stability of all the Civil & Mechanical structures of the 300 MLD Water Treatment Plant and Surapet Water Treatment Plant and provide a detailed report in the interim report.
- VII. Study and suggest right type of equipment/ machinery for the 300 MLD Water Treatment Plant and Surapet Water Treatment Plant to be rehabilitated.
- VIII. To assess each and every unit of the existing civil structures and also assess the each and every equipment of the existing Mechanical, Electrical & Instrumentation units.
- IX. to determine/suggest whether every unit of the existing civil structures to be strengthened or reconstructed.
- X. to determine/suggest whether every unit of the existing equipment of the Mechanical, Electrical & Instrumentation units to replaced or retained and also to specify the conditions and age of the existing equipments.
- XI. Preparation of detailed design including process for all the units including Civil works, Mechanical, Electrical & Instrumentation works that has to be rehabilitated in 300 MLD Water Treatment Plant and Surapet Water Treatment Plant and also all the existing conveying and transmission main of 300 MLD Water Treatment Plant and Surapet Water Treatment Plant in order to treat the raw water received as per the treatment parameters prescribed by ISO 10500:2012 for potable water supply to the public.
- XII. Evaluate various process alternatives taking into account, Cost (Capital and Operation) as well as land requirement and recommend least cost solution.
- XIII. The Conceptual design of WTP – should contain
 - d) Process
 - e) Sizing of additional process units
 - f) Freezing of Hydraulic levels for the critical components and appropriate data required for the additional units
- XIV. The complete design and detailed engineering drawing for all the Civil & Mechanical components to be strengthened / reconstructed shall be submitted showing the ground levels, size of the pipes, invert level of pipes, route, flow direction, transmission arrangement of treated water including hydraulic design and other required details deem fit to be included in the rehabilitation DPR.
- XV. Suggest items/ machinery/ equipment/ component along with detailed specification, justification, project report, cost estimate and financial & economic analysis.
- XVI. Alternate plans for the management of raw water during up-gradation works without affecting treatment process.
- XVII. Prepare cost estimates for all components. Detailed item rate estimates have to be based on CMWSSB Schedule of rate/ market rate analysis and shall be prepared for

- each item of the work. Estimate shall be framed for material and labour separately for each component of the project.
- XVIII. Detailed Design, drawings and Detailed Technical Specifications for all mechanical equipments and off site piping valves and fittings.
 - XIX. Detailed Design and Detailed Technical Specifications for all Electrical Equipments and Single Line Diagram (SLD).
 - XX. Detailed Design and Detailed Technical Specifications for Instrumentation equipment, Instrumentation control Philosophy and Instrumentation Schematics with drawings and updated operation manuals.
 - XXI. Detailed specifications for providing SCADA and Telemetry system for online monitoring of all the equipment's of Water Treatment plant and process parameters of water in various stage of treatment including inlet and outlet parameters within the control room and also to be accessed remotely through an internet connect on our office computer or laptop and even cell phone or tablet. The SCADA system installed should collect and store information for reporting, troubleshooting, maintenance indications and other relevant data required for efficient operation of water treatment plant.
 - XXII. Assessment of power requirement for the plant, detailed design and drawings for electrical sub-station and preparation of Yard drawing including distribution arrangements to the process units, lighting etc by energy efficiency method.
 - XXIII. Detailed Design, drawings and Technical Specifications for buildings and all other civil structures.
 - XXIV. Detailed Design, drawings and specifications for in-plant roads, drainage, utilities, gardening and landscaping.
 - XXV. Detailed Technical specifications for all construction materials, construction methodology and stage wise test to be carried out prior to acceptance.
 - XXVI. Survey of the possible suppliers of the equipments, piping and materials who would be in a position to supply the equipments and pipes based on the design and sizing criteria both international and indigenous and recommend 6 to 8 vendors of repute with lead time for supply of equipments and materials.
 - XXVII. Detailed technical specifications for surface preparations and painting for civil, mechanical, electrical, piping and instrumentation works.
 - XXVIII. Layout of the workshop with detailed specifications for maintenance facilities including specifications of the workshop equipment, type and quantity.
 - XXIX. Recommend necessary performance tests to assess the quality of Treated Water and to identify the efficiency of the operating units.
 - XXX. Detailed Design, drawings and Detailed Technical Specifications for Sludge Treatment and disposal method as per the advance technology.
 - XXXI. Preparation of detailed Cost Estimate supported with cost analysis for all the components of the Rehabilitation of 300MLD Water Treatment Plant and 14MLD Surapet Water Treatment Plant.
 - XXXII. Preparation of detailed comprehensive Operation & Maintenance Cost Estimate for 10 years.

- XXXIII. Providing operation manual and Standard Operational Procedures (SOPs) Preparation of the business model for the sustainable operation of the WTP.
- XXXIV. Assist the CMWSS Board in furnishing the required documents for getting necessary approval from Funding agency/concerned authorities for the approval of DPR.
- XXXV. Detailed Engineering and Technical Specifications and cost estimate for any other system or sub-system that would be required for effective operation of 300MLD Water Treatment Plant and 14MLD Surapet Water Treatment Plant.
- XXXVI. Necessary assistance should be rendered by the consultant for getting approvals from statutory departments like CMDA, TNPCB, TNEB, CEIG and other agencies.
- XXXVII. Any further field data & details necessary for completion of DPR should be furnished by the Consultants.
- XXXVIII. The Consultant should also furnish an Activity Chart / PERT Chart indicating the critical activities for monitoring the Project activities.
- XXXIX. The consultant should also study and furnish recommendation regarding reuse of sludge in the water treatment plants.
- XL. Preparation of bid documents for the work of rehabilitation of 300MLD WTP at Puzhal and Surapet 14 MLD WTP.

3) TIMEFRAME FOR OUTPUTS

The overall assignment implementation schedule is 3 months as detailed below:

S.No	Outputs	Timeline
1.	Inception Report- The report includes basic details of the projects with methodology and work plan and way forward	30 days from award of consultancy
2.	Draft DPR - The report includes Draft design, cost estimate and drawings for each component.	60 days from award of consultancy
3.	Final DPR incorporating the comments on Draft DPR along with detailed design, Cost Estimates and drawings - The report includes Detailed final design and estimate containing final detailed design along with flow chart, drawings, cost estimates, operating system for each component.	90 days from award of consultancy

4.	Draft Bid documents and BoQ- The output includes Draft Bid documents, Tender drawings GPS mappings with digitalization and BoQ	90 days from award of consultancy
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- 5 7 copies of all designs, drawings in Auto CAD, reports, photographs and other documents(MS Word Format) with both hard and soft should be submitted.
- 6 On completion, the Consultant shall supply to the client 10 sets of all final drawings, specifications in hard copy and four sets in soft copy.
- 7 Consultant shall assist to get necessary clearances required for the rehabilitation of the 300MLD Puzhal WTP and 14MLD Surapet WTP including MLP from various statutory bodies.
- 8 Consultant shall assist during the proof checking of the designs by the third party agency appointed by the client if required.
- 9 **Copy of the degree certificate / educational qualifications has to be enclosed with the C.V**

B. Miscellaneous.

- e) Consultant has to make his own arrangements for office accommodation transport communications and equipment for the consultancy study. No office accommodation will be provided by CMWSS Board for the consultancy study.
- f) The consultants will have to make their own arrangements for necessary computer software and hardware and transportation facilities.

C. Review Committees to monitor the consultants' works:

The works under this Project would be reviewed by the Special Committee comprising the following Officers every month:

1. Engineering Director, CMWSSB - Chairman
2. Chief Engineer (O&M) II ,CMWSSB - Member
3. Superintending Engineer WT&T - Convener
4. Superintending Engineer , P&D - Member
5. .Executive Engineer , RO-II - Member

And Technical Committee Members

The consultant has to make detailed presentations whenever the review meeting convened to review.

APPENDIX B - CONSULTANTS' SUB-CONSULTANTS AND

KEY PERSONNEL

List under: C-1 Titles and names, detailed job descriptions and minimum qualifications to be assigned to work and staff-months for each

C-2 Same information as C-1 for Key local personnel if required

APPENDIX C - REVIEW COMMITTEE

Review Committee to monitor the consultant's works:

1 The works under this Project would be reviewed by the Special Committee comprising the following Officers every month:

1. Engineering Director, CMWSSB - Chairman
2. Chief Engineer (O&M) II ,CMWSSB - Member
5. Superintending Engineer WT&T - Convener
4. Superintending Engineer , P&D - Member
- 5.Executive Engineer , RO-II - Member

The consultant has to make detailed presentations whenever the review meetings are convened.

This Review Committee will review periodically all the reports furnished by the consultants at various stages and communicate its remarks for correction and incorporation by the consultant.

The Chief Consultant shall attend the periodical Review Meeting conducted by the Client with the required progress details. During the review meeting the Chief Consultant shall give detailed presentations to the members of the committee.

APPENDIX D - TERMS OF PAYMENT

Terms of payment – Refer Clause 6.1 GCC.

APPENDIX – E

PROJECT IMPLEMENTATION TEAM

CMWSS Board will nominate the following Engineers for implementing this Project.

1. Chief Engineer (O&M)-II - 1 No - Overall in-charge for the execution of this Project
2. Superintending Engineer /WT&T - 1 No – In-charge for the execution of this Project
3. Executive Engineer/RO_II - 1 No
4. Assistance Executive Engineers - 1 No
5. Assistance Engineers - 1 No

Note: The above Project Team is indicative and is subject to modification at the time of execution according to the need.