

GUJARAT WATERSUPPLY & SEWERAGE BOARD
GANDHINAGAR
(A WHOLLY OWNED GOVERNMENT OF GUJARAT UNDERTAKING)



Name of Work:Comprehensive Operation & Maintenance of Civil & Electromechanical assets such as Open Wells,HGLR, Sump, Staff quarters, Pump house, all Bulk Transmission and Distribution pipelines, valves, pumping machinery & electrical equipment etc. for the PipaldahadReg.water supply scheme, including supply of 0.42MLDportable water to all the, 10 villages, 06 months period. Taluka: Subir,District : Dang based on Open wellexcluding supply of, Bleaching Powder and PAC Solution, Water and Energy Charges. at various villages of Subir Taluka of Dang District.

Estimated Cost:Rs.4,33,270.00

VOLUME – I

TECHNICAL BID

Executive Engineer
Gujarat Water Supply & Sewerage Board
P. H. Works Division
Ahwa - Dang

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VOLUME I

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Section I: Instructions to Bidders

1.Notice Inviting Tender



GUJARAT WATER SUPPLY & SEWERAGE BOARD
GANDHINAGAR
(Govt. of Gujarat Undertaking)

TENDER NOTICE NO.06/2026-27

TENDER NOTICE OF Rs.4,33,270

Executive Engineer, Public Health Works Division, Ahwa, Phone No.,Invites Tender for below mentioned work by E-Tendering System.

1.	Name of work	:	Comprehensive Operation & Maintenance of Civil & Electromechanical assets such as Open Wells,HGLR, Sump, Staff quarters, Pump house, all Bulk Transmission and Distribution pipelines, valves, pumping machinery & electrical equipment etc. for the Pipaldahad Reg.water supply scheme, including supply of 0.42MLDportable water to all the, 10 villages, 06 months period. Taluka: Subir,District : Dang based on Open wellexcluding supply of, Bleaching Powder and PAC Solution, Water and Energy Charges. at various villages of Subir Taluka of Dang District.
2.	Estimated Cost	:	Rs.4,33,270.00
3.	Eligibility of contractor	:	Any bidder with "E-2" class of registration or higher in R&B/WRD of Govt. of Gujarat. However, the bidder will have to Post Qualify as per Financial & Technical Criteria given in the bid document.
4.	Last date of submission of tender	:	24/06/2026 18.00 Hrs.

Note: GWSSB reserves the right to reject any or all tenders without assigning any reason. For detailed information regarding tender & conditions, one may contact office mentioned above during office hours and is binding to all.

Executive Engineer
Public Health Works Division,
Ahwa

2.Bid Data Sheet

1	Department Name	Gujarat Water Supply & Sewage Board
2	Circle/Division	Public Health Works Division, Ahwa, GWSSB.
3	Tender Notice No	06/2026-2027
4	Name of Project& Scheme Type:	Comprehensive Operation, Preventive Maintenance & Repairs of Civil Structures of Pipaldahad RWSS Ta. Subir, District: Dang
5	Name of Work:	Comprehensive Operation & Maintenance of Civil & Electromechanical assets such as Open Wells,HGLR, Sump, Staff quarters, Pump house, all Bulk Transmission and Distribution pipelines, valves, pumping machinery & electrical equipment etc. for the Pipaldahad Reg.water supply scheme, including supply of 0.42MLDportable water to all the, 10 villages, 06 months period. Taluka: Subir,District : Dang based on Open wellexcluding supply of, Bleaching Powder and PAC Solution, Water and Energy Charges. at various villages of Subir Taluka of Dang District.
6	Estimated Contract Value (INR)	Rs. 4,33,270.00 (06 - Months O & M Cost)
7	Period of O & Mofscheme(in Months)	06 - Months for Part A of Schedule B Comprehensive O and M works.
8	Bidding Type	Two Bid System
9	Bid Call (Nos)	1
10	Tender Currency Type	Single
11	Tender Currency Settings	Indian Rupee (INR)
12	Rebate	Applicable
13	Amount Details	
14	Bid Document Fee / Bid Processing Fees / Tender Fee :	Rs. 600/-
15	Bid Document Fee Payable To :	The Executive Engineer, Public Health Works, Division, Ahwa
16	Bid Security/EMD/Proposal Security (INR):	Rs. 43,30.00
17	Bid Security / EMD In Favour of:	The Executive Engineer, Public Health Works, Division, Ahwa
18	Tender Dates	Note: All Dates are in dd/mm/yyyy, hr: min as per Indian Standard Time (IST)
19	Bid Document Downloading Start Date	26/06/2026 10.00 Hrs.
20	Bid Document Downloading End Date	10/06/2026 18.00 Hrs.
21	Last Date & Time for Online submission of Bids	10/06/2026 18.00 Hrs.

	Pre-Bid Meeting Date and Time Address:	-----
22	Physical Submission of documents last Date & Time	15/06/2026 16.00 Hrs.
23	Bid Opening Date	16/07/2026 12.00 Hrs.(if Possible)
24	Bid Validity Period	90 Days from the last date of submission of bid.
25	Physical submission of Tender Fee, Earnest Money Deposit and PQ supporting document.	<p>Instrument of tender fee &EMD shall be submitted in electronic format only through online (By scanning while uploading the bid). This submission shall mean that Tender Fee and EMD are received for purpose of opening the bid. Accordingly offer of only those shall be opened whose tender fee and EMD is received electronically. However, for the purpose of realization of instrument of tender fee &EMD, bidder shall send the same in original through RPAD/SPEED POST/HAND DELIVERY/ Courier so as to reach to Office of Executive Engineer, P.H. Works Division-Ahwa, GWSSB,Jalbhavan ,Saputara Road. Ahwa-Dang, Ahwa Gujarat-394710 India within date of 15/07/2026 bidding by 15:00. For not submitting DD/FDR/BG in original, bidder shall be banned to participate in any tender of the Board for period of 3 years as a penal action.</p> <p>Any document in supporting to tender bid shall be submitted in electronic format only through online (by scanning etc.) and submission only in hard copy will not be accepted separately.</p>
26	Payments details	<p>1. Document submission of Tender fee, Earnest money deposit, PAN Card shall be uploaded online only.</p> <p>2. Tender Fee (Document fee) amounting to Rs. 600 in favour of "The Executive Engineer, Public Health Works, Division, Ahwa" in form of Demand Draft shall be issued by any nationalized bank or as per list mentioned in GR of. Finance Department, GR. No : EMD/04/2023/0057/DMO Dt:21/04/2023</p> <p>Earnest Money Deposit</p> <p>Rs. 43,33.00in form of FDR or Bank Guarantee in favour of "The Executive Engineer, Public Health Works, Division, Ahwa"valid up to 28 days from the date of closure of the bid validity period of 180 days i.e.(Total of 180+28=208 days), shall be issued by any nationalized bank or as perlist mentioned in GR of. GR of. Finance Department,</p> <p>GR. No :EMD/04/2023/0057/DMO Dt: 21/04/2023</p>
	OTHER DETAILS	
27	Officer Inviting Bids:	Executive Engineer, Public Health Works Division, Ahwa.
28	Bid Opening Authority:	Executive Engineer, Public Health Works Division, Ahwa.
29	Address:	Executive Engineer, P.H. Works Division-Ahwa, GWSSB,Jalbhavan ,Saputara Road. Ahwa-Dang, Ahwa

		Gujarat-394710.
30	Contact Details of Officer Inviting Bid:	Phone - 9638653436
31	Submission of tender	<p>The following documents shall be uploaded while submitting the BID online:</p> <ul style="list-style-type: none"> • Scanned copy of Demand Draft as tender fee • Scanned copy of FDR / BG as EMD • Scanned copy of Valid Registration as 'E-2' Class or above as Civilor Electrical Contractor in R & B/ Water Resource Department, Government of Gujarat • Electrical contractor's license issued by Electric Licensing Board, Gandhinagar • Scanned copy of PAN card • Scanned copy of GST registration • Income tax return certificate • Scan copies of financial documents, Scan copies of Experience Certificates of O&M of project and other documents as per evaluation criteria. <p>In addition to the documents mentioned above, the documents required as per attached Forms & Annexure are also to be uploaded. Bidder shall submit their offer i.e. technical bid as well as price bid in electronic format on stipulated website & date as mentioned in the tender document. No offer in physical form will be accepted.</p>
32	General Terms & Conditions	As Per Tender Document

1. Instruction to bidders

A. General

1.1.1. General terms & instructions

No Bidder shall submit more than 1 (one) Bid for the Project.

- 1) The Bid Document Fee will not be refunded under any circumstances.
- 2) EMD in the form specified in tender document only shall be accepted.
- 3) The offer shall be valid for 180 days from the last date of submission of bid.
- 4) Tenders without Bid Document Fee, Earnest Money Deposit (EMD), Valid Registration Certificate and which do not fulfil all or any of the conditions or those submitted incomplete, in any respect shall not be considered for evaluation.
- 5) Not more than one tender shall be submitted by a Bidder.
- 6) Conditional tender shall not be accepted.
- 7) GWSSB reserves the right to accept the lowest responsive offer, based on evaluation of the scheme and reject any or all tenders without assigning any reason.
- 8) Tender notice shall form a part of contract document.
- 9) The bidders are advised to read carefully the "Instruction" and "Eligibility Criteria" contained in the tender documents.
- 10) The internet site address for E-Tender is <http://www.nprocure.com> and that of corporate website is watersupply.gujarat.gov.in

Details to be furnished along with application:

Interested Bidders can view these tender documents online. The bidders who are interested in bidding in these tenders can download tender documents as mentioned above.

Tender Documents are available only in electronic form. Bidders shall upload the tender documents as per timeline specified as above, Tender fee and Bid Security (EMD) shall have to be furnished as specified in **Tender Notice**. The intending bidders have to submit the following documents also. The bidder should submit all the forms electronically only.

Stamp Duty Charges

Stamp Duty charges, wherever necessary shall be borne by the Contractor. The contract agreement will be executed on non-judicial stamp paper of the value of Rs. 300/- (Rupees Hundred Only).

1.1.2. **Corrupt or Fraudulent Practices**

GWSSB requires that bidders/suppliers /contractors to follow the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy. Defines for the purposes of this provision, the terms set forth below as follows:

“Corrupt Practices” means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves and/or those close to them, or induce others to do so, by misusing the position in which they are placed, and it includes the offering, giving, receiving or soliciting of anything of value to influence the Action of any such official in the procurement process or in contract execution; and

- i. **“Fraudulent practice”** means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the determination of the Borrower and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the borrower of the benefits of free and open competition.
- ii. **Will reject a proposal for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.**
- iii. **Will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract if it at any time determines that the firm has engaged in corrupt and fraudulent practices in competing for, or in executing an contract.**

1.1.3. **Work Schedule**

All Bidders are cautioned that tenders containing any deviation from the contractual terms and conditions, specifications or other requirements may be rejected as non-responsive.

Price bid of bidders qualified in primary bid shall be opened for evaluation of price and further decision of accepting the tender will be taken.

All bidders are requested to discuss and obtain clarifications or additional information as may be required by them.

1.1.4. **Eligible bidders**

A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if any of, including but not limited to, the following apply:

- 1) they receive or have received any direct or indirect subsidy from any of them; or

- 2) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to material information about or improperly influence the bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
- 3) a Bidder was affiliated with a firm or entity that has been hired (or is proposed to be hired) by the Employer or Borrower as Employer's Representative for the Contract

A Bidder shall not be under suspension from Bidding by the Employer as the result of the execution of a Bid-Securing Declaration.

Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.

1.1.5. Contents of this document

The Bidding Document consists of two volumes, which include all the sections indicated below, and should be read in conjunction with any Addendum issued by GWSSB.

1) Volume-1: Instructions to Bidder, Scope of Work and General Conditions

- (a) Section 1 Instructions to Bidders (ITB)
- (b) Section 2 Scope of Work
- (c) Section 3 Conditions of Contract

2) Volume-2: Price Bid

1.1.6. Addenda & Corrigenda

Addenda and corrigenda will form a part of the contract documents, and full consideration shall be given to all addenda and corrigenda in the part of tender documents.

Tenderers shall verify the number of addenda and corrigenda issued. If any and acknowledge the receipt of all addendum and corrigendum to the Engineer and failure to do so may cause the tender to be rejected.

All addendum, corrigendum issued by GWSSB and sent to the contractor shall be a part of the contract.

1.1.7. Download of Tender

The tender document for this work are available only in Electronic format, which bidders can download free of cost from the internet site www.gwssb.nprocure.com

B. Preparation of Bids

1.1.8. General

Bidders shall be aware of the provision of conditions of particular application.

- 1) The intending Tenderer should visit the site, examine the site details, including geological and geo-hydrological conditions and verify the technical details given in the tender, collect additional or supplementary data as may be required and formulate their offer accordingly.
- 2) **Intending tenderers shall have the liberty to send technical query relating to the work and the Tender Document in hard copy to the office before Pre-bid meeting or 7 days of last date of bid submission in case if no prebid meeting is proposed.**
- 3) All Tenderers are cautioned that tenders containing any deviation from the contractual terms and conditions, specifications or other requirements will be treated as non-responsive and rejected outright.
- 4) Conditional tenders shall be treated as non-responsive and rejected outright.
- 5) Contractors will have to quote for the entire work and all items mentioned in the schedules containing bill of quantities and scope of work. Alternative offer is not acceptable and such offers will be considered non-responsive and out rightly rejected.
- 6) Contractors should invariably give elaborate and correct information in Schedules enclosed with this Post-Qualification Bid. They should also give whatever additional information in support of their claim for qualifying them as technically competent and financially sound agency to carry out the work under this contract and for evaluation of Post-qualification Bid and selection of contractors for opening of the Price Bid.
- 7) After opening the Post-qualification and Technical Bids, the procedure of Post- qualification will be adopted and Price Bid of only such Post- qualified contractors will be opened.

1.1.9. Language of Bid

Tender shall be submitted in the prescribed form in *English*. All literature and correspondence in connection with tender shall be. in *English*.

1.1.10. Cost of Bidding

The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

1.1.11. Contact Authority

The following officers may be contacted for any further information on the tender.

Sr. No.	Name of Officer	Designation & Address	Contact Nos.	
			Office	Mobile
1.	Shiraj J Patel	Executive Engineer, Public Health Works Division, AhwaJalbhavan ,Saputara Road. Ahwa, Dang,Gujarat 394710.	----	9638653436

2.	Nayantabehen P. Tandel	Deputy Executive Engineer, Public Health and Sanitation Sub Division, Subir	-----	9978440294
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1.1.12. Documents comprising the bid

Tenderer must submit:

- 1) Tender shall be considered only if accompanied by full information as required under this tender.
- 2) The Tenderer must digitally sign the tender.
- 3) Any tender containing vague and indefinite expressions, which are against the terms and conditions laid down by GWSSB, will be considered as non-responsive.
- 4) Tenderers are requested to furnish all the technical data, description literature, leaflet and supplementary description and relevant specification, in English Wherever required the tenderers, to supplement may furnish additional information and data, amplify or clarify the information required in the specification online only.
- 5) The tenders shall indicate in a summary form:
 - a) Accessories/fitments which are standard with the equipment which though not specified in the tender are included in the scope of supply and are included in tender price.
 - b) Accessories/fitments which may occasionally or frequently be required but have been specifically excluded by the tenderers from the scope of supply and which are not included in tender price.

1.1.13. Letter of bid & schedules

The Letters of Technical Bid and Price Bid, and the Schedules, and all documents listed under ITB 2.1.9, shall be prepared using the relevant forms furnished in Sub section 5 (Bidding Forms). The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested, and as required in the BDS.

1.1.14. Alternative Bids

Alternative Bids are not allowed.

1.1.15. Currency

The Rates and Prices shall be quoted in the Indian Rupees.

1.1.16. Validity of Bids

The bid proposal shall remain valid for 180 days from the last date of submission of Technical Bid. Tender valid for a shorter period may be rejected by the GWSSB as non-responsive.

The Bidder is expected to examine all instructions, forms, terms, and requirements in the Bidding Document. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of the Bid. Bidders should visit and inspect site and submit bids online accordingly.

GWSSB shall presume that the Bidder who submits his bids online has properly understood the tender and is fully aware of the site conditions.

1.1.17. Bid Security/ Earnest Money Deposit

The Tenderer shall furnish, as part of its Tender, Earnest Money Deposit for the amount as indicated in the invitation for tender.

- 1) Any Tender without EMD will be rejected by the GWSSB as non- responsive.
- 2) Unsuccessful Tenderer's Earnest Money will be discharged / returned as Early as possible.
- 3) The successful Tenderer's Earnest Money will be discharged upon the Tenderer signing the Contract and furnishing the performance/security Deposit.
- 4) No interest will be paid on Earnest Money Deposit.

1.1.18. Format and signing of tender

Tenders signed by the Tenderer or a person or persons duly authorised to sign the Tender. The power of Attorney in favour of the person authorised to sign the Tender shall accompany the Tender.

C. Submission & Opening of Bids

1.1.19. Submission of tender

- 1) The Bidder must submit online duly filled in the entire tender document i.e. technical bid and price-bid available on website the rate and the along with other details in Schedule B of tender document.
- 2) The bidder shall fill the required details/ data/ information in the prescribed form of tender document.
- 3) Tender in offline mode will not be accepted.
- 4) The tender i.e. Technical bid and Price bid, dully filled in shall be uploaded on www.gwssb.nprocure.com up to the date and time mentioned in the Tender Notice.
- 5) The employer at his discretion can extend the last date for submission of tender by amending the bidding document in which case all rights and obligations of the employer and bidder will thereafter be subject to the last date as extended. The bidder shall be responsible for extending the validity of tender, accordingly, failing which his bid shall be rejected as non-responsive.
- 6) Bidders will have to submit F.D.R. or Bank Guarantee for Earnest Money Deposit and Demand Draft of tender fee in a separate sealed envelope and other technical documents in another sealed envelope. The documents shall be submitted by RPAD/Speed Post/ Hand Delivery only to the designated officer, as mentioned in the Tender Notice. Each cover must clearly be marked with the contents i.e. "TENDER FEE &EMD" and "TECHNICAL BID DOCUMENT"

1.1.20. Method of tendering

- 1) If the tender is uploaded by an individual, it shall be digitally signed by the individual.
- 2) If the tender is uploaded by a proprietary firm, it shall be digitally signed by the proprietor.
- 3) If the tender is uploaded by a limited company or a corporation, it shall be digitally signed by a duly authorized person holding the powers of attorney for signing the tender. Such limited company or corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded. They should also furnish Articles of Memorandum of Association.
- 4) Each bidder shall submit only one bid for the particular work. A bidder who submits more than one bid in the particular work will be disqualified.
- 5) All witnesses and sureties shall be person of status and probity their full name, occupation and addresses when they fill the vendor registration form provided in the website. www.gwssb.nprocure.com
- 6) In case at time of tender uploading, if any of the above information has changed then the Bidder shall correct the same by making the modification in his personal profile.

1.1.21. Deadline for submission of bid

Bids must be received by the Employer at the address specified above not later than mentioned in the BDS. The Employer may, at its discretion, extend the deadline for submission of bids by issuing an addendum, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will thereafter be subject to the deadline as extended.

1.1.22. Late Bid

Any bid received by the Employer after the deadline for submission of bids will be rejected and returned unopened to the bidder.

1.1.23. Modification & withdrawal of bids

The bidder may modify or withdraw its bid after bid submission, provided that written notice of the modification or withdrawal is received by the Employer prior to the deadline for submission of bids. However, no modification or withdrawal shall be permitted and accepted after the deadline for submission of bids.

No bid may be modified by the bidder after the deadline for submission of bids.

Withdrawal of a bid during the interval between the deadline for submission of bids and the expiration of the period of bid validity shall result in the forfeiture of the bid security.

1.1.24. Opening of Technical proposal

The Employer will open the technical proposals, including modifications made in the presence of bidders' representatives online website who choose to attend at:

Venue: Executive Engineer

Date & Time: 16/07/2026 @ 12.00 Hrs.(IF POSSIBLE)

The bidder's representatives who are present shall sign a register evidencing their attendance.

The price proposals will remain unopened until the time of bid opening of the price proposals. The time and date and location of the bid opening of the price proposals will be given through mail online by the Employer and will follow the receipt of approval by the GWSSB of the evaluation of the technical proposals. The bidder's name, bid modifications and withdrawals, such other details, as the Employer may consider appropriate, will be announced and recorded by the Employer at the opening. The bidders' representatives will be required to sign this record.

The Employer shall prepare minutes of the bid opening, including the information disclosed to those present.

1.1.25. Confidentiality

Information relating to the examination, clarification, evaluation and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process. Any effort by a bidder to influence the Employer's processing of bids or award decisions by any way may result in the rejection of the bidder's bid.

D. Evaluation& Comparison

1.1.26. Preliminary examination of technical proposal

The Employer will examine the bids to determine whether they are complete, whether the documents have been properly signed, whether-the required security is included, and whether the bids are generally in order. Any bids found to be non-responsive for any reason or not meeting the minimum levels of the performance or other criteria specified in the bidding documents will be rejected by the Employer and not included for further consideration.

1.1.27. Examination of bids and determination of responsiveness

- 1) Prior to the detailed evaluation of bids, the Employer will determine whether each bid (a) meets the eligibility criteria (b) has been properly signed (c) is accompanied by the required securities (d) is substantially responsive to the requirements of the bidding documents and (e) provides any clarification and/or substantiation that the Employer may require to determine responsiveness pursuant.
- 2) A substantially responsive bid is one that conforms to all the terms, conditions, and specifications of the bidding documents without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works (b) Which limits in any substantial way, inconsistent with the bidding documents, the Employer's rights or the bidder's obligations under the contract or(c) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.

- 3) If a bid is not substantially responsive, it will be rejected by the Employer, and cannot subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

1.1.28. Evaluation and comparison of technical proposal

The Employer will carry out a detailed evaluation of the bids in order to determine whether the bidders are qualified and whether the technical aspects are substantially responsive to the requirements set forth in the bidding documents. In order to reach such a determination, the Employer will examine the information supplied by the Bidders and other requirements in the bidding documents, taking into account the following factors:

Qualification:

- 1) The determination will take into account the Bidder's financial, technical and production capabilities and past performance; it will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, as well as such other information as the Employer deems necessary and appropriate; and
- 2) An affirmative determination will be a prerequisite for the Employer to continue with the evaluation of the technical proposal; a negative determination will result in rejection of the Bidder's bid.

Technical:

- 1) Overall completeness and compliance with the Employer's Requirements; the technical merits of plant and equipment offered and deviations from the Employer's Requirements; suitability of the facilities offered in relation to the environmental and climatic conditions prevailing at the site; quality, function and operation of any process control concept included in the bid;
- 2) Achievement of specified performance criteria by the facilities;
- 3) Compliance with the time schedule called for in Technical proposal and any alternative time schedules offered by Bidders, as evidenced by a milestone schedule provided in the bid;
- 4) Any deviations to the commercial and contractual provisions stipulated in the bidding documents.

1.1.29. Clarification of technical proposals

The Employer may conduct clarification meetings with any Bidder to discuss any matters, technical or otherwise, where the Employer requires amendments or changes to be made to the Technical Proposal.

Any effort by the bidder to influence the employer in the Employer's evaluation of technical proposals, bid comparison or the Employer's decisions on acceptance or rejection of bids may result in the rejection of the bidder's bid.

1.1.30. Invitation to attend opening of price proposals

At the end of the evaluation of the technical proposals the Employer will invite bidders who have submitted substantially responsive technical proposals and who have been determined as being qualified for award to attend the bid opening of the price proposals. Bidders shall be given reasonable notice of the price

proposal bid opening.

The Employer will notify Bidders that have been rejected on the grounds of being substantially non-responsive to the requirements of the bidding documents in writing

1.1.31. Opening of price proposals

The Employer will open the price proposals of all bidders who submitted substantially responsive technical proposals at the time and date at the location advised to the bidders. The bidder's representatives who are present shall sign a register evidencing their attendance.

The bidder's names, the Bid Prices, the total amount of each bid, any discounts, and such other details as the Employer may consider appropriate, will be announced and recorded by the Employer at the opening. The bidder's representatives will be required to sign this record.

The Employer shall prepare minutes of the bid opening, including the information disclosed to those present in accordance with Sub-Clause.

1.1.32. Clarification of price proposals and contacting the employer

To assist in the examination, evaluation and comparison of price proposals, the Employer may, at its discretion, ask any bidder for clarification of its bid. The request for clarification and the response shall be in writing or by cable.

No bidder shall contact the employer on any matter relating to its bid from the time of opening of price proposals to the time the contract is awarded. If the bidder wishes to bring additional information to the notice of the Employer, it should do so in writing.

Any effort by the bidder to influence the Employer in the Employer's evaluation of price proposals, bid comparison or contract award decisions may result in the rejection of the bidder's bid.

1.1.33. Preliminary examination of price proposals and determination of responsiveness

The Employer will examine the bids to determine whether they are complete, whether the documents have been properly signed, whether the required security is included, whether the bids are substantially responsive to the requirements of the bidding documents; and whether the bids provide any clarification and/or substantiation that the Employer may require.

A substantially responsive bid is one which conforms to all the terms, conditions and requirements of the bidding documents, without material deviation or reservation and includes the amendments and changes, if any, requested by the Employer during the evaluation of the bidder's technical proposal.

If a price proposal is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

1.1.34. **Correction of errors**

Price Proposals determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Arithmetic errors will be rectified on the following basis. If there is a discrepancy between the unit rate and the total cost that is obtained by multiplying the unit rate and quantity, the unit rate shall prevail and the total cost will be corrected unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit rate, in which case the total cost as quoted will govern and the unit rate corrected. If there is a discrepancy between the total bid amount and the sum of total costs, the sum of the total costs shall prevail and the total bid amount will be corrected.

The amount stated in the Form of Bid for Price Proposal will be adjusted by the Employer in accordance with the above procedure for the correction of errors and, shall be considered as binding upon the bidder. If the bidder does not accept the corrected amount of bid, its bid will be rejected, and the bid security may be forfeited.

1.1.35. **Evaluation and comparison of price proposal**

The Employer will evaluate and compare only the bids determined to be substantially responsive.

The Employer's evaluation of a bid will take into account, in addition to the bid prices indicated in the Schedule of Prices, the following costs and factors that will be added to each Bidder's bid price in the evaluation using pricing information available to the Employer, in the manner and to the extent and in the Employer's Requirements.

- 1) The additional price, if any, reflected in the price proposal. If the price stated is not realistic the bid is liable to be rejected,
- 2) Compliance with the time schedule called for in the Appendix to Price Proposal and evidenced as needed in a milestone schedule provided in the bid;
- 3) The projected operating costs during the initial period of operation of the facilities,
- 4) The functional guarantees of the facilities offered against the specified performance criteria of the plant and equipment; and
- 5) The extra cost of work, services, facilities etc. required to be provided by the Employer or third parties.
- 6) The Employer reserves the right to accept or reject any variation or deviation. Variations, deviations, and other factors which are in excess of the requirements of the bidding documents or otherwise result in the accrual of unsolicited benefits to the Employer shall not be taken into account in bid evaluation.
- 7) The estimated effect of the price adjustment provisions of the Conditions of Particular Application, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.
- 8) If the bid of the successful bidder is substantially below the Employer's estimate for the contract, the Employer may require the bidder to produce detailed price analyses to demonstrate the internal consistency of those prices. After evaluation of the price analysis, the Employer may require that the amount of the performance security be increased at the expense of the successful bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful bidder under the Contract
- 9) If any dispute Or Contradiction, interpretation in tender document the decision of **Superintending Engineer, P.H. Circle,** Valsad will be final & shall be binding to the agency.

1.1.36. Employer's right to accept any bid or to reject any or all bids

The employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids, at any time prior to award of Contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for the employer's action.

E. Award

The Employer will award the Contract to the bidder whose bid has been determined to be responsive to the bidding documents and who have offered the workable Evaluated Bid Price, provided that such bidder has been determined to be eligible & qualified.

1.1.37. Notification of award

Prior to expiration of the period of bid validity prescribed by the Employer, the employer will notify the successful bidder by fax, confirmed by registered letter, that its bid has been accepted. This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") shall name the sum, which the Employer will pay the Contractor in consideration of the supply, execution and completion of the Works by the Contractor as prescribed by the Contract (hereinafter and in the conditions of contract called "the Contract Price"). The notification of award will constitute the formation of the Contract. Upon the furnishing by the successful bidder of a performance security (and domestic preference security where required), the Employer will promptly return the other bidders that their bid security.

1.1.38. Signing of contract

At the same time that the employer notifies the successful bidder about the acceptance of bid, the Employer will send the bidder the Form of Contract Agreement provided in the bidding documents, incorporating all agreements between the parties.

Within 15 days of receipt of the Form of Agreement, the successful bidder shall sign the Form and return it to the Employer.

1.1.39. Performance Security

Within 15 days of receipt of the notification of award from the Employer, the successful bidder shall furnish to the Employer a performance security in accordance with the General conditions of contract, Clause 1. The form of performance security provided in the bidding documents may be used or some other form acceptable to the Employer.

Failure of the successful bidder to comply with the requirements shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security.

Security Deposit shall be released in accordance with the general conditions of contract (clause-1)

1.1.40. Declaration form: (form-H)

In conjunction to Sub Clause 'C' under "29. Evaluation to Technical bids" the bidder should submit undertaking as per Form-H on non-judicial stamp paper of Rs. 300/- duly attested by notary public regarding document submitted, are true. GWSSB would have the right to forfeit the EMD and blacklist the bidder if any of the information given by the bidder is found faulty or incorrect or misleading.

1.1.41. Other Requirements

The applicant in the same name and style shall be a well-established Civil/Mechanical/Electrical (as per type of the tender) Engineering Contractor, shall have Registration in the required class for the work and should be in category as per operations and maintenance performance evaluation system.

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CONTRACT NO.

**GUJARAT WATERSUPPLY& SEWERAGE BOARD
GANDHINAGAR**

(A WHOLLY OWNED GOVERNMENT OF GUJARAT UNDERTAKING)

VOLUME – I

QUALIFICATION CRITERIA & EVALUATION PROCEDURE

Qualification Criteria & Evaluation Procedure

1.2. GENERAL

All information requested for in the downloaded forms should be furnished against the respective columns in the forms in electronic formats. If information is nil, it should also be mentioned as nil or no such case. If any query is not applicable in case of the applicant, it should be stated as not applicable. However, the tenderers / Bidders are cautioned that not giving complete information called for in the tender Documents in the form required or not giving it in clear terms or making any change in the prescribed forms may result in the Bidder being summarily disqualified.

- 1) The tender's/ Bidder's name shall appear on each page of the prescribed Proforma.
- 2) Reference, Information and certificates from the respective clients certifying suitability, technical know-how or capability of the Bidder shall be signed by that client, in full with his name underneath in block letter and designation in that organization.
- 3) No further information will be entertained after submission of Tender Document unless it is called for by the GWSSB.
- 4) Any effort by a Bidder/Bidder to influence the GWSSB in the process of examination. Clarification, evaluation of Tender and in decision concerning qualification, may result in disqualifying the Bidder.
- 5) The successful per-qualification made in the case of any Bidder for any other work of GWSSB will not be considered valid for the present work.

1.3. MINIMUM QUALIFYING CRITERIA

To qualify, each bidder in the same name and style should have achieved the following performances:

1.3.1. General eligibility criteria

- 1) The bidder should be a company registered under Companies Registration act 1956/2013 or Limited Liability Partnership Act, 2008, or a Proprietorship registered in India as on bid submission date.
- 2) The bidder must have a valid registration as "E-2" Class or above as Civil or Electrical Contractor in R & B / Water Resources Department, Government of Gujarat
- 3) Electrical contractor's license issued by Electric Licensing Board, Gandhinagar with the agency having Electrical contractor's license issued by Electric Licensing Board, Gandhinagar
- 4) Bidder should not be under the effect of blacklisting/debarment by any Ministry of Government of India or by any State Government of any other State in India or by Government of Gujarat or any of the Government PSUs at the time of bidding.

1.3.2. Financial Capacity & Experience

The bidder must satisfy any one of the following two scenarios to be eligible to bid for the services in the tender.

Scenario 1: A bidder, under this scenario shall satisfy below financial capacity and experience criteria

- a) ~~Turnover:~~ Bidder must have achieved minimum annual financial turnover (at current price level) from contract receipt of works (in all classes of civil engineering construction works or O&M services only) of **Rs. 4 Crores** in any three financial years out of last Seven (7) financial years i.e. **from 2017-18 to 2023-24**

And

- b) ~~Experience:~~ The bidder shall have successfully completed operation and maintenance for **minimum 1 years** for any water supply system or part of its civil or electromechanical components such as water supply network, WTP, pumping machineries, intake/ offtake structure, storage structures, municipal STP or municipal sewage network etc. in last seven (7) financial years i.e. from 2017-18 to 2023-24

Scenario 2

- a) ~~Turnover:~~ Bidder must have achieved minimum annual financial turnover (at current price level) from contract receipt of works (in all classes of civil engineering construction works or O&M services only) of **Rs. 10 Crores** in any three financial years out of last Seven (7) financial years i.e. **from 2017-18 to 2023-24**

- b) ~~Note to Turnover requirement:~~

The details pertaining to turnover for the year 2017-18 to 2023-24 shall be certified by Chartered Accountant on his own letter head and duly attested. Turnover of financial year 2023-24 shall be considered subject to submission of provisional/audited certificate from chartered accountant by the Bidder. Turnover of previous year shall be given additional weightage of ten percent per year to bring them to current price level to account for price escalation as illustrated below:

Financial Year	Turnover	Turnover at current price level
2017-2018	G	$1.77 \times G$
2018-2019	F	$1.61 \times F$
2019-2020	E	$1.46 \times E$
2020-2021	D	$1.33 \times D$
2021-2022	C	$1.21 \times C$
2022-2023	B	$1.10 \times B$
2023-2024	A	$1.00 \times A$

Note:_____

- 1) ~~Financial year means period beginning from the 1st April to 31st March of the next year.~~
- 2) ~~The details pertaining to Turnover for the year **2017-2018 to 2023-2024** shall be certified by Chartered Accountant on his own letter head and duly attested. Turnover for financial 2023-2024 shall be considered subject to submission of provisional/audited certificate from chartered accountant by the Bidder.~~
- 3) ~~The cost of material supplied by the Government/ Client shall not be taken into account for experience against Turnover & Similar nature of work.~~

Note to Experience requirement:

- 1) ~~The O & M works for which bidder have not entered in to contract agreement will not be considered~~
- 2) ~~The above experience shall be within last seven (7) financial years i.e. from 2017-18 to 2023-24 and up to one month prior to last date of submission of the bid for which Form 3A/11 must be submitted.~~
- 3) ~~Experience as sub-contractor shall not be considered.~~
- 4) ~~The experience of O & M works executed in Government (State/Central), Board, Corporation, and Government Undertaking /Organisations of state & central government shall only be considered for evaluation. The experience certificate from the client equivalent to not below the rank of Executive Engineer shall be considered. The experience of sublet works shall not be considered. In case of Nagarpalika, the experience certificate of duly Sign by Chief officer shall only be considered.~~

2. Bid Forms

TO BE FILLED UP BY THE BIDDER

The qualification questionnaire contains the following forms:

FORM NO.	DESCRIPTION OF PROFORMA
Form – 1	Letter for submission of tender
Form – 2	Form-H (Declaration)
Form – 3	Bank Guarantee (EMD)
Form – 4	Performance bond/ Performance guarantee Proforma for bid security
Form – 5	Details of organization structure of the bidder
Form – 6	Litigation History / Debarment / Blacklisting
Form – 7	Financial data
Form – 8	Details of experience of completed work (similar nature)
Form – 9	Details of works on hand with Bidder
Form - 10	Information for tenders submitted but not awarded

Note:

1. If necessary, additional sheets may be added to the forms. Each page of each form should be clearly marked in the right top corner as follows: Form-1, page 1; Form 2, page 2, etc.
2. Some of the forms will require attachments. Such attachments should be clearly marked as follows: Attachment 1 to Form 1, Attachment 2 to Form 2, etc.
3. All submittals shall be numbered chronologically, and reference of page nos. shall be mentioned. The same is to be uploaded online and submitted in physical form as well

FORM -1

LETTER FOR SUBMISSION OF TENDER

To

(Board's concern officer's designation)

(Office address of Board's concern officer)

Sub: SUBMISSION OF TENDER APPLICATION FOR (NAME OF WORK)

Sir,

- 1) Having examined the details given in the invitation to Bidder for qualification and brief note, the condition of contract and Specification..... for the execution of Operation & Maintenance work, we the undersigned, offer to execute and complete such works and remedy any defects therein in conformity with the conditions of contract, Specifications, and quoted amount in accordance with the said conditions.
- 2) We hereby certify that all the statements made and information supplied in the enclosed forms and accompanying statements are true and correct.
- 3) We have furnished all information and details necessary for qualification and have no further pertinent information to supply.
- 4) We hereby apply for qualification for (Name of work).
- 5) We undertake, if our Tender is accepted, to commence the Operation & Maintenance work immediately after the receipt of the Engineer's notice to commence.
- 6) We agree to abide by this Tender for the period of 180 days from the last date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- 7) We enclose here with fixed Deposit receipt / Deposit at call receipt / cross demand draft / Bank Guarantee amounting to Rs. Towards Earnest Money Deposit which is to be absolutely forfeited by Board should we not Deposit the amount of Security Deposit specified in the Clause 1, General Conditions of Contract, Volume-IB
- 8) We enclose..... DD in favour of **The Executive Engineer**, Public Health Works, Division, Ahwaamounting to Rs. towards tender fees.
- 9) Unless and until a formal Agreement is prepared and executed this Tender, together with your written acceptance thereof, shall constitute a binding contract between us.
- 10) We submit the following certificates in support of our suitability, technical know-how and capability for having successfully completed the following works

Sr. No.	Works	Client / owner
---------	-------	----------------

- 11) We hereby confirm that there are no deviations to the terms & conditions of the contract and we are liable for execution of this contract in accordance with the stipulated conditions of the contract.
- 12) We understand that you are not bound to accept the lowest or any tender you may Receive. Dated this _____ day of _____ (Year) Signature _____ in the capacity of _____ Duly authorized to sign tender for and on behalf of _____
- 13) We are enclosing herewith "Form H"

14) Irrespective of whatsoever has been stated to the contrary anywhere else in our offer no technical deviations have been taken and the entire work shall be performed as per your specifications and Tender documents.

Signature of Applicant.

(NAME IN BLOCK CAPITALS)

Address _____

Seal of Applicant

Date of submission

Witness _____

Address _____

Occupation _____

Enclosures:

FORM -2

PROFORMA FOR LETTER OF UNDERTAKING (FORM-H)

**(TO BE EXECUTED ON NON-JUDICIAL E-STAMP PAPER OF Rs. 300/- AND SUBMITTED BY THE TENDERER
ALONG WITH HIS TENDER IN A SEPARATE COVER)**

To,

Gujarat Water Supply and Sewerage Board,
Jal Bhawan, Sector-10A,
Infront of Air Force Office,
Gandhinagar, Gujarat

Dear Sir,

- i. I/We hereby declare that I/We have visited the site and fully acquainted myself / ourselves with local situations pertaining to the work before submitting this tender.
- ii. I/We hereby declare that I/We have read the Tender Documents published on website www.gwssb.nprocure.com and accordingly submitted online price Bid for the work of -----

- iii. I/We hereby declare that I/We have carefully studied the conditions of contract and specifications and other documents of this work and agree to execute the same accordingly.
- iv. I/We hereby declare that my/our near relatives are not working in this division or in its sub-divisions as an Engineer of any category, Divisional Accountant, Storekeeper, and in the Circle Office as a Superintending Engineer as on today.
- v. I/we hereby declare that I/we are not declared ineligibility for corrupt or fraudulent practices issued by the central/state govt. or not in the list of blacklisted contractors announced by GWSSB/ GWIL / Govt of Gujarat or its Public Sector Undertakings, Government of India, Other states Government or Public Sector Units.
- vi. I/ We hereby submit our tender and undertake to keep our tender valid for a period of 180 days from the date of opening of tenders i.e. up-to -----. I/We shall not vary/ alter or revoke my/ our tender during the validity period of tender. This undertaking is in consideration of **Gujarat Water Supply and Sewerage Board, Gandhinagar** agreeing to open my/ our tender, consider and evaluate the same for the purpose of award in terms of provisions of tender documents. Should this tender be accepted, I/ We also agree to abide by fulfill and comply with all the terms and conditions and provisions of the above mentioned tender documents.
- vii. I/We also declare that the bid duly filled in online and digitally signed and the required Earnest Money Deposit, Tender Fee and other required documents (scanned copy submitted online) will be handed over in physical form to theby **RPAD/Speed Post/ Hand Delivery only**.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken I/weshall be debarred from bidding in GWSSB/GWIL tender for three yearsand my/our security deposit may be forfeited by GWSSB in full & the tender, if any, to the extent accepted, may be cancelled.

Signature along with seal of the Company

(Duly authorised to sign the tender on
behalf of the Bidder)

Name:

Designation:

Name of Company (BLOCK LETTERS)

WITNESS:

Signature:

Date :

Date :

Postal Address :

Name &Address :

Telephone/Fax No.

FORM -3

FORM OF BANK GUARANTEE

(Earnest Money Deposit)

Whereas M/s (herein after called the Bidder) is desirous and prepared to tender for work in accordance with Terms & Conditions of Tender Notice of (financial year) dated and whereas We, Bank of [Name of Country] having our registered office at (hereinafter called "the Bank"); agree to give the Tenderer a guarantee for the Earnest Money Deposit.

- 1) Therefore, we hereby affirm that we are Guarantors on behalf of the Bidder upto a total of Rupees (i.e. Rs.....) and we undertake to pay the Executive Engineer, upon his first written demand and without demur, without delay and without necessity of previous notice of individual or administrative procedure and without necessity to prove the bank the defects or shortcomings or debit of the contractor any sum within the limit of Rupees.....
- 2) We further agree that the guarantee here in contained shall remain in full force and effective during the period that would be taken for the acceptance of the tender. However, unless a demand or claim under this guarantee is made only in writing on or before the We shall be discharged from all liabilities under the guarantee thereafter.
- 3) We undertake not to revoke the guarantee during its currency except with the previous consent of the Executive Engineer, in writing.
- 4) We lastly undertake not to remove the guarantee for any change in constitution of the Tenderer or the Bank.

Signature and Seal of the

Guarantor Bank:

Date:-Address:

FORM -4

PERFORMANCE BANK GUARANTEE

(The date of this bond must not be prior to the date of the instrument in connection with which it is given) _____

Principal (Contractor) _____

Surety (Scheduled or Nationalized Bank) _____

Sum of bond (express in words and figures) _____

Contract No. and date of contract _____

KNOW ALL MEN BY THESE PRESENTS THAT WE, THE PRINCIPALS AND SURETY above named are held and firmly bound unto the _____ hereinafter called the Employer in the amount stated for payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors jointly and severally, firmly by these presents subject to the provisions of which the aforesaid Contractor on demand and without demand on a claim being made by the Employer.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the principals have entered in to a contract with the Employer numbered and 'dates as shown above and hereto attached for the execution of work _____.

NOW THEREFORE, if the Principal shall well and truly perform and fulfil all the undertakings, covenants, terms, conditions and agreements of said contract during the original terms of the said Contract and any extensions thereof that may be granted by the Employer with or without notice to the surety and during the life or any guarantee required under the contract and shall also well and truly perform and fulfil all the Undertakings, covenants, terms, conditions and agreements of any all duty and unduly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the surety being hereby waived or shall pay over, make good and reimburse to the Employer all loss and damages which the employer may sustain by reason of failure or default on the part of said Principal so to do.

We _____ further agree that the guarantee herein Contained shall remain in full force and effect during the period that would be taken for the validity of the said Contract, and that it shall continue to be enforceable till all the dues of the employer under or by virtue of the Contract have been fully paid and its claims satisfied or discharged or till the Employer certifies that the terms and conditions of the Contract have been fully and properly carried out by the said Contractor and accordingly discharges the guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the _____ we shall be discharged from all liability under this guarantee thereafter.

IN WITNESS WHERE OF, the above bounded parties have executed this instrument under their several seals on the date indicated above the name and corporate seal, of each corporate party being hereto affixed and these presents duly signed by is undersigned representatives, pursuant to authority of its governing body.

In the presence of witness

individual

Principal

1. _____ as to _____ (seal)

2. _____ as to _____ (seal)

3. _____ as to _____ (seal)

4. _____ as to _____ (seal)

By _____ affix Corporate Seal

Attested

Corporate Surety

Business address

Affix by _____ Corporate Seal

Title _____

For and on behalf of the Employer

FORM -5

DETAILS OF ORGANIZATION OF THE BIDDER

1.	Name of Bidder	
2.	Nationality of Bidder	
3.	Office address Telegraphic Address Telephone Number Fax Number E-mail address.	
4.	Year of Establishment	
5.	Location of Establishment	
6	Bid is submitted as a) An individual/ proprietary firm b) A partnership firm c) A limited Company or Corporation	
7.	Attach the Organization chart showing the structure of the organization including the names of the Directors and Position of officers	
8.	Number of years of experience a) as a prime contractor (Contractor shouldering main responsibility) i) in own country ii) other countries (Specify countries)	
9.	For how many years has your organization been in business of Operation & Maintenance of works of similar nature under its present name? What were your fields when your organization was established?	
	Whether any new fields have been added in your organization? and if so, when?	
10	Whether you were required to suspend Operation & Maintenance work for a period of more than six months continuously after the work was started? If so, give the name of project and reasons thereof.	
11	Have you ever left the work awarded to you incomplete? (If so, give name of project and reasons for not completing work)	
12	In how many of your projects penalties were imposed for delays? (Please give details)	
13	Give details of testing laboratory, if any.	

FORM -6

LITIGATION HISTORY/ DEBARMENT/ BLACKLISTING

Name of Applicant:

1. PLEASE DESCRIBE:

Company's history of litigation or arbitration / Debarment / Blacklisting from contract executed in the last ten years or currently under execution. Please indicate for each case the year, name of employer, cause, matter in dispute, disputed amount, and whether the award was for or against the company.

2. Please add any further information that you consider to be relevant to the evaluation of your application. If you wish to attach other documents, please list below:

SIGNATURE OF BIDDER

FORM -7**FINANCIAL DATA**

All individual firms are requested to complete the information in this form. The information supplied should be the annual turnover of the Applicant, in terms of the amounts billed to clients for each year for work in progress or completed.

Applicants should not enclose testimonials, certificates, and publicity material with their applications; they will not be taken into account in the evaluation of qualifications.

1)	Name of Firm		
2)	Name of Partner / Director		
3)	Capital (a) Authorized (b) Issued and paid up		
Sr. No.	Year	Turnover (Rs in Crores)	Reference page No. to balance sheet or other documents
4)	Furnish Balance sheet and profit and loss statement with Auditor's Reports and Income Tax assessment orders for last Seven (7) financial years. It should, interlaid include the following information Turnover for the last seven (7) financial year, the contract receipts of works in all classes of civil engineering construction works. (Furnish reference page number to balance sheet attached)		
(I)	2017-2018		
(II)	2018-2019		
(III)	2019-2020		
(IV)	2020-2021		
(V)	2021-2022		
(VI)	2022-2023		
(VII)	2023-2024		
GROSS INCOME IN THE LAST SEVEN (7) FINANCIAL YEAR			
Sr. No.	Year	Gross Income (Rs in Crores)	Reference page No. to balance sheet or other documents
(I)	2017-2018		
(II)	2018-2019		
(III)	2019-2020		
(IV)	2020-2021		
(V)	2021-2022		

(VI)	2022-2023		
(VII)	2023-2024		
5.	What is the maximum cost of the project that has been handled? (Please give details)		
6.	List your sources of finance		
7.	Have you ever been denied tendering facilities by any Government / Government Undertaking Organisations / Public sector undertaking etc.? (If Yes, Please give details)		
8.	Amount of financial soundness certified by Bank. (Attach copy of certificate)		
9.	Name and address of Bank from whom reference can be obtained		
10.	Have you ever been declared bankrupt? (If yes, please give details)		

Note: Firms owned by individuals, and partnerships, may submit their balance sheets certified by a registered accountant, and supported by copies of tax returns. Attach Certificate(s) issued by any Bank or Financial Institution for available credit to the firm.

SIGNATURE OF BIDDER

FORM -8**DETAILS OF EXPERIENCE OF COMPLETED WORKS**

List of O & M works of similar nature already completed by the bidder during last 7 financial years i.e. Fromto& up to one month prior to last date of submission of the bid

Sr. No.	Name of the Project	Place/ Dist./ State	Cost of O & M work (Rs in Lac)	Date of starting	Date of completion	Remarks

Give details in the following Proforma. (Separate form for each work)

1)	Name of the Project	
2)	Agreement No. & Date	
3)	Country and location	
4)	Client's Name and Address	
5)	Cost of O & M work (Rs. in Lac)	
7)	Brief description of O & M work(scope showing intake structure details, WTP/STP, villages and/or towns covered, pipeline network (rising, gravity) etc)	
8)	Period of completion	
9)	Name of applicant's Engineer - in -charge of the work and his educational qualification	
10)	Were there any Penalties/ Fines / Stop notice / Compensation / Liquidated Damage imposed? (Yes or No. If yes, give case wise details)	
11)	Attach Client's certificate (Not below the rank of Executive Engineer or equivalent)	

SIGNATURE OF BIDDER

(*) If the information is hidden or misleading by the bidder, he shall be disqualified for the Tender and debarred for three financial years.

FORM -9**BIDDER'S WORK IN HAND****DETAILS OF WORKS ON HAND WITH BIDDER**

Work performance and Value of the existing commitments (Work on Hand) as on the date of bid submission for works (complete or partial) to be completed in the nextyears (Project Duration in Years) (In separate form for each work)

1)	Name of the Project	
2)	Agreement No. & Date	
3)	Country and location	
4)	Client's Name and Address	
5)	Cost of O & M work (Rs. in Lac)	
7)	Brief description of O & M work (scope showing intake structure details, WTP/STP, villages and/or towns covered, pipeline network (rising, gravity) etc)	
8)	Period of completion	
9)	Name of applicant's Engineer - in -charge of the work and his educational qualification	
10)	Were there any Penalties/ Fines / Stop notice / Compensation / Liquidated Damage imposed? (Yes or No. If yes, give case wise details)	
11)	Attach Client's certificate (Not below the rank of Executive Engineer or equivalent)	

SIGNATURE OF BIDDER

Note: Necessary certificates showing the year wise breakup of amount of work done from the officer concerned shall be attached with the tender.

FORM -10

INFORMATION FOR TENDERS SUBMITTED BUT NOT AWARDED

Not required. Omitted

Section II: Scope of Services

3. Scope of Work

Introduction

About GWSSB

GWSSB is a statutory body set up by the State Government for Development, Regulation and Control of the Drinking water sector in the State. The jurisdiction of the GWSSB (Board) extends to the whole state. The Board largely works for putting in place rural water supply system as well as operational management of Rural Regional water supply schemes covering cluster of villages. In this area the main function of the Board is to prepare, execute, promote and finance the schemes for supply of water for drinking purposes. The Rural water supply systems include Installation of hand pumps, mini water supply system, etc. in small hamlets and piped water supply system for individual villages including large water supply system covering several villages.

About this bid

Gujarat Water Supply and Sewerage Board intends to carry out the operations and maintenance of its facilities through contractor selected in this bidding process. The selected contractor (hereafter called as “contractor”) shall perform the operations to fulfil the deliverables as set out in the terms and conditions laid out in this bid. He shall also be responsible for the maintenance of all the assets under the scope of this bid. At the end of the contract period, he shall handover the assets in good working condition so that the system’s reliability is sustained and cost of maintaining the water system does not increase.

Operations and maintenance of the water supply scheme involves two steps;

Operations:

The contractor shall carry out the operation of water supply system i.e. timely and daily operation of the components of a water supply system such as headwork’s, treatment plant, machinery and equipment, transmission mains, service reservoirs and distribution system etc. efficiently and economically to attain the objective of supplying safe and potable water equitably to the consumers.

Maintenance:

The contractor shall maintain the water supply system by keeping the structures, plants, machinery and equipment and other facilities in an optimum working order and proper functioning without any interruption. Maintenance shall include both Preventive Maintenance and Corrective Maintenance. He shall undertake preventive maintenance which shall constitute routine works and precautions to be taken periodically and ensure that the different components of the water supply system perform correctly over their service life (their expected lifetime). This in turn shall avoid the occurrence of a major fault or breakdown in the water supply system that calls for corrective maintenance that is many times more expensive.

Contractor shall undertake corrective maintenance which shall involve carrying out works related to break down, which has actually occurred by replacements, correction of defects etc.

Scope of Contractor

The board intends to hire contractor for comprehensive O&M through e-tendering system for a duration of 06 (six) months for the said scheme/s covering 10 villages spread across SubirTaluka of Dang District based on Intakewell at Purna River & Openwell&Borewell at HWs of Villages. Under This contract the successful bidder is required to supply water to Faliyas of 10 villages only.

About the schemes in this package:

Sl. No.	Scheme Name	Commissioning Year	Cost (in lacs)	Total commissioned habitations (village, towns and Hamlets)	Technical issue villages as on date	Voluntary villages as on date
1	PipaldahadR WSS	1989 /2003	82.11	10 Village	---	---
Total			82.11	10 Village	00 Villages	00 Villages

Note: Total commissioned habitations- technical issue habitations - voluntary habitations= operational habitations

Habitation means all villages, towns, and census hamlets directly connected with the RWSS. In cases where the RWSS delivers water directly to the census hamlets, such hamlets shall be treated as habitation for monitoring and evaluation of SLAs.

List of habitations and their operational status is provided in Annexure I. Various civil structures, machineries and other electrical components have been constructed under the said regional water supply schemeas per Annexure I & IX.

Briefscope of work:

Under this contract, it is expected that the contractor will supply safe and potable water on daily basis to all habitations connected to the water supply scheme:

Sl. No.	Category	Description	No. of habitations as on date
1	Operational	Habitations where water supply is operational currently	10 Village
2	Technical issue	Water is currently not being supplied to the village/ ULB/ hamlet due to technical reasons	00 V
2a		Carry out activities detailed in Part C of Schedule B of Volume II Price Bid to restore water supply	0
2b		Where contractor may take up restoration work to successfully operationalize such habitations. The contractor will be eligible to receive incentive as per the provisions of this contract	0
3	Voluntary forgoing	Some habitationuses their local sources during wet period. During summers or shortfall period, they seek water from RWSS. Supply of water when demanded by the GP as well as every 15 days to maintain the systems.	0

The contractor shall maintain all assets in as-is (as handed over) conditionduring the contract period so that the scheme/s remains functional throughout its design life. The contractor also has to ensure smooth handing over to new contractor/GWSSB during transition phase/ after contract completion.

Detailed scope of work

The scope of work for the O&M will include the following;

- 1) The works shall include Comprehensive Operation & Maintenance of Civil & Electromechanical assets such as Open Wells, HGLR, Sump, Staff quarters, Pump house, all Bulk Transmission and Distribution pipelines, valves, pumping machinery & electrical equipment etc. for the Pipaldahad Reg. water supply scheme, including supply of 0.42 MLD portable water to all the, 10 villages, 06 months period. Taluka: Subir, District : Dang based on Open well excluding supply of, Bleaching Powder and PAC Solution, Water and Energy Charges. at various villages of Subir Taluka of Dang District. Operation and Maintenance of the water supply schemes involve the following scope of work;

- a. **Operation** to ensure prescribed quantity of water supply to the beneficiaries. The scope of operations involves;

- i. Regular supplying 0.42 MLD of treated water to 10 villages spread across Subir Taluka of Dang District/s on a daily basis as per Annexure I. The Scope excludes supply of water from villages to Faliya.
- ii. Quality compliance, testing and reporting on daily basis for the frequency and parameters as per Annexure II. Agency shall ensure safe and potable water supply up to the delivery point with adequate residual chlorine (last ESR/ sump etc.)
- iii. Provide trained, competent manpower for efficient operation of the water supply scheme in accordance with Annexure III. All the manpower should attend the site in uniform and carry identification cards.
- iv. Conduct planning and review meetings on daily, weekly, monthly and quarterly basis and document as per the guidelines in Annexure IV.
- v. Daily, monthly or periodic reporting in the ERP/reporting system of the employer/authority/GWSSB as specified by authorities in charge or engineer and as per formats in Annexure V.
- vi. Water supply infrastructure is critical from safety & security point of view. Therefore, the authority desires to have a biometric attendance system at all its HW locations. Wherever it is installed, the contractor must ensure recording of attendance by its deployed personnel so that the authority is aware of the identity of individuals working at asset locations.
- vii. Redressal of grievances attributable and assigned to the O&M contractor within stipulated time as per Annexure VI.
- viii. Conduct training sessions for its staff as per Annexure XVI.
- ix. Always procure and maintain adequate stock of consumables. Usage of consumables shall be based on desired output quality parameters. Raise chemical consumables demand to the authority 3-months prior to requirement.
- x. The contractor during the contract period shall ensure that the power factor does not fall below 0.90.

- b. **Preventive & Curative maintenance** of the assets to ensure efficient operations

The bidder shall be responsible for maintenance of equipment and assets under this RFP;

- i. Preventive Maintenance:

- The bidder will carry out such maintenance activities as per schedule given in **Annexure VII**. The bidder shall carry out all monitored/non-monitored or paid/unpaid maintenance

activities periodically as per the schedule and submit completion reports as per formats in annexure.

- The activities for which separate payments will be made by the authority includes; painting, cleaning of reservoirs/ tanks/sumps on actual basis. Unpaid activities shall include but not limited to routine maintenance, housekeeping, oiling of machineries etc. It shall be bidder's responsibility to account the costs for such unpaid preventive maintenance activities in the price quote.
- The bidder will carry out minor repairs and replacements within one month of scheme handover for components which were found to require such works during joint inspection and handover survey. The bidder shall ensure that the assets are restored to optimum working condition by such minor repairs and replacements.

ii. Curative Maintenance:

Curative maintenance activities are the activities for troubleshooting and are to be carried out as and when fault, breakdown, breakage etc. are reported. It is bidder's responsibility to attend and resolve such issues within the time frame stipulated in **Annexure VI**. In case of failure to comply with these timelines, the authority shall impose penalties as per the said annexure. Troubleshooting procedures may be referred from Annexure XV or CPHEEO&M Manual.

c. General Maintenance and activities

The bidder has to carry out the following activities during the contract tenure;

- i. trimming of grass, trees and bushes at least once in a month. This shall also include landscaping and gardening for beautification of the premise
 - ii. Sweeping of the premises on daily basis for the built-up area mentioned in **Annexure IX**. Sweeping shall be carried out twice a day (at beginning of the day and evening).
 - iii. Record keeping of all the important data on daily basis as prescribed in **Annexure VIII** viz;
 - a. Filter plant operation records
 - b. Pumping station operation records
 - c. Chemical stock and dosing
 - d. Stores
 - e. Grievances
 - f. Visitors
 - g. Preventive and curative maintenance activities (in the formats and printed booklets provided by GWSSB)
 - h. Water supply to villages/cities/ hamlets
 - i. Leakage records
- 2) Electricity Bill should be submitted to GWSSB office for payment as soon as received from concerned Electricity authority. If charges for delay in payment, levied on account of late submission of bills to GWSSB office by the contractor, then the same will have to be borne by contractor.
 - 3) Maintain IT hardware necessary for reporting in software and printing reports at main headworks. The data operator deployed for the scheme shall have computer/ laptop with internet connection to facilitate reporting. This computer and internet modem/data card will be owned by the contractor.
 - 4) Authority's equipment and assets other than water supply assets: Contractor shall preserve authority's equipment such as biometric attendance device, CCTV etc. and if lost or damaged, it should be replaced and repaired by the contractor.

- 5) The contractor shall immediately notify the authority of any illegal connections found in the distribution system. The contractor shall take needful action for removal of such illegal connections.
- 6) The contractor will be responsible for all statutory & regulatory requirements related to handling of hazardous chemicals, health, safety & environment (HSE) compliances and due care shall be taken to abide the law. Any implication due to non-compliance or violation shall be borne by the contractor.
- 7) O&M of pumping machinery must be scheduled as per CE (M & P), GWSSB circular No- Circular/PM/125/Dt. 12/05/2022 and Annexure VII.
- 8) All deployed staff shall be in uniform issued by the contractor as per the specifications provided in Annexure XIII. The uniform must have 'O&M Agency's name' and its logo so that during interaction with officials and beneficiaries they can be identified as personnel associated with water supply system.
- 9) Provide utility vehicle (inspection vehicle) for pipeline inspection and repair activities. Quantity as per Annexure III. This utility vehicle shall be a 4-seater pickup truck (utility vehicle) (mandatory). The provided vehicle shall not be used for any purpose other than inspection/ repair of pipeline infrastructure. The vehicle must feature a "On Duty for Water Supply System" & a logo of GWSSB (blue colour), complying to the logo usage guidelines. The agency shall arrange sufficient two-wheeler and four-wheeler utility vehicle to ensure proper inspection activities. The number mentioned in this document is minimum and the agency must arrange additional vehicles as required.
- 10) All manpower working on GWSSB's asset locations shall at all times, carry valid ID cards issued by the contractor. The contractor must have a fool-proof mechanism for issuance of ID cards which will ensure that no fraud happens. Agency will be responsible in case of any fraudulent activity. Format provided on Annexure XIV.

Scope of Employer

- 1) Handing over of water supply infrastructure as specified in this contract document for operation and maintenance by the contractor.
- 2) Carry out Inspection & asset survey **2 months'** prior to contract end date as defined in Exit Management.
- 3) Employer shall conduct and facilitate a joint inspection for "Handing over and taking over" with both relieving agencies and new agency.
- 4) Carry out an inspection on completion of one month from handover date to ensure minor repairs and replacement has been completed by the new agency
- 5) Deciding target quantity of water and target villages/ town/ hamlets.
- 6) Transfer of grievance to the contractor through grievance management system/software
- 7) Payment of Electricity bills for operations.
- 8) Take up major repair or replacement in the assets, which have been damaged due to floods, earthquake, cyclone or any natural calamities.
- 9) Payment of raw water charges to Water Resources Department/ SSNNL/ GWIL.
- 10) Supply chemical consumables such as chlorine, PAC and bleaching powder as per Schedule A of Vol-II. Agency shall raise demand for the requirement of such consumables at least three (3) months prior.

Exit Management

- 1) The authority will conduct inventory and asset survey at least **2 months** prior to the end date of contract. Authority expects O&M as per the contract conditions such that all assets remain in good condition to deliver the intended objective throughout its design life. However, during the asset survey specified above, if it is found that any asset (electromechanical or civil) has not been maintained properly and degradation is due to poor maintenance & upkeep beyond expected due to ageing, then it will be contractor's responsibility to restore the asset in healthy and usable condition for efficient operation. Defects found attributable to lack of maintenance & upkeep, shall have to be mandatorily rectified before handing over of assets upon completion of contract.

- 2) The contractor will have to carry out repairs and replacements as per the remarks of Deputy Executive Engineer in the DEE's asset survey report attributed to the contractor for corrective actions.
- 3) The handing over and taking over will be done in presence of a) Both contractors' representatives (relieving & taking over agency) and b) Deputy Executive Engineer or Executive Engineer. The report shall be countersigned by Executive Engineer.

4. Annexures

ANNEXURE-I SCHEME DETAILS & BENEFICIARY LIST

Scheme Salient Features & Operational Data

Sl. No.	Particulars	Description				
1	Scheme Name	Pipaldahad Regional Water Supply Scheme.				
2	Commissioning Year	1989 - 2003				
3	Actual cost of scheme	82.11 Lacs				
4	Augmentation history (year and cost)	Year		Cost		
		-		-		
		-		-		
		-		-		
5	Existing Components with capacity	Refer the sub points below (a to f)				
a	Water source	Dam on Various River & local kotar& Open well,borewell at various villages				
b	Filter Plants [Pressure Filters] (nos., location, capacity)	O& M work provided by Agency (un skilled Labour)				
		Location		Nos.	Capacity	
c	Pumping Machinery	As per Attached sheet				
d	Storage sumps/ tanks	As per Attached sheet				
e	Pipe network (length, make, class and Dia)	As per Attached sheet				
f	Distribution ESRs/ sumps	As per Attached sheet				
6	Total Beneficiary Demand	Category	Nos of Villages/ towns/ hamlets		Population (2024)	Demand (MLD)
		Village/Hamlets	10/0		5972	0.60
		Towns	0		N/A	N/A
		Industries	0		N/A	N/A
		Institutional	0		N/A	N/A
		...				
7	Operational Hours	Sr. No.	Location	Summer (Hours)	Winter/Monsoon (Hours)	Minimum (Hours)
		1	Pipaldahad Headworks	3	9	3

Sr. No	Name of Village/Hamlet	Taluka	Type of Storage Facility	Details of storage Sump	
				Capacity	No.
1	2	3	4	5	6
1	Pipaldahad	Subir	RCCESR	10,000 Lit Cap. & 20,000 Lit Cap.	2
2	Bhondvihir	Subir	RCCESR	10,000 Lit Cap	1
3	Chinchvihir	Subir	RCCESR	20,000 Lit Cap.	1
4	Gavhan	Subir	RCCESR	20,000 Lit Cap.	1
5	Jogthava	Subir	RCCESR	10,000 Lit Cap.	1
6	Junner	Subir	RCCESR	20,000 Lit Cap.	1
7	Karanjpada	Subir	RCCESR	20,000 Lit Cap.	1
8	Sawarda	Subir	RCCESR	20,000 Lit Cap.	1
9	Savarpada	Subir	RCCESR	20,000 Lit Cap. & 10,000 Lit Cap.	2
10	Kherindra	Subir	RCCESR	20,000 Lit Cap.	1

Statements Showing Details foESR

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Sr. No.	Name of Headworks	Pumpset Details				
		Type of Pump	Power [HP]	Head [meter]	Discharge [LPS]	Nos.
						Work. + Standby
1	2	3	4	5	4	6
01	Pipaldahad Headworks	Submersible Pump	15.0	90	6.66	1+0

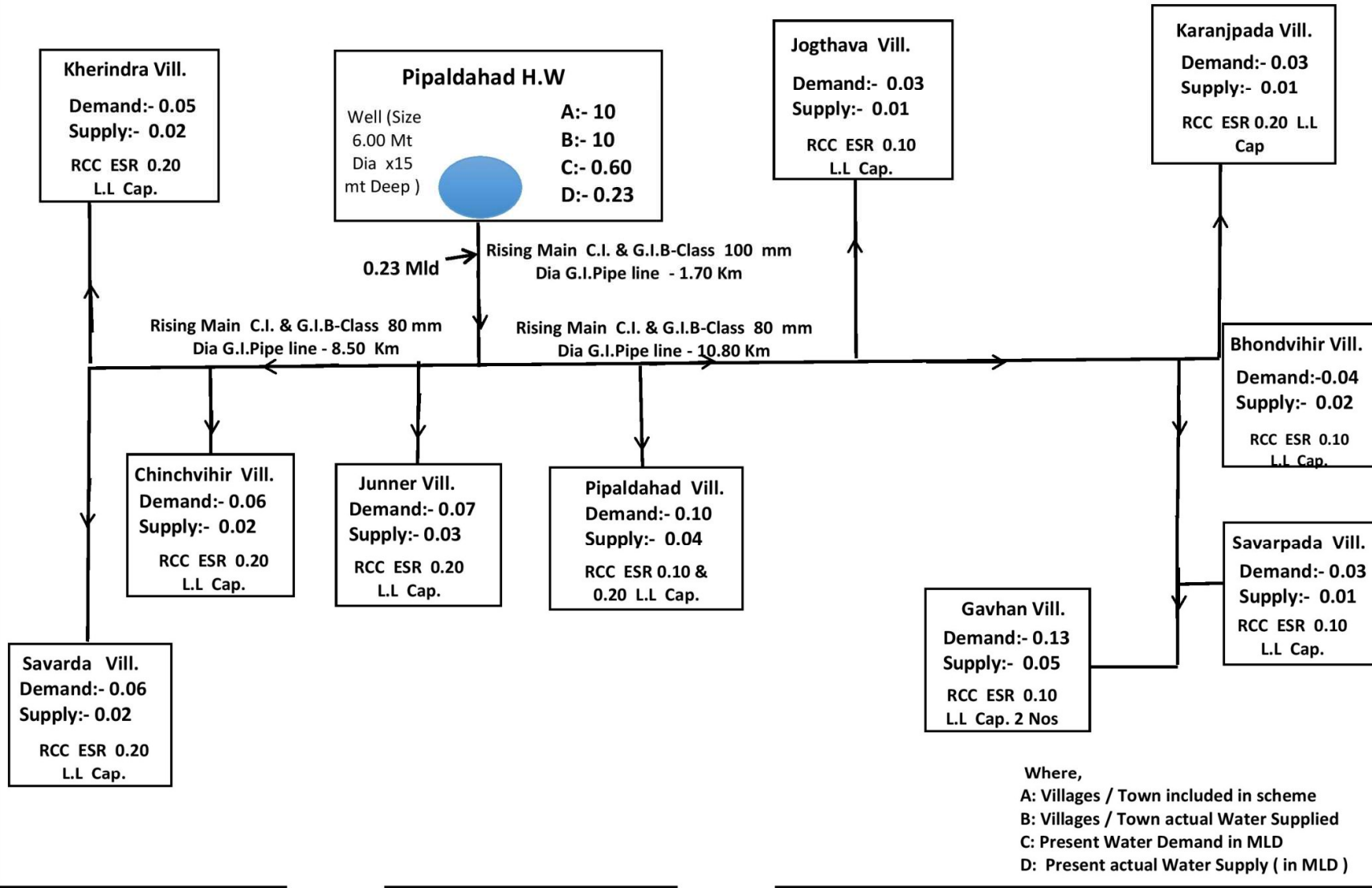
Headwork/ Sub headwork

Name of Headworks/Sub headworks	Water requirement (MLD)
Pipaldahad Head work	0.42

Name of Scheme : Pipaldahad Regional Water Supply Scheme
Statement Showing the Detail of Pipeline

Sr.No	Type of pipe	Pipe Dia in mm	Thickness/class	Pipe Qty in Mt
1	PVC	63 mm	Kg2/cm	7110
2	CI&GI	80mm	B&C Type Class	5880
3	CI&GI	100mm	C & D Type Class	9590
4	CI&GI	50mm	A& B CLASS	10506
5	GI	65mm	B CLASS	11700
6	CI&GI	80mm	B & C CLASSHEAVY DUTY,	51227
7	GI	100mm	C CLASS	2007
8	HDPE	140mm	Kg6	1800

Pipaldahad Reg. Water Supply Scheme (Flow Diagram)



List of Habitations

▪ Supply to Villages& Hamlets

Sr. No.		Name of village	Taluka	Population (year of tendering)	Target LPCD	Target Supply (in MLD)	Water Supply of past 12 months (MLD)	Habitation Category	Status of Water Supply	In case of technical, is the habitation W/s restoration work included in Part C of Schedule B? (Y/N)
1	2	3	4	5	6	7	8	9	10	11
A	RAW WATER RECEIVED FROM Subir Taluka Intake well, Well & Borewell to Various H.W.									
		Pipaldahad H/W								
	1	Pipaldahad	Subir	998	70	0.070		I	O	N
	2	Bhondvahir	Subir	412	70	0.029		IN	O	N
	3	Chinchvahir	Subir	607	70	0.042		IN	O	N
	4	Gahavan	Subir	1285	70	0.090		IN	O	N
	5	Jogthava	Subir	287	70	0.020		T	O	N
	6	Junner	Subir	707	70	0.049		IN	O	N
	7	Karanjpada	Subir	274	70	0.019		T	O	N
	8	Savarda	Subir	633	70	0.044		IN	O	N
	9	Savarpada	Subir	307	70	0.021		T	O	N
	10	Kherindra	Subir	544	70	0.038		T	O	N
		Total Rural		34866		0.42				

▪ **Supply to industries**

Sr No	Industry Name& location	Sanctioned water quantity	Average Water Supply of past 12 months (MLD)	Peak Water drawn (MLD)	Status of Water Supply ((O) Operational, (T)Technical Error, (V)Voluntary not taking)
1	--	--	--	--	--
2	--	--	--	--	--
3	--	--	--	--	--

▪ **Supply to institutions**

Sr No	Institute Name	Sanctioned water quantity	Average Water Supply of past 12 months (MLD)	Peak Water drawn (MLD)	Status of Water Supply ((O) Operational, (T)Technical Error, (V)Voluntary not taking)
1	--	--	--	--	--
2	--	--	--	--	--
3	--	--	--	--	--

ANNEXURE-II QUALITY TESTING & FREQUENCY

Quality standards:

Parameter	Unit	Permissible
Turbidity	NTU	≤1
pH		6.5 to 8.5
Total Dissolved Solids (TDS)	mg/L	≤500
Residual (Free) Chlorine	mg/L	≥2.00 at H/W ≥0.20 at service point (but not more than 1.00)
Coli form Organisms	MPN	<2.00

Testing frequency and location of sampling:

Sl. No.	Parameter	Location for sampling	Frequency
1	Raw water turbidity	At inlet/ aerator	Per Shift
2	Raw water pH	At inlet/ aerator	Per Shift
Output parameters (to be monitored)			
3	Treated water turbidity	Clear water Sump	Per Shift
4	Treated water pH	Clear water Sump	Per Shift
5	Residual chlorine	At Inlet/sump of next headworks by agency &at village level sumps, and other delivery points by GP/ VWSC in presence of agency	Per Shift
6	Total Dissolved Solids (TDS)	Outlet of filter plant	Per shift
7	Coli form organisms	Outlet of filter plant	Per shift

Historical raw water quality data

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Turbidity (NTU)												
pH												

ANNEXURE-III SCHEDULE FOR ESTABLISHMENT

The contractor shall employ the competent staff for O&M of the Water Supply Scheme as under with qualification and experience stated below, Contractor may deploy additional staff over and above those prescribed as per his requirement in order to run the system efficiently.

S. N.	Designation	Minimum Education	Role and office	Minimum Experience	No.
1	Operators [For Pumping Stations]	Diploma (Mechanical/ Electrical/ Instrumentation) or B. Sc. Environmental Science or ITI (mech/ electrical/ instrumentation/ water supply operator)	Role : For operating pumping machinery at PS Location : Respective plant/ pumping station	Minimum 1 year of experience	01
2	Pipe Fitter	ITI (Fitter / Plumber)	Role: Inspection and repair and distribution work of network line as per instructions of as per instructions of Supervisor / Asst. Supervisor and respective sub division's Engineer - in Charge Location: Section offices / Sub Headworks and Village Level Assets	More than 6 months of experience in maintenance and repairing work of pipeline network	01
3	Valveman	ITI (Fitter / Plumber)	Role: Inspection and repair and distribution work of network line as per instructions of as per instructions of Supervisor / Asst. Supervisor and respective sub division's Engineer - in Charge Location: Section offices / Sub Headworks and Village Level Assets	More than 6 months of experience in maintenance and repairing work of pipeline network	01
4	Helpers for Fitter		Role: Assistance to fitter, electrician, operators, water quality sampling etc. Location: With respective group as assigned by Supervisor / Asst. Supervisor and	10th Pass, Familiar with all Smartphone features	02

			respective sub division's Engineer - in Charge		
--	--	--	--	--	--

Note:

- a) Any personnel deployed in the scheme must be on contractor's payroll and should be above 25 years of age and below 60 years of age with reference to the date of submission of the tender.
- b) Agency must arrange and maintain adequate two-wheel and four-wheel utility vehicles for line inspection, repairs, and distribution of water. The provision of Two-wheel vehicles to ensure that work is not hindered when all utility vehicles are engaged or the location is in-accessible by four-wheel vehicle.
- c) All office staff, engineer & manager shall be available on call 24x7 i.e. all days. They shall be present at appropriate/ defined location for at least 8 hours per day for 6 days a week except Sunday.
- d) Field staff, operators, helpers etc. shall be present on site 24x7 on shift-based rotation system.

ANNEXURE-IV GUIDELINES AND STRUCTURE FOR SITE MEETINGS

1. **Daily Planning Meeting (DPM):** This shall be conducted on daily basis on each asset location prior to start of day's work. These meetings shall include discussion on operational and maintenance parameters including target for the day, activities for the day, inventories, safety, critical issues faced by field staff.

Attendees	1) Operator's Maintenance Engineer / Assistant Maintenance Engineer 2) Operator's skilled and unskilled staff
Conducted by	Operator's Maintenance Engineer
Time & Venue	Daily morning prior to start at all asset locations
Topic/ Agenda	3) Target supply quantity, quality 4) Target supply hours 5) Potential issues in achieving the targets 6) Routine maintenance activities 7) Fast moving spares- Inventory levels 8) Leaks repaired and machinery requirement 9) Safety while working with chlorine, while working on heights, fire safety etc. 10) Major maintenance and overhaul activities (such as replacement of spares)
Documentary record	Attendance sheet & discussion points

2. **Weekly Planning Meeting (WPM):** This shall be conducted on weekly basis on each asset location at the start of the working week. These meetings shall include discussion on operational and maintenance parameters including target for the week, activities for the week, inventories, safety, critical issues faced by field staff.

Attendees	11) GWSSB AAE & JE 12) Operator's Maintenance Engineer / Assistant Maintenance Engineer 13) Operator's skilled and unskilled staff
Conducted by	GWSSB AE/ AAE/ JE
Time & Venue	Monday morning
Topic/ Agenda	14) Target supply quantity, quality 15) Target supply hours 16) Potential issues in achieving the targets 17) Routine maintenance activities 18) Fast moving spares- Inventory levels 19) Safety while working with chlorine, while working on heights, fire safety etc. 20) Major maintenance and overhaul activities (such as replacement of spares)
Documentary record	21) Attendance sheet & discussion points 22) Observation sheet: assets not working properly to be recorded by AAE/ JE

3. **Monthly Review Meeting (MRM):** This shall be conducted on a monthly basis preferably on the last day of the month or the first day of the following month.

Attendees	23) GWSSB Deputy Executive Engineer 24) GWSSB AAE & JE 25) Operator's O&M Manager 26) Operator's Maintenance Engineer / Assistant Maintenance Engineer
Conducted by	GWSSB DEE
Time & Venue	11:00 AM on 1 st Wednesday of each month
Topic/ Agenda	27) Detailed review of operational performance for the month

	28) Critical issues faced, downtime, cause analysis 29) Review of overall inventory and preparedness for the following month
Documentary record	30) Attendance sheet & discussion points 31) Monthly inspection report to be prepared and submitted by DEE

4. **Quarterly Review Meeting (QRM):** This meeting will be chaired by the Executive Engineer. It shall be held every quarter to review the performance of the agency and schemes

Attendees	32) GWSSB EE 33) GWSSB Deputy Executive Engineer, AAE & JE 34) GWSSB AAE & JE 35) Operator's O&M Manager 36) Operator's Maintenance Engineer
Conducted by	GWSSB EE
Time & Venue	Last Tuesday of Jan, Apr, Jul and Oct of the year
Topic/ Agenda	37) Detailed review of operational performance 38) Critical issues faced, downtime, cause analysis 39) Demand & supply dynamics 40) Asset condition
Documentary record	41) Attendance sheet & Discussion points

ANNEXURE-V REPORTING FORMATS

Daily Reporting Format (MIS Portal/ ERP Operations O& M Module)

Coverage and quantity			
Supplied village & cities	10 V/00H	Out of total	10 villages/00Hamlets
Supplied quantity	0.42MLD	Out of total	0.42MLD

Pumping							
Location: H/W 1							
Sr No.	Type	Design Supply Hours	Capacity (HP)	Condition	Hours supplied	Reason in case of failure (if any)	Breakdown since
1	Working			O Working O Breakdown			
2	Working			O Working O Breakdown			
3	Standby			O Working O Breakdown			
Location: H/W 2							
Sr No.	Type	Design Supply Hours	Capacity (HP)	Condition	Hours supplied	Reason in case of failure (if any)	Breakdown since
1	Working			O Working O Breakdown			
2	Working			O Working O Breakdown			
3	Standby			O Working O Breakdown			
Grievance Redressal (Scheme Related)							
Pending complaints carried forward from previous day	Total complaints received today	Total complaints redressed today	Total complaints yet to be redressed				

Water quality			
Raw water turbidity	NTU		
Treated water turbidity	NTU		
Treated water Ph			
PAC/Alum dose	mg/L		
Residual chlorine	Headwork 1	PPM	
	Sub headwork 1	PPM	
	Headwork 2	PPM	
	Sub headwork 2	PPM	
	Add new rows if required	PPM	
Reason for issue in water quality (if any)			
Other Issues			
Issue	Reported Date	Cause <text>	Resolution Remark
Water Leakage			

Volume I

O&M System failure attended			
Repairs			
Add more rows as required			

Monthly Reporting Format (MIS Portal/ ERP Operations O & M Module)

Electricity consumed		Location (HW/SHW)		
Meter reading at start of the month				
Meter reading at end of the month				
Units consumed in the month				
Bill amount for the month (in INR)				
Power outage (if any)				
Sr No.	Date	Number of hours		
1				
2				
Add more rows as required				
Power factor		Location-1		Location-2
Power Factor				
Grievance Redressal				
Pending complaints carried forward from previous month	Total complaints received in a month	Total complaints redressed in a month	Total complaints redressed within stipulated time limit	Total complaints yet to be redressed
Grievance Redressal Time				
Average of Monthly Grievance resolution time (Autofill by ERP)				
Preventive Maintenance activities (payable)				
Inside-Outside Painting			Yes/ No	Attach Photos
Cleaning of Storage reservoir and head works premises				Attach Photos
Replace Filter Media				Attach Photos
Add more rows as required				Attach Photos
Consumables				
Monthly usage of PAC/Alum		Kg		
Monthly usage of Chlorine		Kg		
Monthly usage of Bleaching Powder		Kg		

Annual Reporting Format (MIS Portal/ ERP Operations O & M Module)

Sr. No.	Particulars	Details																																									
1	Name of RWSS: Name of Agency: Address: Telephone No.: Email Id:																																										
2	Details of Customers:																																										
	Population being serviced																																										
	Nos. of Villages																																										
	Nos. of Towns																																										
	Nos. of Connections of Category	<table border="1"> <thead> <tr> <th>Type</th><th>Metered</th><th>Unmetered</th><th>Total</th></tr> </thead> <tbody> <tr> <td>Residential</td><td></td><td></td><td></td></tr> <tr> <td>Commercial</td><td></td><td></td><td></td></tr> <tr> <td>Industrial</td><td></td><td></td><td></td></tr> <tr> <td>Institutional</td><td></td><td></td><td></td></tr> <tr> <td>Others</td><td></td><td></td><td></td></tr> </tbody> </table>	Type	Metered	Unmetered	Total	Residential				Commercial				Industrial				Institutional				Others																				
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Commercial																																											
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Others																																											
3	Details of Water Sources	<p>List of water sources (Please indicate all water sources from which piped water supply is drawn)</p> <table border="1"> <thead> <tr> <th rowspan="2">Source Piped/ Ground Water</th><th colspan="6">Drawn water quantity during last one year</th></tr> <tr> <th>Max. drawn in a day (KL or ML)</th><th>Min drawn in a day (KL or ML)</th><th>Total in a month (ML)</th><th>Avg. in a month in MLD</th><th>Total in year (ML)</th><th>Avg. in a year (MLD)</th></tr> </thead> <tbody> <tr> <td>Bulk/RWSS Pipeline</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>Ground Water</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>Local Surface sources</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>Total (For All sources)</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Source Piped/ Ground Water	Drawn water quantity during last one year						Max. drawn in a day (KL or ML)	Min drawn in a day (KL or ML)	Total in a month (ML)	Avg. in a month in MLD	Total in year (ML)	Avg. in a year (MLD)	Bulk/RWSS Pipeline							Ground Water							Local Surface sources							Total (For All sources)						
Source Piped/ Ground Water	Drawn water quantity during last one year																																										
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5	Distribution Charges recovered by the Authority in Rs. Lakhs*	<table border="1"> <thead> <tr> <th>Consumer Type</th><th>Annual Billing</th><th>Annual Receipt</th><th>Outstanding Dues</th></tr> </thead> <tbody> <tr> <td>Domestic</td><td></td><td></td><td></td></tr> <tr> <td>Institutional</td><td></td><td></td><td></td></tr> <tr> <td>Commercial</td><td></td><td></td><td></td></tr> <tr> <td>Industrial</td><td></td><td></td><td></td></tr> <tr> <td>Total</td><td></td><td></td><td></td></tr> </tbody> </table> <p>*To be obtained from Division/ Sub division offices</p>	Consumer Type	Annual Billing	Annual Receipt	Outstanding Dues	Domestic				Institutional				Commercial				Industrial				Total																				
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Zone 2																																											

	every _____ days. C. Period for which water supplied on the day of supply, measured at household level	Zone 3																																																										

7	Water Distribution Grievance Analysis (from 1916 helpline)	Nos. of applications received during the year <table border="1"> <tr> <th rowspan="2">Sr. No</th><th rowspan="2">Customer type</th><th rowspan="2">Total Complaints</th><th colspan="2">Disposed</th><th colspan="4">Pending since</th></tr> <tr> <th>Positive</th><th>Negative</th><th>Within 1 Week</th><th>1-2 Week</th><th>2-4 Week</th><th>Above 4 weeks</th></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>								Sr. No	Customer type	Total Complaints	Disposed		Pending since				Positive	Negative	Within 1 Week	1-2 Week	2-4 Week	Above 4 weeks																																				
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9	Proposed course of action to prevent water loss, improve spatial distribution asymmetry, improve service level& address quality problem issues	I. _____ II. _____ III. _____ IV. _____																																																										
10	Regulatory action taken under Gujarat Domestic Water Supply (Protection) Act or the law for concerned authority	a) Unauthorized drawl (Please report nos. of cases) <ul style="list-style-type: none"> I. Excess drawl II. Unauthorized drawl III. Change of use for water connection b) Penalty/Assessment orders levied for unauthorized connection/drawl <ul style="list-style-type: none"> I. Nos. of case in which assessment/penalty order made II. Amount in assessment order made III. Amount collected IV. Amount yet to be collected <table border="1"> <tr> <td colspan="4">Recovery pending from the consumer in reference to penalty imposed under the act</td></tr> <tr> <td>Current Year</td><td>Previous Year</td><td>Years prior to last year</td><td>Total</td></tr> <tr> <td></td><td></td><td></td><td></td></tr> </table>								Recovery pending from the consumer in reference to penalty imposed under the act				Current Year	Previous Year	Years prior to last year	Total																																											
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ANNEXURE-VIPAYMENT, RESOLUTION TIME & PENALTIES

PAYMENT & INCENTIVES

- 1) The contractor or O&M agency shall raise monthly invoice to the authority within 5th to 10th date of any billing month. This will include amount payable according to Part A, B and C subject to execution of the items described in this tender document.
- 2) The invoices submitted will be subject to incentives and/or penalties which the authority has laid down through this contract.
- 3) Billing for Part B and Part C will be as per actuals, as measured and approved by the concerned officer.

Aspect	Activity	Type	Description
Billing for water supply and incentives	a) 100% operational habitations covered, & b) Voluntary habitations, which have demanded water supply, are covered (As per the baseline assessment signed by DEE and provided in this tender)	Regular Billing	100% payment of Part A, per month, if a) and b) has been satisfied. Any deductions, penalties will be as per the Operational Penalties mentioned in this annexure. No deduction for habitations not receiving water due to any technical issue (as identified through the baseline in this tender)
	c) Technical habitations which are operationalized and sustained during contract period		

For calculation of One-time incentive, Annual rate per habitations shall be calculated as:

$$\text{Annual rate per habitation} = \frac{\text{Total of Part A (for the year)}}{\text{Total no. of villages, towns \& hamlets* (operational+ voluntary+ technical)}}$$

*Hamlets is defined as Census Hamlets. Only include those census Hamlets where the hamlet is covered under Faliya Connectivity project and the RWSS delivers water directly to that hamlet.

DEDUCTIONS & PENALTIES

Every habitation should receive adequate and safe water on a daily basis as per the target quantity decided by GWSSB. In case of any fault, the shortfall shall be provided on the next day along with that day's regular supply quantity. i.e. The shortfall in quantity shall be compensated on the following day. For the purpose of establishing service level agreement, a 2-day block period is considered.

A. Operational

Aspect	Activity	Description
Water supply coverage	Less habitations served (from baseline: Operational) or less quantity water is served to the habitations against the target	Penalties will be as per the three cases (a, b and c) as shown below. For non-compliance, applicable case will be identified, and such penalty will be levied.
a)	Within the 2-day block period, less quantity of water supply to any habitation (One instance= 1 non-compliant block of 2-days)	Total quantity of water supplied to a habitation within the 2-day block period: <ol style="list-style-type: none"> i. 0% or up to 50% of 2-day requirement: No payment ii. >50% to ≤90%: Payment at 70% per day rate per habitation iii. If total supplied water is ≥ 90%: 100% payable to contractor
b)	No supply for three consecutive 2-day blocks i.e. 6 days	No payment and a penalty of 50% per day per habitation. (For understanding, total deduction will be 6 days' payment + 3 days' of payment as penalty)
c)	Non supply of water for 20 days or more continuous in a month. Such habitation will be considered as habitation with technical issue.	No payment for the billing month and a penalty of 100% of monthly rate per habitation
		Note:

Aspect	Activity	Description
		<ul style="list-style-type: none"> Three consecutive months of non-supply for 20 or more days/month will be a cause for termination.
	Special notes for a, b, and c.	<ul style="list-style-type: none"> If penalty c is applied for a month, then a or b will not apply during that month. If penalty b or c is applicable, then during the same period/ days, penalties under 'a' will not be applicable (concurrent period of 6 days or 20 days). Separate instances of a & b or any combinations thereof will be levied during a billing period (except for concurrent period) In case of technical issue habitations which are operationalized, penalties will be applicable after trial period i.e. after 3 months of resolution For exceptional circumstances such as damage to the assets due to flood or other natural calamities, power supply issue from DISCOM, or that beyond the control of O&M agency, the EE shall issue a certificate to the agency for waiver of penalties.
Absence of manpower	O&M Manager	Rs 5000/day
	Maintenance Engineer	Rs 2500/day
	Other operating staff	Rs 1500/day
Quality non compliance	Treated Water Turbidity, pH or chlorine at H/W and Sub H/W not compliant	Rs 5000 per failed sample. 10 or more failed sample in a month will be a cause for termination of the contract.
Daily Reporting to respective Sub Division and on GWSSB Application	Daily Reporting of water supplied to each habitations and all other related information as instructed by any Engineer – in – Charge through online medium suggested by any Engineer – in – Charge and Daily Photograph Upload on Any Official GWSSB Application as on-line at the time of tender period.	<p>Rs. 100 / Day per Intakewell or Headworks or Any Other Pumping Station. For not reporting information to all respective sub divisions</p> <p>Rs. 500 / Day per Intakewell or Headworks or Any Other Pumping Station. For not Uploading Photograph and providing any other information on Official GWSSB Application.</p>
Online Data Entry	Reporting in ERP or/ other MIS software such as quantity, quality, grievances, operational KPI setc	Rs 5000/day Late reporting will be considered non-compliant. Daily reports have to be submitted before 12 PM on the following day.
	Note for Daily Reporting to respective Sub Division and on GWSSB Application and Online Data Entry	<ul style="list-style-type: none"> No relaxation will be given to Contractor or his employees / workers for not uploading photograph or providing information or data entry in ERP and WMS/WS software due to unavailability of network or internet connection. It would be solely Contractor's Responsibility to make sure that his employees/workers have proper internet connection all the time. <p>No relaxation will be given to Contractor or his employees / workers for not uploading photograph or providing information or data entry in ERP and WMS/WS software due to unawareness of employees/worker with latest smartphone/pc features. It is Contractor's responsibility to hire personal with adequate educational and professional knowledge.</p>
Conduct of employees	Staff not in uniform compliant to the contract condition or staff doesn't have ID card issued by agency	₹ 100/day per person
	Uniform or ID Card or Both not provided by Contractor	₹ 1000/month per person
Safety Non-	If the contractor's personnel are found	Rs 1000/- shall be deducted for every such instance.

Aspect	Activity	Description
compliance	to be working without required personal protective equipment (PPE) while handling chlorine gas, working with electrical components or during working at heights more than 1.5m or in violation of provisions of Annexure XII.	After three such deductions/ instances, issue a notice to the contractor. No improvement, i.e. the fourth instance will be a cause for termination.
Maintaining Registers & Checklists	Employees and Workers of Contractor must maintain all the registers & Checklists properly with all the information filled in register correctly. False information or unfilled will be subjected to penalties.	Rs. 1000 / month per each register not maintained correctly.

For calculation of penalties, monthly rate per habitation shall be calculated as:

$$= \frac{\text{Total of Part A (for 12 months)}}{12 \text{ months} \times \text{Total no. of Operational villages, towns, hamlets}^*}$$

For calculation of penalties, daily rate per habitation shall be calculated as:

$$= \frac{\text{Total of Part A (for the year)}}{365 \text{ days} \times \text{Total no. of Operational villages, towns, hamlets}^*}$$

*Hamlets is defined as Census Hamlets. Only include those census Hamlets where hamlet is covered under Faliya Connectivity project and the RWSS delivers water directly to that hamlet.

B. Maintenance

Aspect	Activity	Description
Power Factor	For Power Factor below 0.9	Total deduction: Penalty levied by DISCOM+ INR 10,000 per incidence (as per electricity bill)
Preventive Maintenance (stipulated time is as per Annexure VII, master framework for preventive maintenance)	Daily maintenance activities not carried out as per daily checklist	Rs2,000/day
	Monthly maintenance activities not carried out within stipulated time	Rs 50,000 in the billing month
	Quarterly maintenance activities not carried out within stipulated time	Rs 2,00,000 in the billing month
	Any of the Annual maintenance activities, Overhaul, Calibration & Servicing, Performance Testing, Payable Maintenance Activities (Part B) not carried out within stipulated time	Rs 10,00,000 in the billing month

C. Curative Maintenance & Repairs

Aspect	Activity	Description
Repair, Breakdown response	Carryout repairs within 24 hours to restore water supply. Penalty will be levied for delay after first 24 hours. For calculation of penalties: First day = From 24 hours to 48 hours	First day: ₹ 1,000/day Second day & onwards: ₹ 10,000/day (for all components incl WTP, pumping machinery, pipe network, intake structures, storage tanks, valves, transformer*, panels, starters, breakers, lifting devices, dosing devices etc.) Note: If due to such breakdown, water supply is affected, then operational penalties will also be applicable. *Except where DISCOM is responsible for repair of transformer under major breakdown

D. Other penalties:

- Any implication, due to chemical leak hazard shall be borne by the agency
- The agency has to submit the documentary proof of GPF/ESI registration along with the bid documents.
Further, as per the Employees Provident Fund and Miscellaneous Provisions Act, 1952, the contractor shall comply with all provisions of the said act if his/ her total establishment has 20 or more persons employed. Agency shall submit proof of PF contribution with every invoice. Entire bill payment will be put on hold if the same is not provided.
- The agency has to submit the license as per contract Labour Act within one month from the date of work order otherwise, a penalty of Rs.50,000/- per month will be imposed for two months, or otherwise contract will be terminated, and all the liabilities shall be borne by the contractor.
- Billing:** Agencies (O&M contractor) shall submit monthly bill to GWSSB as agreed in the T&C on timely basis i.e. 5th to 10th date of the following month, beyond which penalties will be levied:

Invoice (Monthly bill) submission	Penalty
Late submission of monthly bill	5% of monthly billed amount for each month of delay. E.g. for two months' delay, 5%+5%= 10% penalty will be levied.
Note	Such penalties will be separately calculated for each delayed bill.

TERMINATION

Termination due to SLA non-compliance: In addition to the provisions of this tender document, and not in contrary to any clause of this contract, the agency may be terminated under the following circumstances;

- If applicable penalties for each month exceed 25% of billing amount per month, for a block of 4 consecutive months, then contract shall be liable for termination.
- Cumulative penalties levied against non-performance in any of the SLA (viz. operational, preventive or curative maintenance) exceeds 10% of the total contract value.
- Non-performance from the contractor w.r.t. repetitive non-adherence to safety requirements or quality requirements of water as mentioned in this annexure's Deductions & Penalties.

In such cases of violation, a termination notice shall be served to the O&M contractor by the competent officer of GWSSB. Termination as per Clause 18 will be applicable.

ANNEXURE-VII PREVENTIVE MAINTENANCE SCHEDULE

Framework for carrying out maintenance activities

Periodicity of activities	Time frame to complete	Recording mechanism
Daily preventive maintenance activities	Daily morning in the first hour as part of the start-up activities	Daily checklists pasted near the asset
Monthly preventive maintenance activities	1 st or 2 nd of every month	Monthly maintenance checklist
Quarterly preventive maintenance activities	8 th to 14 th of January, April, July and October of every year	Quarterly maintenance checklist
Half yearly preventive maintenance activities	Between 8 th to 14 th of January and July of every year	Half-yearly maintenance checklist
Yearly preventive maintenance activities	Between 15 th and 30 th of January of every year	Annual maintenance checklist
Calibration & servicing	Along with the yearly preventive maintenance activities	Calibration and servicing log
Overhaul activities	15 th to 30 th of January every year Clariflocculator: every year Civil and plant: every 2 years Pumping machinery: every 1 year (submersible) or 2 years (VT, centrifugal) Transformer: every 5 years	Overhaul checklist
Painting works	Between 1 st to 30 th of October of the year (after monsoon)	Record log

Schedule for Weather specific preparation

Periodicity of activities	Time frame to complete	Recording mechanism
Pre-Summer: Yearly performance testing	Testing from 15 th to 30 th of January of every year Systems should be ready for summer by 28 th February with all corrective actions	Performance testing log
Preparedness for Monsoon	15 th June to 30 th June of every year. Systems should be ready by 1 st July with all corrective actions	Record log

i. Daily Operations Checklists

Daily Checklist: Pumps & Motors (Asset ID)

RWSS name : _____
 Location(H/W) : _____
 Manufacture Year : _____

Asset Make & Capacity : _____
 Section : _____
 Quantity & Head : _____

Date	Bearing temperature	Noise	Vibration	Temperature	Visible Leaks	Coupling bushed and rubber spider integrity (in MPR)	Check stuffing box, gland, etc.	Lubrication	Signature of Pump Operator
01 / ____/20__	Ok/ Not Ok								
02 / ____/20__									
03 / ____/20__									
04 / ____/20__									
05 / ____/20__									
06 / ____/20__									
07 / ____/20__									
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29 / ____/20__									
30 / ____/20__									
31 / ____/20__									

Daily Checklist: Panels, Circuit Breakers, Starters

RWSS name : _____

Asset Make & Capacity : _____

Location(H/W) : _____ Section

Manufacture Year : _____

Quantity & Head : _____

Date	Phase indicator	Voltage, Current, Frequency	Energy meter readings	Temperature	Clean external surface	Any loose connections / insulation	Signature of Electrician/ Operator
1 / ____ /20__	Ok/ Not Ok						
2 / ____ /20__							
3 / ____ /20__							
4 / ____ /20__							
5 / ____ /20__							
6 / ____ /20__							
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29 / ____ /20__							
30 / ____ /20__							
31 / ____ /20__							

Daily Checklist: Transformer & Substation

RWSS name : _____
 Location(H/W) : _____
 Manufacture Year : _____

Asset Make & Capacity : _____
 Section : _____
 Quantity & Head : _____

Date	Winding temperature	Oil temperature	Leaks in CT/PT unit	Silica gel colour (if pink not ok)	Oil level in tank	Any loose connections / insulation	Signature of Electrician/ operator
1 / ____ /20__	Ok/ Not Ok						
2 / ____ /20__							
3 / ____ /20__							
4 / ____ /20__							
5 / ____ /20__							
6 / ____ /20__							
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30 / ____ /20__							
31 / ____ /20__							

Daily Checklist: Headworks (Filter Plant)

RWSS name : _____
 Location(H/W) : _____
 Manufacture Year : _____

Asset Make & Capacity : _____
 Section : _____
 Quantity & Head : _____

Date	Leakages in Raw water conveyance	Cleanliness in inlet channel	Sludge on surfaces (Clariflocculator)	Leaks in Cylinder/ toner in Chlorine room	Water loss in filter gallery	Functioning of key components	Signature of Operator
1 / ____ /20__	Ok/ Not Ok						
2 / ____ /20__							
3 / ____ /20__							
4 / ____ /20__							
5 / ____ /20__							
6 / ____ /20__							
7 / ____ /20__							
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29 / ____ /20__							
30 / ____ /20__							
31 / ____ /20__							

Daily Checklist: Valves & Gates

RWSS name : _____
 Location(H/W) : _____
 Manufacture Year : _____

Asset Make & Capacity : _____
 Section : _____
 Quantity & Head : _____

Date	Bolts & nuts	Packing (gland, gasket, etc)	Leaks	Condition of valve	Lubrication (for sluice, butterfly)	Vibration or noise	Signature of Operator
1 / ____ /20__	Ok/ Not Ok						
2 / ____ /20__							
3 / ____ /20__							
4 / ____ /20__							
5 / ____ /20__							
6 / ____ /20__							
7 / ____ /20__							
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30 / ____ /20__							
31 / ____ /20__							

Calibration& Service Log for: _____ (name of equipment& Asset ID)

Volume I

RWSS name	:	_____	Asset Make & Capacity	:	_____
Location (H/W)	:	_____	Section	:	_____
Manufacture Year	:	_____	Quantity & Head	:	_____

Calibration & Service Log

Sl No.	Date of Calibration	Validity (next calibration date)	Calibration Agency Name	Signature of calibration agency's personnel	Signature of Maintenance Engineer

Agency shall hang/ paste/ stick this log near the equipment. Applicable for:

- 42) Pressure gauges
- 43) Flow measuring devices
- 44) Chemical dosing devices such as chlorinators
- 45) Laboratory equipment
- 46) Quality analysers
- 47) Voltmeter
- 48) Ammeter
- 49) Frequency meter
- 50) Protection relay
- 51) DG set
- 52) Others where applicable

ii. Periodic Maintenance activities**PUMP & MOTOR SET****Monthly**

Activity	Check (Tick if complete)
Tighten the gland stuffing box and check gland packing	
Apply oil to the gland bolts	
Inspect mechanical seal for wear	
Tighten Foundation bolts	
Check condition of bearing	
Tighten electrical connections including earthing	

Quarterly

Activity	Check (Tick if complete)
Realignment of pump and drive (both shall be decoupled) (pump and motor shafts should be pushed to either side)	
Replenish clean oil or grease to lubricate bearings (Anti friction bearing should have one third to half of its housing as void space to avoid overheating)	
Replace oil or grease in the bearing housing	
Check condition of gland packing and replace	
Tighten cable gland, lugs and connecting bolts	
Tighten foundation bolts	
Inspect for leaks	
Greasing, Lubrication and Replenish Oil	
Clean flow indicators and other instruments/ appurtenances	

Note: Monthly activities shall be undertaken during quarterly maintenance also.

Annually

Activity	Check (Tick if complete)
Overhauling, if due	
Performance test before Summer	
Clean bearing and lubricate, replace	
Clean bearing housing examine for flaws, e.g. wear, grooving etc.	
Examine shaft sleeves for wear or scour and necessary rectification. If shaft sleeves are not used, shaft at gland packing's should be examined for wear.	
Calibration of all vital instruments i.e. pressure gauge, vacuum gauge, ammeter, voltmeter, Wattmeter, frequency meter, tachometer, flow meter, etc.	
Conduct performance test of the pump for discharge, head efficiency, pressures and power	
Examine earth connections and motor leads	
Restore running clearances through original specifications (adjust ring clearances or install new wear rings)	
Replace the impeller in case of corrosion or excessive wear	
Clean winding, bake and varnish	

Note: Quarterly activities shall be undertaken during annual maintenance also.

Overhauling of the pumpset

Activity	Check (Tick if complete)
Restoring clearances (incl. clearance between impeller-casing rings, impeller-plates)	
Replacing worn-out/ damaged parts such as impeller, wear rings/ plates, o-rings and packings, drive shaft.	
Cleaning and lubricating bearings	
Replacing corroded parts	
Removal of scaling and leaks	
Recalibration of gauges and instruments	
Testing of reassembled pumps	

PANELS, CIRCUIT BREAKERS, STARTERS**Monthly**

Activity	Check (Tick if complete)
Blow the dust and clean internal components in the panel, breaker	
Tighten all connections of cable, wires, jumpers and busbars. All carbon deposits shall be cleaned.	
Adjust relay setting.	
Test spring charging mechanism and manual cranking arrangement.	
Clean all exposed insulators.	
Test functioning of trip circuit and alarm circuit.	
Conduct test for opening & closing timing of breaker.	
Check contact resistance between male & female contacts	

Quarterly

Activity	Check (Tick if complete)
Clean with smooth polish paper all the fixed and moving contacts	
Replace the oil in oil tank	
Check insulation resistances.	
Check conditions of insulators and replace if necessary	
Tighten all connections in marshalling boxes of breakers and transformer.	
Oil top up in MOCB/LOCB/HT OCB.	
Measure contact resistance and check male & female contacts for any pitting	
Check dielectric strength of oil and replace (HT)	

Note: Monthly activities shall be undertaken during quarterly maintenance also.

Annually

Activity	Check (Tick if complete)
Carry out servicing of all components, thoroughly clean and reassemble.	
Calibrate voltmeter, ammeter, frequency meter etc.	
Replace oil in breaker. (HT)	
Testing of protection relay with D.C. injection.	
Servicing of HT breaker and contactor	

Note: Quarterly activities shall be undertaken during annual maintenance also.

TRANSFORMER & SUBSTATION**Monthly**

Activity	Check (Tick if complete)
Repair leakages through CT/PT unit, transformer tank and HT/LT bushings.	
Change the silica gel (if pink in colour)	
Top up oil level in transformer tank	
Tighten all connections (relay contacts, cable termination) in marshalling box etc.	
Test AB switch and DO fuse assembly.	
Clean radiators free from dust and scales.	
Pour 3-4 buckets (6 to 8 buckets in summer) of water in earth pit	
Inspect lightning arrestor and HT/LT bushing for cracks and dirt.	

Quarterly

Activity	Check (Tick if complete)
Change or filter transformer oil in case of dielectric strength is not as desired.	
Check insulation resistance of all equipment's in sub-station, continuity of earthing and earth leads.	
Test tap changing switch.	
Change or filter oil in CT/PT if dielectric strength is not in desired.	
Tighten contact faces of AB switch and DO/HG fuse; apply petroleum jelly or grease to moving components of AB switch.	

Note: Monthly activities shall be undertaken during quarterly maintenance also.

Annually

Activity	Check (Tick if complete)
Replace Oil after monsoon	
Measure resistance of earth pit. Resistance shall not exceed 1 ohm.	
Tighten bus bar connections, clean contact faces, change rusted nut bolts.	
Calibrate the protection relay for functioning. Correct relay setting if necessary.	
Earth filling and metal spreading to remove water logging	
Test transformer oil for acidity test.	
Check drainage arrangement to prevent water logging	

Note: Quarterly activities shall be undertaken during annual maintenance also.

Long term

Activity	Frequency	Check (Tick if complete)
Painting transformer & steel structure	2 years	
Overhaul of Transformer: 53) Replace gaskets and rubber items: between tap changer flange and transformer tank, Gaskets for valve flanges, Gaskets for radiator valve flanges, Gaskets for turret and bushings flanges, Gasket between PRD and transformer tank cover, etc. 54) The core of transformer and winding replacement after 5 years for transformer up to 3000 kVA and after 7–10 years for transformers of higher capacity.	5 years	

FILTER PLANT & HEADWORK**Monthly**

Activity	Component	Check (Tick if complete)
Calibrate optimum dosage of coagulant (based on laboratory analysis)	Inlet channel	

Lubricating & oiling all motors & gearbox	Alum dosing	
Clean all electric connections	All units	
Repairing leaks (pressure grouting in civil structures)	All units	
Greasing/ Lubrication/ Oil top up of all moving parts of bridge (trolley, gearbox)	Clariflocculator	
Repairing leaks in chemical feeder, dosing plumbing, air blower pipes	All units	

Quarterly

Activity	Component	Check (Tick if complete)
Lubrication and oiling of motors	All units	
Lubricate bearing and gear trains	Alum dosing	
Cleaning all electromechanical components	All units	
Valve/Gate Lubrication and servicing	All units	
Lubrication, oiling, greasing and servicing of backwash pump	Filter gallery	
Cleaning of alum, PAC, chlorine storage rooms	Chemical storage	
Calibrate all dosing equipment	All chemical dosing units	
Replace all corroded parts all water level indicators, bolts, nuts, washers, ladders, rungs, metal railings, insert plates	All units	
All signages (repairs, replacement if damaged)	All units	
Replenish safety kits	Chlorine room	
Mock drill	Filter plant	

Note: Monthly activities shall be undertaken during quarterly maintenance also.

Half yearly

Activity	Component	Check (Tick if complete)
Replace lost filter media (as per schedule B)	All units	
Servicing chlorine lifting device	Alum dosing	
Cleaning of reservoirs	All units	

Annually

Activity	Component	Check (Tick if complete)
Calibration of flow measuring devices, weighing machine, gauges	All units	
Servicing and checking of the valves/ gates	Alum dosing	
Cleaning, plastering and coating of mixing tanks	Flash mixer	
Repairing leaks in all pipes, channels, laterals	All units	
Painting all metallic components (valves, handrails, pipes, ladders etc)	All units	
Overhaul of clariflocculator bridge <ul style="list-style-type: none"> i. Realign traction wheels ii. Replace rubber wheels iii. M.S Scrapper condition check and replace if necessary iv. Adjust clearances and alignments v. Motor servicing 	Clariflocculator	

Note: Quarterly activities shall be undertaken during annual maintenance also.

Long term

Activity	Frequency	Check (Tick if complete)
Painting civil structures (external & internal), fixtures (window, doors etc)	2 years	

VALVES (Sluice, Butterfly, NRV, Kinetic air, Zero velocity)**Monthly**

Activity	Check (Tick if complete)
Tighten bolts, nuts, packing	
Disc and seat ring lapping in sluice valves	
Lubrication of sluice and butterfly valve	
Plug leakages (gaskets, packing etc)	
Clean small orifice nipple in Kinetic air valves	

Quarterly

Activity	Check (Tick if complete)
Valve/Gate Lubrication and servicing	
Servicing of isolating valve (kinetic air valve)	
Replace damaged balls or seats of orifices(kinetic air valve)	
Check seal ring and tight shut-off (Butterfly valve)	

Note: Monthly activities shall be undertaken during quarterly maintenance also.

Annually

Activity	Check (Tick if complete)
Painting all valves with oil paint	
Oil/ grease change in gearing arrangement (Butterfly valve)	
Calibration and servicing of all valves and gates	

Note: Quarterly activities shall be undertaken during annual maintenance also.

Long term

Activity	Frequency	Check (Tick if complete)
Replacement of spindle or spindle nut (sluice valve)	2 years	

WATER METERS/ FLOW METERS

Monthly

Activity	Check (Tick if complete)
Cleaning chamber, casing, box	
Check and plug leakages	
Clean deposits	

Annually

Activity	Check (Tick if complete)
Calibrate & validate readings and range	
Disconnect and service (ultrasonic)	

Note: Monthly activities shall be undertaken during annual maintenance also.

OVERHAUL SCHEDULE

Activity – Included in quoted price	Frequency (months)	Tentative schedule
Replace Gland packings, mechanical seal	3	Jan, Apr, Jul, Oct
Replace balls & seats in Kinetic air valves	3	Jan, Apr, Jul, Oct
Oil topup in panels/ starters/ circuit breakers	3	Jan, Apr, Jul, Oct
Check conditions of insulators and replace (panels/ starters/ breakers)	3	Jan, Apr, Jul, Oct
Replace lost filter media – Effective size of filter sand 0.45 to 0.70 mm, uniformity coefficient not more than 1.7 nor less than 1.3, depth of filter 0.75 M, free board 50 cm, gravel 0.45 M in depth, sand and gravel conforming to IS: 8491 (i) – 77	6	Jan and Jul
Replace all corroded parts all water level indicators, bolts, nuts, washers, ladders, rungs, metal railings, insert plates (Note: Corrosion should not occur if preventive measures like painting, etc are done. As such, the replacement is supposed to be done immediately post identification)	12	Jan
Overhaul of clariflocculator bridge (realignment, servicing, rubber wheels, motor, gearbox)	12	Jan
Calibration & Servicing of gauges, flow meters, valves	12	Jan
Servicing (Starters, Breakers and Panels)	12	Jan
Leak repairs, plastering in all civil components - Pressure grouting to arrest leaks from structures and additional coating of cement mortar plastering to plug the leakage from structure of SR and through the pipes and valves	12	Jan
Pump Overhaul (activities as per checklist)- submersible set	12	Jan
Pump Overhaul (activities as per checklist)- VT/ centrifugal	24	Jan 20XX and 20XX
Replacement of spindle or spindle nut (sluice valve)	24	Jan 20XX and 20XX
Transformer overhaul: Core and winding replacement, gaskets etc	60	Jan 20XX
Painting of metallic blades and shafts (Flash mixer)	12	Oct
Painting MS pipes within headwork premise	12	Oct
Painting Handrails	12	Oct
Painting and marking level indicators, instruments, charts	12	Oct
Painting ladders	12	Oct

Painting of Alum and lime solution tanks with anti-corrosive paint. (Chemical feed unit)	12	Oct
Painting air valve, sluice valve, riser pipe of air valve, zero velocity valve, butterfly valve (outdoor), bypass arrangement	12	Oct
Activity – Paid separately	Frequency (months)	Check (Tick if complete)
Cleaning water storage structures	6	Jan and Jul
Painting civil structures (external & internal)	24	Oct 20XX and 20XX
Painting transformer & steel structure	24	Oct 20XX and 20XX
Food grade epoxy painting in the internal of all water retaining structures (sumps, ESRsetc) to avoid corrosion due to chlorine	24	Oct 20XX and 20XX
Painting doors, windows, ventilation, shutter, pump, motor, equipment inside pump house, transformer yard, D.P. structure	24	Oct 20XX and 20XX

iii. Specifications for painting:

- 55) Exterior paint: shall be acrylic emulsion paint colour (like APEX): pump house, treatment plants, treated water pumping stations, GSRs, ESRs, sump, store
- 56) Oil paint colour: All type of doors, windows, ventilation, shutter, pump, motor, all valves & equipment inside pump house, transformer yard, D.P. structure, transformer etc
- 57) Black japan colour: air valve, sluice valve, riser pipe of air valve, zero velocity valve, butterfly valve (outdoor), bypass arrangement etc.

iv. Activities in general housekeeping and maintenance:

- 58) Desilting of channels, wells, tanks
- 59) Remove debris from the premises
- 60) Remove aquatic weed from channels, storage structures and premises
- 61) Removal of algae from surfaces
- 62) Sorting, Stacking and Marking of inventory (Tools, pipes, fittings, Spares etc.)
- 63) Sweeping the entire premises
- 64) Maintaining signages
- 65) Pre-summer site cleaning and Pre-monsoon cleaning of storm water drains
- 66) Gardening and maintaining the landscapes in the premise
- 67) Maintenance of safety kits, fire extinguishers

v. Signages

- 68) Safety Signs: To warn workers and visitors of potential hazards, such as hazardous chemical, low ceilings, or hazardous materials.
- 69) Directional Signs: To guide visitors and employees through the plant, indicating where various work areas and equipment are located.
- 70) Identification Signs: Label equipment, rooms, or areas with specific names or numbers
- 71) Informational Signs: Instructions for using equipment, procedures for handling hazardous materials, or emergency evacuation routes.
- 72) Instructional Signs: Step-by-step instructions on how to perform specific tasks or use the machinery correctly and safely.
- 73) Regulatory Signs: Mandated by OSHA and other regulatory entities to notify employees of laws and regulations that apply to the plant.
- 74) Layout/ flow diagram of the RWSS: Shall be printed on A2 size paper and mounted on the wall of HW office for information of the visitors. Assets: All assets must have signages to indicate design capacity,

OEM, type etc. (e.g. in case of pump set- the section catered by the pump, maker of the pump and designed flow of the pump)

vi. Weather specific activities

a) Pre-summer: Yearly performance testing

- a) **Performance test** shall be conducted for full capacity in the month of January or February, and all rectifications shall be completed before 28 February. All equipment and assets shall be ready for summer by the end of February.

Period/ Time	15 th January to 30 th January of each year
Parameters to be observed and recorded	<ul style="list-style-type: none"> ▶ Head achieved ▶ Discharge achieved ▶ Power Input to motor & Speed of pump ▶ Water distribution to tail end ▶ Leaks
Test codes	BIS 9137, 10981 and 5120
Performance tests for	<ul style="list-style-type: none"> i. All pump- motor set (including working & standby) shall be tested one at a time. ii. All working pump-motor set to be tested (30-60 minutes) iii. All standby pump-motor set to be tested (30-60 minutes) iv. Filter plant to be operational for entire test duration (i, ii, iii)

b) Preparedness activities before summer

- Stocking of critical spares and consumables
- Clear the site of all materials susceptible to fires such as oil papers, jute cloths, dry leaves
- All firefighting systems shall be in working condition
- All electrical connections shall be tightened and insulated properly
- Cleaning, testing and replacement of silica gel in breathers etc. of transformers
- Owing to power demand surges, voltage fluctuations occur more frequently, causing damage to critical equipment. It is crucial to monitor the input voltage or take precautions by installing components such as on-load tap changer (OLTC) for transformer

b) Preparedness for monsoon

- c) **Preparedness activities before monsoon:** In monsoon, raw water turbidity is high. Chlorine and PAC consumption is higher in monsoon. Contractor shall maintain adequate stock of these important consumables and spares necessary for ensuring functioning of the plant.

- Stock review of Consumables such as Chlorine and PAC
- Performance testing of dosing devices & calibration
- Leak and seepage rectification work to avoid ingress of water
- Insulation of electrical panels, water seals to be checked
- Cleaning, testing and replacement of silica gel in breathers etc. of transformers
- Clearing drainages choked with dust, leaves and other materials
- Dewatering pumps to be serviced and kept in working condition
- Cover all open excavations and drains.

ANNEXURE-VIII RECORDS

1) DAILY PUMPING REPORT REGISTER

Name of Project :

Intake/HW/SHW Name :

Sr. No.	Date	Pump No.	Pump Starting Time (A)	Pump Stopping Time (B)	Pumping Hours (A-B)	Units of Power Consumed (KWh)		Flowmeter			Power Factor	Signature of Operator	Note
								Reading(m³)					
						Initial	Final	Initial	Final	Difference			
1													
2													
3													
4													
5													
6													
7													

Signature of Contractor

2) DAILY HABITATION WISE WATER SUPPLY REPORT

Name of Project:

Name of HW/SHW/PS :

Date	Village/ Town / hamlet Name	Water received from Reg. WSS				Details of Residual Chlorine in Water	Signature of Contractor’s Engineer etc.	Remarks
		In Qty	In Hrs.					
			From	To	Total Hrs.			

Signature of Contractor

3) OPERATOR & FIELD STAFF ATTENDANCE REGISTER

Name of Project:

Name of HW/SHW/PS :

Date	Time of Arrival at Site	Time of Leaving Site	Time of Leaving site during Pumping Hours	Time of Arrival back to site	Reason for Leaving Site During Pumping Hours	Present / Absent	Signature

Signature of Contractor

4) FILTER PLANT REGISTER

Zone										
District										
Scheme Name										
Intake/HW/SHW/PS Name										
Filter Plant Capacity (MLD)										
Filter Plant Type										
Date	Condition of filter plant (working/breakdown)	Daily treated water quantity (MLD)	Raw water turbidity	Treated water turbidity	Pre chlorination (ppm)	Post chlorination (ppm)	Clear water pH	PAC usage for the day (kg)	Total units of electricity consumed	Signature of Operator

Signature of Contractor

5) FILTER BED HEAD LOSS & BACKWASH REGISTER

Name of Project:

Name of HW/SHW/PS :

Filter No.	Time & Date		Hours Operated			Head Loss		Backwash		Notes on condition of filters & problem in operations
	Start	Stop	Today	Previous	Total	Start (m)	Stop (m)	Minutes	Quantity (m ³)	

Signature of Contractor

6) CHEMICAL STOCK & DOSING REGISTER

Name of Project:

Name of HW/SHW/PS :

S. No.	Date	Income/ Opening balance			Usage			Balance			Remarks
		Alum (In Kg)	PAC (10%) in Kg	Chlorine tonner (In Kg)	Alum (In Kg)	PAC (10%) in Kg	Chlorine tonner (In Kg)	Alum (In Kg)	PAC (10%) in Kg	Chlorine tonner (In Kg)	
1											
2											
3											
4											
5											
6											
7											

Signature of Contractor

7) STORES REGISTER

7.1 Material Entry Register

Name of Project/Scheme:

Name of HW/SHW/PS :

Date	Name of material	Material Code	Received from	Invoice Number	Quantity Received	Receiver's Name & Signature

7.2 Material Issue Register

Name of Project:

Name of HW/SHW/PS :

Date	Name of material	Material Code	Issued from	Invoice Number	Quantity Issued	Issuer's Name & Signature	Receiver's Name & Signature

7.3 Material Stock Register

Agency has to maintain ledger for all materials including opening balance, issued in the month, closing balance

Stores

8) GRIEVANCE REGISTER

Name of Project:

Name of HW/SHW/PS :

Registration Number	Date of Complaint	Detail of Complainant (Name, Mobile number,)	Description of Complaint	Complaint location (Village/ town/ hamlet)	Action taken	Resolve Date

Signature of Contractor

9) VISITOR'S REGISTER**Name of Project:****Name of HW/SHW/PS :**

Date	Visitor's Name	Comments/ Suggestions during visit	Visitor's sign	Action taken	Agency representative's sign

10) PREVENTIVE & CURATIVE MAINTENANCE REGISTER**Name of Project:****Name of HW/SHW/PS :****Report of maintenance work – Preventive & Curative Maintenance (separate registers to be maintained)**

Sr. No.	Date	Nature of work attended	Remarks	Signature of Operator / Lineman / Wireman / Fitter
1				
2				
3				
4				
5				
6				
7				
8				
9				

Signature of Contractor

11) CALIBRATION OF INSTRUMENTS REGISTER**Name of Project:****Name of HW/SHW/PS :****Report of calibration of Instruments installed**

Sr. No.	Name of Instrument (Pressure Gauge, Flow meter, Relay, Voltmeter, Ammeter etc.)	Instrument No. (if any)	Qty.	Date of calibration	Remarks
1					
2					
3					
4					
5					
6					
7					
8					

Signature of Contractor**Note:**

- 1) Calibration report shall be submitted along with calibration certificate.
- 2) This register is to be maintained at the site office and is separate from the calibration log to be pasted near the equipment

12) Leak Repair Register

Name of Project:

Name of HW/SHW/PS :

Date	Name of Section	Details of Existing Pipeline			Chainage / Location of Leakage	Details of Material Consumed	Repairing Status Date & Time		Remarks
		Type	Class	Dia			Repaired	Un-Repaired	

Signature of Contractor

ANNEXURE-IX ASSET LIST & STATUS

Electromechanical						
Sr No	Equipment	Headwork	Location/ section	Make/ Brand	Specifications/ Capacity	Equipment status ((O) Operational, (R) Minor repairs, (D) Defunct
1	List of pump sets					
2	List of panels, circuit breakers, starters					
3	Transformer					
4	DG set					
5	Dewatering sets					
6	Any other					
7						
8						
9						
10						

Electromechanical items will include all electrical and mechanical equipment such as, motors, pumps, panels, starters, breakers, dosing device, lifting devices, Clariflocculatorbridge, transformer, valves, gates etc.

Civil						
Sr No	Component	Headwork	Location	Make/ Material	Dimensions (length, area)	Remarks (condition)
1	e.g. Rapid sand filter plant					
2						
3						
4						
5						
6						
7						
8						
9						
10						

Civil structures will include

- Intake/ offtake/ tube well etc. source structures
- Rising main
- H/W and PS structures
- Filter plant
- Sumps, HGLR, ESR and other storage structures
- Mention section details
- Distribution network

The baseline assessment as part of asset and inventory survey conducted has been placed below for reference.

Abstract of Asset Inspection Report

[illegible]

Name & Signature of DEE

Name of Subdivision

Date of inspection

Name & Signature of EE, Date

ANNEXURE-X CITIZEN GRIEVANCE LOGS

Sl. No.	Village Name	Taluka	Nature of Complaint	Sub-nature of complaint	Total count
	Total				(sum)

ANNEXURE-XI INSURANCE**Insurance against Injury to Persons and Damage to Property;**

The Contractor shall insure against each liability for any loss, damage, death or bodily injury which may occur to any physical property (mechanical, electrical, automation work, all civil works, Storage etc. excluding pipe line) or to any person which may arise out of the Contractor's performance of his obligations under these Conditions during the O&M Period.

This insurance shall be for a limit of per occurrence of not less than the amount of Rs. 5 Lacs, with no limit on the number of occurrences.

Insurance for Contractor's Personnel;

The Contractor shall affect and maintain insurance against liability for arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.

The Employer shall also be indemnified under the policy of insurance, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel.

Contractor shall have to take insurance for Electrical, Mechanical and instrumentation equipment under these packages and whereas the insurance of other components like sump, pump house, pipeline will be optional. This General Insurance for the work will be in the name of GWSSB. The depreciated value is considered _____ for the purpose of insurance for respective year. The insurance for skilled, semi- skilled and unskilled labour is compulsory. The same should be taken by agency as per labour act laws in force.

Sr. No.	Name of Component	Cost of Component	Sum to be insured

ANNEXURE-XII SAFETY CONSIDERATIONS**Safety Abstract from CPHEEO****Safety aspects for electrical components**

Following safety precautions should be observed while working in a pump house.

- i. No electric live part shall be kept exposed. Particular care should be taken not to keep the motor terminals, starter door, panel door etc. in open condition.
- ii. Guard for pump – motor coupling and for extended shaft shall be provided.
- iii. Top cover of the VHS (vertical hollow shaft) motor shall not be unnecessarily kept in dismantled condition.
- iv. Helmet, gumboots, hand gloves, torch and emergency lamp etc. shall be provided to the workers.
- v. Shock proof rubber matting shall be kept in front of panel and starters.
- vi. Discharging devices shall also be provided to work safely on HT side of transformer.
- vii. Firefighting equipment suitable for electrical fire shall be provided. The fire extinguisher shall be thoroughly checked and recharged once in a year.
- viii. Damaged wooden flooring, damaged grating etc. shall be repaired on priority.
- ix. Safety railing shall be provided above all openings, unwallled edges of flooring and all such places vulnerable for falling or slipping of staff.
- x. First aid box shall be kept at visible and accessible place. The first aid box shall be checked once in a month and all used items shall be replenished.
- xi. Staff shall be trained in the following aspects to enhance safety awareness and skills to handle safety aspects.
 - Fire fighting
 - Safety procedures and practices in electrical work
 - First aid (general)
 - First aid for electric shock.

Following Indian Standards (IS) detail comprehensive guidelines for safety in electrical installation.

IS 5216 (Part I) – General

IS 5216 (Part II) – Life Saving Technique

IS 5216 (Part III) – Safety Posters

IS 5216 (Part IV) – Special guidance for safety in electrical work in hazardous areas.

Working at Height

- Guard every floor hole into which a worker can accidentally walk (using a railing and toe-board or a floor hole cover).
- Provide a guard rail and toe-board around every elevated open sided platform, floor.
- Regardless of height, if a worker can fall into or onto dangerous machines or equipment (such as well, tanks etc.) employers must provide guardrails and toe-boards to prevent workers from falling and getting injured.
- Other means of fall protection that may be required on certain jobs include safety harness and line, safety nets, stair railings and handrails.

Safety consideration during painting

The following considerations must be kept in mind:

- When working with toxic paints i.e. containing lead, zinc or organics, be sure to clean your hands before eating or handling food.
- Avoid exposing your skin to solvent and thinners and try not to use compounds such as carbon tetrachloride.
- When spray painting, use a respirator to avoid inhaling fumes.
- No smoking or open flames of any kind should be allowed around the area being painted.
- When painting or cleaning the spraying equipment avoid closed containers where heat is involved. At a certain temperature called the flash point, spray or vapours could ignite and burn the operator or start fires. Always clean the spray equipment in an area with sufficient ventilation.
- Be very careful when using scaffolding or ladders. They must be strong and in good repair.
- **Rags containing paint or oil should be placed in a closed container to avoid fires.**

ANNEXURE-XIII UNIFORMS FOR OPERATOR'S STAFF

The uniform must have O&M agency's logo and company name. Uniform specifications for different categories of staff are as follows:

i. Full body coveralls and PPEs for all operators and field staff

Applicable to: Operators (Filter plant/ pump/ chlorination plant), Electrician, Fitters, Helpers, Sweepers

- Full body protective clothing: Durable coveralls or jumpsuits or shirt and trouser made from a water-resistant or water-repellent material to protect the operators and staff from potential splashes or spills of water or chemicals. It should be suitable for welding and other mechanical works. Full sleeves with brass zippers and at least 200 GSM. Colour shall be sky blue or navy blue.

Other accessories (PPE):

- Safety shoes: Sturdy, slip-resistant safety shoes conforming IS 15298 (2011).
- Chemical Resistant Gloves: made from appropriate materials such as nitrile or neoprene to protect hands during tasks involving the handling of chemicals.
- Cut Resistant Gloves: for activities involving grinders, cutters, material lifting and handling
- Safety goggles: Encourage the use of safety goggles to protect the eyes from potential splashes, chemical, or other hazards.

ii. Office formals

Applicable to: Manager, Engineer, SCADA Operator, Lab in-charge and Data entry operator

- Formal full sleeves shirt: Light blue (sky blue) coloured (Male)
- Formal Trousers: Navy blue coloured (Male)
- Sky blue/ Navy blue formal attire for female (Saree or shirt & trousers or skirt)
- When on field or site visit, the personnel must wear appropriate personal protective equipment as per the requirements such as safety shoes, safety helmet etc.

iii. Laboratory personnel

Applicable to: Chemist and Lab helper

- In addition to the formal uniform, the Lab in-charge and laboratory helper must have a laboratory apron (white coloured, 200+ GSM) when working in the laboratory.

iv. Business casuals

Applicable to: Outdoor campus maintainer, valve man

- Collared T-shirt or Shirt (Male or Female) or Saree (for females): Light blue (sky blue coloured)
- Trouser: (Navy blue coloured)

ANNEXURE-XIV IDENTITY CARD FOR AGENCY'S STAFF

Company's Logo	Company Name Company Address Company Email ID and Phone Number
Name of Water Supply Scheme Name of Site Assigned	
Personal's Photograph with Company's Stamp (Half on Photograph & Half Outside)	Name : Name of Personal Designation : Date of Birth : Blood Group : Personal's Address : Personal's Contact Number :

XV – T-SHIRT FOR OPERATORS & FIELD STAFF



ANNEXURE-XV OPERATING PROCEDURES

TROUBLESHOOTING

Short circuiting in flocculator

Under such circumstances very inferior settled water is produced. Short circuiting in flocculation basins is characterized by currents which move rapidly through and continue into the settling tanks. The floc removal problem is compounded with incomplete flocculation and currents introduced into the settling process inhibit removal. Properly operated entrance, curtain baffles and exit weirs and launders can significantly improve settling.

Coagulation-flocculation process, trouble shooting.

Problems	Operator Actions	Possible process changes
Source water Quality changes		
Turbidity	<ol style="list-style-type: none"> 1. Perform necessary analyses to determine extent of change 2. Evaluate overall process performance 3. Perform jar tests. 4. Make appropriate process changes (see right hand column possible process changes) 5. Increase frequency of process monitoring 	<ol style="list-style-type: none"> 1. Adjust coagulant dosage. 2. Adjust flash mixer/flocculator mixing intensity. 3. Add coagulant aid or filter aid. 4. Adjust alkalinity or pH. 5. Change coagulant(s)
Coagulation process Effluent quality changes		
Turbidity Alkalinity pH	<ol style="list-style-type: none"> 1. Evaluate source water quality 2. Perform jar tests. 3. Verify process performance: <ol style="list-style-type: none"> a. Coagulant feed rate(s) b. Flash mixer operation. 4. Make appropriate process changes 	<ol style="list-style-type: none"> 1. Adjust coagulant dosage. 2. Adjust flash mixer intensity (if possible) 3. Adjust alkalinity or pH 4. Change coagulant(s)
Flocculation Basic Floc Quality Changes		
Floc Formation	<ol style="list-style-type: none"> 1. Observe floc condition in basin: <ol style="list-style-type: none"> a. Dispersion. b. Size and c. Floc strength (break up) 2. Evaluate overall process performance. 3. Perform jar tests. <ol style="list-style-type: none"> a. Evaluate floc size setting rate and strength. b. Evaluate quality of supernatant: Clarity (turbidity) ph. And colour 4. Make appropriate process changes. 	<ol style="list-style-type: none"> 1. Adjust coagulant dosage 2. Adjust flash mixer/flocculator mixing intensity. 3. Add coagulant aid. 4. Adjust alkalinity or ph. 5. Change Coagulant(s)

Sedimentation process, trouble shooting.

Problems	Operator Actions	Possible process changes
Source water Quality changes		
Turbidity temperature Alkalinity pH Colour	<ol style="list-style-type: none"> 1. Perform necessary analysis to determine extent of change. 2. Evaluate overall process performance. 3. Perform jar tests. 4. Make appropriate process 	<ol style="list-style-type: none"> 1. Adjust coagulant dosage. 2. Adjust flash mixer/flocculator mixing intensity. 3. Change frequency of sludge removal (increase or decrease) 4. Increase alkalinity by adding line,

Problems	Operator Actions	Possible process changes
	changes (next column) 5. Increase frequency of process monitoring	caustic soda or soda ash. 5. Change coagulant.
Flocculation process Effluent quality changes		
Turbidity Alkalinity pH	1. Evaluate overall process performance. 2. Perform jar tests. 3. Verify performance o coagulation flocculation process. 4. Make appropriate process changes (next column)	1. Adjust coagulant dosage 2. Adjust flash mixer/flocculator mixing intensity. 3. Adjust improperly working chemical leader. 4. Change coagulant.
Sedimentation Basic Changes		
Floc settling Rising or floating sludge	1. Observe floc settling characteristics: a. Dispersion b. Size c. Settling rate 2. Evaluate overall process performance. 3. Perform jar tests. a. Assess floc size and setting rate. b. Assess quality of settled water (clarity and colour) 4. Make appropriate process changes (next column)	1. Adjust coagulant dosage. 2. Adjust flash mixer/flocculator mixing intensity. 3. Change frequency of sludge removal (increase or decrease) 4. Remove sludge from basic. 5. Repair broken sludge rakes. 6. Change coagulant.
Sedimentation Process Effluent Quality Changes		
Turbidity Colour	1. Evaluate overall process performance. 2. Perform jar test. 3. Verify process performance. Coagulation-flocculation process. 4. Make appropriate process changes (next column)	1. Change coagulant. 2. Adjust coagulant dosage 3. Adjust flash mixer/flocculator mixing intensity. 4. Change frequency of sludge removal (increase or decrease)
Up low clarifier process Effluent Quality changes.		
Turbidity Turbidity caused by sludge Blanket coming to Top due to Rainfall on Watershed.	1. Sec.4 above. 2. Open main drain valve of clarifier.	1. See 4 above (sedimentation process) 2. Drop entire water level of clarifier to bring the sludge blanket down.

Filtration process, trouble shooting.

Problems	Operator Actions	Possible process changes
Source water Quality changes		
Turbidity Temperature Alkalinity pH Colour	1. Perform necessary analysis to determine extent of change. 2. Assess overall process performance 3. Perform a jar test.	1. Adjust coagulant dosage. 2. Adjust flash mixer/ flocculator mixing intensity. 3. Change frequency of sludge removal (increase or decrease)

Problems	Operator Actions	Possible process changes
Chlorine Demand	<ol style="list-style-type: none"> 4. Make appropriate process changes. 5. Increase frequency of process monitoring. 6. Verify response to process changes (be sure to allow enough time for change to take effect) 7. Add lime or caustic soda if alkalinity is low. 	<ol style="list-style-type: none"> 4. Adjust backwash cycle (rate, duration) 5. Change filtration rate (add or delete Filters) 6. Start filter aid feed. 7. Change coagulant.
Sedimentation process Effluent quality changes		
Turbidity or floc carry over	<ol style="list-style-type: none"> 1. Assess overall process performance. 2. Perform jar tests. 3. Make appropriate process changes. 	Same as source water quality changes.
Filtration process change/ problems.		
<ul style="list-style-type: none"> • Head loss increase • Short filter runs • media surface sealing • Mud balls • Filter media cracks, shrinkage • Filter not clean • Medical bolts • Media loss • Excessive head loss. 	<ol style="list-style-type: none"> 1. Assess overall process performance. 2. Perform jar tests. 3. Make appropriate process changes. 	<ol style="list-style-type: none"> 1. Adjust coagulant dosage. 2. Adjust flash mixer/ flocculator mixing intensity. 3. Change frequency of sludge removal (increase or decrease) 4. Adjust backwash cycle (rate, duration) 5. Manually remove mud balls. 6. Decrease filtration rate (add more filters) 7. Decrease or terminate filter aid. 8. Replenish lost media 9. Clear under drain openings of media, corrosion or chemical deposits, check head loss. 10. Change coagulant.
Filter Effluent Quality changes		
Turbidity Breakthrough Colour pH Chlorine	<ol style="list-style-type: none"> 1. Assess overall process performance. 2. Perform Jar tests. 3. Verify process performance: <ol style="list-style-type: none"> a. Coagulation and Flocculation b. Sedimentation process. c. Filtration process. 4. Make appropriate process changed. 	<ol style="list-style-type: none"> 1. Adjust coagulant dosage. 2. Adjust flash mixer/ flocculator mixing intensity. 3. Change frequency of sludge removal 4. Start filter aid feed. 5. Decrease filtration rate (add more filters) 6. Change chlorine dosage 7. Change coagulant.

Transmission

Procedure to follow in case of leakage found in pipeline

1. First, agency has to report to the competent authority immediately by phone.
2. Visit the site of leakage and ascertain manpower and machineries required;
3. Stop the butterfly valves on the both side of the leakage;
4. Drain the pipe in between two butterfly valves with the help of scour valves available;
5. On receipt of excavator, start the excavation on the leakage site and detect the leakage;

6. If required, start dewatering the pipeline and trench by deploying dewatering set. If required, necessary trench shall be excavated up to nearby nalas or low-lying area or if nalas are not available nearby then, dewatering shall be done through line (LDPE) up to the safe area of disposal;
7. If work is to be prolonged in night, necessary lightening arrangement shall also be done;
8. Based on the leakage in pipeline i.e. DI/MS/PVC/HDPE, the required materials for repairing of the leakages shall be arranged immediately;
9. If leakage has occurred in MS pipeline then, mobilize DG set, welding equipment, pipe piece and specials of required dia. & size, grinding equipment, welding electrodes etc. shall be arranged immediately;
10. If leakages in found in PVC/HDPE pipeline, then mobilize pipe cutting equipment, piece of pipes, solvent, suitable clamps, specials nut bolts etc. shall be arranged immediately;
11. If leakage is found in DI pipes, then, mobilize piece of pipe, cutting equipment, necessary suitable MJ Collar joint, specials, rubber rings, nut bolts etc. shall be arranged immediately.
12. Leakage repairing in MS/PVC/DI/HDPE shall be done with the best practices and the directives of the Engineer in charge.
13. After completion of the leakages, excavated trench shall be refilled to the level of the surrounding ground;
14. After completion of the leakage water supply shall be started with super-chlorination
15. Water supply shall be started with controlled flow and if leakage is found rectify satisfactorily then water supply shall be increased gradually to the normal level by increasing the number of pumps as per requirement.
16. If major leakages are found, it requires more than 24 hours, then alternate arrangement of water supply shall be done by deploying tankers to the affected habitations.
17. On successful completion the leakage and normal supply is achieved in affected habitations, then water tanker shall be taken off immediately;
18. Record of deployment of tanker shall be kept & reported to the competent authority;

START-UP AND SHUTDOWN PROCEDURES

These procedures generally happen when the plant is shut down for maintenance. However, on some rare instances, shut down may be required due to a major equipment failure.

Coagulation-flocculation

Start-up procedures

Step	Procedures
1.	Check the condition of all mechanical equipment i.e. gear box, flash mixing equipment's, motors & rotating assembly, for proper lubrication and operational status.
2.	Make sure all chemical feeders are ready. There should be plenty of chemicals available in the tanks and ready to be fed to the raw water.
3.	Collect a sample of raw water and immediately run a jar test using fresh chemicals from the supply of chemicals to the feeders.
4.	Determine the settings for the chemical feeders and set the feed rates on the equipment.
5.	Open the inlet gate or valve to start the raw water flowing.
6.	Immediately start the selected chemical feed systems.
7.	Open valves to start feeding coagulant chemicals and dilution make-up water.
8.	Check flow measurement at inlet.
9.	Start chemical feeders.
10.	Adjust chemical feeders as necessary.
11.	Turn on the flash mixer at the appropriate time. You may have to wait until the Tank or channel is full before turning on the flash mixer. Follow the manufacturer's instructions.
12.	Start the sample pumps as soon as there is water at each sampling location. Allow sufficient flushing time before collecting any samples.

Step	Procedures
13.	Start the flocculators as soon as the first basin is full of water.
14.	Inspect mixing chamber and flocculation basin. Observe formation of floc and make necessary changes.
15.	Remove any debris floating on the water surface.
16.	Perform water quality analysis and make process adjustments as necessary.
17.	Calibrate chemical feeders.
18.	Note: Do not allow any untreated water to flow through the plant.

Shut down procedures

Step	Procedures
1.	Close raw water gate to flash-mix chamber or channel.
2.	Shut down the chemical feed systems.
3.	Turn off chemical feeders. Shut off appropriate valves.
4.	Flush or clean chemical feed lines if necessary.
5.	Shut down flash mixer and flocculates as water leaves each process.
6.	Shut down sample pumps before water leaves sampling location
7.	Waste any water that has not been properly treated.
8.	Lock out and tag appropriate electrical switches.
9.	Dewater basins, if necessary. Waste any water that has not been properly treated. (Note: Do not dewater below-ground basins without checking groundwater levels. Be careful that the basin may float or collapse depending on ground water, soil or other conditions.)
10.	Close basin isolation gates or install stop-logs.
11.	Open basin drains valves

Sedimentation

Start-up Procedure

- 1) Check operational status and mode of operation of equipment and physical facilities.
 - a. Check that basin valves are closed.
 - b. Check that basin isolation gates are closed.
 - c. Check that launder weir plates are set at equal elevations.
 - d. Check to ensure that all trash, debris and tools have been removed from basin.
- 2) Test sludge removal equipment.
 - a. Check that mechanical equipment is properly lubricated and ready for operation.
 - b. Observe operation of sludge removal equipment.
- 3) Fill sedimentation basin with water.
 - a. Observe proper depth of water in basin.
 - b. Remove floating debris from basin water surface.
- 4) Start sample pumps.
- 5) Perform water quality analyses.
- 6) Operate sludge removal equipment. Be sure that all valves are in the proper position.

Shut Down Procedures

- 1) Stop flow to sedimentation basin. Install basin isolation gates.
- 2) Turn off sample pump.
- 3) Turn off sludge removal equipment.
 - a. Shut off mechanical equipment and disconnect where appropriate.
 - b. Check that valves are in proper position.
- 4) Lock out electrical switches and equipment.
- 5) Dewater basin if necessary.
 - a. Be sure that the water table is not high enough to float the empty basin.
 - b. Open basin drains valves.
- 6) Grease and lubricate all gears, sprockets and mechanical moving parts which have been submerged immediately following dewatering to avoid seize up.

Filtration

Start-up Procedures

- Start filter
- Slowly open influent valve.
- When proper elevation of water is reached on top of filter, filter effluent valve should be gradually opened. This effluent control valve should be adjusted itself to maintain a constant level of water over the filter media.
- Waste some of the initial filtered water if such a provision exists.
- Perform turbidity analysis of filtered water and make process adjustments as necessary.

Shutdown Procedures

- Remove filter from service by closing influent valve and closing effluent valve
- Backwash filter.
- If filter is to be out of service for a prolonged period, drain water from filter to avoid algal growth.
- Note status of filter in operations log.

Start up**a) Centrifugal Pump (of low and medium specific speed)**

- i. To start a centrifugal pump, the suction pipes and the pump should be fully primed irrespective of the fact whether the pump is with positive (flooded) suction or suction lift. The centrifugal pump with positive suction can be primed by opening valve on suction side and letting out air from the casing by opening air vent. Centrifugal pump on suction lift necessitates close attention to prime the pump fully. To achieve this, the suction pipe and the pump casing must be filled with water and entire air in suction piping and the pump must be removed. If vacuum pump is provided, the pump can be primed by operating vacuum pump till steady stream of water is let out from delivery of vacuum pump. In absence of vacuum pump, priming can be done by pouring water in casing and evacuating air through air vent or by admitting water from pumping main by opening bypass of reflux valve and delivery valve. Check all joints in the suction pipe and fittings.
- ii. Close the delivery valve and then loosen slightly.
- iii. Switch on the motor, check that direction of rotation is correct. If the pump does not rotate, it should be switched off immediately.
- iv. Check vacuum gauge if the pump operates on suction lift. If the pointer on gauge gradually rises and becomes steady the priming is proper.
- v. Pressure gauge should be observed after starting the pump. If the pump is working correctly the delivery pressure gauge should rise steadily to shut off head.
- vi. When the motor attains steady speed and pressure gauge becomes steady, the delivery valve should be gradually opened in steps to ensure that the head does not drop below recommended limit. (in the absence of recommendations, the limit shall be about 85% of duty head for centrifugal pump).
- vii. Check that ammeter reading is less than rated motor current.
- viii. Check for undue vibration and noise.
- ix. When in operation for about 10-15 minutes, check the bearing temperature, stuffing box packing, and leakage through mechanical seal and observe vibrations, if any.
- x. Voltage should be checked every half an hour and should be within limit.

b) Vertical Turbine Pump

- i. Close delivery valve, and then loosen slightly.
- ii. If pump is oil-lubricated, check the oil in the oil tank and open the cock to ensure that oil is flowing at the rate of 2-4 drops per minute. If the pump is self water-lubricated and length of column assembly is long (15 m or above), external water shall be admitted to wet and lubricate the line shaft bearings before starting the pump. If the pump is external clear water lubricated, the clear water lubricating pump should be started before starting main pump.
- iii. Open the air vent in discharge/delivery pipe.
- iv. Switch on the motor and check correctness of direction of rotation. If the pump does not rotate, it should be switched off immediately.
- v. Check that oil is flowing into the pump through the sight glass tube. The number of drops/min. should be as per manufacturer's recommendations (normally 2-4 drops/minute). For clear water lubricated pump, check that lubricating clear water is passing into the column assembly.
- vi. Check pressure gauge reading to ensure that pump has built up the required shut off head.
- vii. When the motor attains steady speed and pressure gauge becomes steady, the delivery valve should be gradually opened in steps to ensure that the head does not drop below recommended limit. (In absence of recommendation, the limit shall about 75% of duty head for VT & submersible pump).
- viii. If steady water stream is let out through air vent, close the air vent.
- ix. Check that ammeter reading is less than rated motor current.
- x. Check for undue vibration and noise.
- xi. When in operation for about 10-15 minutes, check bearing temperature, stuffing box packing and observe vibration if any.
- xii. Voltage should be checked every half an hour and should be within limit.

c) Submersible Pumps

Starting of a submersible pump is similar to vertical turbine pump except that steps ii, v, and xi are not applicable and since motor is not visible, correctness of direction of rotation is judged from pressure gauge reading which should indicate correct shut off head.

d) Jet Pump

The procedure for starting jet pumps is similar to centrifugal pump except that priming by vacuum pump is not possible. Priming needs to be done by filling the pump casing and suction line from external source or by pouring water.

e) Vacuum Pump

The procedure for starting vacuum pump is similar to centrifugal pump except that priming is not necessary and valves on both suction & delivery side of vacuum pump should be fully open.

f) Reciprocating Pump

The steps stipulated for centrifugal pump are equally applicable for reciprocating pump. However, exceptions as follows are applicable.

- The pump should be started against partially open delivery valve.
- The pump should never be started or operated against closed delivery valve.

Shutdown

a) Stopping the pump under normal conditions

Steps to be followed for stopping a pump of low and medium specific speed are as follows:

- i. Close the delivery valve gradually (sudden or fast closing should not be resorted to, which can give rise to water hammer pressures).
- ii. Switch off the motor.
- iii. Open the air vent in case of V.T. and submersible pump.
- iv. Stop lubricating oil or clear water supply in case of oil lubricated or clear water lubricated VT pump as applicable.

b) Stopping the pump after power failure/ Tripping

If power supply to the pumping station fails or trips, actions stated below should be immediately taken to ensure that the pumps do not restart automatically on resumption of power supply. Though no-volt release or under volt relay is provided in starter and breaker, possibility of its malfunctioning and failure to open the circuit cannot be ruled out. In such eventuality, if the pumps start automatically on resumption of power supply, there will be sudden increase in flow velocity in the pumping main causing sudden rise in pressure due to water hammer which may prove disastrous to the pumping main. Secondly, due to sudden acceleration of flow in the pumping main from no-flow situation, acceleration head will be very high, and the pumps shall operate near shut off region during acceleration period which may last for few minutes for long pumping main and cause overheating of the pump. Restarting of all pumps simultaneously shall also cause overloading of electrical system.

Hence, precautions are necessary to prevent auto-restarting on resumption on power. Following procedure should be followed.

- i. Close all delivery valves on delivery piping of pumps if necessary, manually as actuators cannot be operated due to non-availability of power.
- ii. Check and ensure that all breakers and starters are in open condition i.e. off-position.
- iii. All switches and breakers shall be operated to open i.e. off-position
- iv. Open air vent in case of V.T. or submersible pump and close lubricating oil or clear water supply in case of oil lubricated or clear water lubricated V.T. pump.
- v. Information about power failure should be given to all concerned, particularly to upstream pumping station to stop pumping so as to prevent overflow.

ANNEXURE-XVI TRAINING PROGRAM FOR AGENCY'S STAFF

Agency shall undertake training program for its staff on the topics mentioned below. Training records, attendance sheet shall be maintained as evidence. The below topics are not exhaustive, agency may add more topics as deemed necessary.

Training Topic	Target Audience	Frequency	Indicative Contents of Training Module
Basic Technical Training	New operators	Initial training, periodic refresher training as needed	<ul style="list-style-type: none"> ▶ Understanding the water cycle and water sources ▶ Water treatment processes and methods ▶ Distribution system components and layout ▶ Water storage management ▶ Water quality standards and regulations
Health and Safety Training	All operators	Annual, or as needed to keep up to date	<ul style="list-style-type: none"> ▶ Hazardous materials handling and storage ▶ Personal protective equipment (PPE) selection and usage ▶ Chemical spill response procedures ▶ Electrical safety protocols ▶ Emergency response planning and protocols
Water Quality Monitoring	All operators, Lab technicians	Annual, or as needed to keep up to date	<ul style="list-style-type: none"> ▶ Sampling techniques and protocols ▶ Water quality parameters and measurement methods ▶ Analytical laboratory methods and interpretation of results Reporting requirements and data management ▶ Troubleshooting common water quality issues
System Maintenance and Repair	All operators	Annual, or as needed to keep up to date	<ul style="list-style-type: none"> ▶ Maintenance and inspection schedules and procedures ▶ Pump and valve maintenance and repair ▶ Chlorination and disinfection equipment maintenance ▶ Leak detection and repair ▶ Hydraulic principles and calculations
Beneficiary & Community orientation	All operators	Annual, or as needed to keep up to date	<ul style="list-style-type: none"> ▶ Complaint handling and resolution strategies ▶ Billing and payment processes and procedures ▶ Community engagement, awareness and outreach
Emergency Response Training	All operators	Annual, or as needed to keep up to date	<ul style="list-style-type: none"> ▶ Emergency response planning and protocols ▶ Disaster preparedness and response ▶ Water supply disruption response ▶ Coordination with local authorities and emergency services ▶ Incident reporting and documentation

Training Topic	Target Audience	Frequency	Indicative Contents of Training Module
Health, Safety and Environment	All staff	Annual, or as needed to keep up to date	<ul style="list-style-type: none"> ▶ Hazard identification and risk assessment ▶ Personal protective equipment (PPE) usage and maintenance ▶ Emergency response and evacuation procedures ▶ Occupational health and hygiene practices ▶ Environmental impact awareness and mitigation measures
Continuing Education	All operators	Periodic, based on availability of new information and resources	<ul style="list-style-type: none"> ▶ Water supply system upgrades and innovations ▶ Regulatory updates and compliance ▶ Water conservation and sustainability practices ▶ Energy efficiency and cost-saving measures ▶ Emerging technologies and water treatment processes

ANNEXURE-XVII COMMUNICATION OR REPORTING MATRIX

Sr. No.	Designation	Office Address	Contact details
1	Executive Engineer P.H. Works Division, Ahwa- Dang	Ahwa Jalbhavan, Saputara Road, Ahwa, Dist. Dang- 394710	7567861399 gwssbdang@gmail.com
2	Deputy Executive Engineer PHS Subdivision, Subir	Subir Head work, Subir Mahal Road, Ta. Subir Dist. Dang- 394716	9978440294 deephssubir@gmail.com

ANNEXURE-XVIII TOOLS & TACKLES

Provide and maintain location wise tools and tackles in the given quantity

Location: _____

Sl. No.	Item	Quantity	Unit
1	For spanner set size 6mm to 22mm	02	Set
2	Fix spanner set size 6mm to 52mm	02	Set
3	Ring spanner set size 6mm to 22mm	02	Set
4	Ring spanner set size 7mm to 52mm	02	Set
5	Box spanner set size 6mm to 38mm	02	Set
6	Pipe wrench size 36"	02	Set
7	Pipe wrench size 24"	02	Nos
8	Screw driver size 6", 9", 12" (2 no of each size)	01	Nos
9	Insulated plier size 12"	02	Nos
10	Long-nose plier set 8"	02	Nos
11	Adjustable screw spanner size 12"	02	Nos
12	Hammer 1 LB x 2 LB	01	Nos
13	Electric Tester	01	Nos
14	Chisel 12" x 6" (2Nos. of each size)	01	Nos
15	Hack saw frame	01	Packets
16	Hack saw blade	01	Pairs
17	Hand gloves suitable for 33 KV	02	Nos
18	Spade (Phawada)	01	Nos
19	Ghamela	01	Nos
20	Pickaxe (Tikam)	01	Nos
21	Lawn mower (For gardening)	01	Nos
22	File (12" & 18")	01	Nos
23	Plastic bucket 10 liters	01	Nos
24	Rope ½"	100	Meter
25	Torch & Batteries	01	Nos
26	Safety PPEs (personal protective equipment)	01	Set
27	Dewatering pump and hose	01	Set

Section III: Conditions of Contract

5. General Conditions of Contract

1. Security Deposit

- 1.1 Security Deposit is required to be furnished by the contractor as guarantee money for performance of the contract and observance of Contractor Conditions. The person/persons whose tender is accepted (hereinafter called the "Contractor") which expression shall, unless excluded by, or repugnant to the context include his Legal heirs, executors, administrators and assignees shall pay the total amount of Security Deposit equal to 10(ten) percent of the estimated cost or contract value (Part A & B of price bid) whichever is higher for the work put to tender.
- a) The contractor shall **pay first five percent of Security Deposit** in form of bank guarantee (out of 10% as mentioned in 1.1) within 10 days from the date of receipt of acceptance letter of his offer and
 - b) the remaining five percent, shall be deducted as retention money from the running bills of the contractor.
 - c) The contractor shall submit an additional security deposit in form of performance bank guarantee equivalent to 10% of the 'works' component value, if any. This value shall be as per the Volume II- Price Bid Part C. Moreover, if there is a major replacement in asset spares or asset itself, then the agency will have to submit security deposit for the same.
- 1.2 The work-order to commence the work shall be issued only after the security deposit as per Para 1.2 is paid / furnished by the bidder. If the bidder fails to produce the security deposit as above the earnest money paid by him shall be forfeited and his registration shall be held in abeyance for three years from the date of such default.
- 1.3 All compensation, penalties due for payment or other sums or money payable by the contractor to Government under the terms of this contract shall be deducted from or recouped by the realisation of a sufficient part of his security deposit, or from the interest arising there from or performance bond or from any sums which may due or may become due by Government to the Contractor on any account whatsoever and whether in respect of this contract, any other contract, or otherwise. In the event of his security deposit being reduced by reason of any such deduction or recoupment as aforesaid the contractor shall within ten days thereafter, make good in cash or in Government securities transferred as aforesaid any sum or sums required to make good the shortfall in the amount of the security deposit.
- 1.4 The security deposit submitted in form of performance bond/ guarantee (as per 1.1 (a)) shall be valid for a period of 60 (sixty) days beyond the date of completion of all contractual obligations of the contractor. Such deposit bond shall be released within fifteen days after the issue of final completion certificate for O&M or issue of "Taking Over Certificate".
- 1.5 After satisfactory handing over the operation to new contractor/ department, if there is recovery of any dues and any other obligation shall be adjusted towards retention money (1.1 (b)) being held by the authority. Balance amount shall be refunded within two months (60 days from the taking over date).
- 1.6 Security deposit submitted as per 1.1 (c), shall be valid up to 60 days beyond the defect liability period or warranty period. It will be released subject to completion of such defect liability period within 30 days.

2. Measures for prevention of Fire:

The Contractor shall not set fire to any standing jungle, tree, bush wood or grass without a written permit from the Engineer-in-Charge, When such permit is given, and also in all cases when destroying cut or dug up trees, bush wood, grass etc. by fire, the contractor shall take necessary measures to prevent such fire spreading to or

3. LIABILITY OF CONTRACTORS FOR ANY DAMAGES DONE IN OR OUTSIDE WORK AREA:

Compensation for all damage done intentionally or unintentionally by Contractor's labourers whether in or beyond limits of Government property, including any damage caused by the spreading of fire mentioned in the clause 22, shall be estimated by the Engineer-in-Charge, or such other Officer as he may appoint and the estimates of the Engineer-in-Charge, subject to the decision of the Superintending Engineer, on appeal, shall be final and the Contractor shall be bound to pay the amount of the assessed compensation on demand, failing which the same will be recovered from the Contractor as damages in the manner prescribed in clause 1 or deducted by the Engineer-in-Charge from any sums that may be due or become due from Government to the Contractor under this contract or otherwise.

4. SUBLETTING WORK

Work **not be sublet: No works of this contract is allowed to be Sublet.**

5. CHANGES IN THE CONSTITUTION OF FIRM

Changes in the constitution of firm to be notified: In the case of a tender by partners, any changes in the constitution of a firm shall be forth with notified by the Contractor to Engineer-in-Charge for his information.

6. DISPUTES

- 1) The disputes relating to this contract, so far as they relate to any of the following matters, whether such disputes arise during the progress of the work or after the completion or abandonment thereof, shall be as per the provisions of The Arbitration and Conciliation Act, 1996, along with its rules, as amended from time to time.
- 2) Subject to the jurisdiction of the court at Ahmedabad, Gujarat
- 3) The provision of Arbitration Act., Shall in so far as they are in consistent with the provision of this act. cease of to apply to any dispute arising from a works contract and all arbitration proceeding in relation to such dispute before an arbitrator, court of authority shall stand transferred to the tribunal.
- 4) The awards declared by the arbitrator should be speaking award, giving reasons and calculations for every item of claims. The decision will have to be implemented by all the departments of the State Government and Public sector Enterprises of Gujarat. (Resolution F.D. No. PB/1088/735/KT/Sachivalaya Gandhinagar dated 5th October 1988)
- 5) In case of dispute leading to the contractor or Government of Gujarat approaching on Court of Law. It shall be within those jurisdictions the site of work is situated.

7. ARBITRATION

The reference to arbitration proceeding under this clause shall not:

- i. affect the right of the Engineer-in-charge under clause 5 to take possession of all or any tools, plant, materials and stores in or upon the works of site thereof belonging to the contractor of procured by him and intended to be used for the execution of the work or any part thereof.

- ii. Preclude the Engineer-in-charge from utilising the materials purchased by the contractor in any work or from removing such materials to other places, during the period the work is stopped or suspended in pursuance of notice given to the contractor under clause 15.
- iii. Entitle the contractor to stop the progress of the work or the carrying out the additional or altered work in accordance with the provisions of clause 14 or as the case may be, of clause 33.

8. WORKER'S COMPENSATION

Compensation under the Workmen's Compensation Act: The Contractor shall be responsible for and shall pay any compensation to his workman payable under the Workmen's Compensation Act, 1923 (VIII of 1923) here in after called the said Act for injuries caused to the workmen. If such compensation is paid by Government as principal under subsection (i) of section 12 of the said Act. On behalf of the contractor, it shall be recoverable by the Government from the Contractor under sub-section (2) of the said section. Such compensation shall be recovered in the manner laid down in clause 1 above.

9. EXPENSES OF PROVIDING MEDICAL AID

The Contractor shall be responsible for and shall pay the expenses of providing medical aid to any workmen who may suffer a bodily injury as a result of an accident. If such Expenses are incurred by Government, the same shall be recoverable from the Contractor forthwith and be deducted, without prejudice to any other remedy of Government, from any amount due or that may become due to the Contractor.

10. SAFETY

The Contractor shall provide all necessary personal safety equipment and first-aid apparatus available for the use of the persons employed on the site and shall maintain the same in suitable condition for immediate use at any time and shall comply with the following regulations in connection therewith:

- (a) The workers shall be required to use the equipment so provided by the Contractor and the Contractor shall take adequate steps to ensure proper use of the equipment by those concerned
- (b) When work is carried out in proximity to any place where there is a risk of drawing, all necessary steps shall be taken for the prompt rescue of any person in danger.
- (c) Adequate provision shall be made for prompt first-aid treatment of all injuries likely to be sustained during the course of the work.

1.1 EMERGENCIES

In the event of an emergency endangering life or property, the Contractor shall immediately take action as may be necessary to prevent, avoid or mitigate injury, damage or loss and shall, as soon as possible, report any such incidents, including his response thereto to the Employer.

10.2 CONTRACTOR ACTION:

The Contractor shall utilize his personnel to take such action as may be necessary in accordance with Good Operating Practices in the event of an emergency. Notwithstanding anything to the contrary herein, the Contractor may incur any expenditure or take any other operating actions as the Contractor deems to be necessary (in accordance with Good operating practices) in the case of emergencies affecting the Facilities or the operation of the Facilities to counteract the effects where the Contractor considers immediate action is required to safeguard lives or property. In case such emergency was caused due to an Employer's Risk then the Employer shall reimburse such reasonable expenses that might have been incurred by the Contractor in relation thereto acting in accordance with Good Industry Practices.

1.1.1 NOTIFICATION:

- 1.1.2 In the event of an emergency the Contractor shall forthwith notify the Employer of the emergency, the expenditures made, and the operating actions taken.
- 1.1.3 If the Employer considers that an emergency has arisen in relation to the Facilities, the Employer may give written notice to the Contractor specifying the nature of the emergency which it has identified and the manner in which it requests such emergency to be rectified. The Contractor shall rectify such defect with all due diligence. If such emergency is on account of an Employer's Risk, then the Contractor shall be reimbursed all costs and expenses reasonably incurred by the Contractor for any actions taken by it pursuant to such direction or notice. If the Contractor fails to comply with such direction or notice promptly, the Employer shall be entitled to procure that it or any third party takes such actions as may be necessary to remedy such breach by the Contractor. Any costs that may be incurred by the Employer in this regard shall be reimbursed to him in full by the Contractor and shall be a debt due to him from the Contractor.

2. MINIMUM AGE

Minimum age of person employed: No Contractor shall employ any person who is under the age of 18 years.

3. FAIR WAGES TO LABOURER

If a Contractor fails to pay within "7" (seven) days to the labourer (s) worker(s) the minimum wages prescribed by the Government under the Minimum Wages Act. 1948 as in force from time to time, the Engineer-in-charge shall be at liberty to deduct the amount payable to the labourer(s) worker(s) from his (Contractor's) bills or deposit(s) payable by the Contractor after making due inquiries and establishing the claims of the labourer(s) worker(s). The Contractor shall not be entitled to any payment or compensation on account of any loss that the Contractor may have to incur on account of the action as aforesaid. Before the action as aforesaid, is enforced, a notice in writing to the Contractor shall be issued by the Engineer-in-charge to pay the wages as per Minimum Wages Act in force at the relevant time. If Contractor does not act as aforesaid within seven days, then the action contemplated as above shall be taken against him.

The Contractor shall not show any discrimination between Harijan and other class of labourers/workers employed to carry out the Government work.

4. LIABILITY OF CONTRACTOR IN CASE OF ACCIDENTS, PERSONNEL INJURY OR FATALITY

The contractor shall be responsible for and shall pay compensation to his workman payable under the Workmen's Compensation Act. 1923(VIII of 1923) here in after called the said Act) for injuries caused to the workmen. If such compensation is paid by Government as principal under sub-section 12(1) of the said Act on behalf of the Contractor, it shall be recoverable by Government from the contractor under sub-section 12(2) of the said section.

The contractor shall be responsible for and shall pay the expenses of providing medical aid to any workmen who may suffer a bodily injury as a result of an accident. If such expenses are incurred by Government, the same shall be recoverable from the contractor for with and be deducted, without prejudice to any other remedy of Government from amount due or that may become due to the contractor.

Responsibilities and liabilities of the contractor under Workmen's Compensation Act in addition to the above, shall also include the following:

- a) On the occurrence of an accident, which results, in death of workmen employed by the Contractor or which is as serious as is likely to result in death of any such workmen, the Contractor, shall within 24 hours of happening of such accident(s) intimate, in writing, to the Engineer-in-charge the fact of such accident(s). The Contractor shall indemnify Government against all loss or damage sustained by the Government's failure to give notice under the Workmen's Compensation Act or otherwise to conform to the provisions of the said Act in regard to such accident(s).

- b) In the case of an accident, in respect of which compensation may become payable under Workmen's Compensation Act, Whether by the Contractor or by the Government as principal Employer, it shall be lawful for the Engineer-in-charge to retain out of money due and payable to the contractor, such sum or sum of money as may, in the opinion of the Engineer-in-charge be sufficient to meet such a liability. The opinion of the Engineer-in-charge shall be final in regard to all matters arising under this clause.

5. INSURANCE:

The contractor shall be responsible to arrange for insurance of all labourers, skilled and unskilled, workers supervisors etc., employed by him as per labour regulations of the State.

5.1 GENERAL CONDITIONS:

- 5.1.1 Without limiting the Contractor's obligations, responsibilities and liabilities under these Conditions, the Contractor shall be required to provide and maintain in full force and effect, at his expense the insurance coverages specified in Annexure VIII throughout the O&M Period. Any deductibles on the insurance shall be to the account of the Contractor.
- 5.1.2 Maintenance of insurance shall not relieve the obligation of the Contractor to remedy or repair any damage to the Facility in case such damage is caused due to the fraud, negligence, wilful misconduct or breach of any obligations of the Contractor under these Conditions (including failure to perform the O & M Services in accordance with Good Operating Practices) at the Contractor's cost promptly and regardless of the extent of settlement of claims by the underwriters or the time taken for settlement of claims. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor to the extent any such liability or damage is caused due any breach of any obligations of these Conditions (including failure of the Contractor to perform the O & M Services in accordance with the Good Operating Practices) by the Contractor or any wilful misconduct, negligence on the part of the Contractor.
- 5.1.3 The terms of the Insurance shall be approved by the Employer.
- 5.1.4 The Contractor within the 14 days from work order shall submit to the Employer evidence that the insurances required under Annexure VII of these Conditions has been obtained as approved by the Employer.
- 5.1.5 The Contractor shall not make any alteration to the terms of any insurance without the prior approval of the Employer. If the Contractor fails to effect and keep in force any of the insurance it is required to effect and maintain under these Conditions, or fails to provide satisfactory evidence and copies of policies in accordance with this Sub-Clause, the Employer may effect insurance for the relevant coverage and pay the premiums due and may claim the same from the Contractor.
- 5.1.6 The insurances
 - a) shall be in the name of the Employer and the Employer shall be the sole loss payee,
 - b) shall be extended to cover liability for all loss and damage to the Employer's property arising out of the Contractor's performance of his obligations or failure to do so under these Conditions and any fraud, gross negligence or wilful misconduct on his part, and

If the Contractor fails to effect and keep in force insurance which is required to be maintained under these Conditions, and the Employer neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which would have been recoverable pursuant to such insurance shall be paid by the Contractor.

- 5.1.7 The insurance shall cover all the electrical items, mechanical items, Instrumentation & automation items, all civil works, Storage structures etc. The insurance for the work of transmission main is optional. Since the responsibility of safety of all work lies with contractor, contractor may prefer to take the insurance of optional item also if deemed fit.
- 5.1.8 The natural calamity & fire etc. (standard perils) insurance shall be limited to Electrical & Mechanical equipment / assets of the pumping station installed indoor and / or outdoor. The beneficiary shall be GWSSB on A/c of bidder and "Standard Workman Compensation Policy" of manpower engaged for the work by the bidder should be on Account of the bidder c/o GWSSB. In short the bidder has to take adequate insurance cover for electro mechanical equipment (value shall not be less than estimated and / or accepted value) and man power engaged for O & M work as per rates / monthly amount as per prevailing minimum wages act without fail. It would be contractor's sole responsibility to see that insurance policies are bought & renewed in time. Failure to comply with this condition the contractor shall be entirely responsible for any litigation & financial liabilities.
- 5.1.9 GWSSB reserves all the rights to stop entire bill payment of Contractor for this tender if he/she has not taken full amount insurance for establishment and machinery both as per requirement.

6. CONTRACT LABOUR LICENCE

Before starting the work, the contractor will have to obtain the licence from the District Assistant Commissioner under the Contract Labour (Regulation and Abolition) Gujarat Rules 1972 after paying necessary fees and deposit on the basis of the number of labourers to be employed on the work and will have to supply two true copies of the said licence to the Deputy Engineer before the work is state.

6.1 COMMENCEMENT AND DURATION OF O & M CONTRACT:

- 6.1.1 The O & M Period shall commence from the date of issue of work order and shall continue for a period of 5 years there from.

6.2 APPLICABLE LAW:

- 6.2.1 The Contractor shall comply with all Applicable Law relevant to the Contractor's Personnel, including Applicable Law relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.
- 6.2.2 The Contractor shall require his employees to obey all Applicable Laws, including those concerning safety at work.
- 6.2.3 In the event Employer becomes liable to any Employers Personnel, any governmental authority (including but not limited to any fines or penalties levied by or payable to such authority) or any other third party under the provisions of any Applicable Law resulting from Contractor's failure to comply with such Applicable Law, Contractor shall reimburse Employer for all payments required to be made by Employer to such Employers Personnel, governmental authority or any other third party, plus the actual expenses that Employer may incur in investigating, settling or defending any litigation or threatened litigation.

7. PAYMENT:

7.1 BILLS TO BE SUBMITTED MONTHLY

A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer-in-charge for all Operation and Maintenance works executed in the previous month and Engineer-in-charge shall take cause to be taken the requisite measurement for the purpose of having the same verified and the claim, so far as it is admissible, shall be adjusted, if possible, within ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge may depute a subordinate to measure up the said work in the presence of the contractor or his duly authorized agent whose countersignature to the measurement list shall be sufficient warrant and the Engineer-in-charge may prepare a bill from such list which shall be binding on the contractor on all respects. Delayed submission of bills will attract penalty.

The contractor shall submit all the bills on the printed forms to be had on application at the office of the Engineer-in-charge. The charges to be made in the bills shall always be entered at the rates specified in the agreement or at the partly reduced rates subject to the approval by the Engineer-in-charge. In the case of items not completed/executed as per agreements or in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the tender, at the rate here in after provided for such work.

7.2 RETENTION MONEY

5% (five) of the lump sum fees shall be held back from each payment, as **Retention money** as per Clause 1 of General Conditions of Contract.

7.3 Rates to be exclusive of GST but inclusive of all other taxes

The rates to be quoted by the Contractor must be exclusive of GST but inclusive of all other taxes. GST should be paid extra on the admissible payment as per the approved tender rates and condition of price variation; GST should be paid as per prevailing rates at the time of payment.

8. INCOME TAX

Deduction will be made at source on the contractor's bill towards Income tax by the employers as per prevailing rules of the Income tax authority.

9. BUILDING AND OTHER CONSTRUCTION WORKS WELFARE CESS (LABOUR CESS)

As per Building and other construction works welfare cess act and the provision under Rule No.5 of the rules of 1998 of Gujarat State, the 1% cess shall be recovered from the running account bill of the contractor.

10. FORCE MAJEURE

In this Clause, "Force Majeure" means an event or circumstance, which materially and adversely affects the ability of the affected Party to perform its obligations.

- i. Which is beyond a Party's control,
- ii. which such Party could not reasonably have provided against before entering into the O & M part of Contract;
- iii. which, having arisen, such Party could not reasonably have avoided or overcome, and
- iv. which is not attributable to the other Party, Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:
- v. war, hostilities (whether war be declared or not), invasion, act of foreign enemies)
- vi. rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war,
- vii. riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel and other employees of the Contractor;

- viii. As result of war, explosive materials, harmful radiation or contamination by radioactivity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio- activity, and
- ix. Natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity. Heavy rainfall, cyclone, strike and lockout.

10.1 NOTICE OF FORCE MAJEURE

- 10.1.1 If a Party is or will be prevented from performing any of its obligations under these Conditions by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 7 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.
- 10.1.2 The Party shall, having given notice, be excused performance of such obligations for so long as such Force Majeure prevents it from performing them.
- 10.1.3 Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.

10.2 DUTY TO MINIMIZE DELAY:

- 10.2.1 Each Party shall at all times use all reasonable endeavours to minimize any delay in the performance of the Contract as a result of Force Majeure.
- 10.2.2 A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.
- 10.2.3 Notwithstanding anything else herein contained the Employer may terminate the O & M Contract if the Force Majeure event continues for more than a period of 90 days.

11. TERMINATION

Termination shall mean the termination of the O&M Contract by the Employer or the Contractor in accordance with this clause 18.

11.1 TERMINATION BY EMPLOYER

The Employer may terminate the O & M Contract by a notice on:

- i. the dissolution or insolvency of the Contractor, pursuant to an order of a court or the bankruptcy of the Contractor; or;
- ii. if 30 days having passed since the Contractor is in material breach of his obligations under these Conditions, or
- iii. if the Contractor ceases to carry on its business; or
- iv. abandonment; or
- v. The subsisting Force Majeure event as provided in Clause 17.2.3 above or
- vi. If the Employer comes to the decision that the contractor's performance in providing O & M services is not up to the desired level and satisfactory & if the contractor does not materially improve the standard (s) of services offered & result in disruption in water supply of the system, the Employer may discontinue the contract after a performance review at the end of one year. The decision of the competent authority of the Employer shall be final & binding to the contractor (s);
- vii. If the contractor is in breach of the termination conditions mentioned in the penalties section.
- viii. Notwithstanding anything stated hereinabove, the Authority may terminate this Agreement for convenience. The termination shall take effect 30 (thirty) days from the date of notice provided to the Contractor.

11.2 Foreclosure by the authority

- 11.2.1 Without prejudice to any provision of this Agreement, the Authority may foreclose this Agreement in circumstances which does not constitute either party's default without any liability or consequential future liability for either party.
- 11.2.2 Should the authority intend to foreclose this Agreement, the authority shall issue a notice to the contractor, giving at least 30 days' time and informing the intention of authority to cause foreclosure.
- 11.2.3 Any attempt or endeavour for foreclosure shall not stop either of the Parties from discharging their contractual obligations under this Agreement till foreclosure date.
- 11.2.4 For the avoidance of doubt, it is clarified that such foreclosure will be without prejudice to the Contractor and shall not affect the Contractor in any way if it wishes to bid in future projects of the Authority

11.3 PAYMENTS UPON TERMINATION

- 11.3.1 In case, the entire contract is terminated, for default by the contractor, the amount of security deposit and performance bond if any together with the value of the work done but not paid for, shall stand forfeited to the Government.
- 11.3.2 For default by the contractor, registration of the contractor shall be kept in abeyance for three years from the date as fixed in all such cases.
- 11.3.3 Termination of the contract in whole shall be an adequate authority for the Engineer in charge to demand discharge of the obligations from the guarantors of the security for the performance
- 11.3.4 Upon termination or as soon as practicable thereafter an account shall be taken of the net amount owing from the Employer to the Contractor or from the Contractor to the Employer (as the case may be). The Employer shall forthwith pay to the Contractor (if the balance is due to the Contractor) all moneys due to the Contractor. If the account shows a balance due to the Employer from the Contractor, the Contractor shall forthwith pay any such balance to the Employer.

11.4 SUCCESSOR TO THE CONTRACTOR UPON TERMINATION

- 11.4.1 The Contractor shall use all endeavours to facilitate the appointment and commencement of duties of any person to be appointed by the Employer to operate and maintain the facilities (the "Successor Contractor") so as not to disrupt the normal Operation & Maintenance of the facilities and shall provide full access to the Facilities and to all relevant information, data and records relating thereto by the Successor Contractor and its representatives and accede to all reasonable requests made by such persons in connection with preparing for taking over the Operation & Maintenance of the Facilities;
- 11.4.2 Promptly after Termination, the Contractor, shall deliver to (and shall, with effect from Termination, hold on trust for and to the order of) the Employer or (if so required by the Employer by written notice) to the Successor Contractor all property in its possession or under its control owned by the Employer or leased or licensed to the Employer;
- 11.4.3 The Contractor shall transfer to the Successor Contractor, as from the date of Termination, its rights as the Contractor under all contracts entered into by it in the performance of its obligations under these Conditions or relating to the Operation & Maintenance of the Facilities. Pending such transfer, the Contractor shall hold its rights and interests there under for the account and to the order of the Successor Contractor.

- 11.4.4 The Employer shall be reimbursed any cost and expenses incurred by the Employer due to default of the Contractor in discharging its obligations under this Clause [18].
- 11.4.5 The Contractor shall, upon Termination of the O&M part of Contract, co-operate with the Employer and the Successor Contractor and comply with all reasonable requests thereof, including the execution of documents etc.
- 11.4.6 Upon Termination of the O&M Contract on expiry of the terms of the O&M Contract, the Parties agree that: -
- i. The Contractor will use reasonable efforts to ensure a transition to the next Contractor that will avoid operating difficulties for the Facilities.
 - ii. Notwithstanding anything else herein contained the Employer shall be entitled to terminate the O & M Contract, at any time at the Employer's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 30 days after issuance of the notice of termination.
 - iii. On the expiry of the O & M Contract or Termination of the O & M Contract, all the installations, works and equipment placed under the Contractor's responsibility shall be handed over to the Employer, at no cost, in good working order, except for normal wear and tear. The Employer may perform any inspections; tests or expert appraisals he shall consider necessary with a view to checking that the property is in good working order. The Contractor shall also hand over any unutilized spares, consumables etc. Purchased for the Facilities.
- 11.4.7 Vacate and handover the Site within 30 (thirty) days of contract termination

11.5 SURVIVAL OF RIGHTS

Notwithstanding anything to the contrary contained in this Agreement, Termination owing to foreclosure by Authority, shall be without prejudice to the accrued rights of either Party including its right to claim and recover money damages, insurance proceeds, security deposits, and other rights and remedies, which it may have in law or Agreement. All rights and obligations of either Party under this Agreement, including Termination Payments, shall survive the Termination to the extent such survival is necessary for giving effect to such rights and obligations.

12. RISK & COST

The Engineer-in-charge or the Competent Authority defined under rules may, without prejudice to his rights against the Contractor, in respect of any delay or inferior workmanship or otherwise, or any claims for damages in respect of any breaches of the contract and without prejudice to any rights or remedies under any of the provisions of this Contract or otherwise, and whether the date for completion has or has not elapsed, by notice in writing, absolutely determine the Contract in any of the following cases:

- 12.1.1 If the Contractor having been given by the Engineer-in-charge, a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in any inefficient or otherwise improper or un-workman like manner shall omit to comply with the requirements of such notice for a period of seven days, thereafter, or if the Contractor shall delay or suspend the execution of the work so that either in the judgment of the Engineer-in-charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion or he has already failed to complete the work by that date,

- 12.1.2 If the Contractor, being a company, shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager, on behalf of a creditor, shall be appointed or if circumstances shall arise, which entitle the court or creditor to appoint a receiver or a manager or which entitle the court to make a winding up order,
- 12.1.3 If the contractor commits breach of any of the terms and conditions of this Contract,
- 12.1.4 If the contractor commits any acts in violation of the contract conditions. When the Contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in charge on behalf of the Governor of Gujarat shall have powers: -
- a. To determine or rescind the contract, as aforesaid (of which determination or rescission notice in writing to the Contractor under the hand of the Engineer-in- charge shall be conclusive evidence), upon such determination or rescission, the earnest money, full security deposit of the contract shall be liable to be forfeited and shall be absolutely at the disposal of Government.
 - b. To employ labour paid by the Department and to supply materials to carry out the work or any part of the work, debiting the Contractor with the cost of the labour and the price of the materials (of the amount of which cost and price certified by the Engineer-in-charge shall be final and conclusive against the contractor) and crediting him with the value of the work done in all respects in the same manner and at the same rates, as if it had been carried out by the Contractor under the terms of this Contract. The certificate of the Engineer-in-charge, as to the value of the work done, shall be final and conclusive evidence against the Contractor provided always that action under the sub-clause shall only be taken after giving notice in writing to the Contractor. Provided also that; if the expenses incurred by the Department are less than the amount payable to the Contractor at his agreement rates, the difference shall not be paid to the Contractor.
 - c. After giving notice to the contractor to measure up the work of the contractor and to take such part thereof, as shall be unexecuted out of his hands, and to give it to another contractor to complete, in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor, if the whole work had been executed by him (of the amount of which excess, the certificate in writing of the Engineer-in-charge shall be final and conclusive) shall be borne and paid by the original Contractor and may be deducted from any money due to him by Government under this contract or on any other account whatsoever, or from his Earnest Money, Security Deposit, Enlistment Security or the proceeds of sales thereof, or a sufficient part thereof, as the case may be. In the event of any one or more of the above courses being adopted by the Engineer-in-charge, the Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of contract. And, in case action is taken under any of provisions aforesaid, the Contractor shall not be entitled to recover or be paid, any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-charge has certified, in writing, the performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified. No interest shall be payable to the Contractor on any payment due or awarded by any authority.

13. RECOVERY FROM CONTRACTORS

Whenever any claim against the Contractor for the payment arises under the contract, the Department may be entitled to recover such sum by:

- a. Appropriating, in part or whole of the Performance Guarantee and/or Security Deposit and / or any sums payable under the contract to the contractor.
- b. If the amount recovered in accordance with (a) above is not sufficient, the balance sum may be recovered from any payment due to the contractor under any other contract of the department, including the securities which become due for release.

The department shall, further have an additional right to effect recoveries as arrears of land revenue under the Gujarat Land Revenue Code.

14. INSPECTION

14.1 GENERAL PROVISIONS

- 14.1.1 The Employer may check the operation of the Facilities or designate an organization of his choice to carry out inspections regularly. The Employer or the organization appointed by him shall check that the Contractor is performing the tasks for which he is responsible with due diligence. The Contractor shall at his cost provide all the assistance the Employer requires to complete these inspections.
- 14.1.2 Before any inspection, the Employer shall give prior notice to the Contractor, indicating the name(s) of the person(s) empowered to carry out such inspection in the name of the Employer.

14.2 MEASUREMENT & ANALYSIS

- 14.2.1 The Employer has the right to perform any analysis or inspection he deems necessary. Before any inspection, the Employer shall give a prior written notice to the Contractor.
- 14.2.2 The water quantity, for any such test, analysis or inspection shall be measured by flow-meters installed at the Facility, which are acceptable to the Employer.
- 14.2.3 The flow-meters shall be inspected and certified upon their availability by the Employer and the Contractor. Thereafter, the said meters shall be tested and their accuracy verified once in every six (6) months by the Employer and the Contractor. After each inspection, the flow-meters shall both be sealed in the presence of representatives of the Employer and the Contractor in a manner that is adequate to prevent the tampering of said meters by any person.
- 14.2.4 The Contractor shall be responsible for the security and protection of flow-meters at the designated point. If there is any malfunctioning of the meters, it should be repaired at the Contractor's cost.

24. PAYMENT TO EMPLOYEES / WORKERS AS PER MINIMUM WAGES GUIDELINES OF LABOUR AND EMPLOYMENT DEPARTMENT OF GUJARAT DIRECTLY INTO THEIR BANK ACCOUNTS:

- 24.1 Payment / Salary given by Employer to their employees must be as per Minimum wages guidelines published by Labour and Employment Department of Gujarat.
- 24.2 If there is no provision for increment to Establishment Cost, then no extra payment will be made to contractor of any kind in his bill if there is increment in Minimum wages by Labour Department.
- 24.3 Salary / Payment given by contractor to his/her workers must be transferred directly to their bank account, receipt of which must be submitted to respective sub division at the time of document submission for bill every month.

- 24.4 It would be contractor's responsibility to make sure that his/her workers have bank account. No such account related arguments for not making direct payment to workers bank accounts will be considered. In this case respective sub division & division have all rights to stop bill payment of O&M of that month.
- 24.5 No receipt of advance payment to worker will be accepted even if it is on stamp paper of any-kind. It is contractor's willingness if he/she wants lend money to his/her worker when they need. Contractor is bound submit payment receipt of every worker with transferred salary's REFERENCE ID/ TRANSACTION ID / ORDER ID as per mode of payment.

**25. EXCLUSION OF INTAKEWELLS, HEADWORKS OR PUMPING STATIONS OF
CURRENT WATER SUPPLY SCHEME IN THE INTRIM FROM ONGOING O&M
WORK**

- 25.1 During ongoing O&M work of Water Supply Scheme of this tender, if any New Water Supply Scheme is overlapping towns/villages/Hamlets/Faliyas covered in Current Water Supply Scheme then GWSSB reserves all the rights to exclude O&M work of that Intakewells, Headworks or Pumping Stations supplying water to overlapping towns/villages/Hamlets/Faliyas from Current Water Supply Scheme.
- 25.2 GWSSB does not require to give any prior notice to Contractor for such exclusion of Intakewells, Headworks or Pumping Stations to be made.
- 25.3 Once Specific Intakewells, Headworks or Pumping Stations is excluded from O&M work, O&M and M&R charges for that headworks will not be made to Contractor.
- 25.4 No return payment to Contractor will be made for insurance taken for pumping machinery and other equipment excluded from tender work.
- 25.5 Exclusion of Intakewell, Headworks or Pumping Stations does not mean releasing of man power assigned to it. Payment for establishment for those free man power will be made to contractor till the end of the contract. It would be contractor's responsibility to assign new work location to free manpower.
- 25.6 Upon exclusion of Intakewell, Headworks or Pumping Stations, that site must be handed over to concerned GWSSBSANITARY &WORKS DIVISION in fully operational condition.

26. RECRUITMENT OF MANPOWER ON PERMANENT BASIS BY GWSSB

- 26.1 It must be noted that Contractor is hiring man power for O&M of Water Supply Scheme on temporary basis. GWSSB does not provide any kind of guaranty to any personal hired by contractor for recruitment in future for any work after completion of this tender validity period.

27. SUBMISSION OF COPIES OF ALL REGISTERS ON MONTHLY BASIS FOR PAYMENT

27.1 It would be Contractor's responsibility to maintain and submit all the registers to respective sub division monthly for bill payment in three copies at his own cost. No extra payment will be made to Contractor to make copies of registers.

27.2 Contractor is liable to submit extra copies to GWSSB as and when asked by any Engineer – in – Charge.

27.3 If Contractor misses to submit copy of any register or records in any register is found false or tempered GWSSB reserves all the rights to stop bill payment of Contractor of that month for this tender.

27.5 All the registers mentioned, must be kept physically at respective headworks.

28. DAILY ATTENDANCE & RELATED INFORMATION UPLOAD ON OFFICIAL GWSSB APPLICATION

28.1 Operator appointed by Contractor must give his attendance on GWSSB Official Application in addition to register.

28.2 Operator should also upload any other related information of HW instructed by Engineer-in-Charge.

28.3 If Operator is unable to pump water due to power cut or single phase power supply then the time period between which electricity was not available must be noted in register as well as upload photo of Control Panel / GEB meter on Application.

29. ACKNOWLEDGING RESPECTIVE SUB DIVISION ABOUT OPERATION OF ASSETS & MACHINERIES AT HEADWORKS

If any equipment at site is not working or there is problem with any asset provided to contractor which is affecting smooth operation, then contractor should acknowledge respective sub division regarding about all issue immediately & in written within 02-working days.

Special Conditions of Contract

These conditions are applicable for the project activities mentioned in Part C BOQ.
(Applicable for Part C activities)

Liquidated Damages for Delay

If the contractor does not complete the entire work under the scope on the date of Completion, (i.e. 100% of the physical progress at the end of 100% of the time of completion), Liquidated damages at the rate of 0.1% of contract value per day of delay subjected to the maximum amount of 10% of the Estimated amount put to tender or total contract value whichever is higher, shall be recovered from the contractor. In such case, the amount retained as deposit shall be converted into liquidated damages.

Extension of Time Limit

If the contractor shall desire an extension of the time for completion of the work on the ground of his having been unavoidably hindered in its execution or any other ground he shall apply in writing to the Engineer -in-charge before the expiration of the period stipulated in the tender or before the expiration of 30 days from the date on which he was hindered whichever is earlier and the Engineer-in-charge may, if in his opinion, believe that there are reasonable grounds for granting an extension, grant such extension, as he thinks necessary or proper. The decision of the competent authority of GWSSB in this matter shall be final.

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