



CHENNAI METROPOLITAN WATER SUPPLY & SEWERAGE BOARD (CMWSSB)



MPR (12) / (January 2021)

PMC for Chennai Perur 400 MLD Desalination Plant and Allied Works

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10 February 2021

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TABLE OF CONTENTS

| | | |
|----------|---|-----------|
| 1 | EXECUTIVE SUMMARY | 1 |
| 2 | ABBREVIATIONS & ACRONYMS | 5 |
| 3 | INTRODUCTION | 6 |
| 3.1 | This Progress Report | 6 |
| 3.2 | PMC Services | 6 |
| 3.3 | PMC Scope of Work | 6 |
| 4 | PROGRESS REPORT FOR PMC SERVICES | 8 |
| 4.1 | Achieved Activities – January 2021 | 8 |
| 4.2 | Deliverables Status at January 2021 | 13 |
| 4.3 | Actual Progress versus Planned Progress – Upto January 2021 | 18 |
| 4.4 | Financial Progress Upto January 2021 | 23 |
| 4.5 | Staffing Inputs – January 2021 | 29 |
| 4.6 | Meetings and Site Visits – January 2021 | 34 |
| 4.7 | Health & Safety – January 2021 | 37 |
| 4.8 | Variations | 39 |
| 4.9 | Communication and Correspondence | 40 |
| 5 | PROGRESS OUTLOOK FOR PMC SERVICES | 42 |
| 5.1 | Activities Planned Next Month | 42 |
| 5.2 | Managing Progress Risks | 44 |
| 6 | PROGRESS REPORT FOR PROJECT (THE WORKS) | 45 |
| 6.1 | Achieved Activities – January 2021 | 45 |
| 6.2 | Actual Progress versus Planned Progress – January 2021 | 45 |
| 6.3 | Financial Progress at January 2021 | 45 |
| 6.4 | Health & Safety – January 2021 | 45 |
| 6.5 | Environmental and Regulatory Compliance | 45 |
| 6.6 | Communication and Correspondence | 45 |
| 6.7 | Variations | 45 |
| 7 | PROGRESS OUTLOOK FOR PROJECT (THE WORKS) | 46 |
| 7.1 | Activities Planned for Next Month | 46 |
| 7.2 | Managing Progress Risks | 46 |
| 8 | ANNEXURES | 47 |

ANNEXURES

ANNEXURE 1 LIST OF EXPERTS WITH NAME, ROLE AND MAN-MONTHS

ANNEXURE 2 PROJECT SCOPE

ANNEXURE 3 OVERALL WORK SCHEDULE

ANNEXURE 4 WORK SCHEDULE (CONTRACT PACKAGE-WISE)

ANNEXURE 5 PROJECTED FINANCIAL PROGRESS BASED ON MAN-MONTHS CONSUMED VS ACTUAL PROGRESS (BILL PASSED)

ANNEXURE 6 PERSONNEL INPUTS SUMMARY

ANNEXURE 7 DEPLOYMENT SCHEDULE FOR NEXT MONTHS

ANNEXURE 8 PMC ORGANISATION CHART

1 EXECUTIVE SUMMARY

This Monthly Progress Report for January 2021 is submitted in accordance with the contractual requirements for Project Management Consultant ("PMC") services associated with the Chennai Perur 400 MLD Desalination Plant and allied works project being delivered for the Chennai Metropolitan Water Supply & Sewerage Board ("CMWSSB").

The document is structured to report on separately:

- Progress of the PMC (Consulting) Services
- Progress of the Project (the Works)

A summary of the key messages resulting during this period is provided in Table 1. Please peruse the full report for further details.

Table 1: Key Messages up to January 2021

| Component | Key Message |
|---------------------------|--|
| PMC (Consulting) Services | <ul style="list-style-type: none"> • Revised Monthly Progress Report (MPR 01) for January & February 2020 submitted on 06.04.2020, 14.04.2020 and 26.05.2020 • Revised Inception Report submitted on 04.04.2020 and 16.04.2020 • Revised Design Criteria for CP4 components submitted on 16.04.2020 • Monthly Progress Report (MPR 02) for March 2020 submitted on 17.04.2020 and 26.05.2020 • Interim Report for the development of Concept Design for Chennai Perur 400MLD Desalination Plant for CP1 components submitted on 23.04.2020 and 26.05.2020 • Quarterly Progress Report (QPR 01) for January to March 2020 submitted on 24.04.2020 and 22.05.2020 • Monthly Progress Report (MPR 03) for April 2020 submitted on 09.05.2020 and 22.05.2020 • Draft Environmental Impact Assessment (EIA) Review Report for CP1 submitted on 26.05.2020 • Monthly Progress Report (MPR 04) for May 2020 submitted on 11.06.2020 • Responses to JICA Comments and Revised Prequalification documents (RFQ) for CP1 on DBO basis submitted to CMWSSB on 24.06.2020 • Concept Design Report for 400 MLD Desalination Plant at Perur (CP1) submitted on 10.07.2020 • Monthly Progress Report (MPR 05) for June 2020 submitted on 10.07.2020 and 13.07.2020 • Review note on Product Water Transmission Main from Perur DSP to Porur WDS for CP2 components submitted on 02.07.2020 and 15.07.2020 • Quarterly Progress Report (QPR 02) for April to June 2020 submitted on 15.07.2020 • Responses to JICA 2nd Comments and Revised Prequalification documents (RFQ) for CP1 on DBO basis submitted to CMWSSB on 17.08.2020 • Monthly Progress Report (MPR 06) for July 2020 submitted on 10.08.2020 • Bathymetry Survey fieldwork at Perur 400 MLD DSP has been completed on 28.08.2020. • Sea Water Sample collection work has been carried out at proposed 400MLD DSP at Perur and existing Nemmeli 100 DSP on 29.08.2020 • Brine Diffusion Modelling Study was carried out in September 2020 • Response to JICA 3rd comments and Revised Prequalification documents (RFQ) for CP1 on DBO basis submitted to CMWSSB on 08.09.2020 |

| Component | Key Message |
|-----------|--|
| | <ul style="list-style-type: none"> • Monthly Progress Report (MPR 07) for August 2020 submitted on 10.09.2020 • Draft Environmental Impact Assessment (EIA) Review Report for CP1 and its Pumping Station (CP2-1) (Rev-1) submitted on 23.09.2020 • Revised Prequalification document (RFQ) for CP1 on DBO basis as per JICA 4th comments submitted to CMWSSB on 23.09.2020 • Topographical Survey drawing for Perur DSP site for CP1 components submitted to CMWSSB on 29.09.2020 • JICA has given the concurrence for Prequalification document (RFQ) for CP1 on DBO basis to CMWSSB on 30.09.2020 • Topographical Survey Drawings for Proposed UGT and Pumping Station (CP2-2) at Porur new WDS submitted on 09.10.2020 • Monthly Progress Report (MPR 08) for September 2020 submitted on 09.10.2020 • Final Prequalification document (RFQ) for CP1 on DBO basis submitted to CMWSSB on 12.10.2020 • Notice Inviting Application (NIT for RfQ) for Prequalification documents for CP1 was published on the website and published in Newspaper on 14.10.2020. • Quarterly Progress Report (QPR 03) for July to September 2020 submitted on 15.10.2020 • Prequalification (PQ) Application meeting for CP1 components on DBO basis held at CMWSSB on 29.10.2020 • Reply to pre-bid queries of Application for Prequalification for CP1 components on DBO basis submitted on 04.11.2020 • Monthly Progress Report (MPR 09) for October 2020 submitted on 11.11.2020 • Social Safeguard Review (Draft Report) submitted on 18.11.2020 • The tender extension notice for receiving of PQ application of CP1, the due date has been extended to 16.12.2020 instead of the original date, i.e. 01.12.2020, the details have been published by CMWSSB in the website on 26.11.2020 • 2nd reply to pre-bid queries and Addendum-1 of Application for Prequalification for CP1 components on DBO basis submitted on 27.11.2020. • Draft layout plan for CWR and PS at Porur was discussed with CMWSSB staff. Finalisation of the layout plan is under progress. • Draft Request For Proposal (RFP) has been submitted to CMWSSB on 01.12.2020, 02.12.2020 and 24.12.2020 for review. • 3rd Reply to Pre-Bid Queries and Corrigendum-1 of Application for Prequalification for CP1 was submitted on 03.12.2020 • The tender 2nd extension notice for receiving of PQ application of CP1, the due date has been further extended to 05.01.2021 instead of the original date, i.e. 01.12.2020, the details have been published by CMWSSB in the website on 06.12.2020 • Bathymetry Survey Report for Perur Desalination Plant of CP 1 was submitted on 10.12.2020 • Monthly Progress Report (MPR 10) for November 2020 was submitted on 10.12.2020 • Corrigendum-2 for Prequalification (RFQ) documents for CP 1 was submitted on 14.12.2020 |

| Component | Key Message |
|---------------------|---|
| | <ul style="list-style-type: none"> Revised Topographical Survey for 400MLD DSP(CP-1) and its Pumping Station (CP-2-1) at Perur was submitted on 18.12.2020 Response to CMWSSB on 1st comments on Particular Condition of Part A in Part III of Draft RFP for CP1 components on DBO basis was submitted on 30.12.2020 Revised Topographical Drawing for Perur Desalination Plant (CP 1) & its Pumping station (CP2-1) was submitted on 04.01.2021 Monthly Progress Report (MPR 11) for December 2020 (10 copies) was submitted on 08.01.2021 Quarterly Progress report (QPR 04) for October to December 2020 (10 Copies) was submitted on 18.01.2021 Brine Dispersion Model Report for Perur Desalination Plant (CP 1) was submitted on 18.01.2021 Request for Proposal (RFP) document for CP 1 components on DBO Basis (Rev 1) was submitted on 21.01.2021 Request for Proposal (RFP) document for CP 1 components on DBO Basis (Rev 2) was submitted on 25.01.2021 Prequalification (PQ) Evaluation Report for CP 1 components on DBO Basis was submitted on 27.01.2021, and CMWSSB forwarded the report document to JICA for obtaining concurrence. Request for Proposal (RFP) document for CP 1 components on DBO Basis (Rev 3) was submitted on 27.01.2021, and CMWSSB forwarded the RFP document to JICA for obtaining concurrence. Monthly Progressive expenditure (at actuals, i.e. based on monthly bills passed till the end of January 2021) =1,54,72,083 (INR) and 409,354 (USD) In addition to the above, for SMEC India Pvt. Ltd., the Mobilisation advance payment in INR (5% of Contract value) received on 19.05.2020 as against Advance Bank Guarantee. In addition to the above, For SMEC International Pty Ltd, the Mobilisation advance payment in USD (5% of Contract value) received on 17.09.2020 as against Advance Bank Guarantee. In addition to the above, for TATA Consulting Engineers Ltd, the Mobilisation advance payment in INR (5% of Contract value) received on 22.10.2020 as against Advance Bank Guarantee. Monthly Progressive expenditure (Projected based on man-month consumed and reimbursable items till the end of January 2021) = 4,57,42,995 (INR) and 1,097,588 (USD) Activities generally progressing on schedule An accelerated program being followed for CP1, which brings forward the issue of the RFP to market by 4 to 5 months The emerging COVID-19 virus outbreak is being monitored, and CMWSSB is to be informed of any impact on the mobilisation of PMC personnel. Due to the COVID-19 issues pandemic across the globe, the Government of Tamil Nadu announced and extended the partial lockdown period from 01.01.2021 to 31.01.2021 throughout Tamil Nadu. |
| Project (the Works) | <ul style="list-style-type: none"> No Project site work has been commenced Progressive expenditure = Nil No activities scheduled to commence as of end January 2021 |

Key items identified during this period for resolution with the CMWSSB include the following:

1. The impact of current water quality issues (i.e. white fibrous particles and associated elevated TOC and COD levels) being experienced at Nemmeli DSP on the selection of a preferred pre-treatment process arrangement being addressed during conceptual design.
2. Revision of the current concept for the site layout for the proposed reservoir and pumping station at the Porur Headworks site, due to other works currently under construction for CMWSSB.
3. Based on a discussion with CMWSSB officials, it is understood that the proposed desalination plant's land ownership transfer is in process. Upon receipt of the same, Consent To Establish (CTE) application will be forwarded to TNPCB (Tamil Nadu Pollution Control Board), the action to be taken up by CMWSSB.
4. Forest Clearance for cutting trees at Perur DSP site to be obtained from Tamil Nadu Forest Department.
5. Approval for the erection of offshore structure to be obtained from the Tamil Nadu Maritime Board.
6. System hydraulic design for the clear water transmission main from Perur DSP to Porur Headworks water transmission system (pumping station and transmission pipeline) and proposed water allocation to Chennai Core City and expansion area is to be resolved following initial analysis by PMC.
7. It is challenging to access the project site due to COVID-19 Pandemic issues spread across the globe. The Government of Tamil Nadu announced and extended the partial lockdown period from 01.01.2021 to 31.01.2021 throughout Tamil Nadu.
8. Quick turn-round of requests with approvals (Work From Home for International Experts till 31st January 2021 due to non-availability of international flights to India) and follow up on timeline is essential to undertake the acceleration of CP1 components and regular timeline schedule for CP2 to CP4 components. Some of the national staffs are giving the intermittent input for project components due to constraints of movement should be considered for payments as requested by PMC.
9. Non-Availability of most of the pipeline inventory data specific to the CP4 package in the digital format [Scaled AutoCAD/ GIS files] and conversion of the available physical data into required digital format.
10. With the available designated key experts, it was not so easy task to work simultaneously on two important activities, but you would appreciate that all the staff worked late hours continuously for 20 days without having any weekends and public holidays. Considering the importance of the document and the ambitious timeline, PMC had mobilised additional staffs like project coordinator, legal expert, electrical expert etc., to meet the urgency and expectations of CMWSSB. The International Experts were also working on the document round the clock without even considering the hindrance of different time zones. All the PMC staff provided their respective inputs during the extended hours from 8:00 AM to 10:00 PM and sometimes even up to 1:00 AM, including weekends and public holidays, to meet the urgency of submitting RFP.

2 ABBREVIATIONS & ACRONYMS

| Abbreviation / Acronym | Meaning |
|------------------------|--|
| BoQ | Bill of Quantity |
| CMWSSB | Chennai Metropolitan Water Supply and Sewerage Board |
| CP | Contract Package |
| DI | Ductile Iron |
| DBO | Design-Build Operate |
| DMA | District Metered Area |
| DMS | Document Management System |
| DSP | Desalination Plant |
| GIS | Geographic Information System |
| HR & CE Board | Hindu Religious & Charitable Endowment Board |
| INR | Indian Rupees |
| JICA | Japan International Cooperation Agency |
| MLD | Million Litres per day |
| MPR | Monthly Progress Report |
| MS | Mild Steel |
| NJSEI | NJS Engineers India Pvt Ltd. |
| O&M | Operation & Maintenance |
| ODA | Official Development Assistance |
| OJT | On-Job-Training |
| PMC | Project Management Consultant (Consortium) |
| PQ | Prequalification |
| QPR | Quarterly Progress Report |
| RFP | Request for Proposal |
| RFQ | Request for Qualification |
| SMEC | SMEC International Pty Ltd |
| SMEC (India) | SMEC India Pvt Ltd |
| TCE | TATA Consulting Engineers Ltd. |
| TNPCB | Tamil Nadu Pollution Control Board |
| TOC | Total Organic Carbon |
| USD | United States Dollar |
| WDS | Water Distribution Station |
| WDZ | Water Distribution Zone |

3 INTRODUCTION

3.1 This Progress Report

This is the twelfth (12th) monthly progress report and covers activities of the Project Management Consultant (PMC services) and the Project (the Works) during **January 2021**.

3.2 PMC Services

The Consulting Services addressed by the series of Monthly Progress Report (“MPR”) to be delivered on this Project include design, preparation of bidding documents, tender evaluation, construction management and supervision for the proposed Chennai Perur 400 MLD Desalination Plant, its product water conveyance pipeline and all other allied works being carried out following with a Contract dated 09 January 2020 for Consulting Services between the Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB or “the Client”) and Consortium members comprising of SMEC International Pty Ltd (SMEC), Australia as the Lead Member of the Consortium, NJS Engineers India Pvt. Ltd. (NJSEI), TATA Consulting Engineers Limited (TCE) and SMEC India Pvt. Ltd. (SMEC India) as Associate Consultants to the Consortium.

The Terms of Reference (ToR) for the Consulting Services provide for 1988 person-months of PMC services (National Local 1603 person-months, including support staff, and International, 385 person-months) in the following main categories. However, the details of all the team with their role and person-months are mentioned in **Annexure 1**.

Table 2: Estimated Resourcing for PMC Services

| Category | Resourcing |
|--|---------------------------|
| Management and Coordination, International and Local | 87 person-months |
| Design, International | 245 person-months |
| Design, Local | 377 person-months |
| Safety, Environmental and Others, Local | 265 person-months |
| Construction Supervision, Local | 294 person-months |
| Support Staffs | 720 person-months |
| TOTAL | 1988 person-months |

The Consulting Services are to be delivered in compliance with Guidelines for the Employment of Consultants under Japanese ODA Loans, April 2012.

3.3 PMC Scope of Work

The major components within the Scope of Work for the overall Project are listed below:

- CP1 - 400 MLD Sea Water Reverse Osmosis (SWRO) Desalination Plant at Perur
- CP2 - Pumping Stations & Reservoirs at Perur and Porur
- CP3 - Product Water Conveyance Main for about 65Km length from Perur to Porur
- CP4 - Improvements to Existing Distribution System in the core area of Chennai City
- CP5 - Installation of external dedicated transmission line

Further details on the components of the Contract packages are as summarised in **Annexure 2**.

The Consulting Services scope under each component (Contract Package) of the Project are as follows.

1. CP-1: Review of the current technical information, conducting supplementary natural condition surveys, preparation of conceptual design report with raw water assessment, review of marine works, assessment of operating conditions, process flow diagram, general layout review, water and mass balance and review of electrical, instrumentation and automation plans. Preparation of PQ and bid document with technical specifications, Minimum Functional Specification (MFS), Assistance in Bid evaluations and construction supervision activities.
2. CP-2: Review of technical information, conducting necessary topographical and geotechnical investigations, Hydraulic analysis of the transmission mains for finalising the pumps configurations, detail design of reservoir and pumping stations with all civil, electro-mechanical and instrumentation works, preparation of PQ (if necessary) and bid document with BoQ and technical specifications, Assistance in Bid evaluations and construction supervision activities.
3. CP-3: Construction supervision activities of the Product Water Conveyance Main from Perur to Porur.
4. CP-4: Review of technical information, collect and review of the topographical and pipe inventory data, preparation of hydraulic modelling and analysis of the existing water distribution network for improvement, the establishment of DMAs, preparation of the bid documents with BOQ and Construction supervision activities.
5. CP-5: Preparation of technical documents, monitor the progress of the construction activities (Necessary Technical Assistance by PMC).
6. All packages: Assist CMWSSB in environmental management and monitoring activities in all stages.

Also, the PMC will assist the CMWSSB in the development of organisational capability in several key areas, including the following:

- Asset Management
- Acceleration of installation of service connections and water meters
- Improvement of customer services and publication
- Improvement of business operation

For a more comprehensive description of PMC scope of services and related works, please refer to the Inception Report, Interim Report for the development of Concept Design for Chennai 400 MLD Desalination Plant at Perur for CP1 components, Draft Environmental Impact Assessment (EIA) Review Report for CP1 components (Rev-1), Revised Prequalification documents (RFQ) for CP1 on DBO basis, Concept Design Report for Chennai 400 MLD Desalination Plant at Perur for CP1 components and Review note on Product Water Transmission Main from Perur DSP to Porur WDS for CP2 components, Social Safeguard Review (Draft) Report, Draft Request For Proposal (RFP) for CP1 component on DBO basis, Quarterly Progress Reports, Monthly Progress Reports for the Project.

4 PROGRESS REPORT FOR PMC SERVICES

4.1 Achieved Activities –January 2021

The activities achieved during January 2021 are listed in Table 3.

Table 3: Achieved Activities –January 2021

| Package | Achieved Activities |
|---------|--|
| CP1 | Task 1: Data and information collection commenced (JICA documents, DPRs, water quality data) |
| | Task 2: Review of technical information commenced (JICA documents, DPRs, water quality data) |
| | Task 3: Conducting Surveys and Investigations <ul style="list-style-type: none"> Carried out the Topographical Surveys at Perur Desalination Plant from 19.08.2020 to 07.09.2020 and 01.12.2020 and 02.12.2020 Topographical Survey revised drawing for 400MLD DSP (CP-1) and its Pumping Station (CP-2-1) at Perur was submitted on 18.12.2020 Carried out the Bathymetry Survey fieldwork at Perur DSP site from 24.08.2020 to 28.08.2020 Bathymetry Survey report for Perur Desalination Plant of CP1 has been submitted to CMWSSB on 10.12.2020 Carried out Sea Water Sample Collection at Perur and Nemmeli DSP on 29.08.2020 Carried out Sea Water Sample Collection at Nemmeli DSP on 14.12.2020 Carried out the Brine Diffusion Modelling study during September 2020 Preparation of Terms of Reference for Geotechnical Investigation for 400MLD DSP (CP-1) and its Pumping Station (CP-2-1) at Perur |
| | Task 4: Concept Design of Perur Desalination Plant has been submitted with design calculations based on the available existing data <ul style="list-style-type: none"> Interim report for the development of Concept Designs for Chennai Perur 400 MLD Desalination Plant for CP1 components submitted to CMWSSB on 23.04.2020. Online Zoom Video conference call and discussion with CMWSSB officials on 30.04.2020 for the Interim Report for the development of Concept Design for Chennai Perur 400 MLD Desalination Plant for CP1 components. Online Zoom Video conference call and discussion with CE (O&M)–II CMWSSB officials on 26.05.2020 for the progress of the consultancy work and technical discussion for CP1 to CP4 components. Preparation of proposed sludge treatment facility at Perur, RO Configuration – Conventional Design and RO Configuration – 3 Centre Design. Preparation and submission of sludge treatment process design, detail notes on 3 Centre or Pressure Centre Design. Preparation and submission of Mass Balance and Process Flow Diagram (Peak Flow and Normal Flow). Preparation of Summary of Revised Design Raw Sea Water Quality Parameters, Summary of Product Water Quality Parameters, SWRO Desalination plant layout. Online Zoom Video conference call and discussion with Engineering Director (i/c) CMWSSB officials on 11.06.2020 for the progress of the consultancy work and technical discussion for CP1 to CP4 components. Preparation of Instrumentation Control Automation Works including plant operation control system, Redundancy Levels of DCS system, Central Control Room System, Instrumentation Plan, Critical Control Points, etc. Capital Cost Comparison DPR, JICA, PMC. Preparation of Operation & Maintenance (O&M) Cost, Minimum Functioning Specifications etc. Online MS Teams meeting Video conference call and discussion with Chief Engineer (Project-III) and SE (Desal) CMWSSB officials on 18.09.2020 for the |

| Package | Achieved Activities |
|---------|--|
| | <p>progress of the consultancy work and technical discussion for CP1 to CP4 components.</p> <p>Task 5: Submission of Concept Design Report:</p> <ul style="list-style-type: none"> ▪ The Concept Design Report has been prepared based on the above activities, and this includes the review outcome of the existing technical documents and data, existing Desalination plants study and identified gaps in the process, proposed process description of all units of DSP and along with the recommendations, Block level Construction cost estimate and O&M cost estimate, Gaps in the statutory approvals, process control philosophy, layout drawings, process flow diagrams etc. ▪ Concept Design Report for Chennai 400 MLD Desalination Plant at Perur for CP1 components submitted on 10.07.2020. ▪ Action Taken Report/clarification on the Draft Concept Design Report for CP1 submitted to CMWSSB on 05.08.2020 and 12.08.2020 ▪ Preparation of Process Flow Diagram, critical control point review, Automation & Control strategy (OCM) document etc. <p>Task 6: Preparation of Technical Specifications:</p> <ul style="list-style-type: none"> ▪ Preparation of Technical Specifications including Civil works, Mechanical works, Instrumentation works etc. ▪ Preparation of Automation and Control strategy, DCS Arch plan, Instrumentation & Control MFS ▪ Preparation of MFS consolidated circulation, technical schedule data gathering, finalisation of technical schedule, billing system analysis etc. <p>Task 7: Financial Analysis</p> <ul style="list-style-type: none"> ▪ Preparation of Financial Analysis <p>Task 8: Preparation of O&M requirements for Bid Document</p> <ul style="list-style-type: none"> ▪ Preparation of O&M requirements for Bid Document <p>Task 9: Revised Request for Qualifications (RFQ) document was prepared on the DBO basis and issued to the Client for review. After review, CMWSSB has sent the RFQ to JICA for concurrence. Comments received from JICA on PQ documents on 05.06.2020.</p> <ul style="list-style-type: none"> ▪ Online Zoom Video conference call and discussion with CE (Project)–II, CE (O&M)–II CMWSSB officials on 15.06.2020 for the responses on JICA comments and Prequalification documents for CP1 on DBO basis. ▪ Responses to JICA comments and Revised Prequalification documents (RFQ) for CP1 on DBO basis submitted to CMWSSB on 24.06.2020. ▪ Online Microsoft Teams Meeting with Chief Development Operations (JICA) and CMWSSB officials on 03.07.2020 for a discussion on the responses for JICA comments on Prequalification documents for CP1 on DBO basis. <p>After review, CMWSSB has sent the RFQ to JICA for concurrence. 2nd comments received from JICA on PQ documents on 13.08.2020.</p> <ul style="list-style-type: none"> ▪ Responses to JICA 2nd comments and Revised Prequalification documents (RFQ) for CP1 on DBO basis submitted to CMWSSB on 17.08.2020. <p>After review, CMWSSB has sent the RFQ to JICA for concurrence. 3rd comments received from JICA on PQ documents on 05.09.2020.</p> <ul style="list-style-type: none"> ▪ Responses to JICA 3rd comments and Revised Prequalification documents (RFQ) for CP1 on DBO basis submitted to CMWSSB on 08.09.2020. <p>After review, CMWSSB has sent the RFQ to JICA for obtaining the concurrence. 4th comments received from JICA on PQ documents on 23.09.2020.</p> <ul style="list-style-type: none"> ▪ Revised Prequalification document (RFQ) for CP1 on DBO basis as per JICA 4th comments submitted to CMWSSB on 23.09.2020. <p>After review, JICA has given final concurrence to CMWSSB regarding the Revised Prequalification document (RFQ) for CP1 on DBO basis on 30.09.2020.</p> <ul style="list-style-type: none"> • Final Prequalification document (RFQ) for CP1 on DBO basis submitted to CMWSSB on 12.10.2020 |

| Package | Achieved Activities |
|---------|---|
| | <ul style="list-style-type: none"> • Notice Inviting Application (NIT for RfQ) for Prequalification documents for CP1 was published in the website and published in Newspaper on 14.10.2020. • Prequalification (PQ) Application meeting for CP1 components on DBO basis held at CMWSSB on 29.10.2020 • Reply to pre-bid queries of Application for Prequalification for CP1 components on DBO basis submitted on 04.11.2020 • The tender extension notice for receiving of PQ application of CP1, the due date has been extended to 16.12.2020 instead of the original date, i.e. 01.12.2020, the details have been published by CMWSSB in the website on 26.11.2020 • 2nd reply to pre-bid queries and Addendum-1 of Application for Prequalification for CP1 components on DBO basis submitted on 27.11.2020 • 3rd reply to Pre-bid queries and Corrigendum-1 of Application for Prequalification for CP1 was submitted on 03.12.2020 • The tender 2nd extension notice for receiving of PQ application of CP1, the due date has been further extended to 05.01.2021 instead of the original date, i.e. 01.12.2020, the details have been published by CMWSSB in the website on 06.12.2020 • Corrigendum-2 for Prequalification documents for CP 1 was submitted on 14.12.2020 • Addendum-II for Prequalification (PQ) document was published by CMWSSB on 23.12.2020 • Instructions for Online Submission in Tamil Nadu Government e-procurement portal – Corrigendum II for Prequalification (PQ) document was published by CMWSSB on 23.12.2020 • Addendum III for Prequalification (PQ) document was published by CMWSSB on 31.12.2020 • Prequalification (PQ) Application for CP1 submission was held at CMWSSB on 05.01.2021 at 15:00 hours, and the opening was held at CMWSSB on 05.01.2021 at 15:30 hours • Prequalification (PQ) Application for CP1 received from 4 Applicants on 05.01.2021 • Evaluation of Prequalification (PQ) Application for CP1 was carried out by PMC team from 06.01.2021 to 27.01.2021 • Evaluation Report for Prequalification (PQ) Application for CP1 was submitted to CMWSSB on 27.01.2021, and CMWSB forwarded the Evaluation Report of PQ Applications to JICA for obtaining concurrence. |
| | <p>Task 9: Preparation of Request for Proposal [RFP] Documents</p> <p>Preparation of Request for Proposal [RFP] Documents comprises of following volumes:</p> <ul style="list-style-type: none"> ▪ Part I (Bidding Procedures) of Draft Request For Proposal (RFP) for CP1 components ▪ Part II – Employers Requirements (3 Volumes) ▪ Part III – Conditions of Contract and Contract Forms ▪ Part IV – Price Schedule <p>Draft Request For Proposal (RFP) for CP1 component on DBO basis have been submitted to CMWSSB on 01.12.2020, 02.12.2020 and 24.12.2020 for review.</p> <ul style="list-style-type: none"> ▪ Presentation on Part-II (Employers Requirements) of Draft Request For Proposal (RFP) for CP1 component on DBO basis had been held at CMWSSB and MS Teams meeting on 15.12.2020 ▪ Presentation on Part-I (Bidding Procedures), Part III – Conditions of Contract and Contract Forms of Draft Request For Proposal (RFP) for CP1 component on DBO basis been held at CMWSSB and MS Teams meeting on 18.12.2020 ▪ Queries received from CMWSSB on Draft RFP for CP1 components on DBO basis on 24.12.2020 ▪ Response to CMWSSB on 1st comments on Particular Condition of Part A in Part III of Draft RFP for CP1 components on DBO basis was submitted on 30.12.2020 |

| Package | Achieved Activities |
|---------|--|
| | <ul style="list-style-type: none"> Joint discussion for review of RFP document for CP1 held with CMWSSB officials from 06.01.2021 to 27.01.2021. <p>Draft Request For Proposal (RFP) (Rev.1) for CP1 component on DBO basis have been submitted to CMWSSB on 21.01.2021 for review.</p> <p>Draft Request For Proposal (RFP) (Rev.2) for CP1 component on DBO basis have been submitted to CMWSSB on 25.01.2021 for review.</p> <p>Draft Request For Proposal (RFP) (Rev.3) for CP1 component on DBO basis have been submitted to CMWSSB on 27.01.2021 for review, and CMWSB forwarded the RFP document to JICA for obtaining concurrence.</p> |
| CP2 | <p>Task 1: Data and information collection commenced</p> <ul style="list-style-type: none"> Review of DPR on JICA documents, DPRs, Master Plan For CP2: Site visit to Porur, Mount-Poonamalle depot office for obtaining the details about Chembarambakkam 2000mm diameter pipeline and identify interconnected pipeline with valves opposite to Porur lake CMWSSB pumping station office. For CP2: Site visit to Porur, Mount-Poonamalle depot office for getting details from Porur existing WDS 1500mm diameter pipeline and identify interconnected pipeline with valve in Porur Samayapuram road junction. <p>Task 2: Review of technical information commenced (checking of the hydraulic design of the transmission system based on the available data)</p> <ul style="list-style-type: none"> Calculation of CWR Capacity at Perur Reviewed the beneficiary population from Perur to Porur, and the observation was submitted to CMWSSB for feedback. Review note on Product Water Transmission Main from Perur DSP to Porur WDS for CP2 components submitted on 15.07.2020. <p>Task 3: Conducting Surveys and Investigations</p> <ul style="list-style-type: none"> Carried out the Topographical Surveys at Porur new Water Distribution Station in October 2020 Topographical survey drawings for Proposed Underground Tank (UGT) and Pump House at Porur new Water Distribution Station submitted on 09.09.2020 Topographical survey revised drawing for allocation of land for Proposed UGT and Pumping Station (CP2-2) at Porur WDS submitted on 11.11.2020 Draft layout plan for CWR and PS at Porur was discussed with CMWSSB staff. Finalisation of the layout plan is under progress. Site Visit to Puzhal, Chembarambakkam WTP, Porur HW and other CMWSSB area./ Depot office to collect the various transmission main details. Please refer to Table 10 for details of site visits and data collection made. Specification for the geotechnical survey is under progress For CP2: Site visit to Porur, Mount-Poonamalle depot office for obtaining the details about Chembarambakkam 2000mm diameter pipeline and identify interconnected pipeline with valves opposite to Porur lake CMWSSB pumping station office. For CP2: Site visit to Porur, Mount-Poonamalle depot office for getting details from Porur existing WDS 1500mm diameter pipeline and identify interconnected pipeline with valve in Porur Samayapuram road junction. CP-2 ,Site visit to Chembarambakkam WTP and to collect the pump details from AE and Plant maintenance manager |
| CP3 | No significant activities have been carried out during this period |
| CP4 | <p>Task 1: Reconnaissance Survey, Data and information collection commenced (JICA documents, Master Plan- Area X and XIII on top priority for world banking funding purpose</p> <ul style="list-style-type: none"> Visit CMWSSB office to collect the CP-4 GIS data and meeting with P&D wing AEE and discussion with EE & AEEs (desal). |

| Package | Achieved Activities |
|---------|--|
| | <ul style="list-style-type: none"> Visit Area X office – T.Nagar, discussions with Area Engineer (EE) and AEEs to discuss regarding the availability of Zone X distribution drawings Visit to KK Nagar Headworks- Area X. Discussions with depot engineers of 131 & 137 for distribution network details Site Visit to Zone X and Data collection: Wards 128, 129, 131, 132, 137 to 140, 142) Site visit and data collection for Ward 105 to 109, 112, 117, 127, 130, 133 to 136, 141 from Deputy Area Engineer, Assistant Engineer (CMWSSB) from 02.11.2020 to 20.11.2020 Site visit and pipeline data collection of Zone XIII: wards 170 to,175,179 and 181 during the month of December 2020 Site Visit, Data collection and modelling activities for CP4 components during January 2021 Visit to southern head works and Choolaimedu to get the command area details under WDZ Visit to KK nagar, Pallipattu and Nandanam WDZ to get the command area details under each WDZ Site Visit and Data collection of Zone XIII wards 176, 178 and 181 Pipe line network <p>Task 2: Review and Analysis of Data</p> <ul style="list-style-type: none"> Review of salient details and existing water distribution network drawings collected for CP4 components and identification of gaps in the available data Digitalisation of pipeline inventory data collected for wards 128, 132, 137 and 139 Digitalisation of pipeline inventory data collected for wards 127,129,131,138,140 and 142 in November 2020 Preparation of Water Distribution network modelling for total 33km (Ward 127) from 23.11.2020 to 30.11.2020 Modelling activity of ward no. 127 for a length of 33km during Dec 2020 Modelling activity of all wards of KK Nagar WDS, i.e., 128,129, 131,132,137 to 140, 142 of Zone X and 179 of Zone XIII in the month of December 2020 Verification and correction/ updating of the WaterGEM model (prepared based on pipeline inventory data collected from Depot Engineer) for wards 132,138 to 140 & 142 of Zone X in Dec'2020 after discussions with respective Area/Depot Engineers Modelling activity of Zone XIII for a length of 282Km covering wards 171 to 174, 177, 179 and 182 in the month of Jan 2021 Modelling activity of Zone X for length of 88km covering wards 130,136 and 141 for a length of 88 km in the month of Jan 2021 Verification of modelled pipe line network of zone X wards 127, 128,131,136,137, 141 and 142 with respective area/ward engineers in the month of Jan 2021 |
| CP5 | Visit to Perur for electrical substation for topographical survey work for CP-5 |
| General | <p>Monthly Progress Report (MPR 11) for December 2020 submitted on 08.01.2021</p> <p>Draft Environmental Impact Assessment (EIA) Review Report for CP1 components submitted to CMWSSB on 26.05.2020</p> <ul style="list-style-type: none"> Online Zoom Video conference call and discussion with SE (Desal) CMWSSB officials on 03.06.2020 for the Draft Environmental Impact Assessment (EIA) Review Report for CP1 components. Action Taken Report/clarification on the Draft Environmental Impact Assessment (EIA) Review Report for CP1 submitted to CMWSSB on 12.08.2020 <p>Draft Environmental Impact Assessment (EIA) Review Report for CP1 and CP2-1 components (Rev-1) submitted to CMWSSB on 23.09.2020</p> <ul style="list-style-type: none"> Social Safeguard Review (Draft Report) submitted on 18.11.2020 <p>Environmental and Social support activities commenced including documentation review and approvals planning</p> |

Note – task numbering listed in Table above corresponds to masterwork schedule (refer **Annexure 4**)

4.2 Deliverables Status in January 2021

A listing of the full suite of project deliverables included under the Consulting Services and their current status or tentative completion date are listed in Table 4.

Table 4: Deliverables Status

| Sl.No. | Report / Document | Tentative Date / Frequency / Status ** |
|--------|---|---|
| 1 | Inception Report | Inception Report submitted on 28.02.2020 Observations on Inception Report received from CMWSSB on 30.03.2020 Revised Inception Report submitted on 04.04.2020 and 16.04.2020 |
| 2 | For Design and Tender Assistance for CP1 | |
| | 2.1 Conceptual Design Report | Interim report for development of Concept Designs for Perur 400 MLD Desalination Plant for CP1 submitted on 23.04.2020 Concept Design Report for Chennai Perur 400 MLD Desalination Plant for CP1 submitted on 10.07.2020 Bathymetry Survey report for Perur Desalination Plant of CP1 has been submitted to CMWSSB on 10.12.2020 |
| | 2.2 PQ Document | Draft PQ document for CP1 components submitted on 24.02.2020 Revised PQ document for CP1 components have been submitted on 03.03.2020, 06.03.2020 for client review and sent to JICA for Concurrence for floating of the tender 1 st comments received from JICA on PQ documents on 05.06.2020. Responses to JICA comments and Revised Prequalification document (RFQ) have been submitted to CMWSSB on 24.06.2020 2 nd comments received from JICA on PQ documents on 13.08.2020. Responses to JICA 2 nd comments and Revised Prequalification document (RFQ) on DBO basis have been submitted to CMWSSB on 17.08.2020 3 rd comments received from JICA on PQ document on 05.09.2020. Responses to JICA 3 rd comments and Revised Prequalification document (RFQ) on DBO basis have been submitted to CMWSSB on 08.09.2020 4 th comments have been received from JICA on PQ documents on 23.09.2020. Revised Prequalification document (RFQ) as per JICA 4 th comments have been submitted to CMWSSB on 23.09.2020 |

| Sl.No. | Report / Document | Tentative Date / Frequency / Status ** |
|--------|-------------------|--|
| | | <p>JICA has given the concurrence for Prequalification document (RFQ) for CP1 on DBO basis to CMWSSB on 30.09.2020</p> <p>Final Prequalification document (RFQ) for CP1 on DBO basis have been submitted to CMWSSB on 12.10.2020</p> <p>Notice Inviting Application (NIT for RfQ) for Prequalification documents for CP1 was published in the website and published in Newspaper on 14.10.2020.</p> <p>Prequalification (PQ) Application meeting for CP1 components on DBO basis held at CMWSSB on 29.10.2020</p> |
| | | <p>Reply to pre-bid queries of Application for Prequalification for CP1 components on DBO basis submitted on 04.11.2020</p> <p>The tender extension notice for receiving of PQ application of CP1, the due date has been extended to 16.12.2020 instead of the original date, i.e. 01.12.2020, and the details have been published by CMWSSB in the website on 26.11.2020</p> <p>2nd reply to pre-bid queries and Addendum-1 of Application for Prequalification for CP1 components on DBO basis submitted on 27.11.2020</p> |
| | | <p>3rd reply to Pre-Bid Queries and Corrigendum-1 of Application for Prequalification for CP1 submitted on 03.12.2020</p> <p>The tender 2nd extension notice for receiving of PQ application of CP1, the due date has been extended to 05.01.2021 instead of the original date, i.e. 01.12.2020, and the details have been published by CMWSSB in the website on 15.12.2020</p> <p>Corrigendum-2 for Prequalification (RFQ) documents for CP 1 submitted on 14.12.2020</p> <p>Notice Inviting Tender, Prequalification document for CP1 have been uploaded by CMWSSB, and the details have been published in www.tntenders.gov.in website on 23.12.2020</p> <p>Reply to Pre-bid queries 1st set, 2nd set, 3rd set, Addendum-II and Corrigendum-II for PQ document have been uploaded by CMWSSB, and the details have been published in www.tntenders.gov.in website on 24.12.2020</p> <p>Addendum-III for PQ document has been uploaded by CMWSSB, and the details have been published in</p> |

| Sl.No. | Report / Document | Tentative Date / Frequency / Status ** |
|--------|---------------------------------------|---|
| | | <p>www.tntenders.gov.in website on 31.12.2020</p> <ul style="list-style-type: none"> • Prequalification (PQ) Application for CP1 submission was held at CMWSSB on 05.01.2021 at 15:00 hours, and the opening was held at CMWSSB on 05.01.2021 at 15:30 hours • Prequalification (PQ) Application for CP1 received from 4 Applicants on 05.01.2021 |
| | 2.3 PQ Evaluation Report | <ul style="list-style-type: none"> • Evaluation of Prequalification (PQ) Application for CP1 was carried out by PMC team from 06.01.2021 to 27.01.2021 • Evaluation Report for Prequalification (PQ) Application for CP1 was submitted to CMWSSB on 27.01.2021, and CMWSSB forwarded the Evaluation Report of PQ Applications to JICA for obtaining concurrence. |
| | 2.4 Bid (RFP) Document | <ul style="list-style-type: none"> ▪ Draft Request For Proposal (RFP) for CP1 component on DBO basis have been submitted to CMWSSB on 01.12.2020, 02.12.2020 and 24.12.2020 for review. ▪ Response to CMWSSB on 1st comments on Particular Condition of Part A in Part III of Draft RFP for CP1 components on DBO basis was submitted on 30.12.2020 ▪ Draft Request For Proposal (RFP) (Rev.1) for CP1 component on DBO basis have been submitted to CMWSSB on 21.01.2021 for review. ▪ Draft Request For Proposal (RFP) (Rev.2) for CP1 component on DBO basis have been submitted to CMWSSB on 25.01.2021 for review. ▪ Draft Request For Proposal (RFP) (Rev.3) for CP1 component on DBO basis have been submitted to CMWSSB on 27.01.2021 for review, and CMWSB forwarded the RFP document to JICA for obtaining concurrence. ▪ Issue of Request For Proposal (RFP) to the shortlisted bidders during the end of February 2021 |
| | 2.5 Bid Evaluation Report (Technical) | June 2021 (October 2020) |

| Sl.No. | Report / Document | Tentative Date / Frequency / Status ** |
|--------|---|--|
| | 2.6 Bid Evaluation Report (Financial) | August 2021 (December 2020) |
| 3 | For Design and Tender Assistance for CP2 | |
| | 3.1 Detailed Design Report and Drawings | Review note on Product Water Transmission Main from Perur DSP to Porur WDS for CP2 components submitted on 02.07.2020 (soft copy) and 15.07.2020 (hard copies) June 2021 (April 2021) |
| | 3.2 PQ Document (if required) | July 2021 |
| | 3.3 PQ Evaluation Report (if required) | August 2021 |
| | 3.4 Bid Document (RFP) | September 2021 |
| | 3.5 Bid Evaluation Report (Technical) | December 2021 |
| | 3.6 Bid Evaluation Report (Financial) | February 2022 |
| 4 | For Design and Tender Assistance for CP4 | |
| | 4.1 Detailed Design Report and Drawings | April 2022 (December 2021) |
| | 4.2 Bid Document(s) | June 2022 (April 2022) |
| | 4.3 Bid Evaluation Report (Technical) | September 2022 |
| | 4.4 Bid Evaluation Report (Financial) | November 2022 |
| 5 | For Construction Supervision of CP 1 | |
| | 5.1 Contractor's Design Review Report | Within 1 month after submission of the Contractor's design report |
| | 5.2 Quality and Quantity Control Report | Every Month |
| | 5.3 Final Inspection Report | At Appropriate timing |
| 6 | For Construction Supervision of CP 2 | |
| | 6.1 Quality and Quantity Control Report | Every Month |
| | 6.2 Final Inspection Report | At Appropriate timing |
| 7 | For Construction Supervision of CP 3-1 to CP 3-4 | |
| | 7.1 Quality and Quantity Control Report | Every Month |
| | 7.2 Final Inspection Report (CP 3-1, CP 3-2) | At Appropriate timing |
| | 7.3 Final Inspection Report (CP 3-3, CP 3-4) | At Appropriate timing |
| 8 | For Construction Supervision of CP 4 | |
| | 8.1 Quality and Quantity Control Report | Every Month |
| | 8.2 Final Inspection Report | At Appropriate timing |
| 9 | Environmental and Social Safeguard | |
| | 9.1 EIA Review Report for CP 1 | <ul style="list-style-type: none"> ▪ Draft Environmental Impact Assessment (EIA) Review Report for CP1 component submitted to CMWSSB on 26.05.2020 ▪ Draft Environmental Impact Assessment (EIA) Review Report for CP1 and CP-2 components (Rev-1) have been submitted to CMWSSB on 23.09.2020 ▪ Social Safeguard Review (Draft Report) submitted on 18.11.2020 |
| | 9.2 Environmental Monitoring Report | Every Month |
| 10 | Progress Report and Project Completion Report | |
| | 10.1 Monthly Progress Report (MPR) | <ul style="list-style-type: none"> ▪ MPR 01 for Jan' & Feb'2020 (2 copies) submitted on 10.03.2020 for review ▪ Observations on MPR 01 received from CMWSSB on 31.03.2020 |

| Sl.No. | Report / Document | Tentative Date / Frequency / Status ** |
|--------|--------------------------------------|---|
| | | <ul style="list-style-type: none"> Revised MPR 01 for Jan' & Feb'2020 (soft copy) submitted on 14.04.2020 Revised MPR 01 for Jan' & Feb'2020 (10 copies) submitted on 26.05.2020 MPR 02 for March 2020 (10 copies) submitted on 26.05.2020 MPR 03 for April 2020 (10 copies) submitted on 22.05.2020 MPR 04 for May 2020 (soft copy) submitted on 10.06.2020 and 10 copies submitted on 11.06.2020 MPR 05 for June 2020 (soft copy) submitted on 10.07.2020 MPR 05 for June 2020 (10 copies) submitted on 13.07.2020 MPR 06 for July 2020 (10 copies) submitted on 10.08.2020 MPR 07 for August 2020 (10 copies) submitted on 10.09.2020 MPR 08 for September 2020 (10 copies) submitted on 09.10.2020 MPR 09 for October 2020 (10 copies) submitted on 11.11.2020 MPR 10 for November 2020 (10 copies) submitted on 10.12.2020 MPR 11 for December 2020 (10 copies) submitted on 08.01.2021 |
| | 10.2 Quarterly Progress Report (QPR) | <ul style="list-style-type: none"> QPR 01 for Jan' to March 2020 (soft copy) submitted on 24.04.2020 QPR 01 for Jan' to March 2020 (10 copies) submitted on 26.05.2020 QPR 02 for Apr' to June 2020 (10 copies) submitted on 15.07.2020 Quarterly Progress Report (QPR 03) for July to September 2020 submitted on 15.10.2020 Quarterly Progress Report (QPR 04) for October to December 2020 submitted on 18.01.2021 |
| | 10.3 Project Completion Report (PCR) | Within 3 months after completion of the services |

** The tentative date of deliverables has been worked out based on the discussion with CMWSSB officials, but the total time duration of each component is fixed as per ToR / as proposed by the PMC team.

It is highlighted that the tentative dates listed in Table 4 are subject to assumptions on the actual date of issue of tender documents to the market by CMWSSB.

During the Online Zoom meeting Video conference call held on 30.04.2020, the International experts expressed their concern on the resumption of International flights to Chennai and it may take longer duration due to COVID-19 pandemic across the globe. Hence, PMC requested CMWSSB to allow the International Experts to work from home.

In general, both parties (PIU and PMC team) noted that due to the current COVID-19 Pandemic situation, an overall 2 months delay in floating of the RFQ and consequently the RFP for CP1 components. Where these tender dates are delayed, there will be an associated delay with the completion of tender evaluation reports. PMC also requested to consider the effort of national staff (outside Chennai on intermittent input basis) working from home on the Project, due to COVID-19 pandemic across the globe. CMWSSB also informed that the PMC members who are stationed outside Chennai and outside India of this Project Management Consultant Services to work from their home offices at their respective countries till 31.07.2020.

During the Online MS Teams meeting held on 18.09.2020, Project Manager indicated that due to COVID-19, some of the activities have been slipped out of the target date and requested CMWSSB to indicated the new target dates, if they have anything in their consideration. CMWSSB advised submitting the revised Schedule for review and consideration. PMC revised the Annexure 3 – Overall Work Schedule and submitted on 28 September 2020 to CMWSSB for review and consideration. The request letter has been submitted to CMWSSB for the approval from 01st August 2020 to 31st January 2021 regarding the Work From Home due to COVID-19 pandemic across the world.

Any impacts on the timing of deliverables will be communicated to CMWSSB regularly.

4.3 Actual Progress versus Planned Progress – Upto January 2021

The Actual progress during the month up to January 2021 is with planned progress is furnished in Table 5. Table 5: Actual Progress vs Planned Progress

| Sl.No. | Deliverable | Planned | Actual | Remarks/reasons for the delay |
|--------|---|------------|------------|---|
| 1 | Draft PQ document for CP1 | 25.02.2020 | 24.02.2020 | |
| 2 | Draft Inception Report | 12.02.2020 | 28.02.2020 | Delay has been due to more focus on CP1 PQ document preparation due to its priority as CMWSSB advise. Please Refer Minutes of Progress Review Meeting conducted by CE (O&M)-II, CMWSSB held on 14.02.2020 for the revised date, i.e. 28.02.2020 which has been conveyed to the Client. Accordingly, submission has been made. |
| 3 | Revised PQ document for CP1 | 03.03.2020 | 03.03.2020 | |
| | | 06.03.2020 | 06.03.2020 | CMWSSB; PQ documents sent to JICA for concurrence |
| 4 | Draft Monthly Progress Report (MPR 01) for January 2020 & February 2020 | 10.03.2020 | 10.03.2020 | |
| 5 | Revised Inception Report | 04.04.2020 | 04.04.2020 | |
| | | 16.04.2020 | 16.04.2020 | |
| 6 | Revised Monthly Progress Report (MPR 01) for January 2020 & February 2020 | 06.04.2020 | 06.04.2020 | |
| | | 14.04.2020 | 14.04.2020 | |
| | | 26.05.2020 | 26.05.2020 | Hard copies submitted |
| 7 | Monthly Progress Report (MPR 02) for March 2020 | 17.04.2020 | 17.04.2020 | |
| | | 26.05.2020 | 26.05.2020 | Hard copies submitted |

| Sl.No. | Deliverable | Planned | Actual | Remarks/reasons for the delay |
|--------|---|------------|------------------------|---|
| 8 | Interim report for the development of Concept Designs for Chennai Perur 400 MLD Desalination Plant for CP1 components | 23.04.2020 | 23.04.2020 | soft copy submitted |
| | | 23.04.2020 | 26.05.2020 | Hard copies submitted |
| 9 | Quarterly Progress Report (QPR 01) for January 2020 to March 2020 | 24.04.2020 | 24.04.2020 | |
| | | 22.05.2020 | 22.05.2020 | Hard copies submitted |
| 10 | Monthly Progress Report (MPR 03) for April 2020 | 10.05.2020 | 09.05.2020 | |
| | | 10.05.2020 | 22.05.2020 | Hard copies submitted |
| 11 | Draft Environmental Impact Assessment (EIA) Review Report for CP1 components | 20.04.2020 | 24.05.2020 (soft copy) | Delay has happened for the Environmental data collection from CMWSSB (Due to COVID-19 pandemic issues across the globe and continuous lockdown in India). Accordingly, submission has been made. |
| | | 20.04.2020 | 26.05.2020 | Hard copies submitted |
| 12 | Monthly Progress Report (MPR 04) for May 2020 | 10.06.2020 | 10.06.2020 | |
| | | 10.06.2020 | 11.06.2020 | Hard copies submitted |
| 13 | Revised PQ document for CP1 | 24.06.2020 | 24.06.2020 | Responses to JICA 1 st comments and Revised Prequalification document (RFQ) for CP1 on DBO basis submitted to CMWSSB (Hard copies submitted) |
| 14 | Monthly Progress Report (MPR 05) for June 2020 | 10.07.2020 | 10.07.2020 | |
| | | 10.07.2020 | 13.07.2020 | Hard copies submitted |
| 15 | Concept Design Report for Chennai Perur 400MLD Desalination Plant for CP1 components | 30.06.2020 | 10.07.2020 | Delay has happened for the finalising the cost comparison of DPR, Study Report and PMC CAPEX, OPEX etc. (Due to COVID-19 pandemic issues across the globe and continuous lockdown in Chennai). Accordingly, submission has been made. |
| 16 | Review note on Product Water Transmission Main from Perur DSP to Porur WDS for CP2 components | 02.07.2020 | 02.07.2020 | Soft copy submitted |
| | | 15.07.2020 | 15.07.2020 | Hard copies submitted |
| 17 | Quarterly Progress Report (QPR 02) for April 2020 to June 2020 | 15.07.2020 | 15.07.2020 | Hard copies submitted |

| Sl.No. | Deliverable | Planned | Actual | Remarks/reasons for the delay |
|--------|--|------------|------------|---|
| 18 | Monthly Progress Report (MPR 06) for July 2020 | 10.08.2020 | 10.08.2020 | Hard copies submitted |
| 19 | Revised PQ document for CP1 | 17.08.2020 | 17.08.2020 | Responses to JICA 2 nd comments and Revised Prequalification document (RFQ) for CP1 on DBO basis submitted to CMWSSB (Hard copy submitted) |
| 20 | Revised PQ document for CP1 | 08.09.2020 | 08.09.2020 | Responses to JICA 3 rd comments and Revised Prequalification document (RFQ) for CP1 on DBO basis submitted to CMWSSB (Hard copies submitted) |
| 21 | Monthly Progress Report (MPR 07) for August 2020 | 10.09.2020 | 10.09.2020 | Hard copies submitted |
| 22 | Draft Environmental Impact Assessment (EIA) Review Report for CP1 and CP-2 components (Rev-1) | 23.09.2020 | 23.09.2020 | Hard copies submitted |
| 23 | Revised PQ document for CP1 | 23.09.2020 | 23.09.2020 | Revised Prequalification document (RFQ) for CP1 on DBO basis as per JICA 4 th comments submitted to CMWSSB (Hard copies submitted) |
| 24 | Topographical Survey Drawings for Proposed UGT and Pumping Station (CP2-2) at Porur new WDS | 09.10.2020 | 09.10.2020 | Hard copy submitted |
| 25 | Monthly Progress Report (MPR 08) for September 2020 | 09.10.2020 | 09.10.2020 | Hard copies submitted |
| 26 | Final Prequalification document (RFQ) for CP1 on DBO basis | 12.10.2020 | 12.10.2020 | Hard copies submitted |
| 27 | Notice Inviting Application (NIT for RfQ) for Prequalification documents for CP1 was published in the website and published in Newspaper | 14.10.2020 | 14.10.2020 | Published by CMWSSB |
| 28 | Quarterly Progress Report (QPR 03) for July to September 2020 | 15.10.2020 | 15.10.2020 | Hard copies submitted |
| 29 | Prequalification (PQ) Application meeting for CP1 components on | 29.10.2020 | 29.10.2020 | |

| Sl.No. | Deliverable | Planned | Actual | Remarks/reasons for the delay |
|--------|--|------------|------------|-------------------------------|
| | DBO basis held at CMWSSB | | | |
| 30 | Reply to pre-bid queries of Application for Prequalification for CP1 components on DBO basis | 04.11.2020 | 04.11.2020 | Hard copy submitted |
| 31 | Monthly Progress Report (MPR 09) for October 2020 | 10.11.2020 | 11.11.2020 | Hard copies submitted |
| 32 | Social Safeguard Review (Draft Report) | 18.11.2020 | 18.11.2020 | Hard copies submitted |
| 33 | The tender extension notice for receiving of PQ application of CP1, the due date has been extended to 16.12.2020 instead of the original date, i.e. 01.12.2020, the details have been published by CMWSSB on the website | 26.11.2020 | 26.11.2020 | Published by CMWSSB |
| 34 | 2 nd reply to pre-bid queries and Addendum-1 of Application for Prequalification for CP1 components on DBO basis | 27.11.2020 | 27.11.2020 | Hard copy submitted |
| 35 | Draft Request for Proposal (RFP) for CP 1 components on DBO Basis | 01.12.2020 | 01.12.2020 | Hard copy submitted |
| | | 02.12.2020 | 02.12.2020 | Hard copies submitted |
| | | 24.12.2020 | 24.12.2020 | Hard copy submitted |
| 36 | 3 rd Reply to Pre-Bid Queries and Corrigendum-1 of Application for Prequalification for CP1 | 02.12.2020 | 03.12.2020 | Hard copy submitted |
| 37 | Bathymetry Survey Report for Perur Desalination Plant (CP 1) | 09.12.2020 | 10.12.2020 | Hard copy submitted |
| 38 | Monthly Progress Report (MPR 10) for November 2020 | 10.12.2020 | 10.12.2020 | Hard copy submitted |
| 39 | Corrigendum-2 for Prequalification (RFQ) document for CP 1 | 11.12.2020 | 14.12.2020 | Hard copy submitted |
| 40 | Revised Topographical Survey for 400MLD DSP (CP-1) and its Pumping Station (CP-2-1) at Perur | 17.12.2020 | 18.12.2020 | Hard copy submitted |

| Sl.No. | Deliverable | Planned | Actual | Remarks/reasons for the delay |
|--------|--|------------|------------|-----------------------------------|
| 41 | Response to CMWSSB on 1 st comments on Particular Condition of Part A in Part III of Draft RFP for CP1 components on DBO basis | 30.12.2020 | 30.12.2020 | Soft copy submitted to CMWSSB |
| 42 | Revised Topographical Survey Drawing for 400 MLD DSP (CP-1) and its Pumping Station (CP-2-1) at Perur | 04.01.2021 | 04.01.2021 | Hard copies submitted |
| 43 | MPR 11 for December 2020 (10 copies) submitted on 08.01.2021 | 10.01.2021 | 08.01.2021 | Hard copies submitted |
| | Quarterly Progress Report (QPR 04) for October to December 2020 | 18.01.2021 | 18.01.2021 | Hard copies submitted |
| 44 | Report on Brine Dispersion Model for Perur Desalination Plant (CP1) has been submitted to CMWSSB | 18.01.2021 | 18.01.2021 | Hard copies submitted |
| 45 | Draft Request For Proposal (RFP) (Rev.1) for CP1 component on DBO basis have been submitted to CMWSSB for review. | 21.01.2021 | 21.01.2021 | Hard copy and soft copy submitted |
| 46 | Draft Request For Proposal (RFP) (Rev.2) for CP1 component on DBO basis have been submitted to CMWSSB for review. | 25.01.2021 | 25.01.2021 | Hard copy and soft copy submitted |
| 47 | Draft Request For Proposal (RFP) (Rev.3) for CP1 have been submitted to CMWSSB for review and CMWSSB forwarded the RFP document to JICA for obtaining concurrence. | Feb'2021 | 27.01.2021 | Hard copy and soft copy submitted |
| 48 | Evaluation Report for Prequalification (PQ) Application for CP1 was submitted to CMWSSB and CMWSSB forwarded the Evaluation Report of PQ Applications to JICA for obtaining concurrence. | Feb'2021 | 27.01.2021 | Hard copy submitted |

Also, as per the baseline schedule, the PMC is progressing with the collection and review of data and information to inform early activities planned on CP1, CP2 and CP4.

4.4 Financial Progress Upto January 2021

A summary of financial progress (at actuals based on the bills passed) for the PMC Services Contract at the end of January 2021 is included in Table 6.

Table 6: Financial Progress (Actual based on the bill passed) on PMC Services at the end of January 2021

| Month | Monthly Expenditure | Cumulative Expenditure | % of Total Contract Value |
|-----------------------------|---------------------|------------------------|---------------------------|
| January 2020 to June 2020 * | INR 1,54,72,083 | INR 1,54,72,083 | 2.69% |
| | USD 409,354 | USD 409,354 | 4.35% |
| July 2020 | INR 0 | INR 1,54,72,083 | 2.69% |
| | USD 0 | USD 409,354 | 4.35% |
| August 2020 | INR 0 | INR 1,54,72,083 | 2.69% |
| | USD 0 | USD 409,354 | 4.35% |
| September 2020** | INR 0 | INR 1,54,72,083 | 2.69% |
| | USD 0 | USD 409,354 | 4.35% |
| October 2020 *** | INR 0 | INR 1,54,72,083 | 2.69% |
| | USD 0 | USD 409,354 | 4.35% |
| November 2020 **** | INR 0 | INR 1,54,72,083 | 2.69% |
| | USD 0 | USD 409,354 | 4.35% |
| December 2020 | INR 0 | INR 1,54,72,083 | 2.69% |
| | USD 0 | USD 409,354 | 4.35% |
| January 2021 | INR 0 | INR 1,54,72,083 | 2.69% |
| | USD 0 | USD 409,354 | 4.35% |

* In addition to the above, for SMEC India Pvt. Ltd., the Mobilisation advance payment (5% of Contract value) has been received on 19.05.2020 as against Advance Bank Guarantee.

** In addition to the above, for SMEC International Pty Ltd, the Mobilisation advance payment (5% of Contract value) has been received on 17.09.2020 as against Advance Bank Guarantee.

*** In addition to the above, for TATA Consulting Engineers Ltd., the Mobilisation advance payment in INR (5% of Contract value) have been received on 22.10.2020 as against Advance Bank Guarantee.

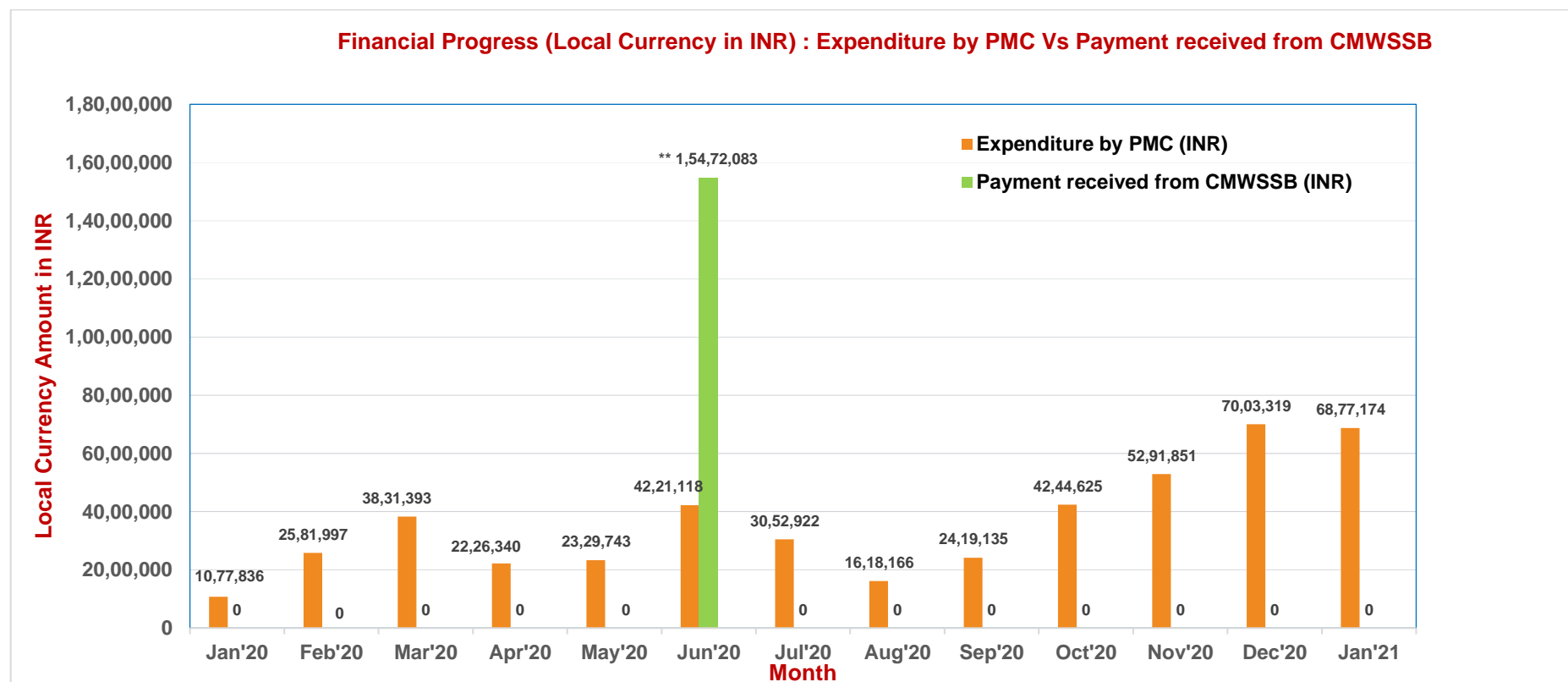
**** For NJS Engineers India Pvt. Ltd., the monthly payment for Feb'2020 to June'2020 in INR has been received on 06.11.2020.

However, a summary of financial progress (projected based on man-month consumed and reimbursable items) for the PMC Services contract at the end of January 2021 is included in Table 7. For further details, please refer to **Annexure 5**.

Table 7: Financial Progress (Projected based on man-month consumed and reimbursable items) on PMC Services at the end of January 2021

| Month | Monthly Expenditure | Cumulative Expenditure | % of Total Contract Value |
|----------------|---------------------|------------------------|---------------------------|
| January 2020 | INR 10,77,836 | INR 10,77,836 | 0.18% |
| | USD 56,098 | USD 56,098 | 0.60% |
| February 2020 | INR 25,81,997 | INR 36,59,833 | 0.62% |
| | USD 112,801 | USD 168,899 | 1.79% |
| March 2020 | INR 38,31,393 | INR 74,91,226 | 1.30% |
| | USD 56,261 | USD 225,159 | 2.39% |
| April 2020 | INR 22,26,340 | INR 97,17,566 | 1.69% |
| | USD 90,351 | USD 315,518 | 3.35% |
| May 2020 | INR 23,29,743 | INR 1,20,47,309 | 2.09% |
| | USD 60,913 | USD 376,431 | 4.00% |
| June 2020 | INR 42,21,118 | INR 1,62,68,427 | 2.83% |
| | USD 88,100 | USD 464,532 | 4.94% |
| July 2020 | INR 30,52,922 | INR 1,85,36,918 | 3.22% |
| | USD 67,841 | USD 532,374 | 5.66% |
| August 2020 | INR 16,18,166 | INR 2,01,14,190 | 3.49% |
| | USD 63,232 | USD 595,604 | 6.33% |
| September 2020 | INR 24,19,135 | INR 2,25,03,011 | 3.91% |
| | USD 66,287 | USD 661,889 | 7.03% |
| October 2020 | INR 42,44,625 | INR 2,67,47,636 | 4.65% |
| | USD 70,882 | USD 732,772 | 7.79% |
| November 2020 | INR 52,91,851 | INR 3,21,62,512 | 5.59% |
| | USD 125,532 | USD 858,303 | 9.12% |
| December 2020 | INR 70,03,319 | INR 3,88,65,821 | 6.75% |
| | USD 105,855 | USD 964,134 | 10.24% |
| January 2021 | INR 68,77,174 | INR 4,57,42,995 | 7.95% |
| | USD 133,455 | USD 1,097,588 | 11.66% |

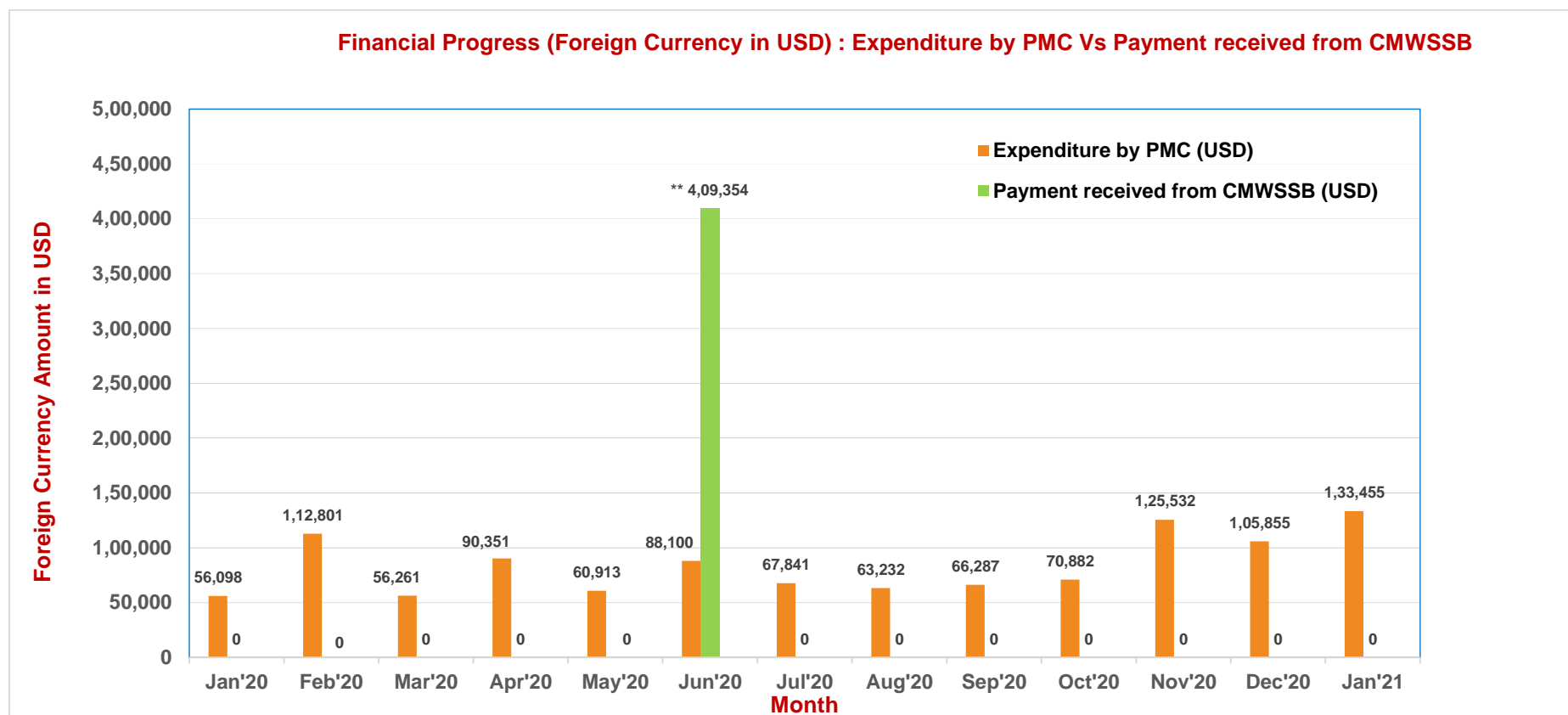
Financial Progress details (Local Currency in INR): Expenditure by PMC Vs Payment received from CMWSSB is furnished in Figure 1.



** Payment received up to June 2020

Figure 1: Financial Progress (Local Currency in INR): Expenditure by PMC Vs Payment received from CMWSSB

Financial Progress (Foreign Currency in USD): Expenditure by PMC Vs Payment received from CMWSSB is furnished in Figure 2.



** Payment received up to June 2020

Figure 2: Financial Progress (Foreign Currency in USD): Expenditure by PMC Vs Payment received from CMWSSB

Financial Projection details for the year 2021 (Local Currency in INR): Expenditure by PMC is furnished in Figure 3.

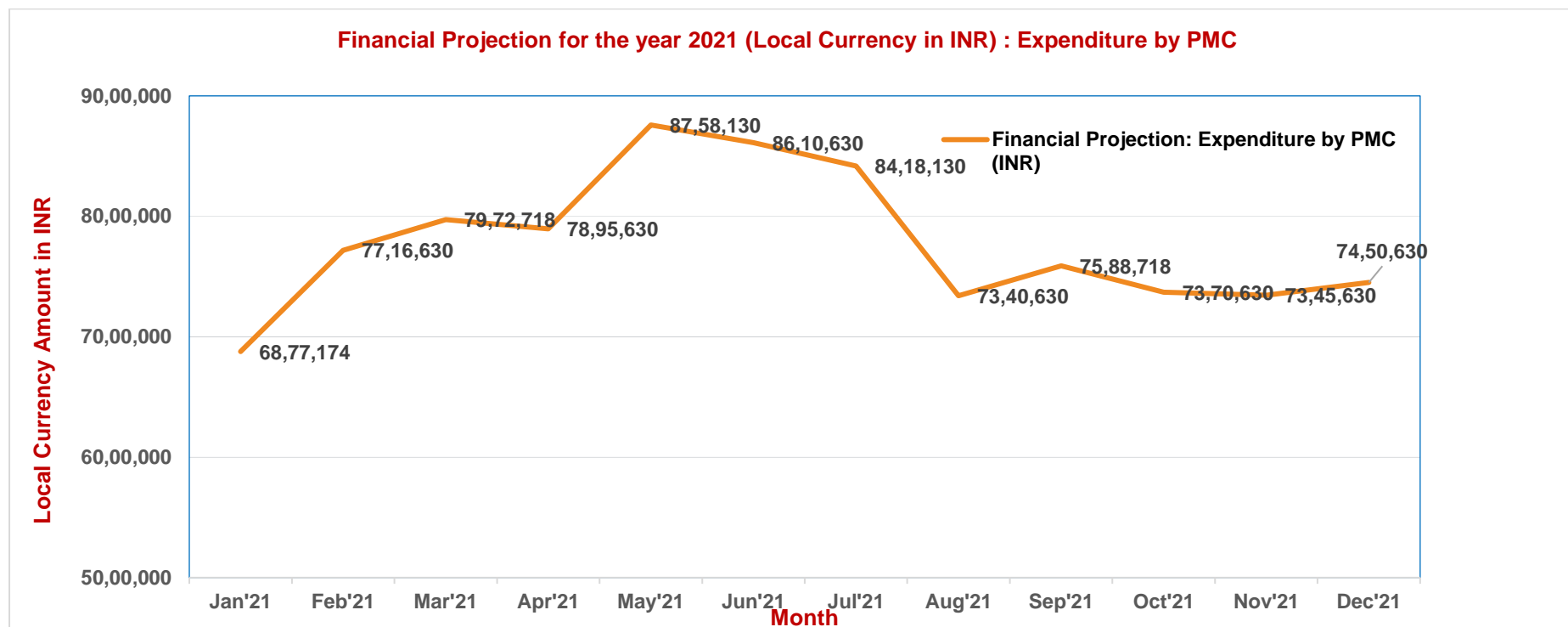


Figure 3: Financial Projection for the year 2021 (Local Currency in INR): Expenditure by PMC

Financial Projection's details for the year 2021 (Foreign Currency in USD): Expenditure by PMC is furnished in Figure 4.

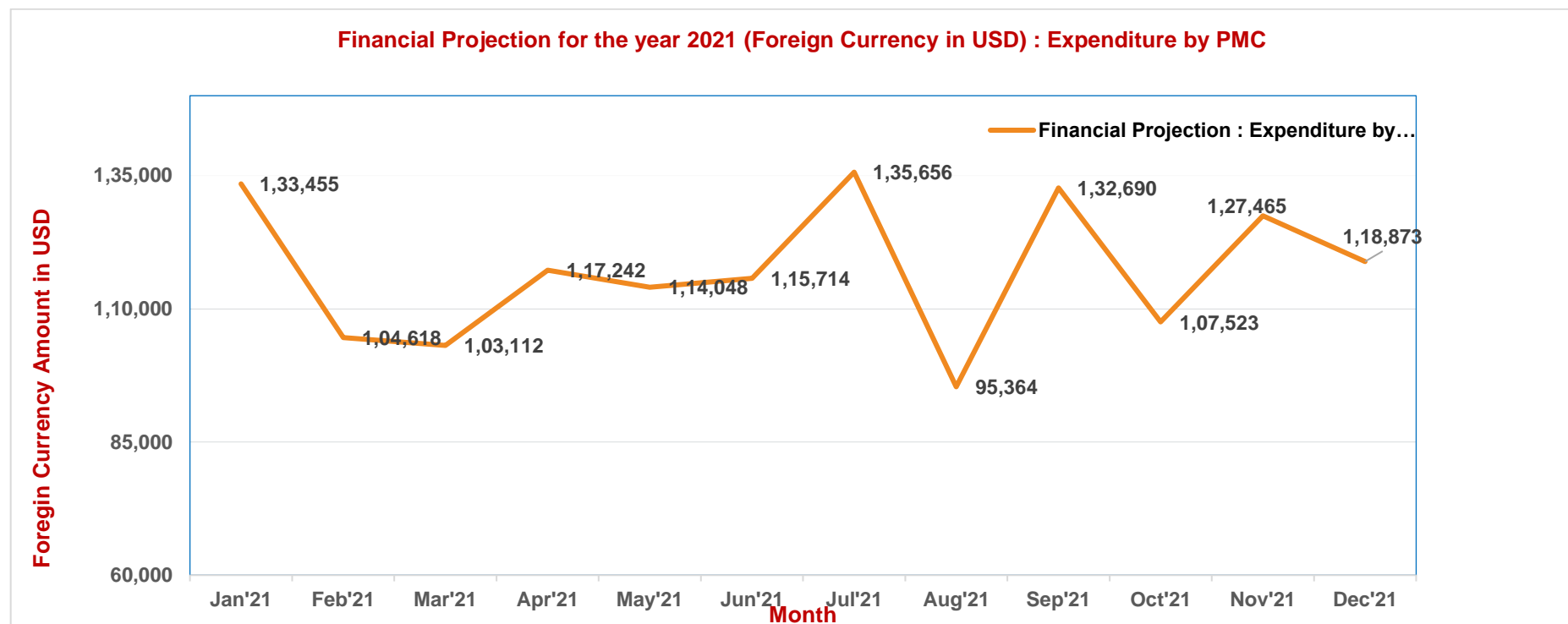


Figure 4: Financial Projection for the year 2021 (Foreign Currency in USD): Expenditure by PMC

4.5 Staffing Inputs – January 2021

4.5.1 Mobilized Personnel

The following key Project resources were mobilised and commenced work on the Consulting Services:

Table 8: Mobilized Personnel (International / National)

| Position / Role | Name of the staff | Category | Commenced Date | De-mobilisation date | Remobilisation date | Total months allocated | Total months mobilised so far (till January 2021 end) | Balance man-months available (February 2021 onwards) |
|---|--|----------|--------------------------|--------------------------|--------------------------|------------------------|---|--|
| Project Manager (Team Leader) | Dr P.Dharmabalan | I | 14.02.2020 | 26.02.2020 | 07.04.2020 | 70 | 6.62 | 63.38 |
| Senior Civil Engineer | Mr.S.Siddappaswamy | N | 27.01.2020 | 22.02.2020 | 01.04.2020 | 72 | 7.13 | 64.87 |
| Desalination Expert | Dr.Ghulam Mustafa | I | 10.02.2020 | 22.02.2020 | 01.04.2020 | 29.50 | 10.03 | 19.47 |
| Additional Key Expert – International | Dr.Uday G.Kelkar | I | 01.06.2020 | | | 2.50 | 1.01 | 1.49 |
| Water Supply Engineer | Mr.Shane Farquharson | I | 20.01.2020 | 20.03.2020 | | 23 | 2.04 | 20.96 |
| Mechanical Engineer (Desal) | Mr.Michel Morillon | I | 20.01.2020 | 08.02.2020 15.03.2020 | 23.02.2020 01.04.2020 | 15 | 4.22 | 10.78 |
| Electrical Engineer (Desal) | Mr.Guilbert Z Gonzales (Replaced for Mr.Sergio de Bastos Vilar Magalhaes Paulo) | I | 07.12.2020 | | | 25 | 0.32 | 24.68 |
| Contract Specialist (Desal) - International | Mr.Abdel Fattah Toukan (Replaced for Mr. Roderick Mackenzie) | I | 20.01.2020 02.11.2020 | 15.02.2020 | | 9 | 3.12 | 5.88 |
| Monitoring and Control Expert (Desal) | Mr.Afzal Abdul Latheef (Replaced for Mr.Manikandan Ganesh Shoranur) | I | 19.11.2020 | | | 11 | 1.91 | 9.09 |
| Civil and Structure Engineer (Desal) | Dr.D.Elanchezian | I | 20.01.2020 | 04.04.2020 | 15.10.2020 | 42 | 5.48 | 36.52 |
| Specification Specialist (Desal) | Mr Ganesh Venkataraman (Replaced for Mr.J.Shanmuganathan) | I | 12.11.2020 | | | 4 | 1.81 | 2.19 |
| Financial Expert | Mr.Hemant Chadha | I | 22.06.2020 | | | 3 | 1.59 | 1.41 |

PROGRESS REPORT FOR PMC SERVICES

| Position / Role | Name of the staff | Category | Commenced Date | De-mobilisation date | Remobilisation date | Total months allocated | Total months mobilised so far (till January 2021 end) | Balance man-months available (February 2021 onwards) |
|---|---|----------|----------------|----------------------|---------------------|------------------------|---|--|
| Social Communication Specialist - International | Mr.Rajesh Mishra | I | 05.10.2020 | | | 16 | 0.82 | 15.18 |
| Civil Engineer | Mr.Ramesh Senthil | N | 20.01.2020 | | | 72 | 11.48 | 60.52 |
| Senior Pipeline Engineer | Mr.Nagesh Chinnam | N | 04.02.2020 | | | 72 | 7.13 | 64.87 |
| Mechanical Engineer | Mr.Mayur Gupta | N | 14.12.2020 | | | 40 | 1.13 | 38.87 |
| Electrical Engineer | Mr.Om Prakash Singh | N | 07.12.2020 | | | 45 | 1.54 | 43.46 |
| Structural Engineer | Ms.J.Sudha | N | 09.11.2020 | | | 28 | 2.41 | 25.59 |
| Architect | Mrs Kirti Alhad Sadarjoshi | N | 09.11.2020 | | | 12 | 2.59 | 9.41 |
| Building Mechanical & Electrical Engineer | Mr.K.Senthil | N | 11.01.2021 | | | 16 | 0.23 | 15.77 |
| Environmental Specialist - International | Dr.Alok Kumar | I | 24.02.2020 | 07.03.2020 | 25.04.2020 | 15 | 1.95 | 13.05 |
| Environmental Specialist - National | Mr.S.M.Karthikaeswaran | N | 25.02.2020 | | | 30 | 9.67 | 20.33 |
| Pipeline Engineer-1 | Mr.Rahul N Ramdhan (Replaced for Mr.Chandra Shekhar Reddy Yedla) | N | 25.02.2020 | 05.03.2020 | | 60 | 3.81 | 56.19 |
| | | | 23.09.2020 | 29.01.2021 | | | | |
| Pipeline Engineer-2 | Mr.P.Thangavel (Replaced for Mr.V.Tulasi Ram) | N | 15.10.2020 | | | 60 | 3.41 | 56.59 |
| Hydraulic Modeller-1 | Mr.P.M.Saravanan | N | 25.02.2020 | 27.02.2020 | | 8 | 0.09 | 7.91 |
| Social Communication Specialist – National | Mrs.R.Kanmani (Replaced for Dr.Rajshekar Reddy) | N | 21.09.2020 | | | 72 | 4.04 | 67.96 |
| Contract Management Specialist | Mr.Santosh Biswa | N | 02.03.2020 | | | 6 | 4.36 | 1.64 |

| Position / Role | Name of the staff | Category | Commenced Date | De-mobilisation date | Remobilisation date | Total months allocated | Total months mobilised so far (till January 2021 end) | Balance man-months available (February 2021 onwards) |
|------------------------|--|----------|----------------|----------------------|---------------------|------------------------|---|--|
| Quantity Surveyor-1 | Mr.R.Muthurajan (Replaced for Mr.K.C.Vinod Chandra) | N | 21.10.2020 | | | 50 | 3.26 | 46.74 |
| Quantity Surveyor-2 | Mr.V.S.Rajasekar | N | 21.09.2020 | | | 70 | 3.22 | 66.78 |
| CAD Operator-1 | Mr.G.Murali | N | 25.02.2020 | 24.03.2020 | 01.05.2020 | 30 | 9.49 | 20.51 |
| CAD Operator-2 | Ms J.Nithya | N | 04.12.2020 | | | 30 | 1.82 | 28.18 |
| CAD Operator-3 | Mr.Vijay Kumar | N | 31.12.2020 | | | 30 | 1.00 | 29.00 |
| GIS Operator | Mr.Suresh Mohan Dwivedi | N | 07.10.2020 | 24.10.2020 | 24.11.2020 | 18 | 2.77 | 15.23 |
| Secretary | Mr.B.Ajithkumar | N | 29.10.2020 | | | 70 | 2.90 | 67.10 |
| Geotechnical Engineer | Mrs P.Prashanthi | N | 09.12.2020 | | | 6 | 0.14 | 5.86 |
| Visa and Admin Officer | Mr.A.Renu Kumar | N | 20.01.2020 | | | 70 | 11.57 | 58.43 |
| Accountant | Mr.K.Manikandan | N | 09.03.2020 | | | 70 | 10.16 | 59.84 |
| Office Keeper-1 | Mr Pilominraj Raja (Replaced for Mr R.Jagan) | N | 03.02.2020 | | | 70 | 11.71 | 58.29 |
| Office Keeper-2 | Mr.Thiruvengadam Someswaran (Replaced for Mr.G.Arjun) | N | 03.02.2020 | | | 70 | 11.71 | 58.29 |

I – International Staff

N – National Staff

A project office has been established in Chennai to accommodate PMC personnel and integrate PMC partners' resources into a united team. The permanent office is located at the Puravankara Primus building, Old Mahabalipuram Road, Okkiyampet, Thuraipakkam, Chennai 600 097. This office location is centrally positioned between the Client office and the Perur project site to balance short and long-term commitments.

Mr. Rahul N Ramdhan (Pipeline Engineer-1) PMC team has been permanently demobilised on 29.01.2021 from the Project. However, some intermittent or staged inputs were temporarily demobilised during the period due to COVID-19 pandemic issues.

After the COVID-19 pandemic issues were resolved and the end of the extended partial lockdown period in Tamil Nadu, India, several of these team members are scheduled to return to Chennai for further inputs to this Project coming month of February 2021.

4.5.2 Per-Diem Allowance

The following are the details of quantity for per-diem allowance for the staff of Consortium member of the Project on the Consulting Services:

Table 9: Details of Quantity for Per-Diem Allowance for Staff

| Sl. No. | Name of the firm | Category | Total Number of Days (As per Contract Agreement) | Total Number of Days (As per Allocation of Consortium) | Number of Days of Claim up to December 2020 | Number of Days of Claim in January 2021 | Cumulative Number of Days of Claim up to January 2021 | Balance Number of Days for Claim |
|---------|--------------------------------|---|--|--|---|---|---|----------------------------------|
| 1 | NJS Engineers India Pvt. Ltd. | International | 2250 | 1,440 | 12 | 0 | 12 | 1,428 |
| 2 | SMEC India Pvt. Ltd. | International | | 810 | 138 | 12 | 150 | 660 |
| | | National | 50 | 50 | 19 | 5 | 24 | 26 |
| 3 | SMEC International Pty. Ltd. | <ul style="list-style-type: none"> Per-diem allowance in INR for the Key International Experts will be claimed by SMEC India Pvt. Ltd. (International Category) Per-diem allowance in INR for the Non-Key International Experts will be claimed by SMEC India Pvt. Ltd. (National Category) | | | | | | |
| 4 | TATA Consulting Engineers Ltd. | Not applicable. Hence no claim will be made for the entire project duration | | | | | | |
| | TOTAL | | 2,300 | 2,300 | 169 | 17 | 186 | 2,114 |

4.5.3 Summary of Personnel Inputs for the Period

A summary of personnel inputs for the period January 2021) is included in **Annexure 6**.

Planned mobilisation of PMC personnel for the next three (3) month period (up to April 2021) is presented in **Annexure 7**.

4.5.4 Team Structure

A copy of the current PMC organisation chart is attached in **Annexure 8**.

4.5.4.1 Change of Team Structure PMC's nominated key personnel for this Project

As at the end of January 2021, there are some changes to the PMC's nominated personnel for this Project; however, two support staffs (Office Keeper-1 and Office Keeper-2) have been replaced with new personnel from July 2020 onwards.

Dr.Uday G.Kelkar, NJSEI Pvt. Ltd. have been mobilised for the Project since June 2020, as an additional Key Expert (International) with 2.50 man-months (Intermittent) by adjusting with the input man-months of Dr.Ghulam Mustafa (Desalination Expert), International Key Expert with remuneration of USD 26225 per Man month has been accepted by CMWSSB and JICA. As per CMWSSB letter dated 24.04.2020, it is informed that his input of 2.50 man-months is expected to spread over the entire project duration. His cost is to be met from Desalination Expert's cost, and there is no change in a project approved budget for this PMC assignment.

Mr.Rahul N Ramdhan (Pipeline Engineer-1) PMC team has been permanently demobilised on 29.01.2021 from the Project.

CMWSSB has provided the approval for the replacement of the following staffs till January 2021 as listed below:

| Sl. No. | Position | Original Staff as per Contract Agreement | Approved Staff by CMWSSB | Date of Approval |
|---------|---|---|----------------------------|------------------|
| | KEY - INTERNATIONAL | | | |
| 1 | Electrical Engineer (International) | Mr.Sergio de Bastos Vilar Magalhaes Paulo | Mr.Guilbert Z.Gonzales | 16.09.2020 |
| 2 | Contract Specialist (Desal) - International | Mr. Roderick Mackenzie | Mr.Abel Fattah Toukan | 24.10.2020 |
| | NON KEY INTERNATIONAL | | | |
| 3 | Monitoring & Control Expert (Desal) | Mr.Manikandan Ganesh Shoranur | Mr.Afzal Abdul Latheef | 10.09.2020 |
| 4 | Specification Specialist (Desal) | Mr.J.Shanmuganathan | Mr.Ganesh Venkataraman | 10.11.2020 |
| | NON KEY – NATIONAL / LOCAL EXPERT | | | |
| 5 | Mechanical Engineer | Mr.Surajit Debnath | Mr.Mayur Gupta | 10.09.2020 |
| 6 | Electrical Engineer | Mr.G.V.K Mohan | Mr.Om Prakash Singh | 10.09.2020 |
| 7 | Structural Engineer | Mr.M.K.Vinod | Ms.J.Sudha | 10.09.2020 |
| 8 | Pipeline Engineer - 1 | Mr.Chandra Shekhar Reddy Yedla | Mr.Rahul N Ramdhan | 10.09.2020 |
| 9 | Pipeline Engineer – 2 | Mr.V.Tulasi Ram | Mr.P.Thangavel | 10.09.2020 |
| 10 | Social Communication Specialist | Dr.M.Rajsekhar Reddy | Mrs.R.Kanmani | 10.09.2020 |
| 11 | Quantity Surveyor-1 | Mr.Vinod Chandra K.C | Mr.R.Muthurajan | 10.09.2020 |
| 12 | Architect | Mr.M.Kumar | Mrs.Kirti Alhad Sadarjoshi | 24.10.2020 |

As per CMWSSB letter dated 10.09.2020, it is informed that above experts under International and Local Expert category, i.e. Non-Key Experts (SI.No.3 and 5 to 11) have been considered and approved for replacement.

As per CMWSSB letter dated 16.09.2020, it is informed that the above expert under International Key Expert category (SI.No.1) has been considered and approved for replacement.

As per CMWSSB letter dated 24.10.2020, it is informed that above experts under International and Local Expert category (SI.No.2 & 12) have been considered and approved for replacement.

As per CMWSSB letter dated 10.11.2020, it is informed that the above expert under International Expert category (SI.No.4) have been considered and approved for replacement.

4.6 Meetings and Site Visits – January 2021

A summary of critical meetings and site visits completed during the period is furnished in Table10.

Table 10: Meetings and Site Visits (January 2021)

| Date | Meeting and Site Visit | Location | Attendees |
|--------------------------|--|--|-------------------------------------|
| 05.01.2021 | Attended the Prequalification (PQ) Application opening for CP1 components on DBO basis | 6 th floor conference hall of CMWSSB | CMWSSB officials & PMC team members |
| 07.01.2021 | Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a discussion on the evaluation of Prequalification (PQ) Application and Review of Draft Request For Proposal (RFP) (Rev.1) for CP1 components on DBO basis | Online Microsoft Teams Meeting Video Conference Call | PMC team members |
| 07.01.2021 | Online Microsoft Teams Meeting conducted by Senior Civil Engineer (PMC) for a discussion on the evaluation of Prequalification (PQ) Applications for CP1 components on DBO basis | Online Microsoft Teams Meeting Video Conference Call | PMC team members |
| 07.01.2021 to 08.01.2021 | Review of Draft RfP (Rev.1) document and discussion along with Chief Engineer (Project-II & III), other CMWSSB officials on Part-I to Part-III of Draft RfP (Rev.1) document for CP1 components on DBO basis | PMC office | CMWSSB officials & PMC team members |
| 09.01.2021 to 12.01.2021 | Review of Draft RfP (Rev.1) document and discussion at PMC office along with Executive Engineer (Desal), other CMWSSB officials on Part-II Employers requirements of Draft RfP (Rev.1) document for CP1 components on DBO basis | PMC office | CMWSSB officials & PMC team members |
| 13.01.2021 | Meeting with Chief Engineer (Project-II & III) and other CMWSSB officials for a review of Part-I and Part-III of Draft RfP (Rev.1) document for CP1 components on DBO basis | 1 st Floor Conference Hall of CMWSSB | CMWSSB officials & PMC team members |
| 15.01.2021 | Online Microsoft Teams Meeting conducted by Project Manager (PMC) for a discussion on the review of Part-I to Part-III of Draft RfP (Rev.1) document for CP1 components on DBO basis | Online Microsoft Teams Meeting Video Conference Call | PMC team members |

| Date | Meeting and Site Visit | Location | Attendees |
|------------|--|--|-------------------------------------|
| 16.01.2021 | Review of Draft RfP (Rev.1) document and discussion along with Chief Engineer (Project-II & III), other CMWSSB officials on Part-II Employers requirements of Draft RfP (Rev.1) document for CP1 components on DBO basis | PMC office | CMWSSB officials & PMC team members |
| 17.01.2021 | Online Microsoft Teams Meeting conducted by Senior Civil Engineer (PMC) for a discussion on the finalisation of Prequalification (PQ) Evaluation Report for CP1 components on DBO basis | Online Microsoft Teams Meeting Video Conference Call | PMC team members |
| 19.01.2021 | Meeting with Executive Director and other CMWSSB officials for finalisation of JV, Price Indices, Alternative bidders and Technical Schedules of Draft RfP (Rev.1) document for CP1 components on DBO basis | 1 st Floor Conference Hall of CMWSSB | CMWSSB officials & PMC team members |
| 22.01.2021 | Online Microsoft Teams Meeting conducted by Desalination Expert (PMC) for a discussion on Part-I(A) Price Schedule and finalisation of Draft RfP (Rev.2) document for CP1 components on DBO basis | Online Microsoft Teams Meeting Video Conference Call | PMC team members |
| 22.01.2021 | Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a discussion on the finalisation of Prequalification (PQ) Evaluation Report for CP1 components on DBO basis | Online Microsoft Teams Meeting Video Conference Call | PMC team members |
| 24.01.2021 | Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a discussion on Payment Milestone clause etc. and Part-I(A) Price Schedule of finalisation of Draft RfP (Rev.2) document for CP1 components on DBO basis | Online Microsoft Teams Meeting Video Conference Call | PMC team members |
| 26.01.2021 | Online Microsoft Teams Meeting conducted by Senior Civil Engineer (PMC) and discussion along with CMWSSB officials on Liquidity Damage, Milestone and Payment terms, Price escalation etc. clause on Part III of Conditions of Contract and Contract Forms and Part-IV of Price Schedule of Draft RfP (Rev.3) document for CP1 components on DBO basis | Online Microsoft Teams Meeting Video Conference Call | CMWSSB officials & PMC team members |
| 26.01.2021 | Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a discussion on the finalisation of Prequalification (PQ) Evaluation Report for CP1 components on DBO basis | Online Microsoft Teams Meeting Video Conference Call | PMC team members |

| Date | Meeting and Site Visit | Location | Attendees |
|--------------------------|---|--|-------------------------------------|
| 27.01.2021 | Discussion with Chief Engineer (Project-II & III) and Controller of Finance (R), CMWSSB officials on JV agreement, JV terms, Milestone interlinking with Liquidity Damage etc. clause of Draft RfP (Rev.3) document for CP1 components on DBO basis | O/o Chief Engineer (Project-III), CMWSSB | CMWSSB officials & PMC team members |
| 28.01.2021 | Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a discussion on the finalisation of Concept Design Report for CP1 components on DBO basis | Online Microsoft Teams Meeting Video Conference Call | PMC team members |
| 04.01.2021 to 30.01.2021 | Site Visit and Data collection for CP2 to CP4 components | CMWSSB Area office & Depot office | PMC team members |
| 04.01.2021 to 27.01.2021 | <ul style="list-style-type: none"> Visit to southern head works and Choolaimedu to get the command area details under WDZ Visit to KK nagar, Pallipattu and Nandanam WDZ to get the command area details under each WDZ Site Visit and Data collection of Zone XIII wards 176, 178 and 181 Pipe line network Visit for Verification of modelled pipe line network of zone X wards 127, 128,131,136,137, 141 and 142 with respective area/ward engineers | CMWSSB Area office & Depot offices | PMC team members |
| 27.01.2021 to 29.01.2021 | <ul style="list-style-type: none"> Site visit to Porur, Mount-Poonamalle depot office for obtaining the details about Chembarambakkam 2000mm diameter pipeline and identify interconnected pipeline with valves opposite to Porur lake CMWSSB pumping station office. Site visit to Porur, Mount-Poonamalle depot office for getting details from Porur existing WDS 1500mm diameter pipeline and identify interconnected pipeline with valve in Porur Samayapuram road junction. Site Visit and Data collection from Pallipattu WDS and Mylapore WDS Site visit to Chembarambakkam WTP to collect the pump details | CMWSSB Area office & Depot offices | PMC team members |

The regular meetings/technical discussions have been conducted by PMC teams on the preparation and review of Instrumentation Control and Automation Works including plant operation control system, Instrumentation Plan, Project Implementation Schedule, Civil structural and architectural works, review of technical specification for Draft Request For Proposal (RFP) for CP1 components on DBO basis including Bidding Procedures, Employer's requirements (3 Volumes), Conditions of Contract and Contract Forms and Price Schedule. Preparation of Operation & Maintenance Cost, Minimum Functioning Specifications. Submission of Monthly Progress Report (MPR 11) for December 2020, Quarterly Progress Report (QPR 04) for October to December 2020 was submitted on 18.01.2021. Brine Dispersion Modelling Study report

submitted on 18.01.2021, topographical survey drawing submitted on 04.01.2021. Draft Request For Proposal (RFP) (Rev.1 to Rev.3) for CP1 component on DBO basis have been submitted to CMWSSB on 21.01.2021, 25.01.2021 and 27.01.2021 for review. Prequalification (PQ) Application for CP1 submission was held at CMWSSB on 05.01.2021 at 15:00 hours, and the opening was held at CMWSSB on 05.01.2021 at 15:30 hours. Prequalification (PQ) Application for CP1 received from 4 Applicants on 05.01.2021. Evaluation of Prequalification (PQ) Application for CP1 was carried out by the PMC team from 06.01.2021 to 27.01.2021. Evaluation Report for Prequalification (PQ) Application for CP1 was submitted to CMWSSB on 27.01.2021, and CMWSSB forwarded the Evaluation Report of PQ Applications to JICA for obtaining the concurrence on 27.01.2021.

Also, regular interactions, discussions held with CMWSSB officials and other Project aspects until January 2021. Where formal minutes have not been recorded, these meetings are not listed in the above.

4.7 Health & Safety –January 2021

There are no health and safety incidents to report for January 2021, associated with the activities of the PMC. However, the evolving international situation regarding the COVID-19 virus is pandemic of concern to the PMC, as restricted travel movements may impact mobilisation of international (and possibly national) staff. The PMC will keep CMWSSB officials informed of any developments that impact the delivery of the Consulting Services. It is requested that CMWSSB consider approval of out-of-Country professional inputs till the end of January 2021, if the COVID-19 virus Pandemic situation worsens and travel restrictions are enforced, for the PMC to maintain progress on activities. Also, it is requested that CMWSSB to consider the approval of national and support staff for work from home inputs, if the COVID-19 virus Pandemic situation worsens and travel restrictions to sites are enforced, for the PMC to maintain progress on activities.

The details of Insurance are listed in Table 11.

Table 11: Details of Insurance

| Name of the Firm | Type of Insurance | Name of the Agency | Insurance Value | Period Insurance from | Period Insurance to |
|---------------------------------------|--|--|--------------------|-----------------------|---------------------|
| SMEC International Pty. Ltd. | Third-Party Motor Vehicle Liability Insurance Third-Party Liability Insurance | SBI General Insurance | INR 100 Million | 10.01.2021 | 09.01.2022 |
| | Professional Liability | Engineering Consultants Underwriters Ltd. | AUD 10 Million | 30.06.2020 | 31.12.2021 |
| | Employer's Liability and Worker Compensation Insurance | CHUBB Insurance Singapore limited | SGD 10 Million | 01.01.2021 | 31.12.2021 |
| | Insurance against Loss or Damage | Not Applicable | - | - | - |
| SMEC India Pvt. Ltd. | Third-Party Motor Vehicle Liability Insurance Third-Party Liability Insurance | SBI General Insurance | INR 100 Million | 10.01.2021 | 09.01.2022 |
| | Professional Liability | Bajaj Allianz General Insurance Company Ltd. | INR 1000 Million | 08.07.2020 | 07.07.2021 |
| | Employer's Liability and Worker Compensation Insurance | IFFCO TOKIO General Insurance Co. Ltd. | INR 640.84 Million | 05.01.2021 | 04.01.2022 |
| | Insurance against Loss or Damage | Bajaj Allianz General Insurance Company Ltd. | INR 8.40 Million | 30.04.2020 | 29.04.2021 |
| NJS Engineers India Pvt. Ltd. | Third-Party Motor Vehicle Liability Insurance | IFFCO TOKIO General Insurance Company Ltd. | INR 1.70 Million | 27.08.2020 | 26.08.2021 |
| | Professional Liability | New India Assurance Company Limited | INR 259 Million | 20.04.2020 | 19.09.2027 |
| | Employer's Liability and Worker Compensation Insurance | New India Assurance Company Limited | INR 20 Million | 20.04.2020 | 19.04.2021 |
| | Insurance against Loss or Damage | Not Applicable | - | - | - |
| TATA Consulting Engineers Ltd. | Third-Party Motor Vehicle Liability Insurance | Royal Sundaram General Insurance | INR 0.31 Million | 22.02.2020 | 21.02.2021 |
| | Professional Liability | The New India Assurance Co. Ltd. | INR 1500 Million | 03.10.2020 | 02.10.2021 |
| | Employer's Liability and Worker Compensation Insurance | The New India Assurance Co. Ltd. | INR 1145 Million | 01.04.2020 | 31.03.2021 |
| | Insurance against Loss or Damage | The New India Assurance Co. Ltd. | INR 1000 Million | 03.10.2020 | 02.10.2021 |

4.8 Variations

4.8.1 Submitted/Approved

There are some variation requests submitted or approved during this period.

- Dr.Uday G.Kelkar, NJSEI Pvt. Ltd. have been mobilised for the Project since June 2020, as an additional Key Expert (International) with 2.50 man-months (Intermittent) by adjusting with the input man-months of Dr.Ghulam Mustafa (Desalination Expert), International Key Expert with remuneration of USD 26225 per Man-month has been accepted by CMWSSB and JICA. As per CMWSSB letter dated 24.04.2020, it is informed that his input of 2.50 man-months is expected to spread over the entire project duration. His cost is to be met from Desalination Expert's cost, and there is no change in the Project approved budget for this PMC assignment.

The following staff CVs have been submitted for the replacement of 2 nos. of Key Expert (International), 2 nos. of Non-Key Expert (International) and 8 nos. of Non-Key National / Local Expert (Non-evaluation position) vide our correspondence letters communicated to CMWSSB. The following are the details of the approved staff by CMWSSB.

| Sl. No. | Position | Original Staff as per Contract Agreement | Approved Staff by CMWSSB | Date of Approval |
|---------|---|---|----------------------------|------------------|
| | KEY – INTERNATIONAL | | | |
| 1 | Electrical Engineer (International) | Mr.Sergio de Bastos Vilar Magalhaes Paulo | Mr.Guilbert Z.Gonzales | 16.09.2020 |
| 2 | Contract Specialist (Desal) – International | Mr.Roderick Mackenzie | Mr.Abdel Fattah Toukan | 24.10.2020 |
| | NON KEY INTERNATIONAL | | | |
| 3 | Monitoring & Control Expert (Desal) | Mr.Manikandan Ganesh Shoranur | Mr.Afzal Abdul Latheef | 10.09.2020 |
| 4 | Specification Specialist (Desal) | Mr.J.Shanmuganathan | Mr.Ganesh Venkataraman | 10.11.2020 |
| | NON KEY – NATIONAL / LOCAL EXPERT | | | |
| 5 | Mechanical Engineer | Mr.Surajit Debnath | Mr.Mayur Gupta | 10.09.2020 |
| 6 | Electrical Engineer | Mr.G.V.K Mohan | Mr.Om Prakash Singh | 10.09.2020 |
| 7 | Structural Engineer | Mr.M.K.Vinod | Ms.J.Sudha | 10.09.2020 |
| 8 | Pipeline Engineer – 1 | Mr.Chandra Shekhar Reddy Yedla | Mr.Rahul N Ramdhan | 10.09.2020 |
| 9 | Pipeline Engineer – 2 | Mr.V.Tulasi Ram | Mr.P.Thangavel | 10.09.2020 |
| 10 | Social Communication Specialist | Dr.M.Rajsekhar Reddy | Mrs.R.Kanmani | 10.09.2020 |
| 11 | Quantity Surveyor-1 | Mr.Vinod Chandra K.C | Mr.R.Muthurajan | 10.09.2020 |
| 12 | Architect | Mr.M.Kumar | Mrs.Kirti Alhad Sadarjoshi | 24.10.2020 |

4.8.2 Under Consideration

There are no future variations currently under consideration.

4.9 Communication and Correspondence

There is no progress on activities to report for Project communications this period. However, the PMC does note the request of the CMWSSB to tighten up on Project communications and ensure that there is a “single voice” from the PMC during project discussions. Also, adherence to project communications protocols requires improved effort to ensure that correspondence is issued in the correct format and through agreed communication lines.

The letters submitted to CMWSSB and letters received from CMWSSB for the Project are furnished in Table 12.

Table 12: Details of Correspondence for the Project

| Sl. No. | Details of Correspondence letter | Letter Correspondence reference number, date | Date of submission / received |
|---------|--|---|-------------------------------|
| 1. | Mobilization of Mr.Vijay Kumar, CAD Operator-3 (Support Staff) | Ref: SMEC/CMWSSB/5061185/248 dated 31.12.2020 | 04.01.2021 |
| 2. | Reply sent to CMWSSB for RfQ opening on 05.01.2021 | Soft Copy sent by email to CMWSSB on 04.01.2021 | 04.01.2021 |
| 3. | Submission of Topographical Survey Drawings for 400 MLD Desalination Plant (CP 1) and its Pumping Station (CP2-1) at Perur-R1 (2 Copies) | Ref: SMEC/CMWSSB/5061185/245 dated 04.01.2021 | 04.01.2021 |
| 4. | Financial Data on number of Consumers in Chennai and related water-tariff and one-time charges for new connection in Chennai Metropolitan Area | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/250 dated 05.01.2021 | 05.01.2021 |
| 5. | Submission of Invoice for December 2020 for SMEC International Pty Ltd in Foreign Currency (2 copies) | Ref: SMEC/CMWSSB/5061185/251 dated 07.01.2021 | 07.01.2021 |
| 6. | Submission of Invoice for December 2020 for SMEC India Pvt. Ltd. in Foreign Currency (2 copies) | Ref: SMEC/CMWSSB/5061185/252 dated 07.01.2021 | 07.01.2021 |
| 7. | Submission of Invoice for December 2020 for SMEC India Pvt. Ltd. in Local Currency (2 copies) | Ref: SMEC/CMWSSB/5061185/253 dated 07.01.2021 | 07.01.2021 |
| 8. | Details of Invoices for December 2020 for all Consortium Members | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/254 dated 07.01.2021 | 08.01.2021 |
| 9. | Submission of Monthly Progress Report (MPR 11) for December 2020 (10 copies) | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/255 dated 07.01.2021 | 08.01.2021 |
| 10. | Mobilisation of K.Senthil, Building Mechanical and Electrical Engineer (Non-Key / Local Expert) | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/256 dated 11.01.2021 | 12.01.2021 |
| 11. | Submission of Quarterly Progress report (QPR 04) for October to December 2020 (10 Copies) | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/257 dated 13.01.2021 | 18.01.2021 |
| 12. | Submission of Report on Brine Dispersion Model for Perur Desalination Plant (CP 1) | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/261 dated 18.01.2021 | 18.01.2021 |

| Sl. No. | Details of Correspondence letter | Letter Correspondence reference number, date | Date of submission / received |
|---------|---|---|-------------------------------|
| 13. | Reply to CMWSSB Letter- Payment to PMC-Negotiation Charges Claimed by Bank | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/249 dated 21.01.2021 | 21.01.2021 |
| 14. | Submission of SMEC India Pvt Ltd Renewed Insurance | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/258 dated 21.01.2021 | 21.01.2021 |
| 15. | Submission of Draft Request for Proposal (RFP) CP 1 components on DBO Basis (Rev.1) | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/268 dated 21.01.2021 | 21.01.2021 |
| 16. | Submission of Draft Request for Proposal (RFP) CP 1 components on DBO Basis (Rev.2) and Compliance/ Action Taken Report on RFP | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/270 dated 25.01.2021 | 25.01.2021 |
| 17. | Submission of SMEC International Pty Ltd Renewed Insurance | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/260 dated 27.01.2021 | 27.01.2021 |
| 18. | Submission of Draft Request for Proposal (RFP) CP 1 components on DBO Basis (Rev.3) | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/271 dated 27.01.2021 | 27.01.2021 |
| 19. | Request for Issue of Letter to VISA officer, High Commission of India, Canada-Multiple Entry Visa for Mr.Abdel Fattah Toukan [Contract Specialist (Desal)-Key International Expert] with the duration of 4 years for the subject project. | Ref: SSNT PMC 400MLD /CMWSSB / 5061185/262 dated 29.01.2021 | 29.01.2021 |
| 20. | Email received from SE (Desal) towards RFQ opening for CP1 on 04.01.2021 | Received by email from CMWSSB on 04.01.2021 | 04.01.2021 |
| 21. | Email received from SE (Desal) towards RFP document - scrutiny on 06.01.2021 | Received by email from CMWSSB on 06.01.2021 | 06.01.2021 |
| 22. | Email received from SE (Desal) towards RFP – Observations CP1 on 08.01.2021 | Received by email from CMWSSB on 08.01.2021 | 08.01.2021 |
| 23. | Email received from SE (Desal) towards CP1 - RfP Document - Observations of CMWSSB on 16.01.2021 | Received by email from CMWSSB on 16.01.2021 | 16.01.2021 |
| 24. | Email received from SE (Desal) towards Component CP4- Improvement of existing Water Distribution Network (Stakeholder Clarifications) on 19.01.2021 | Received by email from CMWSSB on 19.01.2021 | 19.01.2021 |
| 25. | Email received from SE (Desal) towards Intake and Outfall Pipeline on 21.01.2021 | Received by email from CMWSSB on 21.01.2021 | 21.01.2021 |
| 26. | Email received from SE (Desal) towards Component CP1 - RfP - Clarifications on 22.01.2021 | Received by email from CMWSSB on 22.01.2021 | 22.01.2021 |
| 27. | Email received from CE (P-III) towards Component CP1 - Request for Proposal (RfP) on 23.01.2021 | Received by email from CMWSSB on 23.01.2021 | 23.01.2021 |
| 28. | Email received from SE (Desal) towards Milestone LD calculation on 27.01.2021 | Received by email from CMWSSB on 27.01.2021 | 27.01.2021 |

The PMC team is maintaining the Document Management System (DMS) for the Project.

5 PROGRESS OUTLOOK FOR PMC SERVICES

5.1 Activities Planned for Next Month

A summary of planned (key) activities for February 2021 is provided in Table 13.

Table 13: Planned Activities until February 2021 (PMC activities)

| Contract Package | Activities (Planning for next months) |
|------------------|---|
| CP1 | Task 3: Conducting Surveys and Investigations – Preparation of report on surveys and investigations on the following: <ul style="list-style-type: none"> ▪ Submission of seawater quality testing and analysis report ▪ Preparation, finalisation of Terms of Reference and carry out the Geotechnical Investigations at Perur Desalination Plant site |
| | Task 5: Preparation & Submission of Concept Design Report <ul style="list-style-type: none"> ▪ Preparation and Submission of Final Concept Design Report including Financial Modelling and Operation & Maintenance Requirements |
| | Task 6 Preparation of Technical Specifications |
| | Task 7 Financial Analysis <ul style="list-style-type: none"> ▪ Financial Modelling and Analysis ▪ Preparation of Bid Parameters |
| | Task 8 Preparation of O&M Requirements for Bid Document |
| | Task 9: Request for Qualification (RFQ) – issued the document to market (15.10.2020) and tender opening postponed to 05.01.2021 instead of original date 01.12.2020 <ul style="list-style-type: none"> ▪ Received Prequalification (PQ) Application from 4 Applicants on 05.01.2021 ▪ Evaluation of Prequalification (PQ) Applications from 06.01.2021 to 27.01.2021 and CMWSSB forwarded the Evaluation Report to JICA for obtaining concurrence on 27.01.2021 ▪ Obtaining concurrence from JICA on the Report on the Evaluation of Prequalification (PQ) Applications during February 2021 |
| | Task 10: Request for Proposal (RFP) – commence and review the final document preparation of the following in February 2021 <ul style="list-style-type: none"> ▪ Part I – Bidding Procedures ▪ Part II – Employers Requirements (3 Volumes) ▪ Part III – Conditions of Contract and Contract Forms ▪ Part IV – Price Schedule Obtaining concurrence from JICA on the Request for Proposal (RFP) document during February 2021 |
| CP2 | Task 1: Data collection – collection and verification of data on the existing/proposed CMWSSB water transmission system and proposed battery limits (including site information for Porur WDS) |
| | Task 2: Review the technical information – Decide on the preferred location of the new reservoir and pumping station on Porur Headworks site <ul style="list-style-type: none"> ▪ Pumps combination at Perur will be reviewed. ▪ Review of the preliminary design in the DPR. Reviewing the AECOM report about Pumping Station at Perur and WDS & PS at Porur, giving our observations, if any. ▪ Submission on Review Note on Product Water Transmission Main for arriving the pump head for Perur DSP. |
| | Task 3: Conducting Surveys and Investigations – Confirm the scope of services for the proposed site for geotechnical investigation <ul style="list-style-type: none"> ▪ Finalization of layout plan for CWR and PS at Porur ▪ Preparation, finalisation of Terms of Reference and carry out the Geotechnical Investigations at Porur new WDS site |

| Contract Package | Activities (Planning for next months) |
|------------------|---|
| CP3 | <p>Task 1: Design reviews – undertake the review of design and bid document deliverables (by others), if prioritised by CMWSSB</p> <ul style="list-style-type: none"> Hydraulic analysis of the product water transmission main for final determination of the pump head and countermeasure for water hammer. Received the product water pipeline transmission design, we will review the final design to arrive at the pumping head required at Perur pumping station. <p>Task 2: Review of draft CP3 bid documents (prepared by CMWSSB) and the issue of comments</p> |
| CP4 | <p>Task 1: Reconnaissance Survey, Data and information collection – collect and verify data on the existing CMWSSB water distribution network according to agreed prioritisation of WDZs (Area X and Area XIII)</p> <ul style="list-style-type: none"> Review of Technical information about the Project, revision of population and demand details with CMWSSB consent. Collect and review of the topographical survey for the Chennai core city. Review of the inventory data of the other zone-wise distribution network provided by CMWSSB Reconnaissance Survey and a Site visit to various Water Distribution Stations. <p>Task 3: Conducting Surveys and Investigations</p> <ul style="list-style-type: none"> Preparation, finalisation of Terms of Reference for the topographical survey work in Core City of Chennai Corporation Obtaining 3 quotations from the survey agency, preparation of comparison statement and award of work for carrying out the topographical survey work in Core City of Chennai Corporation <p>Task 4: GIS development – progressive development of the GIS database for existing water distribution asset inventory, including design of attribute data structure</p> <p>Task 5: Preparation of Preliminary Design basis status report – a document for proposed design criteria for water distribution system modelling and design</p> <ul style="list-style-type: none"> Preparation and submission of PMC observations on various components of the Master plan/ JICA report |
| CP5 | No planned activities during this period |
| General | <ul style="list-style-type: none"> Preparation of updation of Concept Design Report for CP1 components – finalise based on Client/JICA reviews Preparation and Submission of Monthly Progress Report for January 2021 <p>External Approvals Register – confirm status and timing for all Project approvals and permits pre-requisite to delivering the Works and assemble in project-specific Register</p> <p>Project Updated EIA review report – complete review of the Project EIA review report and environmental commitments and brief package Lead on specific requirements relevant to each package</p> <ul style="list-style-type: none"> Preparation of Environmental Management Plans and Environmental Monitoring Plans for CP1, CP2-1 and CP2-2 (for Perur pumping station). Presentation of Final Environmental Impact Assessment review report and finalisation of the EIA by incorporating the comments, if any, from CMWSSB. Preparation of Social Safeguard Review (Final Report) for CP1 and CP2 components Attending the Stakeholder Consultation meeting with CMWSSB and World Bank team for allocation of funding pattern for Zone X and Zone XIII for CP4 components <p>Land acquisition/access status review – review and Report on the status of all land acquisition and access requirements for all Project sites/routes and develop an action plan to close gaps.</p> |

5.2 Managing Progress Risks

A summary of potential progress risks (PMC activities) and proposed measures to mitigate/control these risks are provided in Table 14.

Table 14: Managing Progress Risks (PMC activities)

| Contract Package | Risk | Control measure | Status |
|------------------|--|---|--------|
| All | COVID-19 virus Pandemic restricts travel movements of PMC personnel and prevents mobilisation of key personnel | Agreement with CMWSSB for selected activities/tasks to be completed remotely (not Chennai based) to avoid any delays to progress | ● |
| All | JICA concerns with the rate of progress and achieved activities to date | PMC has prepared an updated work schedule to compress the timeline for CP1 activities and shorten the duration to tendering this package. Scheduling for other package is also being reviewed to seek the opportunity to shorten project duration. | ● |
| CP1 | JICA concerns with the rate of progress and achieved activities to date | Enter upon permission for the DSP site to be obtained by CMWSSB from HR & CE Board | ● |
| CP2 | Porur Headworks / WDS: The site designated for construction of reservoir and pumping station at Porur is taken for other projects, and the construction of 6 MLD TTRO Plant is under progress. This will call for a change in the layout plan for the proposed reservoir and pumping station in the nearby area. | Details of existing assets on the Porur Headworks / WDS site to be provided by CMWSSB as a priority to allow the PMC to review the site layout concept urgently. CMWSSB has confirmed and allotted the land to construct the proposed UGT and Pumping Station at Porur new WDS site. Allocation of 400 MLD of treated water: CMWSSB has been requested to provide the quantities allocated en route to Porur from Perur to review the pumping head requirement. | ● |
| CP4 | Lack of available digital data on the existing water distribution network (in AutoCAD drawing format) to develop an asset database and hydraulic model results in slower progress than estimated. | PMC to coordinate with internal CMWSSB (PIU) team looking at GIS development and will apply additional CAD/GIS resource if required for the digitisation of hard-copy network plans | ● |

Legend: Risk being managed (●); Risk managed with further action (●); Risk not effectively managed (●)

6 PROGRESS REPORT FOR PROJECT (THE WORKS)

At the time of preparing this Monthly Progress Report for January 2021, the Project works are yet to commence, and no contracts have been awarded. Comments made below reflect this current status.

It is expected in subsequent months that a more specific reporting format will be issued once works commence.

6.1 Achieved Activities – January 2021

There are no achieved activities (Works) to report.

6.2 Actual Progress versus Planned Progress –January 2021

The Project works are not scheduled to commence until later in July 2021 (CP1 and CP3 components). Other contract packages may start even later during August 2021 and beyond.

There is no comparison of planned versus actual progress to report.

6.3 Financial Progress in January 2021

There is no financial progress to be reported for the Project.

6.4 Health & Safety – January 2021

There are no health and safety matters to report.

6.5 Environmental and Regulatory Compliance

There are no regulatory and compliance matters to be reported for the Project during the January 2021 period. We note that before this period, the CMWSSB has been awarded CRZ clearance for the Project.

6.6 Communication and Correspondence

Leading up to the appointment of the PMC, CMWSSB has engaged with relevant authorities and external stakeholders regarding the Project. A key stakeholder involved in progress to date is the Japan International Cooperation Agency (“JICA”), who will act on behalf of the Government of Japan to issue an Official Development Assistance (ODA) loan for the Project under Loan ID-P267.

Since the appointment of the PMC, limited Project communications with external stakeholders have transpired. A Project Communication Plan is required.

6.7 Variations

6.7.1 Scope of Work

Nil.

6.7.2 Schedule

Nil.

6.7.3 Budget

Nil.

7 PROGRESS OUTLOOK FOR PROJECT (THE WORKS)

7.1 Activities Planned Next Month

No progress on construction activity is expected for the coming month of February 2021 as the works have not been tendered for any of the Contract Packages to date.

7.2 Managing Progress Risks

A summary of potential Project progress risks and proposed measures to mitigate/control these risks is provided in

Table 15.

Table 15: Managing Progress Risks (Project)

| Contract Package | Risk | Control measure | Status |
|------------------|--|--|--------|
| All | Approvals and permits for project execution are not in place when needed resulting in delays to construction | PMC to prepare a register that lists all approvals and permits required for project execution across each of the Contract Packages for tracking purposes | ● |

Legend: Risk being managed (●); Risk managed with further action (●); Risk not effectively managed (●)

8 ANNEXURES

The following annexures are included with this Monthly Progress Report:

- Annexure 1 – List of Experts with Name, Role and Man-months
- Annexure 2 – Project Scope
- Annexure 3 – Overall Work Schedule
- Annexure 4 – Work Schedule – Task Breakdown (Contract Package-wise)
- Annexure 5 – Projected Financial Progress Based on Man-months consumed Vs Actual Progress (Bill Passed)
- Annexure 6 – Personnel Inputs Summary
- Annexure 7 – Team Deployment Schedule for Next months
- Annexure 8 – PMC Organisational Chart

Annexure 1 List of Experts with Name, Role and Man-months

| Sl. No. | Name of the Expert (International/ National Local) | Role/ Position | Staff Month (SM) |
|---------------------------------------|--|--|------------------|
| KEY EXPERT | | | |
| 1 | Dr.P.Dharmabalan | Project Manager- International Expert | 70 |
| 2a | Dr.Ghulam Mustafa | Desalination Expert- International Expert | 29.50 |
| 2b | Dr.Uday G.Kelkar | Additional Key Expert – International Expert | 2.50 |
| 3 | Mr.Shane Farquharson | Water Supply Engineer – International Expert | 23 |
| 4 | Mr.Michel Morillon | Mechanical Engineer (Desal)- International Expert | 15 |
| 5 | Mr.Guilbert Z Gonzales (Replaced for Sergio de Bastos Vilar Magalhaes Paulo) | Electrical Engineer (Desal)- International Expert | 25 |
| 6 | Mr.John Goullee | Pipeline Engineer-International Expert | 70 |
| 7 | Mr.Abdel Fattah Toukan (Replaced for Mr.Roderick Mackenzie) | Contract Specialist (Desal) – International Expert | 9 |
| 8 | Mr.Tharloak S Bhatt | Contract Specialist (Distribution)- International Expert | 8 |
| 9 | Mr.S.Siddappaswamy | Senior Civil Engineer | 72 |
| 10 | Mr.Nagesh Chinnam | Senior Pipeline Engineer | 72 |
| | Sub Total | | 396 |
| NON KEY EXPERT – INTERNATIONAL | | | |
| 1 | Dr.D.Elanchezian | Civil and Structure Engineer (Desal) | 42 |
| 2 | Mr.Madhawa Delpachitra | Mechanical Engineer (Distribution) | 4 |
| 3 | Mr.Manfred Kurt (Meisner) | Electrical Engineer (Distribution) | 4 |
| 4 | Mr.Afzal Abdul Latheef (Replaced for Manikandan Ganesh Shoranur) | Monitoring and Control Expert (Desal) | 11 |
| 5 | Mr.Ashish Gosain | Monitoring and Control Expert (Distribution) | 12 |
| 6 | Mr.Ganesh Venkataraman (Replaced for Mr.J.Shanmuganathan) | Specification Specialist (Desal) | 4 |
| 7 | Mr.Manish Chintamani Sane | Specification Specialist (Distribution) | 3 |
| 8 | Mr.Hemant Chadha | Financial Expert | 3 |
| 9 | Dr.Alok Kumar | Environmental Specialist | 15 |
| 10 | Mr.Santhosh Kumar | Commissioning Engineer | 10 |
| 11 | Mr.Rajesh Mishra | Social Communication Specialist | 16 |
| 12 | Mr.Hyacinth Augusto Vaz | Organisational Expert | 9 |
| | Sub Total | | 133 |
| NON KEY EXPERT – NATIONAL | | | |
| 13 | Mr.Ramesh Senthil | Civil Engineer | 72 |
| 14 | Mr.Mayur Gupta (Replaced for Surajit Debnath) | Mechanical Engineer | 40 |
| 15 | Mr.Om Prakash Singh (Replaced for Mr.G.V.K.Mohan) | Electrical Engineer | 45 |

| Sl. No. | Name of the Expert (International/ National Local) | Role/ Position | Staff Month (SM) |
|-------------------------|--|---|------------------|
| 16 | Ms.J.Sudha (Replaced for Mr.Vinod MK) | Structural Engineer | 28 |
| 17 | Mrs.Kirti Alhad Sadarjoshi (Replaced for Kumar M) | Architect | 12 |
| 18 | Mr.K.Senthil | Building Mechanical and Electrical Engineer | 16 |
| 19 | Mr.Rahul N Ramdhan (Replaced for Mr.Chandra Shekhar Reddy Yedla) | Pipeline Engineer 1 | 60 |
| 20 | Mr.P.Thangavel (Replaced for Mr.V.Tulasi Ram) | Pipeline Engineer 2 | 60 |
| 21 | Mr.Hema Kumar.S | Pipeline Engineer 3 | 50 |
| 22 | Mr.P.M.Saravanan | Hydraulic Modeler – 1 | 8 |
| 23 | Mrs.V.Nandhini | Hydraulic Modeler – 2 | 8 |
| 24 | Mr.Naisa Sreenivasulu Reddy | Construction Planner Cost Estimator | 4 |
| 25 | Mr.S.Sreenivasula Reddy | Specification Specialist | 4 |
| 26 | Mr.S.M.Karthikaeswaran | Environmental Specialist | 30 |
| 27 | Mrs.R.Kanmani (Replaced for Dr.M.Rajsekhar Reddy) | Social Communication Specialist | 72 |
| 28 | Mr.Najas Thattakatte Abdulkareem | Safety and Health Expert-1 | 40 |
| 29 | Mr.Prasanth Balan | Safety and Health Expert-2 | 70 |
| 30 | Mr.R.Muthurajan (Replaced for Mr.Vinod Chandra K.C) | Quantity Surveyor 1 | 50 |
| 31 | Mr.V.S.Rajasekar | Quantity Surveyor 2 | 70 |
| | Sub Total | | 739 |
| SUPPORTING STAFF | | | |
| 1 | Mr.B.Ajithkumar | Secretary | 70 |
| 2 | Mr.G.Murali | CAD Operator-1 | 30 |
| 3 | Ms.J.Nithya | CAD Operator-2 | 30 |
| 4 | Mr.Vijay Kumar | CAD Operator-3 | 30 |
| 5 | Mr.Suresh Mohan Dwivedi | GIS Operator | 18 |
| 6 | TBN | Inspectors (4 Nos.) | 200 |
| 7 | Mrs.P.Prashanthi | Geotechnical Engineer | 6 |
| 8 | TBN | MIS Specialist | 50 |
| 9 | Mr.Santosh Biswa | Contract Management Specialist | 6 |
| 10 | Mr.A.Renu Kumar | Visa and Admin. Officer | 70 |
| 11 | Mr.K.Manikandan | Accountant | 70 |
| 12 | Mr.Pilominraj Raja (Replaced for Mr.R.Jagan) | Office Keeper-1 | 70 |
| 13 | Mr.Thiruvengadam Someswaran (Replaced for Mr.G.Arjun) | Office Keeper-2 | 70 |
| | Sub Total | | 720 |
| | Total | | 1988 |

Annexure 2 Project Scope

| Sl. No. | Component | Construction Items |
|---------|--|---|
| CP1 | Construction of the Perur DSP (400 MLD) | <ul style="list-style-type: none"> Seawater intake facilities Pre-treatment facility Seawater desalination facilities by Reverse Osmosis (RO) technology Post-treatment facility for remineralisation and disinfection Potable water storage Effluent discharge pipelines Pre-treatment and wastewater treatment facility All other buildings and structures necessary for the seawater desalination plant Perur electrical sub-station (80 MVA capacity). Perur UGT Product water tanks of Capacity 36 ML (4 compartments of each 9 ML) Proposed to construct a potable water tank of 10 ML capacity instead of 9 ML capacity |
| CP2 | Construction of Pumping Station and Reservoirs | <ul style="list-style-type: none"> Pumphouse and pump facility at Perur DSP Porur UGT of Capacity of 10 ML Pumphouse and pump facility at Porur Headworks |
| CP3 | Construction of product water transmission system | <ul style="list-style-type: none"> Product water transmission main (DN 1000, 1600, 1800 and 2000mm, 65 km, MS or DI pipe) |
| CP4 | Improvement of the existing distribution system in Chennai Core City | <ul style="list-style-type: none"> Replacement of the existing distribution pipes (DN100-450 mm, 375km, DI pipe) Installation of supplementary distribution pipes to strengthen the capacity of the existing distribution networks (D150-700mm, 101km, DI pipe) Installation of new water distribution pipes in un-covered streets in Core city (DN100-150 mm, 258km, DI pipe) Reinforcement of the storage capacity of Under Ground Tank (UGT) and Elevated Storage Tanks (ESRs) Installation of service connections and water meters Setup of district metered areas (DMA) |
| CP5 | Installation of external power transmission line | <ul style="list-style-type: none"> Construction of 230/110 kV transmission lines to achieve dedicated power feed to the existing Nammeli DSP, Nammeli Expansion DSP and the proposed Perur DSP |

Annexure 3 Overall Work Plan

Annexure 4 Work Schedule (Contract Package-wise)

Annexure 5 Projected Financial Progress Based on Man-months consumed Vs Actual Progress (Bill Passed)

Annexure 6 Personnel Inputs Summary

PERSONNEL INPUT SUMMARY FOR JANUARY 2021

| Sl. No. | Key activity / significant task carried out | List of PMC team members | Working on Delivery |
|---------|---|--|--|
| 1 | <ul style="list-style-type: none"> Due to COVID-19 Pandemic issues across the globe, the Government of Tamil Nadu announced the extended partial lockdown period from 01.01.2021 to 31.01.2021 throughout Chennai and its adjacent Districts in Tamil Nadu, so some of the International staffs (outside Chennai) are allowed to work on the Project as Work From Home option. Preparation and review of updated Topographical Survey drawing for 400 MLD Desalination Plant (CP1) and its Pumping Station (CP2-1) at Perur on 04.01.2021 | Dr.Dharmabalan (Project Manager, International Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Mr.R.Senthil (Civil Engineer) | Submission of updated Topographical Survey drawing for 400 MLD Desalination Plant (CP1) and its Pumping Station (CP2-1) at Perur on 04.01.2021 |
| 2 | <ul style="list-style-type: none"> Discussion on the issues/ concerns for the specific tasks allocated / working deliverables/ activities, project status for CP2 and CP4 components | Dr.P.Dharmabalan (Project Manager, International Expert); Mr.R.Senthil (Civil Engineer); Mr.Mayur Gupta (Mechanical Engineer); Mr.Om Prakash Singh (Electrical Engineer); Mr.Rahul N Ramdhan (Pipeline Engineer-1); Mr.P.Thangavel (Pipeline Engineer-2); Dr.Alok Kumar (Environmental Specialist); Mr.S.M.Karthikaeswaran (Environmental Specialist); Mrs.R.Kanmani (Social Communication Specialist); Mr.R.Muthurajan (Quantity Surveyor-1); Mr.V.S.Rajasekar (Quantity Surveyor-2); Ms.J.Sudha (Structural Engineer); Mr.Suresh Mohan Diwivedi (GIS Operator) | Preparation of Preliminary Design Report and site visit report for CP2 and CP4 |
| 3 | <ul style="list-style-type: none"> Attended the Prequalification (PQ) Application opening at the 6th-floor conference hall of CMWSSB along with CMWSSB officials on 05.01.2021 for CP1 components on DBO basis | Mr.Siddappaswamy (Sr. Civil Engineer); Mr.Santosh Biswa (Contract Management Specialist); Mr.R.Senthil (Civil Engineer) | Prequalification (PQ) Application opening for CP1 on DBO basis |

| Sl. No. | Key activity / significant task carried out | List of PMC team members | Working on Delivery |
|---------|--|---|---|
| 4 | <ul style="list-style-type: none"> Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a discussion on the evaluation of Prequalification (PQ) Application and Review of Draft Request For Proposal (RFP) (Rev.1) for CP1 components on DBO basis on 07.01.2021 | Dr.Dharmabalan (Project Manager, International Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Dr.Ghulam Mustafa (Desalination Expert); Mr.Ganesh Venkataraman (Specification Specialist, Desal); Mr.Afzal Abdul Latheef (Monitoring & Control Expert, Desal); Mr.R.Senthil (Civil Engineer); Mr.Santosh Biswa (Contract Management Specialist) | Preparation and Evaluation of PQ Applications and Draft RfP (Rev.1) document for CP1 components on DBO basis |
| 5 | <ul style="list-style-type: none"> Preparation of Monthly Progress Report (MPR 11) for December 2020 | Dr.Dharmabalan (Project Manager, International Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Mr.Nagesh Chinnam (Senior Pipeline Engineer); Mr.R.Senthil (Civil Engineer); Mr.B.Ajithkumar (Secretary) | MPR 11 (10 copies) submitted on 08.01.2021 |
| 6 | <ul style="list-style-type: none"> Online Microsoft Teams Meeting conducted by Senior Civil Engineer (PMC) for a discussion on the evaluation of Prequalification (PQ) Applications for CP1 components on DBO basis on 07.01.2021 | Dr.Dharmabalan (Project Manager, International Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Dr.Uday G.Kelkar (Additional Key Expert – International) | Preparation of PQ Evaluation Report for CP1 components on DBO basis |
| 7 | <ul style="list-style-type: none"> Review of Specification for civil works, Design of Administrative building for new Desalination Plant at Perur for CP1. Preparation of Architectural layouts for Workshop and Warehouse, Security office. Review of General Specification and 5A Particular Specification for the Civil works. Preparation of Rough Cost Estimate for Microbiology lab building (G+1) from 04.01.2021 to 11.01.2021 | Mr.Siddappaswamy (Sr. Civil Engineer); Dr.D.Elanchezian (Civil & Structural Engineer); Mrs.Kirti Alhad Sadarjoshi (Architect); Mr.R.Muthurajan (Quantity Surveyor-1) | Preparation of Final Concept Design Report and Draft Request For Proposal (RFP) for CP1 components on DBO basis |
| 8 | <ul style="list-style-type: none"> Review of Draft RfP (Rev.1) document and discussion at PMC office along with Chief Engineer (Project-II & III), other CMWSSB officials on Part-I to Part-III of Draft RfP (Rev.1) document on 07.01.2021 to 08.01.2021 | Mr.S.Srinivasarao (Project Coordinator); Mr.Afzal Abdul Latheef (Monitoring & Control Expert, Desal); Mr.Ganesh Venkataraman (Specification Specialist, Desal); Mr.R.Senthil (Civil Engineer) | Preparation of Draft RfP (Rev.1) document for CP1 components on DBO basis |

| Sl. No. | Key activity / significant task carried out | List of PMC team members | Working on Delivery |
|---------|---|---|---|
| 9 | <ul style="list-style-type: none"> Online Microsoft Teams Meeting conducted by Desalination Expert (PMC) for a discussion on Part-II of Draft RfP (Rev.1) document Mobilisation of Mr.K.Senthil, Building Mechanical and Electrical Engineer on 11.01.2021 Review of Draft RfP (Rev.1) document and discussion at PMC office along with Executive Engineer (Desal), other CMWSSB officials on Part-II Employers requirements of Draft RfP (Rev.1) document on 09.01.2021 to 12.01.2021 | Dr.Ghulam Mustafa (Desalination Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Mr.Ganesh Venkataraman (Specification Specialist, Desal); Mr.Abdel Fattah Toukan (Contract Specialist, International Expert); Mr.G.Parasuraman (Senior Electrical Engineer); Mr.Om Prakash Singh (Electrical Engineer); Mr.Santosh Biswa (Contract Management Specialist) | |
| 10 | <ul style="list-style-type: none"> Meeting at 1st Floor Conference Hall with Chief Engineer (Project-II & III) and other CMWSSB officials for a review of Part-I and Part-III of Draft RfP (Rev.1) document on 13.01.2021 | Mr.Siddappaswamy (Sr. Civil Engineer); Mr.Abdel Fattah Toukan (Contract Specialist, International Expert); Mr.Hemant Chadha (Finance Specialist); Mr.Ganesh Venkataraman (Specification Specialist, Desal); Mr.R.Senthil (Civil Engineer); Mr.Santosh Biswa (Contract Management Specialist) | |
| 11 | <ul style="list-style-type: none"> Online Microsoft Teams Meeting conducted by Project Manager (PMC) for a discussion on the review of Part-I to Part-III of Draft RfP (Rev.1) document on 15.01.2021 | Dr.P.Dharmabalan (Project Manager, International Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Mr.S.Srinivasarao (Project Coordinator); Mr.Abdel Fattah Toukan (Contract Specialist, International Expert); Mr.Ganesh Venkataraman (Specification Specialist, Desal); Mr.Santosh Biswa (Contract Management Specialist) | |
| 12 | <ul style="list-style-type: none"> Online Microsoft Teams Meeting conducted by Senior Civil Engineer (PMC) for a discussion on the finalisation of Prequalification (PQ) Evaluation Report for CP1 components on DBO basis on 17.01.2021 | Mr.Siddappaswamy (Sr. Civil Engineer); Mr.S.Srinivasarao (Project Coordinator); Dr.Uday G.Kelkar (Additional Key Expert – International); Mr.Hemant Chadha (Finance Specialist); Mr.Santosh Biswa (Contract Management Specialist) | Preparation of PQ Evaluation Report for CP1 components on DBO basis |

| Sl. No. | Key activity / significant task carried out | List of PMC team members | Working on Delivery |
|---------|---|---|--|
| 13 | <ul style="list-style-type: none"> Preparation of Quarterly Progress Report QPR 04) for October to December 2020 | Dr.Dharmabalan (Project Manager, International Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Mr.Nagesh Chinnam (Senior Pipeline Engineer); Mr.R.Senthil (Civil Engineer) | QPR 04 (10 copies) submitted on 18.01.2021 |
| 14 | <ul style="list-style-type: none"> Review of Draft RfP (Rev.1) document and discussion at PMC office along with Chief Engineer (Project-II & III), other CMWSSB officials on Part-II Employers requirements of Draft RfP (Rev.1) document on 16.01.2021 Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a discussion on the finalisation of the Draft RfP (Rev.1) document on 19.01.2021 Meeting at 1st Floor Conference Hall with Executive Director and other CMWSSB officials for finalisation of JV, Price Indices, Alternative bidders and Technical Schedules of Draft RfP (Rev.1) document on 19.01.2021 | Dr.P.Dharmabalan (Project Manager, International Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Mr.S.Srinivasarao (Project Coordinator); Dr.Ghulam Mustafa (Desalination Expert); Mr.Pushpendra Sharma, (Legal Expert); Mr.Abdel Fattah Toukan (Contract Specialist, International Expert); Mr.Ganesh Venkataraman (Specification Specialist, Desal); Mr.R.Senthil (Civil Engineer); Mr.Santosh Biswa (Contract Management Specialist) | Submission of Draft RfP (Rev.1) document on 21.01.2021 |
| 15 | <ul style="list-style-type: none"> Online Microsoft Teams Meeting conducted by Desalination Expert (PMC) for a discussion on Part-I(A) Price Schedule and finalisation of Draft RfP (Rev.2) document on 22.01.2021 | Dr.Ghulam Mustafa (Desalination Expert); Mr.Ganesh Venkataraman (Specification Specialist, Desal); Mr.R.Senthil (Civil Engineer) | Preparation and finalisation of Draft RfP (Rev.2) document on 22.01.2021 |
| 16 | <ul style="list-style-type: none"> Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a discussion on the finalisation of Prequalification (PQ) Evaluation Report for CP1 components on DBO basis on 22.01.2021 | Dr.P.Dharmabalan (Project Manager, International Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Mr.S.Srinivasarao (Project Coordinator); Dr.Uday G.Kelkar (Additional Key Expert – International); Mr.Hemant Chadha (Finance Specialist); Mr.Santosh Biswa (Contract Management Specialist) | Preparation of PQ Evaluation Report for CP1 components on DBO basis |
| 17 | <ul style="list-style-type: none"> Preparation of Draft RfP (Rev.2) and discussion at CMWSSB Koyambedu TTRO Plant along with Chief Engineer (Project-II & III), CMWSSB officials on Part-I and Part-III of Draft RfP (Rev.2) document on 23.01.2021 | Mr.Siddappaswamy (Sr. Civil Engineer); Mr.R.Senthil (Civil Engineer) | Submission of Draft Request For Proposal (RFP) (Rev.2) for CP1 components on DBO basis on 25.01.2021 |

| Sl. No. | Key activity / significant task carried out | List of PMC team members | Working on Delivery |
|---------|---|--|--|
| 18 | <ul style="list-style-type: none"> Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a discussion on Payment Milestone clause etc. and Part-I(A) Price Schedule of finalisation of Draft RfP (Rev.2) document on 24.01.2021 | Dr.P.Dharmabalan (Project Manager, International Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Mr.S.Srinivasarao (Project Coordinator); Dr.Ghulam Mustafa (Desalination Expert); Mr.Ganesh Venkataraman (Specification Specialist, Desal); Mr.R.Senthil (Civil Engineer); Mr.Santosh Biswa (Contract Management Specialist) | |
| 19 | <ul style="list-style-type: none"> Online Microsoft Teams Meeting conducted by Senior Civil Engineer (PMC) and discussion along with CMWSSB officials on Liquidity Damage, Milestone and Payment terms, Price escalation etc. clause on Part III of Conditions of Contract and Contract Forms and Part-IV of Price Schedule of Draft RfP (Rev.3) document on 26.01.2021 Discussion at O/o Chief Engineer (Project-II & III) and Controller of Finance (R), CMWSSB officials on JV agreement, JV terms, Milestone interlinking with Liquidity Damage etc. clause of Draft RfP (Rev.3) document on 27.01.2021 | Dr.P.Dharmabalan (Project Manager, International Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Mr.S.Srinivasarao (Project Coordinator); Dr.Ghulam Mustafa (Desalination Expert); Mr.Abdel Fattah Toukan (Contract Specialist, International Expert); Mr.Ganesh Venkataraman (Specification Specialist, Desal); Mr.R.Senthil (Civil Engineer); Mr.Santosh Biswa (Contract Management Specialist) | Submission of Draft Request For Proposal (RFP) (Rev.3) for CP1 components on DBO basis on 27.01.2021 |
| 20 | <ul style="list-style-type: none"> Evaluation of 4 Prequalification (PQ) Applications for CP1 components on DBO basis from 06.01.2021 to 27.01.2021 | Mr.Siddappaswamy (Sr. Civil Engineer); Mr.Abdel Fattah Toukan (Contract Specialist, International Expert); Mr.Hemant Chadha (Finance Specialist); Mr.Santosh Biswa (Contract Management Specialist) | Submission of PQ Evaluation Report for CP1 components on DBO basis on 27.01.2021 |
| 21 | <ul style="list-style-type: none"> Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a discussion on the finalisation of Prequalification (PQ) Evaluation Report for CP1 components on DBO basis on 26.01.2021 Preparation and finalisation of PQ Evaluation Report for CP1 components on DBO basis | Dr.P.Dharmabalan (Project Manager, International Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Mr.S.Srinivasarao (Project Coordinator); Dr.Uday G.Kelkar (Additional Key Expert – International); Mr.Santosh Biswa (Contract Management Specialist) | |

| Sl. No. | Key activity / significant task carried out | List of PMC team members | Working on Delivery |
|---------|--|--|---|
| 22 | <ul style="list-style-type: none"> Online Microsoft Teams Meeting conducted by Project Coordinator (PMC) for a discussion on the finalisation of Concept Design Report for CP1 components on DBO basis on 28.01.2021 | Dr.P.Dharmabalan (Project Manager, International Expert); Mr.Siddappaswamy (Sr. Civil Engineer); Mr.S.Srinivasarao (Project Coordinator); Dr.Ghulam Mustafa (Desalination Expert); Mr.Abdel Fattah Toukan (Contract Specialist, International Expert); Mr.R.Senthil (Civil Engineer); Mr.Santosh Biswa (Contract Management Specialist); Mr.S.M.Karthikaeswaran (Environmental Specialist); | Preparation of Final Concept Design Report for CP1 components on DBO basis |
| 23 | <ul style="list-style-type: none"> Site Visit and Data collection for CP4 components from 04.01.2021 to 30.01.2021 Site Visit and data collection from O/o CMWSSB at Besant Nagar existing water distribution system of Zone XIII Verification and data collection from CMWSSB officials for Depot 176 of the existing water distribution system for Zone XIII and discussion with the respective area/depot Engineer. Verification and data collection from CMWSSB officials for Depot 131, 137 and 142 of existing feeder main details for Zone X and discussion with the respective area /depot Engineers. Site Visit to Choolaimedu Headworks and KK Nagar Headworks for obtaining the details from CMWSSB officials. Verification and data collection from CMWSSB officials for Depot 127 and 128 of existing feeder main and distribution system details for Zone X and discussion with the respective area /depot Engineers. For CP2: Site visit to Porur, Mount-Poonamalle depot office for obtaining the details about Chembarambakkam 2000mm diameter pipeline and identify interconnected pipeline with valves opposite to Porur lake CMWSSB pumping station office. | Mr.Nagesh Chinnam (Sr. pipeline Engineer); Mr.Rahul N Ramdhan (Pipeline Engineer-1); Mr.P.Thangavel (Pipeline Engineer-2); Mr.R.Muthurajan (Quantity Surveyor-1); Mr.V.S.Rajasekar (Quantity Surveyor-2) | Preparation of Preliminary Design Report and Site Visit for CP2 to CP4 components |

| Sl. No. | Key activity / significant task carried out | List of PMC team members | Working on Delivery |
|---------|---|--------------------------|---------------------|
| | <ul style="list-style-type: none"> For CP2: Site visit to Porur, Mount-Poonamalle depot office for getting details from Porur existing WDS 1500mm diameter pipeline and identify interconnected pipeline with valve in Porur Samayapuram road junction. Site Visit and Data collection from Pallipattu WDS and Mylapore WDS | | |

Annexure 7 Team Deployment Schedule for Next months

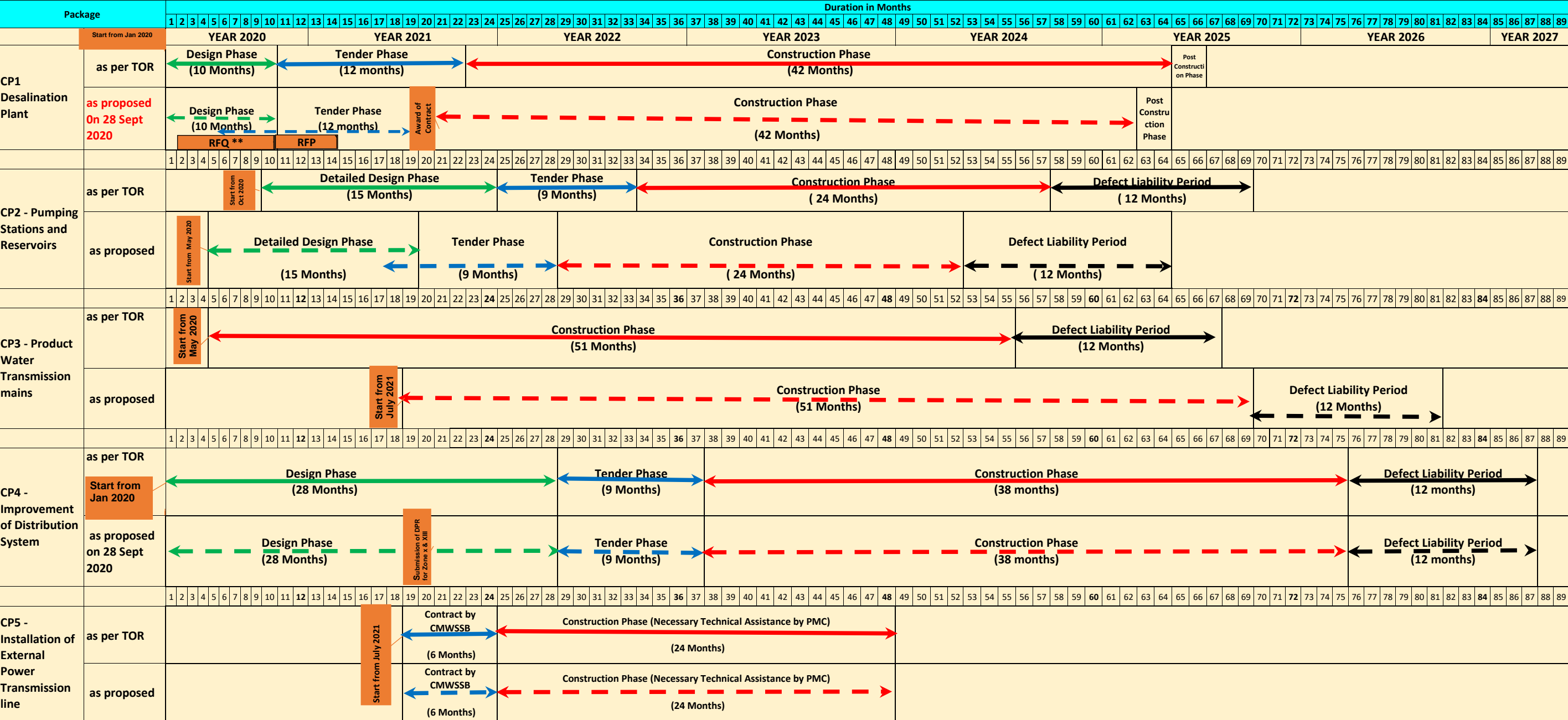
Annexure 8 PMC Organisation Chart

The CHENNAI 400 MLD DESALINATION PLANT is a Project being delivered by the Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB) with the assistance of an Official Development Assistance (ODA) loan from the Japan International Cooperation Agency (JICA).

The Project Management Consultant (PMC) for the Chennai 400 MLD Desalination Plant project is a consortium led by SMEC International Pty Ltd in partnership with Tata Consulting Engineers Limited (TCE), NJS Engineers India Pvt Ltd (NJSEI) and SMEC India Pvt Ltd.



Annexure 3 OVERALL WORK PLAN FOR CHENNAI PERUR 400 MLD DESALINATION PROJECT



Note : The above timelines are subject to evaluation, approval, award of contract and signing of agreement

Note : 1. The tentative date of deliverables have been worked out based on the discussion with CMWSSB officials, but the total time duration of each component is fixed as per ToR / as proposed by the PMC team.

- * During Video Conference call Zoom meeting held on 30.04.2020 with CMWSSB and PMC noted that due to the current COVID-19 Pandemic situation across the globe, overall 2 months delay in floating the RfQ and consequently the RfP for CP1.
- CMWSSB has forwarded the PQ documents to JICA on March 2020 & August 2020 for concurrence. JICA has given concurrence on the PQ documents for CP1 to CMWSSB for floating of Notice Inviting Tender (NIT) on 30th September 2020
- Pre-bid Prequalification Application meeting held at CMWSSB and also through Online Webex meeting on 29.10.2020
- CMWSSB has extended the tender 2nd extension notice to 05.01.2021 instead of original date of submission of PQ application 02.12.2020
- CMWSSB has received 4 Prequalification (PQ) Applications on 05.01.2021. The PQ evaluation report have been submitted to CMWSSB on 27.01.2021
- The RFP document have been submitted to CMWSSB on 27.01.2021 and CMWSSB have forwarded the RFP document to JICA for obtaining the concurrence

Legend:

Design Phase
Tender Phase

Construction Phase
Defect Liability Period

Note 2: Revised Project Schedule due to the effect of COVID 19

For CP1 - Refer the bar chart "as proposed on 26 Sept 2020"

For CP2 - No change is anticipated

For CP4 - Refer the bar chart "as proposed on 26 Sept 2020"

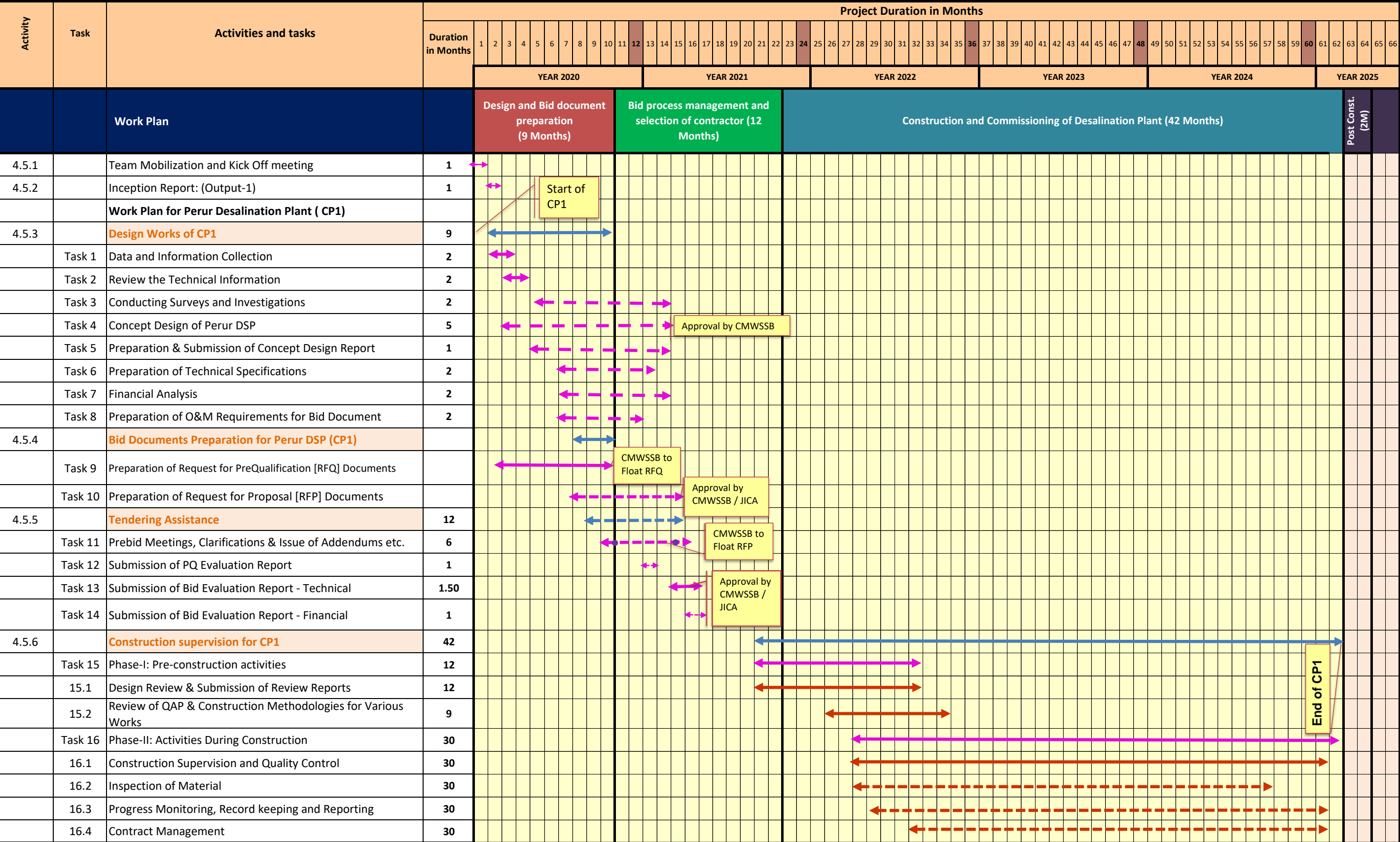
For CP3 and CP5 - No change is anticipated

Annexure 4 Work Schedule (Contract Package-wise)

WORK SCHEDULE








WORK SCHEDULE - CP1

Project Name: Consultancy for “Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works.



Note : 1. The tentative date of deliverables have been worked out based on the discussion with CMWSSB officials, but the total time duration of each component is fixed as per ToR / as proposed by the PMC team.

2. * During Video Conference call Zoom meeting held on 30.04.2020 with CMWSSB and PMC noted that due to the current COVID-19 Pandemic situation across the globe, overall 2 months delay in floating the RfQ and consequently the RfP for CP1.
3. CMWSSB has forwarded the PQ documents to JICA on March 2020 & August 2020 for concurrence
4. Pre-bid Prequalification Application meeting held at CMWSSB and also through Online Webex meeting on 29.10.2020
5. CMWSSB has extended the tender 2nd extension notice to 05.01.2021 instead of original date of submission of PQ application 02.12.2020
6. CMWSSB has received 4 Prequalification (PQ) Applications on 05.01.2021. The PQ evaluation report have been submitted to CMWSSB on 27.01.2021
7. The RFP document have been submitted to CMWSSB on 27.01.2021 and CMWSSB have forwarded the RFP document to JICA for obtaining the concurrence

| Legend: | |
|---|---|
|  | Main Activities [Full Time] |
|  | Main Activities [Intermittent Time] |
|  | Tasks Under Main Activities [Full Time] |
|  | Tasks Under Main Activities [Intermittent Time] |
|  | Sub Tasks Under Tasks |
|  | Reports |
|  | Client's Role |

WORK SCHEDULE - CP2

Project Name: Consultancy for “Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works.








| Activity | Task | Activities and tasks | Duration in Months | Project Duration in Months | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---------|---|--------------------|----------------------------|---|---|--|---|---|---|---|---|----|----|----|-----------|----|----|---|----|----|----|----|----|----|----|----|-----------|----|----|--|----|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|-----------|----|----|-------------------------------------|----|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|--|--|--|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | | | |
| | | | | YEAR 2020 | | | | | | | | | | | | YEAR 2021 | | | | | | | | | | | | YEAR 2022 | | | | | | | | | | | | YEAR 2023 | | | | | | | | | | | | YEAR 2024 | | | | | | | | | | | | YEAR 2025 | | | | | | | | | | | | |
| | | Work Plan | | | | | Design and Bid document preparation (15 Months as per RFP) | | | | | | | | | | | | Bid process management and selection of contractor (9 Months) | | | | | | | | | | | | Construction and Commissioning (24 Months) | | | | | | | | | | | | | | | | | | | | | | | | Defect Liability Period (12 Months) | | | | | | | | | | | | | | | | | | | | | |
| | | Balance Team Mobilization by Commencement Date | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Start of CP2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Work Plan for Construction of Storage Reservoirs & Pumping Stations (CP2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.5.8 | | Design Works of CP2 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 1 | Data and Information Collection | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 2 | Review the Technical Information | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 3 | Conducting Surveys and Investigations | 1.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 4 | Detailed Design of the Reservoirs and Pumping Stations | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 5 | Preparation & Submission of Draft Detailed Design Report | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 6 | Preparation & Submission of Final Detailed Design Report | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.5.9 | | Bid Documents Preparation for CP2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 7 | Preparation of Request for PreQualification [RFQ] Documents (If required) | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 8 | Preparation of Request for Proposal [RFP] Documents | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.5.10 | | Tendering Assistance | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 8 | Prebid Meetings, Clarifications & Issue of Addendums etc. | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 9 | Submission of PQ Evaluation Report | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 10 | Submission of Bid Evaluation Report - Technical | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 11 | Submission of Bid Evaluation Report - Financial | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.5.14 | | Construction supervision for CP2 | 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 12 | Phase-I: Pre-construction activities | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 12.1 | Review of QAP & Construction Methodologies for Various Works | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 13 | Phase-II: Activities During Construction | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13.1 | Construction Supervision and Quality Control | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13.2 | Inspection of Material | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13.3 | Progress Monitoring, Record keeping and Reporting | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13.4 | Contract Management | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13.5 | Measurements, Claims and Financial Control | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 14 | Phase-II: Activities During Trial Run and Commissioning | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 14.1 | Pre Commissioning Activities | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

WORK SCHEDULE - CP2

Project Name: Consultancy for “Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works.

[illegible]

Note : The tentative date of deliverables have been worked out based on the discussion with CMWSSB officials, but the total time duration of each component is fixed as per ToR / as proposed by the PMC team.








| Legend: | |
|---|---|
|  | Main Activities [Full Time] |
|  | Main Activities [Intermittent Time] |
|  | Tasks Under Main Activities [Full Time] |
|  | Tasks Under Main Activities [Intermittent Time] |
|  | Sub Tasks Under Tasks |
|  | Reports |
|  | Client's Role |

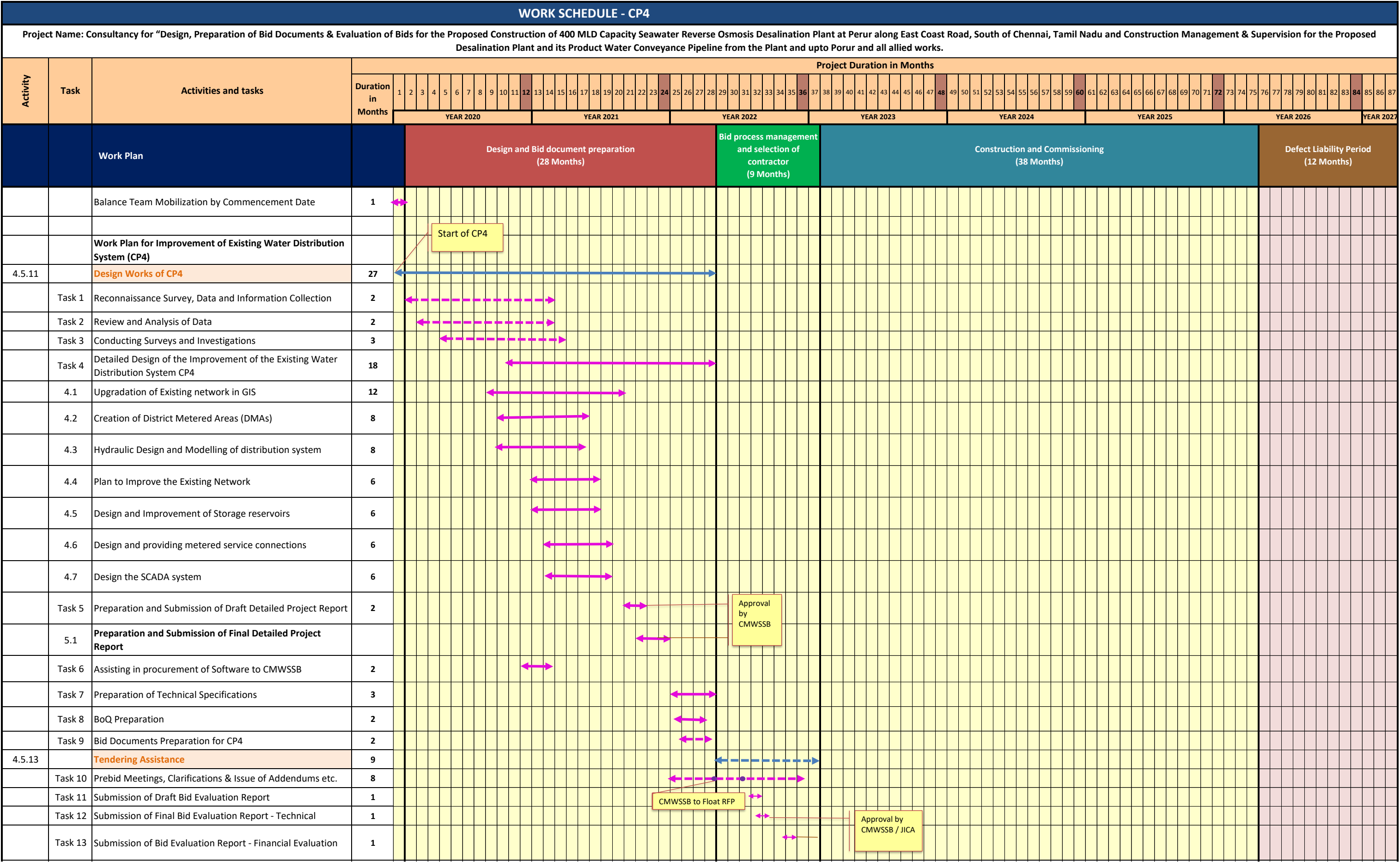
WORK SCHEDULE - CP3

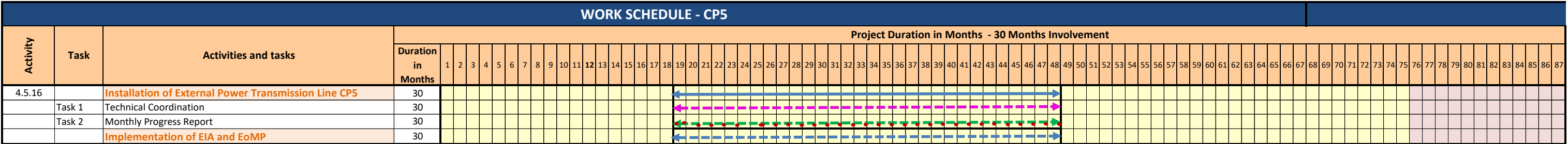
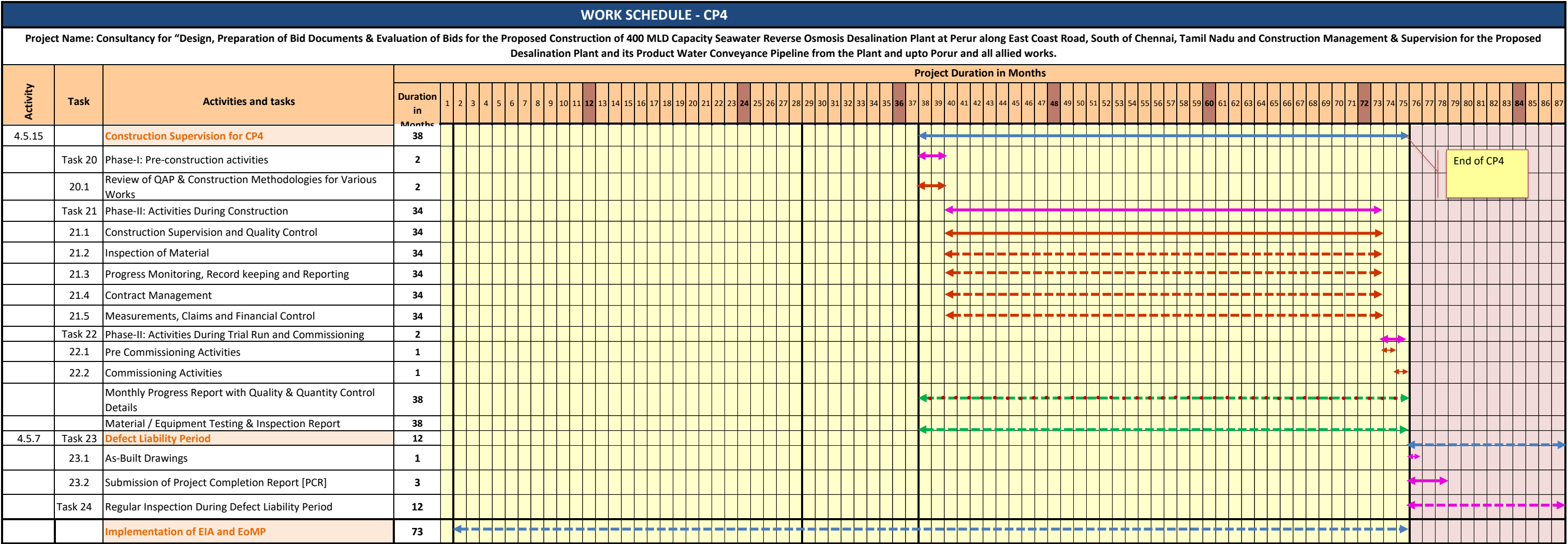
Project Name: Consultancy for “Design, Preparation of Bid Documents & Evaluation of Bids for the Proposed Construction of 400 MLD Capacity Seawater Reverse Osmosis Desalination Plant at Perur along East Coast Road, South of Chennai, Tamil Nadu and Construction Management & Supervision for the Proposed Desalination Plant and its Product Water Conveyance Pipeline from the Plant and upto Porur and all allied works.

| Activity | Task | Activities and tasks | Project Duration in Months | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|--------|---|----------------------------|-----------|--|---|---|---|---|---|---|---|----|----|----|-----------|----|--|----|-------------------------|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|-----------|----|----|----|----|----|----|----|--|--|-------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | Duration in Months | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | | | | | | | | | | | | | | | | |
| | | | | YEAR 2020 | | | | | | | | | | | | YEAR 2021 | | | | | | | | | | | | YEAR 2022 | | | | | | | | | | | | YEAR 2023 | | | | | | | | | | | | YEAR 2024 | | | | | | | | | | | | YEAR 2025 | | | | | | | | | | | | YEAR 2026 | | | | | | | | | | | | | | | | | | | | | | | |
| | | Work Plan | | | CMWSSB sent the RFP document to JICA for concurrence | | | | | | | | | | | | | Construction and Commissioning (51 Months) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Defect Liability Period (12 Months) | | | | | | | | | | | | | |
| | | Balance Team Mobilization by Commencement Date | 1 | | | | | | | | | | | | | | | | | <div>Start of CP3</div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.5.14 | | Construction Supervision for CP3 | 51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 1 | Phase-I: Pre-construction activities | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.1 | Review of DPR for CP3 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.2 | Reconnaissance Survey and Understand the Scheme Proposals for CP3 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.3 | Assisting in Land Acquisition, Authority Permissions for the Facilities for CP3 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.4 | Developing the Reporting Requirements for CP3 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.5 | Review of Good for Construction [GFC] Drawings, QA & QC Plans for CP3 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 2 | Phase-II: Activities During Construction | 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2.1 | Construction Supervision and Quality Control | 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2.2 | Inspection of Material | 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2.3 | Progress Monitoring, Record keeping and Reporting | 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2.4 | Contract Management | 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2.5 | Measurements, Claims and Financial Control | 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 3 | Phase-II: Activities During Trial Run and Commissioning | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3.1 | Pre Commissioning Activities | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3.2 | Commissioning Activities | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Monthly Progress Report with Quality & Quantity Control Details | 51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Material / Equipment Testing & Inspection Report | 51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.5.15 | Task 4 | Defect Liability Period | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4.1 | As-Built Drawings | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Submission of Project Completion Report [PCR] | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Task 5 | Regular Inspection During Defect Liability Period | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Implementation of EIA and EoMP | 51 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Note : The tentative date of deliverables have been worked out based on the discussion with CMWSSB officials, but the total time duration of each component is fixed as per ToR / as proposed by the PMC team.

| Legend: | |
|---|---|
|  | Main Activities [Full Time] |
|  | Main Activities [Intermittent Time] |
|  | Tasks Under Main Activities [Full Time] |
|  | Tasks Under Main Activities [Intermittent Time] |
|  | Sub Tasks Under Tasks |
|  | Reports |
|  | Client's Role |





Note : The tentative date of deliverables have been worked out based on the discussion with CMWSSB officials, but the total time duration of each component is fixed as per ToR / as proposed by the PMC team.

| Legends | |
|---------|---|
| | Main Activities [Full Time] |
| | Main Activities [Intermittent Time] |
| | Tasks Under Main Activities [Full Time] |
| | Tasks Under Main Activities [Intermittent Time] |
| | Sub Tasks Under Tasks |
| | Reports |
| | Client's Role |

ANNEXURE 5 PROJECTED FINANCIAL PROGRESS BASED ON MAN MONTHS CONSUMED Vs ACTUAL PROGRESS (BILLS PASSED) TILL JANUARY 2021

**CHENNAI METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD (CHENNAI PERUR 400MLD DESALINATION PLANT & ALLIED WORKS PROJECT)
REMUNERATION AND REIMBURSABLE COSTS (Indian Rupees & USD)**

DATE : 31.01.2021

PERIOD : Projected till January 2021

| Sl. No. | Name of the Staff | Position | Office | Allocated Person Months / Quantity | Monthly Remuneration / Rate (at fixed rate) | Allocated Amount | Total Person months/ quantity Spent upto last Month (December 2020) | Person Months/ Quantity Spent for current month (January 2021) | Total Person Months/ quantity spent upto current month (January 2021) | Balance Carried over | Amount Booked as on last Month (December 2020) | Amount Booked for this Invoice (January 2021) | Total Booked upto this Invoice | Balance Amount |
|-----------|---|---------------------------------------|--------|------------------------------------|---|------------------|---|--|---|----------------------|--|---|--------------------------------|------------------|
| | SMEC INTERNATIONAL PTY LTD | | | | | | | | | | | | | |
| I | REMUNERATION | | | | | | | | | | | | | |
| | Key International Expert (in US Dollar) | | | | | | | | | | | | | |
| 1 | Dr.Pararajasegram Dharmabalan | Project Manager | Field | 70 | 37,500 | 26,25,000 | 5.85 | 0.77 | 6.62 | 63.38 | 2,19,375 | 28,875 | 2,48,250 | 23,76,750 |
| 2 | Mr.Shane Farquharson | Water Supply Engineer | Field | 23 | 25,360 | 5,83,280 | 2.04 | 0.00 | 2.04 | 20.96 | 51,734 | 0 | 51,734 | 5,31,546 |
| 3 | Mr.Michel Morillon | Mechanical Engineer (Desal) | Field | 15 | 44,000 | 6,60,000 | 4.22 | 0.00 | 4.22 | 10.78 | 1,85,680 | 0 | 1,85,680 | 4,74,320 |
| 4 | Mr.Guilbert Z Gonzales (Replaced for Mr.Sergio de Bastos Vilar Magalhaes Paulo) | Electrical Engineer (Desal) | Field | 25 | 13,132 | 3,28,300 | 0.00 | 0.32 | 0.32 | 24.68 | 0 | 4,202 | 4,202 | 3,24,098 |
| 5 | Mr.John Goullee | Pipeline Engineer | Field | 70 | 22,602 | 15,82,140 | 0.00 | 0.00 | 0.00 | 70.00 | 0 | 0 | 0 | 15,82,140 |
| 6 | Mr.Abdel Toukan (Replaced for Mr.Roderick Mackenzie) | Contract Specialist (Desal) | Field | 9 | 44,407 | 3,99,663 | 2.26 | 0.86 | 3.12 | 5.88 | 1,00,360 | 38,190 | 1,38,550 | 2,61,113 |
| | Non-Key Expert - International Expert | | | | | | | | | | | | | |
| 7 | Mr.Afzal Abdul Latheef (Replaced for Mr.Manikandan Ganesh Shoranur) | Monitoring and Control Expert (Desal) | Field | 11 | 19,260 | 2,11,860 | 1.18 | 0.73 | 1.91 | 9.09 | 22,727 | 14,060 | 36,787 | 1,75,073 |
| | Sub Total 1 in USD | | | 223 | | 63,90,243 | 15.55 | 2.68 | 18.23 | 204.77 | 5,79,876 | 85,327 | 6,65,203 | 57,25,040 |
| | Reimbursables | | | | | | | | | | | | | |
| II | DUTY TRAVEL TO SITE (in US Dollar) | | | | | | | | | | | | | |
| 1 | International Air Travel | | | | | | | | | | | | | |
| | Professional Staff | Trip | | 40 | 3,000 | 1,20,000 | 5 | 1 | 6 | 34 | 15,000 | 3,000 | 18,000 | 1,02,000 |
| | Sub Total 2 in USD | | | | | 1,20,000 | | | | | 15,000 | 3,000 | 18,000 | 1,02,000 |

| Sl. No. | Name of the Staff | Position | Office | Allocated Person Months / Quantity | Monthly Remuneration / Rate (at fixed rate) | Allocated Amount | Total Person months/ quantity Spent upto last Month (December 2020) | Person Months/ Quantity Spent for current month (January 2021) | Total Person Months/ quantity spent upto current month (January 2021) | Balance Carried over | Amount Booked as on last Month (December 2020) | Amount Booked for this Invoice (January 2021) | Total Booked upto this Invoice | Balance Amount |
|---------|---|--|--------|------------------------------------|---|--------------------|---|--|---|----------------------|--|---|--------------------------------|--------------------|
| | SMEC INDIA PVT. LTD. | | | | | | | | | | | | | |
| | Non-Key International Expert (in US Dollar) | | | | | | | | | | | | | |
| 1 | Dr.D.Elanchezian | Civil and Structure Engineer (Desal) | Field | 42 | 10,895 | 4,57,590 | 4.80 | 0.68 | 5.48 | 36.52 | 52,296 | 7,409 | 59,705 | 3,97,885 |
| 2 | Mr.Ashish Gosain | Monitoring and Control Expert (Distribution) | Field | 12 | 7,704 | 92,448 | 0.00 | 0.00 | 0.00 | 12.00 | 0 | 0 | 0 | 92,448 |
| 3 | Mr.Ganesh Venkataraman (Replaced for Mr.J.Shanmuganathan) | Specification Specialist (Desal) | Field | 4 | 7,264 | 29,056 | 1.13 | 0.68 | 1.81 | 2.19 | 8,208 | 4,940 | 13,147 | 15,909 |
| 4 | Mr.Hemant Chadha | Financial Expert | Field | 3 | 12,106 | 36,318 | 1.23 | 0.36 | 1.59 | 1.41 | 14,890 | 4,358 | 19,248 | 17,070 |
| 5 | Mr.Santhosh Kumar | Commissioning Engineer | Field | 10 | 10,015 | 1,00,150 | 0.00 | 0.00 | 0.00 | 10.00 | 0 | 0 | 0 | 1,00,150 |
| 6 | Mr.Rajesh Mishra | Social Communication Specialist | Field | 16 | 9,630 | 1,54,080 | 0.82 | 0.00 | 0.82 | 15.18 | 7,897 | 0 | 7,897 | 1,46,183 |
| | Sub Total 3 in USD | | | 87 | | 8,69,642 | 7.98 | 1.72 | 9.70 | 77.30 | 83,290 | 16,707 | 99,997 | 7,69,645 |
| | Non-Key Experts- Local Staff (Local in Rupees) | | | | | | | | | | | | | |
| 7 | Mr.Ramesh Senthil | Civil Engineer | Field | 72 | 4,35,750 | 3,13,74,000 | 10.62 | 0.86 | 11.48 | 60.52 | 46,27,665 | 3,74,745 | 50,02,410 | 2,63,71,590 |
| 8 | Mr.N.Srinivasulu Reddy | Construction Planner / Cost Estimator | Field | 4 | 3,00,000 | 12,00,000 | 0.00 | 0.00 | 0.00 | 4.00 | 0 | 0 | 0 | 12,00,000 |
| 9 | Mr.R.Muthurajan (Replaced for Mr.K.C.Vinod Chandra) | Quantity Surveyor - 1 | Field | 50 | 3,00,000 | 1,50,00,000 | 2.31 | 0.95 | 3.26 | 46.74 | 6,93,000 | 2,85,000 | 9,78,000 | 1,40,22,000 |
| | Support Staff (Local in Rupees) | | | | | | | | | | | | | |
| 10 | Mr.B.Ajithkumar | Secretary | Field | 70 | 52,290 | 36,60,300 | 1.95 | 0.95 | 2.90 | 67.10 | 1,01,966 | 49,676 | 1,51,641 | 35,08,659 |
| 11 | Mrs.P.Prashanthi | Geo-technical Engineer | Home | 6 | 4,35,750 | 26,14,500 | 0.14 | 0.00 | 0.14 | 5.86 | 61,005 | 0 | 61,005 | 25,53,495 |
| 12 | Mr.Santosh Biswa | Contract Management Specialist | Home | 6 | 4,35,750 | 26,14,500 | 3.81 | 0.55 | 4.36 | 1.64 | 16,60,208 | 2,39,663 | 18,99,870 | 7,14,630 |
| 13 | Mr.A.Renu Kumar | Visa & Admin. Officer | Field | 70 | 1,04,580 | 73,20,600 | 10.66 | 0.91 | 11.57 | 58.43 | 11,14,823 | 95,168 | 12,09,991 | 61,10,609 |
| 14 | Mr.K.Manikandan | Accountant | Field | 70 | 69,720 | 48,80,400 | 9.34 | 0.82 | 10.16 | 59.84 | 6,51,185 | 57,170 | 7,08,355 | 41,72,045 |
| 15 | Mr.Pilominraj Raja (Replaced for Mr.R.Jagan) | Office Keeper-1 | Field | 70 | 26,145 | 18,30,150 | 10.76 | 0.95 | 11.71 | 58.29 | 2,81,320 | 24,838 | 3,06,158 | 15,23,992 |
| 16 | Mr.Thiruvengadam Someswaran (Replaced for Mr.G.Arjun) | Office Keeper-2 | Field | 70 | 26,145 | 18,30,150 | 10.76 | 0.95 | 11.71 | 58.29 | 2,81,320 | 24,838 | 3,06,158 | 15,23,992 |
| | Sub Total 1 in INR | | | 488 | | 7,23,24,600 | 60.35 | 6.94 | 67.29 | 420.71 | 94,72,491 | 11,51,097 | 1,06,23,588 | 6,17,01,012 |

| Sl. No. | Name of the Staff | Position | Office | Allocated Person Months / Quantity | Monthly Remuneration / Rate (at fixed rate) | Allocated Amount | Total Person months/ quantity Spent upto last Month (December 2020) | Person Months/ Quantity Spent for current month (January 2021) | Total Person Months/ quantity spent upto current month (January 2021) | Balance Carried over | Amount Booked as on last Month (December 2020) | Amount Booked for this Invoice (January 2021) | Total Booked upto this Invoice | Balance Amount |
|----------|--|------------|--------|------------------------------------|---|------------------|---|--|---|----------------------|--|---|--------------------------------|----------------|
| | REIMBURSABLE EXPENSES | | | | | | | | | | | | | |
| 1 | TRANSPORTATION (REIMBURSABLE) | | | | | | | | | | | | | |
| 1 | The Vehicles provided by the Consultants shall include the cost for the rental, drivers, operation, maintenance, repairs, insurance etc. | Month | | 170 | 50,000 | 85,00,000 | 11 | 1 | 12 | 158 | 4,29,166 | 45,697 | 4,74,863 | 80,25,137 |
| 2 | DUTY TRAVEL TO SITE (REIMBURSABLE) | | | | | | | | | | | | | |
| 2 | Local Air Travel | | | | | | | | | | | | | |
| a | Professional Staff | Round Trip | | 10 | 20,000 | 2,00,000 | 1 | 1 | 2 | 8 | 20,000 | 20,000 | 40,000 | 1,60,000 |
| b | Sub Professional Staff | Round Trip | | 80 | 10,000 | 8,00,000 | 3.50 | 0 | 3.50 | 76.50 | 35,000 | 0 | 35,000 | 7,65,000 |
| 3 | OFFICE RENT (REIMBURSABLE) | | | | | | | | | | | | | |
| 1 | The Rent Cost include maintenance, cleaning, repairs etc. | Month | | 77 | 1,00,000 | 77,00,000 | 11.40 | 1 | 12.40 | 64.60 | 11,40,000 | 1,00,000 | 12,40,000 | 64,60,000 |
| 4 | OFFICE SUPPLIES, UTILITIES & COMMUNICATION (REIMBURSABLE) | | | | | | | | | | | | | |
| 1 | Office supplies | No. | | 77 | 10,000 | 7,70,000 | 9.57 | 1 | 10.57 | 66.43 | 95,700 | 10,000 | 1,05,700 | 6,64,300 |
| 2 | Drafting supplies | No. | | 77 | 6,000 | 4,62,000 | 9.57 | 1 | 10.57 | 66.43 | 57,420 | 6,000 | 63,420 | 3,98,580 |
| 3 | Computer running costs | No. | | 77 | 5,000 | 3,85,000 | 9.57 | 1 | 10.57 | 66.43 | 47,850 | 5,000 | 52,850 | 3,32,150 |
| 4 | Domestic communication | No. | | 77 | 15,000 | 11,55,000 | 9.57 | 1 | 10.57 | 66.43 | 1,43,550 | 15,000 | 1,58,550 | 9,96,450 |
| 5 | OFFICE FURNITURE & EQUIPMENT (REIMBURSABLE) | | | | | | | | | | | | | |
| A | Office Furniture (Purchase) | | | | | | | | | | | | | |
| 1 | Work Station Table & Chairs | No. | | LS | 5,00,000 | 5,00,000 | LS | 0 | LS | 0 | 4,95,600 | 0 | 4,95,600 | 4,400 |
| 2 | Conference Hall Table & Chairs | No. | | LS | 2,50,000 | 2,50,000 | LS | 0 | LS | 0 | 2,50,000 | 0 | 2,50,000 | 0 |
| 3 | Office Interiors | No. | | LS | 10,00,000 | 10,00,000 | LS | 0 | LS | 0 | 10,00,000 | 0 | 10,00,000 | 0 |

| Sl. No. | Name of the Staff | Position | Office | Allocated Person Months / Quantity | Monthly Remuneration / Rate (at fixed rate) | Allocated Amount | Total Person months/ quantity Spent upto last Month (December 2020) | Person Months/ Quantity Spent for current month (January 2021) | Total Person Months/ quantity spent upto current month (January 2021) | Balance Carried over | Amount Booked as on last Month (December 2020) | Amount Booked for this Invoice (January 2021) | Total Booked upto this Invoice | Balance Amount |
|----------|---|----------|--------|------------------------------------|---|--------------------|---|--|---|----------------------|--|---|--------------------------------|--------------------|
| B | Office Equipment (Purchase) | | | | | | | | | | | | | |
| 1 | Multipurpose Copy Machine | No. | | 1 | 2,00,000 | 2,00,000 | 1 | 0 | 1 | 0 | 2,00,000 | 0 | 2,00,000 | 0 |
| | A0,A1,A2 Plotter | No. | | 1 | 5,00,000 | 5,00,000 | 1 | 0 | 1 | 0 | 5,00,000 | 0 | 5,00,000 | 0 |
| 2 | Laser Printers | No. | | 1 | 1,00,000 | 1,00,000 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1,00,000 |
| 3 | Desktop/Laptops | No. | | 15 | 60,000 | 9,00,000 | 10 | 0 | 10 | 5 | 3,00,000 | 0 | 3,00,000 | 6,00,000 |
| 4 | Refrigerator, Coffee Vending Machine, Oven etc. | No. | | LS | 1,00,000 | 1,00,000 | LS | 0 | LS | LS | 45,560 | 0 | 45,560 | 54,440 |
| 5 | Office Attendance Biometric Systems | No. | | LS | 1,00,000 | 1,00,000 | 0 | 0 | 0 | LS | 0 | 0 | 0 | 1,00,000 |
| 6 | Office Server | LS | | 1 | 10,00,000 | 10,00,000 | 1 | 0 | 1 | 0 | 10,00,000 | 0 | 10,00,000 | 0 |
| 7 | Projector | No. | | 2 | 25,000 | 50,000 | 2 | 0 | 2 | 0 | 50,000 | 0 | 50,000 | 0 |
| 8 | Video Conference with Display TVs | No. | | 1 | 3,00,000 | 3,00,000 | 1 | 0 | 1 | 0 | 3,00,000 | 0 | 3,00,000 | 0 |
| 9 | Softwares | No. | | LS | 30,00,000 | 30,00,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30,00,000 |
| 6 | PER DIEM (PER DAY) ALLOWANCE (REIMBURSABLE) | | | | | | | | | | | | | |
| 1 | International | No. | | 810 | 5,000 | 40,50,000 | 138 | 12 | 150 | 660 | 6,90,000 | 60,000 | 7,50,000 | 33,00,000 |
| 2 | National | No. | | 50 | 5,000 | 2,50,000 | 19 | 5 | 24 | 26 | 95,000 | 25,000 | 1,20,000 | 1,30,000 |
| 7 | REPORTS & DOCUMENT PRINTING (REIMBURSABLE) | | | | | | | | | | | | | |
| 1 | Monthly Progress Report | No. | | 154 | 6,000 | 9,24,000 | 10 | 1 | 11 | 143 | 60,000 | 6,000 | 66,000 | 8,58,000 |
| 2 | Design Report | No. | | 50 | 10,000 | 5,00,000 | 1 | 1 | 2 | 48 | 10,000 | 10,000 | 20,000 | 4,80,000 |
| 8 | SURVEYS (REIMBURSABLE) | | | | | | | | | | | | | |
| 1 | Bathymetric Survey | No. | | 1 | 8,00,000 | 8,00,000 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8,00,000 |
| 2 | Geo-Technical Survey | No. | | 50 | 15,000 | 7,50,000 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 7,50,000 |
| 3 | Water Sample Testing | No. | | 10 | 45,000 | 4,50,000 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 4,50,000 |
| 4 | Topographical Survey | No. | | 600 | 5,000 | 30,00,000 | 45.86 | 0 | 45.86 | 554.14 | 1,89,406 | 0 | 1,89,406 | 28,10,594 |
| | Sub Total 2 in INR | | | | | 3,86,96,000 | | | | | 71,54,252 | 3,02,697 | 74,56,949 | 3,12,39,051 |

| Sl. No. | Name of the Staff | Position | Office | Allocated Person Months / Quantity | Monthly Remuneration / Rate (at fixed rate) | Allocated Amount | Total Person months/ quantity Spent upto last Month (December 2020) | Person Months/ Quantity Spent for current month (January 2021) | Total Person Months/ quantity spent upto current month (January 2021) | Balance Carried over | Amount Booked as on last Month (December 2020) | Amount Booked for this Invoice (January 2021) | Total Booked upto this Invoice | Balance Amount |
|---------|--|---|--------|------------------------------------|---|---------------------|---|--|---|----------------------|--|---|--------------------------------|---------------------|
| | TATA CONSULTING ENGINEERS LTD. | | | | | | | | | | | | | |
| | Non-Key International Expert (in US Dollar) | | | | | | | | | | | | | |
| 1 | Mr.Manish Chintamani Sane | Specification Specialist [Distribution] | Field | 3 | 11,560 | 34,680 | 0.00 | 0.00 | 0.00 | 3.00 | 0 | 0 | 0 | 34,680 |
| 2 | Dr.Alok Kumar | Environmental Specialist | Field | 15 | 12,750 | 1,91,250 | 1.86 | 0.09 | 1.95 | 13.05 | 23,715 | 1,148 | 24,863 | 1,66,388 |
| 3 | Mr.Hyacinth Augusto Vaz | Organisational Expert | Field | 9 | 10,950 | 98,550 | 0.00 | 0.00 | 0.00 | 9.00 | 0 | 0 | 0 | 98,550 |
| | Sub Total 4 in USD | | | 27 | | 3,24,480 | 1.86 | 0.09 | 1.95 | 25.05 | 23,715 | 1,148 | 24,863 | 2,99,618 |
| | (Key Staff) - Local in Rupees | | | | | | | | | | | | | |
| 1 | Mr.S.Siddappaswamy | Senior Civil Engineer | Field | 72 | 8,00,000 | 5,76,00,000 | 6.18 | 0.95 | 7.13 | 64.87 | 49,43,200 | 7,60,000 | 57,03,200 | 5,18,96,800 |
| 2 | Mr.Nagesh Chinnam | Senior Pipeline Engineer | Field | 72 | 6,00,000 | 4,32,00,000 | 6.45 | 0.68 | 7.13 | 64.87 | 38,68,800 | 4,08,000 | 42,76,800 | 3,89,23,200 |
| | Sub Total 3 in INR | | | 144.000 | | 10,08,00,000 | 12.63 | 1.63 | 14.26 | 129.74 | 88,12,000 | 11,68,000 | 99,80,000 | 9,08,20,000 |
| | Non-Key Expert [National] in Rupees | | | | | | | | | | | | | |
| 3 | Mr.Mayur Gupta (Replaced for Mr.Surajit Debnath) | Mechanical Engineer | Field | 40 | 5,00,000 | 2,00,00,000 | 0.45 | 0.68 | 1.13 | 38.87 | 2,25,000 | 3,40,000 | 5,65,000 | 1,94,35,000 |
| 4 | Mr.Om Prakash Singh (Replaced for Mr.GVK Mohan) | Electrical Engineer | Field | 45 | 5,00,000 | 2,25,00,000 | 0.68 | 0.86 | 1.54 | 43.46 | 3,40,000 | 4,30,000 | 7,70,000 | 2,17,30,000 |
| 5 | Ms.Sudha J. (Replaced for Mr.Vinod MK) | Structural Engineer | Field | 28 | 6,25,000 | 1,75,00,000 | 1.68 | 0.73 | 2.41 | 25.59 | 10,50,000 | 4,56,250 | 15,06,250 | 1,59,93,750 |
| 6 | Mrs.Kirti Alhad Sadarjoshi (Replaced for Mr.Kumar M) | Architect | Field | 12 | 4,75,000 | 57,00,000 | 1.64 | 0.95 | 2.59 | 9.41 | 7,79,000 | 4,51,250 | 12,30,250 | 44,69,750 |
| 7 | Mr.K.Senthil | Building Mechanical & Electrical Engineer | Field | 16 | 5,50,000 | 88,00,000 | 0.00 | 0.23 | 0.23 | 15.77 | 0 | 1,26,500 | 1,26,500 | 86,73,500 |
| 8 | Mr.S.Sreenivasula reddy | Specification Specialist | Field | 4 | 5,00,000 | 20,00,000 | 0.00 | 0.00 | 0.00 | 4.00 | 0 | 0 | 0 | 20,00,000 |
| 9 | Mr.S.M.Karthikaeswaran | Environmental Specialist | Field | 30 | 5,00,000 | 1,50,00,000 | 8.81 | 0.86 | 9.67 | 20.33 | 44,04,500 | 4,30,000 | 48,34,500 | 1,01,65,500 |
| 10 | Mr.Hema Kumar | Pipeline Engineer-3 | Field | 50 | 2,40,000 | 1,20,00,000 | 0.00 | 0.00 | 0.00 | 50.00 | 0 | 0 | 0 | 1,20,00,000 |
| 11 | Mr.Najas Thattakatte Abdul Kareem | Safety & Health Expert-1 | Field | 40 | 2,40,000 | 96,00,000 | 0.00 | 0.00 | 0.00 | 40.00 | 0 | 0 | 0 | 96,00,000 |
| 12 | Mr.Prashant Balan | Safety & Health Expert-2 | Field | 70 | 2,40,000 | 1,68,00,000 | 0.00 | 0.00 | 0.00 | 70.00 | 0 | 0 | 0 | 1,68,00,000 |
| 13 | Mr.V.S.Rajasekar | Quantity Surveyor-2 | Field | 70 | 2,40,000 | 1,68,00,000 | 2.54 | 0.68 | 3.22 | 66.78 | 6,09,120 | 1,63,200 | 7,72,320 | 1,60,27,680 |
| | Sub Total 4 in INR | | | 405 | | 14,67,00,000 | 15.80 | 4.99 | 20.79 | 384.21 | 74,07,620 | 23,97,200 | 98,04,820 | 13,68,95,180 |

| Sl. No. | Name of the Staff | Position | Office | Allocated Person Months / Quantity | Monthly Remuneration / Rate (at fixed rate) | Allocated Amount | Total Person months/ quantity Spent upto last Month (December 2020) | Person Months/ Quantity Spent for current month (January 2021) | Total Person Months/ quantity spent upto current month (January 2021) | Balance Carried over | Amount Booked as on last Month (December 2020) | Amount Booked for this Invoice (January 2021) | Total Booked upto this Invoice | Balance Amount |
|----------|---|---------------------------------------|--------|------------------------------------|---|--------------------|---|--|---|----------------------|--|---|--------------------------------|--------------------|
| | REIMBURSABLE EXPENSES | | | | | | | | | | | | | |
| 1 | TRANSPORTATION (REIMBURSABLE) | | | | | | | | | | | | | |
| 1 | The Vehicle provided by the consultants shall include the cost for the rental, drivers, operation, maintenance, repairs, insurance etc. | Months | | 200 | 50,000 | 1,00,00,000 | 7.06 | 2 | 9.06 | 190.94 | 3,29,175 | 86,500 | 4,15,675 | 95,84,335 |
| 2 | Local Air travel | | | | | | | | | | | | | |
| | Professional Staff | Return Trip | | 50 | 20,000 | 10,00,000 | 3.50 | 1 | 4.50 | 45.50 | 70,000 | 20,000 | 90,000 | 9,10,000 |
| | Sub Total 5 in INR | | | | | 1,10,00,000 | | | | | 3,99,175 | 1,06,500 | 5,05,675 | 1,04,94,335 |
| | NJS ENGINEERS INDIA PVT. LTD. | | | | | | | | | | | | | |
| | Remuneration | | | | | | | | | | | | | |
| | Key Staff- International (in US Dollars) | | | | | | | | | | | | | |
| 1 | Dr.Ghulam Mustafa | Desalination Expert | Field | 29.50 | 26,225 | 7,73,638 | 9.08 | 0.95 | 10.03 | 19.47 | 2,38,123 | 24,914 | 2,63,037 | 5,10,601 |
| 2 | Dr.Uday G. Kelkar | Additional Key Expert - International | Field | 2.50 | 26,225 | 65,563 | 0.92 | 0.09 | 1.01 | 1.49 | 24,127 | 2,360 | 26,489 | 39,074 |
| 3 | Mr.Tharloak S.Bhatt | Contract Specialist (Distribution) | Field | 8 | 22,700 | 1,81,600 | 0.00 | 0.00 | 0.00 | 8.00 | 0 | 0 | 0 | 1,81,600 |
| | Non-Key Expert - International Expert | | | | | | | | | | | | | |
| 4 | Mr.Madhawa Delpachitra | Mechanical Engineer (Distribution) | Field | 4 | 22,700 | 90,800 | 0.00 | 0.00 | 0.00 | 4.00 | 0 | 0 | 0 | 90,800 |
| 5 | Mr.Manfred Kurt (Meisner) | Electrical Engineer (Distribution) | Field | 4 | 23,500 | 94,000 | 0.00 | 0.00 | 0.00 | 4.00 | 0 | 0 | 0 | 94,000 |
| | Sub Total 5 in USD | | | 48 | | 12,05,600 | 10.00 | 1.04 | 11.04 | 36.96 | 2,62,250 | 27,274 | 2,89,526 | 9,16,074 |

| Sl. No. | Name of the Staff | Position | Office | Allocated Person Months / Quantity | Monthly Remuneration / Rate (at fixed rate) | Allocated Amount | Total Person months/ quantity Spent upto last Month (December 2020) | Person Months/ Quantity Spent for current month (January 2021) | Total Person Months/ quantity spent upto current month (January 2021) | Balance Carried over | Amount Booked as on last Month (December 2020) | Amount Booked for this Invoice (January 2021) | Total Booked upto this Invoice | Balance Amount |
|----------|--|---------------------------------|--------|------------------------------------|---|---------------------|---|--|---|----------------------|--|---|--------------------------------|---------------------|
| | Non-Key Expert [National]- in Rupees | | | | | | | | | | | | | |
| 6 | Mr.Rahul N Ramdhan (Replaced from Mr.Chandra Sekhar Reddy Yedla) | Pipeline Engineer 1 | Field | 60 | 4,30,000 | 2,58,00,000 | 2.90 | 0.91 | 3.81 | 56.19 | 12,47,000 | 3,91,300 | 16,38,300 | 2,41,61,700 |
| 7 | Mr.P.Thangavel (Replaced from Mr.V.Tulasi Ram) | Pipeline Engineer - 2 | Field | 60 | 4,30,000 | 2,58,00,000 | 2.50 | 0.91 | 3.41 | 56.59 | 10,75,000 | 3,91,300 | 14,66,300 | 2,43,33,700 |
| 8 | Mr.Saravanan P M | Hydraulic Modeller - 1 | Field | 8 | 4,30,000 | 34,40,000 | 0.09 | 0.00 | 0.09 | 7.91 | 38,700 | 0 | 38,700 | 34,01,300 |
| 9 | Ms.V.Nandhini | Hydraulic Modeller - 2 | Field | 8 | 4,30,000 | 34,40,000 | 0.00 | 0.00 | 0.00 | 8.00 | 0 | 0 | 0 | 34,40,000 |
| 10 | Mrs.R.Kanmani (Replaced from Dr.M.Rajsekhar Reddy) | Social Communication Specialist | Field | 72 | 5,00,000 | 3,60,00,000 | 3.22 | 0.82 | 4.04 | 67.96 | 16,10,000 | 4,10,000 | 20,20,000 | 3,39,80,000 |
| | Support Staff (in Rupees) | | | | | | | | | | | | | |
| 11 | Mr.G.Murali | CAD Operator-1 | Field | 30 | 1,00,000 | 30,00,000 | 8.58 | 0.91 | 9.49 | 20.51 | 8,58,000 | 91,000 | 9,49,000 | 20,51,000 |
| 12 | Ms.J.Nithya | CAD Operator-2 | Field | 30 | 1,00,000 | 30,00,000 | 0.91 | 0.91 | 1.82 | 28.18 | 91,000 | 91,000 | 1,82,000 | 28,18,000 |
| 13 | Mr.Vijay Kumar | CAD Operator-3 | Field | 30 | 1,00,000 | 30,00,000 | 0.05 | 0.95 | 1.00 | 29.00 | 5,000 | 95,000 | 1,00,000 | 29,00,000 |
| 14 | Mr.Suresh Mohan Dwivedi | GIS Operator | Field | 18 | 2,50,000 | 45,00,000 | 1.82 | 0.95 | 2.77 | 15.23 | 4,55,000 | 2,37,500 | 6,92,500 | 38,07,500 |
| 15 | TBN | Site Inspector-1 | Field | 50 | 1,35,000 | 67,50,000 | 0.00 | 0.00 | 0.00 | 50.00 | 0 | 0 | 0 | 67,50,000 |
| 16 | TBN | Site Inspector-2 | Field | 50 | 1,35,000 | 67,50,000 | 0.00 | 0.00 | 0.00 | 50.00 | 0 | 0 | 0 | 67,50,000 |
| 17 | TBN | Site Inspector-3 | Field | 50 | 1,35,000 | 67,50,000 | 0.00 | 0.00 | 0.00 | 50.00 | 0 | 0 | 0 | 67,50,000 |
| 18 | TBN | Site Inspector-4 | Field | 50 | 1,35,000 | 67,50,000 | 0.00 | 0.00 | 0.00 | 50.00 | 0 | 0 | 0 | 67,50,000 |
| 19 | TBN | MIS Specialist | Field | 50 | 2,60,000 | 1,30,00,000 | 0.00 | 0.00 | 0.00 | 50.00 | 0 | 0 | 0 | 1,30,00,000 |
| | Sub Total 6 in INR | | | 566 | | 14,79,80,000 | 20.07 | 6.36 | 26.43 | 539.57 | 53,79,700 | 17,07,100 | 70,86,800 | 14,08,93,200 |
| | REIMBURSABLE EXPENSES | | | | | | | | | | | | | |
| 2 | DUTY TRAVEL TO SITE (in US Dollar) | | | | | | | | | | | | | |
| 1 | International Air Travel | | | | | | | | | | | | | |
| | Professional Staff | Return Trip | | 10 | 3,000 | 30,000 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 30,000 |
| | Sub Total 6 in USD | | | | | 30,000 | | | | | 0 | 0 | 0 | 30,000 |

| Sl. No. | Name of the Staff | Position | Office | Allocated Person Months / Quantity | Monthly Remuneration / Rate (at fixed rate) | Allocated Amount | Total Person months/ quantity Spent upto last Month (December 2020) | Person Months/ Quantity Spent for current month (January 2021) | Total Person Months/ quantity spent upto current month (January 2021) | Balance Carried over | Amount Booked as on last Month (December 2020) | Amount Booked for this Invoice (January 2021) | Total Booked upto this Invoice | Balance Amount |
|---------|---|-------------|--------|------------------------------------|---|------------------|---|--|---|---|--|---|--------------------------------|----------------|
| 1 | TRANSPORTATION (Reimbursable) (in Indian Rupees) | | | | | | | | | | | | | |
| 1 | The Vehicle provided by the consultants shall include the cost for the rental, drivers, operation, maintenance, repairs, insurance etc. | Months | | 84 | 50,000 | 42,00,000 | 4.40 | 1 | 5.40 | 78.60 | 1,66,291 | 44,580 | 2,10,871 | 39,89,129 |
| 2 | DUTY TRAVEL TO SITE | | | | | | | | | | | | | |
| 2 | Local Air Travel | | | | | | | | | | | | | |
| b | Sub Professional Staff | Return Trip | | 20 | 10,000 | 2,00,000 | 3 | 1 | 4 | 16 | 14,292 | 0 | 14,292 | 1,85,708 |
| 6 | PER DIEM | | | | | | | | | | | | | |
| 1 | International | Day | | 1,440 | 5,000 | 72,00,000 | 12 | 0 | 12 | 1,428 | 60,000 | 0 | 60,000 | 71,40,000 |
| | Sub Total 7 in INR | | | | | 1,16,00,000 | | | | | 2,40,583 | 44,580 | 2,85,163 | 1,13,14,837 |
| | Grand Total in INR | | | | | 52,91,00,600 | | | | | 3,88,65,821 | 68,77,174 | 4,57,42,995 | 48,33,57,615 |
| | Grand Total in USD | | | | | 89,39,965 | | | | | 9,64,134 | 1,33,455 | 10,97,588 | 78,42,377 |
| | Contingencies @ 5% (in INR) | | | | | 2,64,55,030 | | | | | | | | |
| | Contingencies @ 5% (in USD) | | | | | 4,46,998 | | | | | | | | |
| | Provisional Sum (in INR) | | | | | 2,00,00,000 | | | | | | | | |
| | Provisional Sum (in USD) | | | | | 25,000 | | | | | | | | |
| | GRAND TOTAL COST IN INR | | | | | 57,55,55,630 | | | | | | | | |
| | GRAND TOTAL COST IN USD | | | | | 94,11,963 | | | | | | | | |
| | PROJECTED FINANCIAL PROGRESS till the end of January 2021 | 4,57,42,995 | in INR | Total project cost | | 57,55,55,630 | INR | | | % Financial Progress till the end of January 2021 | | 7.95% | in INR | |
| | | 10,97,588 | in USD | | | 94,11,963 | USD | | | | | 11.66% | in USD | |
| | ACTUAL FINANCIAL PROGRESS (Based on Bills Passed till the end of January 2021) | 1,54,72,083 | in INR | | | | | | | % Actual Financial Progress till the end of January 2021 | | 2.69% | in INR | |
| | | 4,09,354 | in USD | | | | | | | | | 4.35% | in USD | |

In addition to the above for SMEC India Pvt. Ltd., the Mobilisation advance payment in Local Currency (5% of Contract value) received on 19.05.2020 as against Advance Bank Guarantee

In addition to the above for SMEC International Pty Ltd, the Mobilisation advance payment in Foreign Currency (5% of Contract value) received on 17.09.2020 as against Advance Bank Guarantee

In addition to the above for TATA Consulting Engineers Ltd., the Mobilisation advance payment in Local Currency (5% of Contract value) received on 22.10.2020 as against Advance Bank Guarantee

Chennai Metropolitan Water Supply & Sewerage Board
CHENNAI 400 MLD DESALINATION PLANT & ALLIED WORKS

STATEMENT OF TIME

MONTH : December 2020

| Sl. No. | Name of the Staff | Position | TIME AS SPENT ON THE JOB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Total No. of Days Worked | Man Month |
|---------|---|---------------------------------------|--------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------------|-----------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | |
| | SMEC INTERNATIONAL PTY LTD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Key Expert - International Expert | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Dr.Pararajasegram Dharmabalan | Project Manager | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 17 | 0.77 |
| 2 | Mr.Shane Farquharson | Water Supply Engineer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 3 | Mr.Michel Morillon | Mechanical Engineer (Desal) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 4 | Mr.Guilbert Z Gonzales (Replaced for Mr.Sergio de Bastos Vilar Magalhaes Paulo) | Electrical Engineer (Desal) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0.32 |
| 5 | Mr.John Goullee | Pipeline Engineer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 6 | Mr.Abdel Toukan (Replaced for Mr.Roderick Mackenzie) | Contract Specialist (Desal) | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 19 | 0.86 |
| | Non-Key Expert - International Expert | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Mr.Afzal Abdul Latheef (Replaced for Mr.Manikandan Ganesh Shoranur) | Monitoring and Control Expert (Desal) | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | A | 0 | 1 | 1 | 1 | 0 | 0 | 16 | 0.73 |

Chennai Metropolitan Water Supply & Sewerage Board
CHENNAI 400 MLD DESALINATION PLANT & ALLIED WORKS

| Sl. No. | Name of the Staff | Position | TIME AS SPENT ON THE JOB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Total No. of Days Worked | Man Month |
|---------|---|--|--------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------------|-----------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | |
| | SMEC INDIA PRIVATE LIMITED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Non-Key Expert - International Expert | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Dr.D.Elanchezian | Civil and Structure Engineer (Desal) | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | A | 0 | 0 | 15 | 0.68 |
| 2 | Mr.Ashish Gosain | Monitoring and Control Expert (Distribution) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 3 | Mr.Ganesh Venkataraman (Replaced for Mr.J.Shanmuganathan) | Specification Specialist (Desal) | 0 | 0 | 0 | 1 | 1 | A | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | A | A | 1 | 0 | 0 | 15 | 0.68 |
| 4 | Mr.Hemant Chadha | Financial Expert | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 8 | 0.36 |
| 5 | Mr.Santhosh Kumar | Commissioning Engineer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 6 | Mr.Rajesh Mishra | Social Communication Specialist | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | Non-Key Expert - Local Expert | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Mr.Ramesh Senthil | Civil Engineer | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | A | A | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 19 | 0.86 |
| 8 | Mr.N.Srinivasulu Reddy | Construction Planner / Cost Estimator | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 9 | Mr.R.Muthurajan (Replaced for Mr.K.C.Vinod Chandra) | Quantity Surveyor - 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 21 | 0.95 |

Chennai Metropolitan Water Supply & Sewerage Board
CHENNAI 400 MLD DESALINATION PLANT & ALLIED WORKS

| Sl. No. | Name of the Staff | Position | TIME AS SPENT ON THE JOB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Total No. of Days Worked | Man Month | |
|---------|---|--------------------------------|--------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------------|-----------|------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | | |
| | Support Staff | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | Mr.B.Ajithkumar | Secretary | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 21 | 0.95 | |
| 11 | Mrs.P.Prashanthi | Geo-technical Engineer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 12 | Mr.Santosh Biswa | Contract Management Specialist | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | A | 0 | 0 | A | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 12 | 0.55 |
| 13 | Mr.A.Renu Kumar | Visa & Admin. Officer | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | A | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 20 | 0.91 | |
| 14 | Mr.K.Manikandan | Accountant | 1 | 0 | 0 | A | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | A | A | 1 | 0 | 0 | 18 | 0.82 | |
| 15 | Mr.Pilominraj Raja (Replaced for Mr.R.Jagan) | Office Keeper-1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 21 | 0.95 | |
| 16 | Mr.Thiruvengadam Someswaran (Replaced for Mr.G.Arjun) | Office Keeper-2 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 21 | 0.95 | |

Chennai Metropolitan Water Supply & Sewerage Board
CHENNAI 400 MLD DESALINATION PLANT & ALLIED WORKS

| Sl. No. | Name of the Staff | Position | TIME AS SPENT ON THE JOB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Total No. of Days Worked | Man Month | |
|---------|--|---|--------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------------|-----------|------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | | |
| | TATA CONSULTING ENGINEERS LTD. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Non-Key Expert - International Expert | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Mr.Manish Chintamani Sane | Specification Specialist [Distribution] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 2 | Dr.Alok Kumar | Environmental Specialist | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0.09 |
| 3 | Mr.Hyacinth Augusto Vaz | Organisational Expert | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| | Key Expert - Local Expert | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Mr.S.Siddappaswamy | Senior Civil Engineer | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 21 | 0.95 |
| 2 | Mr.Nagesh Chinnam | Senior Pipeline Engineer | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | A | A | A | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | A | 1 | 1 | 1 | 1 | 0 | 0 | 15 | 0.68 | |
| | Non-Key Expert - Local Expert | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Mr.Mayur Gupta (Replaced for Mr.Surajit Debnath) | Mechanical Engineer | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | A | A | A | A | A | 0 | 0 | A | 1 | 1 | 1 | 1 | 0 | 0 | 15 | 0.68 | |
| 4 | Mr.Om Prakash Singh (Replaced for Mr.GVK Mohan) | Electrical Engineer | 1 | 0 | 0 | 1 | A | A | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 19 | 0.86 | |
| 5 | Ms.Sudha J. (Replaced for Mr.Vinod MK) | Structural Engineer | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | A | A | A | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 16 | 0.73 | |
| 6 | Mrs.Kirti Alhad Sadarjoshi (Replaced for Mr.Kumar M) | Architect | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 21 | 0.95 | |
| 7 | Mr.K Senthil | Building Mechanical & Electrical Engineer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0.23 | |
| 8 | Mr.S.Sreenivasula Reddy | Specification Specialist | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | |
| 9 | Mr.S.M.Karthikaeswaran | Environmental Specialist | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | A | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | A | 1 | 1 | 0 | 0 | 19 | 0.86 | |
| 10 | Mr.S.Hema Kumar | Pipeline Engineer-3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | |
| 11 | Mr.Najas Thattakatte Abdul Kareem | Safety & Health Expert-1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | |
| 12 | Mr.Prashant Balan | Safety & Health Expert-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | |
| 13 | Mr.V.S.Rajasekar | Quantity Surveyor-2 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 15 | 0.68 | |

Chennai Metropolitan Water Supply & Sewerage Board
CHENNAI 400 MLD DESALINATION PLANT & ALLIED WORKS












| Sl. No. | Name of the Staff | Position | TIME AS SPENT ON THE JOB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Total No. of Days Worked | Man Month |
|---------|---|---------------------------------------|--------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------------|-----------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | |
| | NJS ENGINEERS INDIA PVT. LTD. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Key Expert - International Expert | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Dr.Ghulam Mustafa | Desalination Expert | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 21 | 0.95 |
| 2 | Dr.Uday G.Kelkar | Additional Key Expert - International | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0.09 |
| 3 | Mr.Tharloak S.Bhatt | Contract Specialist (Distribution) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| | Non-Key Expert - International Expert | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Mr.Madhawa Delpachitra | Mechanical Engineer (Distribution) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 5 | Mr.Manfred Kurt (Meisner) | Electrical Engineer (Distribution) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| | Non-Key Expert - Local Expert | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Mr.Rahul N Ramdhan (Replaced for Mr.Chandra Sekhar Reddy Yedla) | Pipeline Engineer-1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 20 | 0.91 |
| 7 | Mr.P.Thangavel (Replaced for Mr.V.Tulasi Ram) | Pipeline Engineer - 2 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 20 | 0.91 |
| 8 | Mr.Saravanan P M | Hydraulic Modeller-1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 9 | Mrs.V.Nandhini | Hydraulic Modeller - 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 10 | Mrs.R.Kanmani (Replaced for Dr.M.Rajsekhar Reddy) | Social Communication Specialist | 1 | 0 | 0 | 1 | 1 | A | A | A | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 18 | 0.82 |

Chennai Metropolitan Water Supply & Sewerage Board
CHENNAI 400 MLD DESALINATION PLANT & ALLIED WORKS

| Sl. No. | Name of the Staff | Position | TIME AS SPENT ON THE JOB | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Total No. of Days Worked | Man Month | | |
|---------|-------------------------|------------------|--------------------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------------|-----------|-----|-------|
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | | | | |
| | Support Staff | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | Mr.G.Murali | CAD Operator-1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | A | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 20 | 0.91 | | |
| 12 | Ms.J.Nithya | CAD Operator-2 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | A | 1 | 1 | 1 | 1 | 0 | 0 | 20 | 0.91 | | |
| 13 | Mr.Vijay Kumar | CAD Operator-3 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 21 | 0.95 | | |
| 14 | Mr.Suresh Mohan Dwivedi | GIS Operator | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 21 | 0.95 | | |
| 15 | TBN | Site Inspector-1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | | |
| 16 | TBN | Site Inspector-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | | |
| 17 | TBN | Site Inspector-3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | | |
| 18 | TBN | Site Inspector-4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | | |
| 19 | TBN | MIS Specialist | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Total | 0 | 561 | 25.45 |

 Holiday : Saturday, Sunday
 Government Public Holiday / CMWSSB Holiday : 01.01.201 New Year Day; 14.01.2021 Pongal;
15.01.2021 Thiruvalluvar Day; 26.01.2021 Republic Day Holiday
A Absent







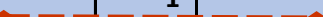















ANNEXURE 7 STAFF DEPLOYMENT SCHEDULE FOR ALL PACKAGES (PLAN FOR NEXT MONTHS)

| Sl. No. | Entity | Position | Name [Replaced / (Original)] | Total Man months | Total Man months for CP-1 | Design / Tender Phase - Deployment Requirement | | | |
|---|--------------------------------|---------------------------------------|---|------------------|---------------------------|---|--------|--------|---|
| | | | | | | Feb-21 | Mar-21 | Apr-21 | Total Man-months requirement in Design / Tender Phase |
| COMMON STAFF FOR ALL PACKAGE | | | | | | | | | |
| 1 | SMEC International Pty Ltd. | Project Manager | Dr.P.Dharmabalan | 70 | 70 |  | 3 | | 3 |
| 2 | Tata Consulting Engineers Ltd. | Senior Civil Engineer | Mr.S.Siddappaswamy | 72 | 72 |  | 3 | | 3 |
| 3 | Tata Consulting Engineers Ltd. | Environmental Specialist | Dr.Alok Kumar | 15 | 15 |  | 0.50 | | 0.50 |
| 4 | SMEC India Pvt Ltd. | Social Communication Specialist | Mr.Rajesh Mishra | 16 | 16 |  | 1 | | 1 |
| 5 | Tata Consulting Engineers Ltd. | Environmental Specialist | Mr.S.M.Karthikaeswaran | 30 | 30 |  | 3 | | 3 |
| 6 | NJS Engineers India Pvt. Ltd. | Social Communication Specialist | Mrs.R.Kanmani (Replaced for Dr.M.Rajsekhar Reddy) | 72 | 72 |  | 3 | | 3 |
| STAFF DEPLOYMENT SCHEDULE FOR CP-1 (PLAN FOR NEXT MONTHS) | | | | | | | | | |
| 7 | NJS Engineers India Pvt. Ltd. | Desalination Expert | Dr.Ghulam Mustafa | 32 | 29.50 |  | 3 | | 3 |
| 8 | NJS Engineers India Pvt. Ltd. | Additional Key Expert - International | Dr.Uday G. Kelkar | | 2.50 |  | 0.50 | | 0.50 |
| 9 | SMEC International Pty Ltd. | Mechanical Engineer (Desal) | Mr.Michel Morillon | 15 | 15 |  | 0.50 | 0.50 | 1 |
| 10 | SMEC International Pty Ltd. | Electrical Engineer (Desal) | Mr.Guilbert Z Gonzales (Sergio de Bastos Vilar Magalhaes Paulo) | 25 | 25 |  | 2.50 | | 2.50 |
| 11 | SMEC International Pty Ltd. | Water Supply Engineer | Mr.Shane Farquharson | 23 | 2 |  | 0.50 | | 0.50 |

| Sl. No. | Entity | Position | Name [Replaced / (Original)] | Total Man months | Total Man months for CP-1 | Design / Tender Phase - Deployment Requirement | | | |
|---------------|--------------------------------|---------------------------------------|---|------------------|---------------------------|--|--------|--------|---|
| | | | | | | Feb-21 | Mar-21 | Apr-21 | Total Man-months requirement in Design / Tender Phase |
| 12 | SMEC International Pty Ltd. | Pipeline Engineer | Mr.John Goullee | 70 | 4 | ◀-----1-----▶ | 1 | | 1 |
| 13 | SMEC International Pty Ltd. | Contract Specialist (Desal) | Mr.Abel Fattah Toukan (Replaced for Roderick Mackenzie) | 9 | 9 | ◀-----2-----▶ | 2 | | 2 |
| NON-KEY STAFF | | | | | | | | | |
| 14 | SMEC India Pvt Ltd. | Civil and Structure Engineer (Desal) | Dr.D.Elancherian | 42 | 42 | ◀-----0.60-----▶ | 0.60 | | 0.60 |
| 15 | SMEC India Pvt Ltd. | Monitoring and Control Expert (Desal) | Mr.Afzal Abdul Latheef (Manikandan Ganesh Shoranur) | 11 | 11 | ◀-----1.50-----▶ | 1.50 | | 1.50 |
| 16 | SMEC India Pvt Ltd. | Specification Specialist (Desal) | Mr.Ganesh Venkataraman (Replaced for Mr.J.Shanmuganathan) | 4 | 4 | ◀-----1-----▶ | 1 | | 1 |
| 17 | SMEC India Pvt Ltd. | Financial Expert | Mr.Hemant Chadha | 3 | 3 | ◀-----1-----▶ | 1 | | 1 |
| 18 | SMEC India Pvt Ltd. | Quantity Surveyor 1 | Mr.R.Muthurajan (Replaced for Vinod Chandra K.C) | 50 | 30 | ◀-----2-----▶ | 2 | | 2 |
| 19 | Tata Consulting Engineers Ltd. | Mechanical Engineer | Mr.Mayur Gupta (Replaced for Surajit Debnath) | 40 | 15 | | | | 0 |
| 20 | Tata Consulting Engineers Ltd. | Electrical Engineer | Mr.Om Prakash Singh (Replaced for G.V.K.Mohan) | 45 | 15 | | | | 0 |
| 21 | Tata Consulting Engineers Ltd. | Structural Engineer | Ms.Sudha J. (Replaced for Vinod M.K.) | 28 | 10 | | | | 0 |

| Sl. No. | Entity | Position | Name [Replaced / (Original)] | Total Man months | Total Man months for CP-1 | Design / Tender Phase - Deployment Requirement | | | |
|---|--------------------------------|-----------------------------------|---|------------------|---------------------------|--|-----------------|-----------------|---|
| | | | | | | Feb-21 | Mar-21 | Apr-21 | Total Man-months requirement in Design / Tender Phase |
| 22 | Tata Consulting Engineers Ltd. | Architect | Mrs.Kirti Alhad Sadarjoshi (Replaced for Kumar.M) | 12 | 6 | 1 ←-----→ | | 0.50 ←-----→ | 1.50 |
| 23 | Tata Consulting Engineers Ltd. | Building Mechanical and Electrial | Mr.K.Senthil | 16 | 6 | 0.50 ←-----→ | | 0.50 ←-----→ | 1 |
| OTHER SUPPORT COMMON STAFF (ALL PACKAGES) | | | | | | | | | |
| 24 | SMEC India Pvt Ltd. | Secretary | Mr.B.Ajithkumar | 70 | 70 | ←-----→ | 3 | ←-----→ | 3 |
| 25 | SMEC India Pvt Ltd. | Contract Management Specialist | Mr.Santosh Biswa | 6 | 6 | 0.50 ←-----→ | 0.50 ←-----→ | 0.50 ←-----→ | 1.50 |
| 26 | SMEC India Pvt Ltd. | Geotechnical Engineer | Mrs.P.Prashanthi | 6 | 6 | ←-----→ | 2 | ←-----→ | 2 |
| 27 | SMEC India Pvt Ltd. | Visa & Admin. Officer | Mr.A.Renukumar | 70 | 70 | ←-----→ | 3 | ←-----→ | 3 |
| 28 | SMEC India Pvt Ltd. | Accountant | Mr.K.Manikandan | 70 | 70 | ←-----→ | 3 | ←-----→ | 3 |
| 29 | SMEC India Pvt Ltd. | Office Keeper-1 | Mr.Pilominraj Raja (Replaced for Mr.R.Jagan) | 70 | 70 | ←-----→ | 3 | ←-----→ | 3 |
| 30 | SMEC India Pvt Ltd. | Office Keeper-2 | Mr.Thiruvengadam Someswaran (Replaced for Mr.G.Arjun) | 70 | 70 | ←-----→ | 3 | ←-----→ | 3 |








STAFF DEPLOYMENT SCHEDULE FOR CP-2 (PLAN FOR NEXT MONTHS)

| Sl. No. | Entity | Position | Name [Replaced / (Original)] | Total Man months | Total Man months for CP-2 | Design Phase - Deployment Requirement | | | | | |
|---------------|--------------------------------|--|---|------------------|---------------------------|---|---|---|---|------|---|
| | | | | | | Feb-21 | Mar-21 | Apr-21 | Total Man-months requirement in Design Phase | | |
| KEY STAFF | | | | | | | | | | | |
| 1 | SMEC International Pty Ltd. | Water Supply Engineer | Mr.Shane Farquharson | 23 | 3 |  | 0.50 |  | 0.50 | | |
| NON-KEY STAFF | | | | | | | | | | | |
| 2 | NJS Engineers India Pvt. Ltd. | Mechanical Engineer (Distribution) | Mr.Madhawa Delpachitra | 4 | 4 |  | 0.50 |  | 0.50 | | |
| 3 | NJS Engineers India Pvt. Ltd. | Electrical Engineer (Distribution) | Mr.Manfred Kurt (Meisner) | 4 | 4 |  | 0.50 |  | 0.50 | | |
| 4 | SMEC India Pvt Ltd. | Monitoring and Control Expert (Distribution) | Mr.Ashish Gosain | 12 | 6 |  | 1 |  | 1 | | |
| 5 | SMEC India Pvt Ltd. | Construction Planner/ Cost Estimator | Mr.Naisa Sreenivasulu Reddy | 4 | 4 |  | 0.50 |  | 0.50 | | |
| 6 | SMEC India Pvt Ltd. | Quantity Surveyor 1 | Mr.R.Muthurajan (Replaced for Vinod Chandra K.C) | 50 | 15 |  | 1 |  | 1 | | |
| 7 | Tata Consulting Engineers Ltd. | Mechanical Engineer | Mr.Mayur Gupta (Replaced for Surajit Debnath) | 40 | 9 |  | 2.50 |  | 2.50 | | |
| 8 | Tata Consulting Engineers Ltd. | Electrical Engineer | Mr.Om Prakash Singh (Replaced for G.V.K.Mohan) | 45 | 10 |  | 2 |  | 2 | | |
| 9 | Tata Consulting Engineers Ltd. | Structural Engineer | Ms.Sudha J. (Replaced for Vinod M.K.) | 28 | 6 |  | 2 |  | 2 | | |
| 10 | Tata Consulting Engineers Ltd. | Architect | Mrs.Kirti Alhad Sadarjoshi (Replaced for Kumar.M) | 12 | 6 |  | 1 |  | 0.50 | 1.50 | |
| 11 | Tata Consulting Engineers Ltd. | Building Mechanical and Electrial | Mr.K.Senthil | 16 | 10 | |  | 0.50 |  | 0.50 | 1 |

STAFF DEPLOYMENT SCHEDULE FOR CP-3 (PLAN FOR NEXT MONTHS)

| Sl. No. | Entity | Position | Name [Replaced / (Original)] | Total Man months | Total Man months for CP-3 | Design / Tender Support Phase - Deployment Requirement | | | |
|---------------|--------------------------------|----------------------------|------------------------------|------------------|---------------------------|--|---------------------------------------|--------|--|
| | | | | | | Feb-21 | Mar-21 | Apr-21 | Total Man-months requirement in Design Phase |
| KEY STAFF | | | | | | | | | |
| 1 | SMEC International Pty Ltd. | Pipeline Engineer | Mr.John Goullee | 70 | 51 | | <div><div></div><div>0.25</div></div> | | 0.25 |
| 2 | Tata Consulting Engineers Ltd. | Senior Pipeline Engineer | Mr.Nagesh Chinnam | 72 | 51 | <div><div></div><div>0.25</div></div> | | | 0.25 |
| NON-KEY STAFF | | | | | | | | | |
| 3 | SMEC India Pvt Ltd. | Civil Engineer | Mr.Ramesh Senthil | 72 | 51 | <div><div></div><div>0.25</div></div> | | | 0.25 |
| 4 | Tata Consulting Engineers Ltd. | Pipeline Engineer-3 | Mr.Hema Kumar S. | 50 | 50 | | | | 0 |
| 5 | Tata Consulting Engineers Ltd. | Safety and Health Expert-2 | Mr.Prasanth Balan | 70 | 50 | | | | 0 |
| 6 | Tata Consulting Engineers Ltd. | Quantity Surveyor-2 | Mr.V.S.Rajasekar | 70 | 30 | | | | 0 |

STAFF DEPLOYMENT SCHEDULE FOR CP-4 (PLAN FOR NEXT MONTHS)

| Sl. No. | Entity | Position | Name [Replaced / (Original)] | Total Man months | Total Man months for CP-4 | Design Phase - Deployment Requirement | | | |
|---------------|--------------------------------|--------------------------|--|------------------|---------------------------|---|---|--------|--|
| | | | | | | Feb-21 | Mar-21 | Apr-21 | Total Man-months requirement in Design Phase |
| KEY STAFF | | | | | | | | | |
| 1 | SMEC International Pty Ltd. | Water Supply Engineer | Mr.Shane Farquharson | 23 | 18 |  | 1 | | 1 |
| 2 | SMEC International Pty Ltd. | Pipeline Engineer | Mr.John Goullee | 70 | 15 |  | 1 | | 1 |
| 3 | Tata Consulting Engineers Ltd. | Senior Pipeline Engineer | Mr.Nagesh Chinnam | 72 | 21 |  | 2.50 | | 2.50 |
| NON-KEY STAFF | | | | | | | | | |
| 4 | SMEC India Pvt Ltd. | Civil Engineer | Mr.Ramesh Senthil | 72 | 21 |  | 2.75 | | 2.75 |
| 5 | NJS Engineers India Pvt. Ltd. | Pipeline Engineer-1 | Mr.Rahul N Ramdhan (Replaced for Chandra Shekhar Reddy Yedla) | 60 | 60 | | | | 0 |
| 6 | NJS Engineers India Pvt. Ltd. | Pipeline Engineer-2 | Mr.P.Thangavel (Replaced for V.Tulasi Ram) | 60 | 60 |  | 3 | | 3 |
| 7 | NJS Engineers India Pvt. Ltd. | Hydraulic Modeler-1 | Mr.P.M.Saravanan | 8 | 8 |  | 1 | | 1 |
| 8 | NJS Engineers India Pvt. Ltd. | Hydraulic Modeler-2 | Mrs.V.Nandhini | 8 | 8 | |  | 1 | 1 |

| Sl. No. | Entity | Position | Name [Replaced / (Original)] | Total Man months | Total Man months for CP-4 | Design Phase - Deployment Requirement | | | |
|---------------------|--------------------------------|----------------------------|--|------------------|---------------------------|---------------------------------------|--------|--------|--|
| | | | | | | Feb-21 | Mar-21 | Apr-21 | Total Man-months requirement in Design Phase |
| 9 | Tata Consulting Engineers Ltd. | Mechanical Engineer | Mr.Mayur Gupta (Replaced for Surajit Debnath) | 40 | 16 | | 0.50 | | 0.50 |
| 10 | Tata Consulting Engineers Ltd. | Electrical Engineer | Mr.Om Prakash Singh (Replaced for G.V.K.Mohan) | 45 | 13 | | 0.85 | | 0.85 |
| 11 | Tata Consulting Engineers Ltd. | Structural Engineer | Ms.Sudha J. (Replaced for Vinod M.K.) | 28 | 8 | | 1 | | 1 |
| 12 | Tata Consulting Engineers Ltd. | Safety and Health Expert-2 | Mr.Prasanth Balan | 70 | 20 | | | | 0 |
| 13 | Tata Consulting Engineers Ltd. | Quantity Surveyor-2 | Mr.V.S.Rajasekar | 70 | 40 | | 3 | | 3 |
| 14 | Tata Consulting Engineers Ltd. | Organizational Specialist | Mr.Hyacinth Augusto Vaz | 9 | 9 | | 1 | | 1 |
| OTHER SUPPORT STAFF | | | | | | | | | |
| 15 | NJS Engineers Pvt. Ltd. | CAD Operator -1 | Mr.G.Murali | 30 | 30 | | 3 | | 3 |
| 16 | NJS Engineers Pvt. Ltd. | CAD Operator -2 | Ms.J.Nithya | 30 | 30 | | 3 | | 3 |
| 17 | NJS Engineers Pvt. Ltd. | CAD Operator -3 | Mr.K.Vijaykumar | 30 | 30 | | 3 | | 3 |
| 18 | NJS Engineers Pvt. Ltd. | GIS Operator | Mr.Suresh Mohan Dwivedi | 18 | 18 | | 3 | | 3 |

STAFF DEPLOYMENT SCHEDULE FOR CP-5 (PLAN FOR NEXT MONTHS)

| Sl. No. | Entity | Position | Name [Replaced / (Original)] | Total Man months | Total Man months for CP-5 | Design / Tender Phase (Technical Assistance by PMC) - Deployment Requirement | | | |
|---------------|--------------------------------|----------------------------|-------------------------------------|------------------|---------------------------|--|--------|--------|---|
| | | | | | | Feb-21 | Mar-21 | Apr-21 | Total Man-months requirement in Design / Tender Phase (Technical Assistance by PMC) |
| NON-KEY STAFF | | | | | | | | | |
| 1 | Tata Consulting Engineers Ltd. | Electrical Engineer | Mr.Om Prakash Singh (G.V.K.Mohan) | 72 | 8 | | | | 0.15 |
| 2 | Tata Consulting Engineers Ltd. | Safety and Health Expert-1 | Mr.Najas Thattakatte Abdulkareem | 60 | 8 | | | | 0 |
| 3 | SMEC India Pvt Ltd. | Quantity Surveyor 1 | Mr.R.Muthurajan (Vinod Chandra K.C) | 50 | 5 | | | | 0 |

Annexure 8 PMC Organisation Chart

