



REQUEST FOR PROPOSAL (RFP) DOCUMENT

Design of Master Plan for Aqaba Water Company

PROJECT CODE: AW-MPD

RFP NUMBER:

VERSION 1.0

March 2022

Aqaba – Jordan

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1. TERMS AND CONDITIONS

1.1 Definitions

For the purposes of this RFP, the following terms shall mean.

Acronym	Description
BEC	Bid Evaluation Committee
Bidding Documents	The bidding documents include: <ul style="list-style-type: none"> • Invitation to Bid Letter • Instruction to Bidders • General Terms and Conditions Appendices • Any issued addenda • Bidder's responses to questions and inquiries
Coverage Period	Sun to Thu from 8:00 am to 6:00 pm (Jordan Time)
EB	Eligible Bidder
Project Team	Key Users and Project Manager
Provisional System Acceptance	Provisional System Acceptance is completed when: <ul style="list-style-type: none"> • Successful completion of Acceptance Test by AW
Technically Qualified Bidder	Achieved minimum qualifying rate/score of 85% out of 70% in the technical proposal
Final System Acceptance	Final System Acceptance is completed when: <ul style="list-style-type: none"> • Provisional System Acceptance Certificate has been issued by AW
WB	Winning Bidder
Winning Bidder	The winning bidder is a bidder who/whose: <ul style="list-style-type: none"> • Bid has been accepted and evaluated • Bid was responsive and complete • Technically qualified bidder • Scored the highest total score (technical + financial) • Received Award and Notice and Successfully sign the contract
Regional	The term regional or region refers to the Middle East and Arabian Gulf Regions.
Clarification Process	The clarification process starts from the time and date of invitation till the submission of the bidder's proposals or according to the schedule of events.
AW or AWC	Aqaba Water Company
Bid or offer	Eligible Bidder(s) complete proposal or any part of it
USAID	United States Agency for International Development
AW or AWC	Aqaba Water Company

Acronym	Description
Bid or Offer	Bidder(s) complete proposal or any part of it

1.2 Eligibility of Bidders

This Request for Quotation is open to Jordanian local, regional and international bidders with local representation in Jordan with qualified and certified staff to provide onsite support services provided that:

- The nationality of the main consultant, Joint venture (JV) partners and/or Subconsultant/Subcontractor shall be according to USAID geographical code #937 (The United States, the recipient country, and developing countries other than advanced developing countries, but excluding any countries that is prohibited source).
- Bidders or any of its associates, service providers, partners, joint venture companies or individuals, should not have been engaged by AW to provide consulting services for the preparation of the design, specifications and development of this RFP.
- Bidders or any of its associates, service providers, partners, joint venture companies...etc do not engage in transactions with, and the provision of resources and support to, individuals and organizations associated with terrorism. It is the legal responsibility of the bidder to ensure compliance with Jordanian and Aqaba Water Company's procurement laws.
- Bidders or any of its associates, service providers, partners, joint venture companies...etc shall not be under a declaration of ineligibility for corrupt and fraudulent practices by either the Jordanian Government or the government where the bidder is established, currently operating or has been operating.
- A firm that is a Bidder (either individually or as a JV member) shall not participate as a Bidder or as JV member in more than one Bid.
- The Bidder should provide proven evidence of his/their financial viability to execute such project. Audited financial statements of the last three years (2019,2020, and 2021) shall be provided by the bidder as a minimum. The average turnover for these three years shall be at least 1 million Jordanian dinars. In case of JV, all partners of the JV shall provide the financial situation separately; conditionally, the lead partner shall comply with this requirement.

In order to ensure that all eligible bidders have been provided with equal opportunities the following shall be provided with the Technical Proposal, adhered to and met:

1.3 General Requirements for all international and regional eligible bidders

- 1.3.1 The eligible international bidder shall provide a registration certificate showing that his firm has been registered and established at least five years before issuing this RFP.
- 1.3.2 Provide audited financial statements for the past three years.
- 1.3.3 Sign the attached NDA agreement by each member involved in the preparation of the solution design, quotation and any related document or process to this RFP

1.4 General Requirements for all local (Jordanian) eligible bidders

- 1.4.1 The eligible local bidders shall be a specialized engineering services firm classified by the Government Tenders Department (GTD) as a first grade (A) in the field of water and wastewater.

- 1.4.2 Provide audited financial statements for the past three years have to be submitted along with the technical proposal.
- 1.4.3 Have strong technical and functional skills (i.e. resources), experience in the implementation of the proposed project.
- 1.4.4 Provide Company registration certificate and related legal and government document that illustrate the Company legal form and situation.
- 1.4.5 Sign the attached NDA agreement by each member involved in the preparation of the solution design, quotation and any related document or process to this RFP
- 1.4.6 Local eligible bidders shall advise their international partners and ensure the international/regional partner compliance to the requirements set for them in this RFP

1.5 General Requirements for alliances, joint ventures or other forms of Combination

- 1.5.1 Partners in any alliance whether it is joint-venture, prime/sub relation, consortium or any other form(s) of alliances, it is the responsibility of the eligible bidder(s) (i.e. the alliance) to provide all necessary documentation that
 - A. Illustrates the type of relation among the partner(s) or member(s) of the alliance
 - B. NDA is signed by all involved party each on an individual copy
 - C. All proposed staff that will or have been involved in the preparation, submission and later execution of the project shall sign the attached NDA
 - D. All presented papers need to be endorsed by a neutral legal entity and preferably endorsed by the relative government bodies in Jordan
 - E. A clear and specific description of every member role in the project, proposal preparation, project management, execution and any other element that related to the solution design, proposal or implementation of the project.
 - F. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution
 - G. Any changes in the leader, without prior consent of the Employer, during the tendering procedure or after awarding will lead to disqualifying the bidder.
 - H. a copy of the Joint Venture Agreement entered by all partners shall be submitted with the bid. Alternatively, a Letter of Intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all partners and submitted with the bid, together with a copy of the proposed agreement.
- 1.5.2 Partners in any alliance whether it is joint venture, prime/sub relation, consortium or any other form(s) of alliances, shall be dealt with and legally considered as one mutual and solidarity entity.
- 1.5.3 Eligible bidders are requested to comply with the enclosed RFP and Aqaba Water's regulations, supply all necessary catalogues (i.e. software and hardware technical brochures), and any other additional information that may help in the evaluation process.

1.6 SCHEDULE OF EVENTS

Schedule of events is based on Jordan local time zone

Event	Deadline		Party In Charge
	Date	Time	
1. Issue RFP by Aqaba Water Company (AW)	15-Mar-2022	9:00AM	AW
2. Last date to submit Inquiries	31-Mar-2022	4:00PM	EB
3. BEC send replies to inquiries	7-April-2022	4:00PM	BEC
4. Submit Bid / Bid Opening	26-Apr-2022	12:00PM	EB
5. Start the preliminary examination of bids and Technical Evaluation of proposals	27-Apr-2022	8:00AM	BEC
6. Announce List of Technically Qualified Bidder – Initial Qualification	11-May-2022	4:00PM	BEC
7. Discharge non-qualified Bidders and return financial offer	12-May-2022	10:00AM	BEC
8. Presentation by Qualified Bidders	17 to 19 May-22	TBD	BEC
9. Open and Evaluate Financial Bids	23-May-2022	12:00PM	BEC
10. Final Offer Evaluation	TBD	TBD	BEC
11. Contract and Financial Offer Negotiation	TBD	TBD	BEC
12. Send Notification of Award Letter	TBD	TBD	BEC
13. Submit Performance Security	TBD	TBD	WB
14. Contract Signature	TBD	TBD	WB

1.7 Inquiries

- 1.7.1 All technical inquiries concerning the contents of this RFP document must be addressed in writing via email to:

Bid Evaluation Committee
RFP Title – Bidder Name

Aqaba Water Company
Al-Sharif Hussein Ben Ali Street
Aqaba 77110 Jordan

E-mail: Procurement@AW.COM.JO

Fax: +962 3 201 5982

Email's Subject Line: RFP - Inquiries

- 1.7.2 All inquiries are to be submitted in writing and in English. No verbal queries shall be permitted.
- 1.7.3 Procedural, preparation or submission of proposals shall be addressed to the address shown in the box above. Technical and financial proposals shall be submitted in separate, sealed envelopes. Financial proposals shall be submitted separately from technical proposals, as per the instructions in preparation and submission of proposals.
- 1.7.4 During the procurement, including any period of evaluation, Bidders shall contact only Bid Evaluation Committee. Unauthorized contact with other parties whether an employee of Aqaba Water, AW or other resources involved in the preparation, evaluation of the RFP shall result in immediate bidder disqualification.
- 1.7.5 Only written communications issued by Bid Evaluation Committee are binding.
- 1.7.6 With the exception of the written proposal that must be submitted by bidders in accordance with Proposal Format herein, communications between the Bid Evaluation Committee and bidders may be conducted by e-mail.

1.8 Preparation and Submission of Proposals/Bids

- 1.8.1 Pursuant to Schedule of Events (Clause 1.6) and Inquiries clause 1.7, all bids must be submitted to the address mentioned in Inquiries clause 1.7 of this document no later than the date specified in the schedule of events. All responses received after the assigned date and time shall be disqualified.
- 1.8.2 All answers that are given to the requirements/questions asked in this RFP are subject to verification. Misleading and/or inaccurate answers shall form sufficient grounds for eligible, technically qualified, qualified or winning bidder disqualification at any stage in the procurement process.
- 1.8.3 Bids must be submitted in a packaged and sealed envelope and stamped with the Company official stamp as follows:

Two (2) separate envelopes sealed and clearly marked as follows:

“Technical Proposal”,
“Financial Proposal”,

All envelopes shall be marked as follow:

Aqaba Water Company
Al-Sharif Hussein Ben Ali Street
Aqaba 77110 Jordan

Bid Evaluation Committee
RFP Title – Bidder Name

Envelop Title: RFP Title

E-mail: PROCUREMENT@AW.COM.JO

Fax: +962 3 201 5982

- 1.8.4 Eligible Bidders shall submit one (1) original and one (1) copies, clearly marking each as “Original Bid” or “Copy of Bid, Copy Number x” as appropriate. In the event of any discrepancy between them, the original shall govern. Copies numbers shall be in sequence (i.e. 1, 2, 3). One electronic copy on CD-ROM must be submitted along with hardcopies. The technical CD-ROM shall only contain the technical proposal documents without any reference to the financial offer, so as the financial CD-ROM which shall be enclosed in the financial envelope.
- 1.8.5 If the envelopes submitted by bidder are not sealed and marked as required by Preparation and Submission of bids (Clause 1.8), then such bid may be disqualified.
- 1.8.6 All financial information that relates to all costs referenced in the bidder’s proposal should be bounded separately and located in the financial proposal envelope. The technical envelope should only contain technical material and other related proposal sections as required in the proposal format.
- 1.8.7 The inclusion of any financial data or value in the technical proposal shall result in the bidder’s proposal being disqualified as unresponsive.

1.9 Multiple Proposals

- 1.9.1 AW Bid Evaluation Committee is seeking proposals that meet its requirements as outlined in this RFP. If more than one method of meeting these requirements is proposed, each should be labelled and submitted separately by the Bidder. Each proposal shall be evaluated separately.
- 1.9.2 Only one bid security is required for multiple proposals.

1.10 Proposal Clarification Process

- 1.10.1 During evaluation of bids, AW Bid Evaluation Committee may, at its own discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing and no change in the prices or substance of the bid shall be sought, offered, or permitted.

1.11 RFP Changes, Cancellation and Addenda

- 1.11.1 AW Bid Evaluation Committee reserves the right to amend, retract or cancel the RFP at any time without giving any reason(s).

- 1.11.2 If the amendment occurs after the closing date for receipt of proposals, AW Bid Evaluation Committee may, in its sole discretion, allow bidders to amend their proposals in response to the amendment if the bid evaluation committee deems it necessary.
- 1.11.3 AW Bid Evaluation Committee shall prepare a written addendum in response to all pertinent questions and requests for interpretation submitted by writing.
- 1.11.4 In the event it becomes necessary to revise any part of the RFP prior to or during the scheduled submittal date, an addendum shall be issued to all qualified bidders in relative stages.

1.12 Rejection of Proposals

- 1.12.1 AW Bid Evaluation Committee reserves the right to accept or reject any part of any proposal, and to accept or reject any or all proposals without penalty or the obligation to give any explanation.
- 1.12.2 Any proposal may be rejected immediately and not evaluated for any one of the following reasons:
- Failure to include the required Response Form(s) signed by an authorized officer of the entity submitting the proposal.
 - Failure to comply with the eligibility requirements.
 - Failure to follow the proposal format instructions.
 - Failure to comply with the RFP requirements and statements.
 - Late delivery of bids
- 1.12.3 AW Bid Evaluation Committee may elect, in its sole authority and discretion, to implement the project in phases, by module, by component, split the award among multiple bidder(s) or to cancel the RFP and the implementation of the project without the obligation to give any explanation.

1.13 Proposal Obligations

- 1.13.1 The contents of the proposal and any clarification thereto, submitted by the bidder shall become part of the contractual obligation and incorporated by reference into the contract.
- 1.13.2 All proposals must describe in detail, and include all integral elements necessary for the successful implementation and operation of the required services, including labour, equipment sizing and services offered, and must be of such form that, upon approval, shall be contractually binding.
- 1.13.3 Any missing or assumed item(s), component(s), service(s) or related commodity to completely fulfil the successful implementation of the RFP requirements shall be assumed at Zero cost by the bid evaluation committee and shall be the complete responsibility of the eligible bidder to provide it and implement.
- 1.13.4 The proposal is requesting a turn-key solution, therefore it is the complete responsibility of all eligible bidders to ensure that their proposals are comprehensive, complete, address all the RFP requirements and provide all necessary item for successful implementation of the RFP requirements.

1.14 Disposition of Proposals

- 1.14.1 Technical proposals become the property of this Bid Evaluation Committee and shall not be returned to the Bidder. Not opened financial proposals will be returned to bidders.

- 1.14.2 AW reserves and in its sole discretion may, but shall not be required to, exercise the following rights and options with respect to the proposal submission, evaluation and selection process under this RFP.
- 1.14.2.1 To reject any proposals if, in AW's sole discretion, the proposal is incomplete, the proposal is not responsive to the requirements of this RFP, eligible bidder/bidder(s) does not meet the qualifications set forth in the RFP, or it is otherwise in the AW's best interest to do so
 - 1.14.2.2 To supplement, amend, substitute or otherwise modify this RFP at any time prior to the selection of one or more Eligible bidder/bidder(s) for negotiation and to cancel this RFP with or without issuing another RFP
 - 1.14.2.3 To accept or reject any or all of the items in any proposal and award the contract(s) in whole or in part if it is deemed in AW's best interest to do so
 - 1.14.2.4 To reject the proposal of any Eligible bidder/bidder(s) that, in the AW's sole judgment, has been delinquent or unfaithful in the performance of any contract with AW or with others, is financially or technically incapable or is otherwise not a responsible Eligible bidder/bidder(s)
 - 1.14.2.5 To reject as information, non-responsive or otherwise noncompliant with the requirements of this RFP and any Proposal which, in AW's judgment, is incomplete, is not in conformity with applicable law, is conditioned in any way that is unacceptable to AW, deviates from this RFP and its requirements, contains erasures, ambiguities, or alterations, or proposes or requires items of work not called for in this RFP.
 - 1.14.2.6 To waive any informality, defect, non-responsive and/or deviation from RFP and its requirements that is not, in the AW's sole judgment, material to the proposal
 - 1.14.2.7 To permit or reject at AW's sole discretion, amendments (including information inadvertently omitted), modifications, alterations and/or corrections of proposals by some or all of eligible bidder/bidder(s) following proposal submission
 - 1.14.2.8 To request that some or all of eligible bidder/bidder(s) modify proposals based upon AW's review and evaluation
 - 1.14.2.9 To request additional or clarifying information or more detailed information from any Eligible bidder/bidder(s) at any time ; before or after proposal submission, including information inadvertently omitted by eligible bidder/bidder(s)
 - 1.14.2.10 To inspect and otherwise investigate projects performed by the eligible bidder/bidder(s), whether or not referenced in the proposal, with or without the consent of or notice to the Eligible bidder/bidder(s)
 - 1.14.2.11 To conduct such investigation with respect to the financial, technical, and other qualifications of each eligible bidder/bidder(s) and AW, in its sole discretion, deems necessary or appropriate
 - 1.14.2.12 To waive and/or amend any of the factors identified in this RFP.
 - 1.14.2.13 To reject Eligible bidder/bidder(s) who engage in collusion, conflict of interest or any other factor that may negatively impact AW best interest or does not conform with this RFP

1.15 Proposal Preparation Cost

- 1.15.1 The Bidder shall bear all costs associated with the preparation and submission of its bids. In no case, Aqaba Water Company will be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

1.16 Release of Claims

- 1.16.1 With the submission of a proposal, each Bidder agrees that it will not bring claims or have cause of action against Aqaba Water Company based on any misunderstanding concerning the information provided herein or concerning AW's or AW's failure, negligence, or otherwise, to provide the Bidder with pertinent information as intended by this RFP.
- 1.16.2 Eligible/Winning bidder(s) agrees to defend, indemnify and hold harmless AW, its officers and employees, from any liabilities, claims, damages, costs, judgments, and expenses, including attorney's fees, resulting directly or indirectly from any negligent act or omission of the eligible/winning bidder(s), its employees, its agents or employees of subcontractors, in the performance of the work or services provided by or through this RFP and future contract or by reason of the failure of the eligible/winning bidder to fully perform, in any respect, any of its obligations under this RFP and its contract.
- 1.16.3 The Eligible bidder(s) also agrees and acknowledges that AW's determinations shall all be final and there are no appeals to any other authority of any nature or type.

1.17 Bid Validity

- 1.17.1 Bids shall remain valid for 180 days (One Hundred and Eighty Days) from the bid submission date specified in the Schedule of Events. All Bidders will be notified in writing of any extension if necessary. A bid valid for a shorter period shall be considered as non-responsive and will be rejected by AW Bid Evaluation Committee.

1.18 Bid Language

- 1.18.1 Bids and all correspondence and documents relating to the bids exchanged by bidders and AW Bid Evaluation Committee shall be written in English.

1.19 Examination of Bids

- 1.19.1 AW Bid Evaluation Committee will examine the bids to determine whether:
- They are complete and required securities have been furnished.
 - They are complying with the eligibility requirements.
 - The documents have been properly signed, and whether the bids are generally in order.
 - A bid that is not substantially responsive will be rejected by this Bid Evaluation Committee and may not subsequently be made responsive by the Bidder by correction of the nonconformity.

1.20 Evaluation and Comparison of Bids

- 1.20.1 AW Bid Evaluation Committee's evaluation of bids will take into account both cost and technical factors. Bids will be evaluated according to the evaluation criteria specified in Evaluation Criteria.
- 1.20.2 The technical offers will be opened first and evaluated against the requirements.
- 1.20.3 The financial offers will be opened after the proper technical evaluation is completed for only technically qualified bidder.

- 1.20.4 Technical proposals that satisfy the technical requirements but for which the cost proposal exceeds the ceiling will be eliminated from further consideration.

1.21 Eligibility/Screening Requirements

- 1.21.1 Prior to the detailed evaluation of each proposal, AW Bid Evaluation Committee will undertake a preliminary examination to identify any non-responsive proposals which shall not be considered for further evaluation. The Bidder is required to comply with the following checklist to ensure eligibility and provide this with their response. Missing information in any of the following areas will constitute a proposal that is nonresponsive.
1. The Bidder must provide a formal statement confirming that they do not have any pending disputes or litigation.
 2. Bidders are complying with the eligibility requirements as per eligible bidder's clauses 1.2, 1.3, 1.4 & 1.5.
 3. International bidders must have local representation in Amman, Jordan if awarded the contract and comply to USAID Code 937
 4. Technical and Financial Responses must be in separate envelopes with the required number of copies.
 5. The validity of the proposal is not in accordance with the requirements of the bid.
 6. The validity of the bid bond is not in accordance with the RFP requirements
 7. The Bidder must nominate one person in writing who shall act as a single point-of-contact during the bidding process and, in the event a contract is awarded, during contract execution.
 8. Bids have been prepared and submitted in accordance with the terms and conditions of this RFP

1.22 Responsibilities

- 1.22.1 Eligible/winning bidder(s) Responsibilities
- Eligible/winning bidder(s) and his employees shall exercise due diligence and care to ensure all work performed under the contract is accomplished in a safe and conscientious manner.
 - All work shall be in compliance with appropriate international standards, as well as all AW ordinances and regulations.
 - All equipment and/or tools provided by the eligible/winning bidder(s) shall be in good working condition and shall conform to required safety Standards.
 - Eligible/Winning bidder(s) shall provide all services, equipment and tools necessary to perform the requirements of the contract in a turn-key manner.
 - Eligible/winning bidder shall be held responsible and liable for all damage incurred to AW facilities based on a review of the circumstances causing the damage.
- 1.22.2 Subcontracting:
- Eligible/Winning bidder(s) may subcontract services to be performed hereunder with the prior approval of AW, which approval should not be unreasonably withheld.
 - No such approval will be construed as making AW a part of, or to, such subcontract, or subjecting AW to liability of any kind to any subcontractor.

- No subcontract shall, under any circumstances, relieve eligible/winning bidder(s) of its liability and obligation under this RFP and/or Contract; and dispute any such subcontracting, AW shall deal through eligible/winning bidder(s), and subcontractors will be dealt with as representatives of eligible/winning bidder(s).

1.22.3 Novation

- Eligible/winning bidder(s) shall not assign or transfer, whether by as Assignment of Novation, any of its rights, duties, benefits, obligations, liabilities, or responsibilities under this RFP and/or Contract without the written consent of AW, provide, however, that assignments to banks, trust companies or other financial institutions for the purpose of securing bond may be made without the consent of AW.
- Assignment or Novation of this contract shall not be valid unless the Assignment or Novation expressly provides that the assignment of any of eligible/winning bidder(s)'s rights or benefits under the RFP and/or Contract is subject to a prior lien for labor performed, services rendered and materials, tools and equipment supplied for the performance of the work under this RFP and/or Contract in favor of all persons, firms, or corporations rendering such labor or services of supplying such materials, tools and equipment.

1.22.4 Responsibilities of AW

- Shall assist eligible/winning bidder(s) by placing at his disposal all available information pertinent to the Project.
- AW will assist in facilitating access to eligible/winning bidder(s) to enter upon its properties as required for eligible/winning bidder(s) to perform services under this Agreement.
- Give prompt written notice to eligible/winning bidder(s) whenever AW observes or otherwise becomes aware of any development that affects the scope or timing of Eligible bidder(s)'s services.

1.23 Evaluation Criteria

- 1.23.1 The technical offers will be opened first and evaluated against the technical requirements as outlined in this RFP.
- 1.23.2 Eligibility of bidders will be assessed as part of the technical evaluation. Bidders who do not meet eligibility criteria will lose points in the technical evaluation and can be automatically disqualified.
- 1.23.3 AW may use sources of information not supplied by the eligible bidder(s) concerning the abilities to perform this work and any proposed component.
- 1.23.4 Technical Proposal will be allocated 70% of the total score
- 1.23.5 AW Bid Evaluation Committee will structure the technical evaluation into:

Criterion	Allocated %
Compliance to RFP Requirements	10%
Bidder Profile and Expertise in Similar Projects	10%
Resources Experience in Similar Projects	25%
Methodology & Approach	15%
Presentation	25%

Time Schedule

15%

- 1.23.6 The financial offers will be opened following completion of the technical evaluation. Only financial offers associated with technically qualified proposals will be opened. Financial offers associated with technically unqualified technical proposals will be returned to Bidders unopened.
- 1.23.7 Financial Proposal will be allocated 30% of the total score. However, financial proposals with a value of more than the ceiling of allocated to this RFP will be eliminated from further consideration, regardless of the technical score.
- 1.23.8 A Technically qualified bid/bidder must have scored at least 85% out of 70% in order for the bid to be technically qualified. (i.e. passing grade is 59.5 out of 70)
- 1.23.9 Proposal Cost percentage is calculated as follows
- 1.23.9.1 $C1 = (\text{Minimal Proposal Cost} / \text{Evaluated Proposal Cost}) * 30\%$
- 1.23.10 Overall bid score will be equal to the sum of technical and financial score. The contract will be award to the highest bid score.
- 1.23.11 In case where the highest bid score for two or more proposals have been equal, preference and award will be made to the bid with the highest technical score.
- 1.23.12 In case where highest bid score for two or more proposals have been equal and their technical bid score has also been equal, the bid evaluation committee will require a discount from the two eligible bidders and will award the contract to the bidder with the least cost.
- 1.23.13 If case where the highest bid score for two or more proposals have been equal and their technical bid score has also been equal, the bid evaluation committee will require a discount from the two eligible bidders and in case the new discounted prices are found to be similar, the bid evaluation committee has the right to award the contract to eligible bidder that it desires without any reason disposition.

1.24 Bid-Bond, Warranty and Performance Securities

- 1.24.1 All Eligible bidders shall submit a bid security of twenty thousand (20,000.-) JOD in its commercial proposal upon submitting its financial proposal and shall be packed in a separate envelop along with the technical proposal.
- 1.24.2 The bid bond shall be valid for 180 days from the bid submission date specified in the Schedule of Events, issued by a Jordanian bank acceptable to AWC and shall be packed in a separate envelop along with the technical proposal. Any bid not accompanied by an acceptable bid security or not meeting the terms in this RFP including validity duration shall be rejected by AWC as nonresponsive. The bid security shall be in the form set out in the documents or another form acceptable to AWC. The original security must be included with in the original bid.
- 1.24.3 Upon signing the contract, the Winning bidder shall furnish the performance security in accordance with the conditions of contract, using the Performance Security form provided in Appendix C or another form acceptable by AW.
- 1.24.4 The performance security shall be denominated in the currency of the bid (JOD), and shall be in the following form;

- a. A bank guarantee issued by a reputable bank operating in Jordan.
- 1.24.5 Failure of the successful Bidder to comply with the requirements of the RFP, Contract requirement and clauses shall constitute sufficient grounds for the annulment of the award, in which event AW Bid Evaluation Committee may make the award to the next highest evaluated Bidder or call for new bids.
- 1.24.6 The performance security value equals to 10% of the total contract value.

1.25 Notification of Award

- 1.25.1 Prior to the expiration of the period of bid validity, AW Bid Evaluation Committee will notify the Winning Bid in writing by registered letter, or fax to be subsequently confirmed in writing by registered letter, that its bid has been accepted.
- 1.25.2 Later, AW Bid Evaluation Committee will promptly notify each unsuccessful Bidder of the evaluation result and return un-opened financial proposals.

1.26 Award Criteria

- 1.26.1 This Bid Evaluation committee will award the contract to the Bidder whose bid has been determined to be substantially responsive and has been determined to have the highest bid score, provided that the Bidder is determined to be qualified to perform the contract satisfactorily.
- 1.26.2 In Case the total commercial bid of the winning or any eligible bidders exceeds Aqaba Water Company budget for this project, the Bid Evaluation Committee reserves the right to award selected items of the winning bidder's proposal and will only select those items that it see necessary for the company business.
- 1.26.3 All eligible bidders shall not make any assumption that the bid evaluation committee or Aqaba Water Company will decide to acquire all offered/proposed items.
- 1.26.4 In addition, the bid evaluation committee reserves the right to split the contract among multiple winning bidders to ensure maximization of the allocated project budget.

1.27 AW Right to Vary Quantity at the time of Award

- 1.27.1 AW Bid Evaluation Committee reserves the right at the time of contract award to increase or decrease, by a percentage indicated in Aqaba Water procurement laws or regulations, the quantity of products and services originally specified in this RFP and its Appendixes without any change in unit prices or other terms and conditions. The term applies for those items selected for the award by the bid evaluation committee and does not imply that Aqaba Water Company intends to procure all requested items.

1.28 Contract Negotiations

- 1.28.1 Contract negotiations between parties will take place between the bidder with the highest bid score and AW.
- 1.28.2 AW reserves the right and in its sole discretion to enter into post-submission negotiations and discussions with any one or more technically qualified bidder(s) regarding price, scope of services and/or any other term of their proposals, and such other contractual terms as AW may require, at any time prior to execution of a final contract.
- 1.28.3 AW may reserves the right and in its sole election, to enter into simultaneous, competitive negotiations with multiple technically qualified bidder(s) or negotiate with an individual technically qualified bidder(s).

- 1.28.4 Negotiations with technically qualified bidder(s) may result in the enlargement or reduction of the scope of services, or changes in other terms that are material to the RFP and the submitted proposals. In such event, AW shall not be obligated to inform other technically qualified bidder(s) of the changes, or to permit them to revise their proposals in light thereof, unless AW, in its sole discretion, determines that doing so is in AW's best interest.
- 1.28.5 In the event negotiations with any technically qualified bidder(s) are not satisfactory to AW, AW reserves the right to discontinue such negotiations at any time; or to enter into or continue negotiations with other technically qualified bidder(s) or to disqualify unsuccessful eligible bidder(s).
- 1.28.6 AW reserves the right not to enter into any contract with any technically qualified bidder(s), with or without re-issue of the RFP, if AW determines that such is in AW's best interest.
- 1.28.7 AW Bid Evaluation Committee may decide to negotiate the technical and/or financial proposal with those bidders and modify the requirements from those stated in the RFP or included in the Bidder's proposal.

1.29 Signing of Contract

- 1.29.1 Prior to signing Contract, AW Bid Evaluation Committee will seek approval from, Aqaba Water Company Executive Management. After receipt of approval AW Bid Evaluation Committee will issue the contract unless the Bidder has provided their standard purchase and the terms and conditions that are accepted by Aqaba Water.
- 1.29.2 Within five (5) calendar days of receipt of the Contract, the winning bidder shall review the contract and return it to Aqaba Water Company.
- 1.29.3 The contract signature ceremony will be held and take place at Aqaba Water premises in Aqaba.

1.30 Coming Into Force

- 1.30.1 The contract comes into force and takes effect on the date of Aqaba Water Company or their designee's counter signature.
- 1.30.2 The governing law of this RFP and subsequent contract will be the Hashemite Kingdom of Jordan.

1.31 Payment Terms

- 1.31.1 Request(s) for payment shall be made to Aqaba Water Company in writing, accompanied by an invoice describing, services performed, and any related deliverables.
- 1.31.2 Payments shall be made promptly by Aqaba Water Company within Sixty (60) days of the acceptance of an invoice, if accompanied with certifications and/or approval of assigned committee.
- 1.31.3 Payment Terms to discuss during negotiation phase.

1.32 Prices, Taxes, Duties and Currency

- 1.32.1 Prices for products and services offered shall be quoted in JOD excluded from any Sales Tax, Value Added Tax, and Government Taxes, custom tax or any other levy taxes.
- 1.32.2 All additional taxes shall be quoted as separate and clear line items.

- 1.32.3 Bidders shall be entirely responsible for all duties, license fees, etc., incurred until delivery of the Products and Services to Aqaba Water.

1.33 Bid Currency

- 1.33.1 Prices shall be quoted in Jordanian Dinars (JOD).

1.34 Penalties

- 1.34.1 Penalty for delay(s) shall be imposed on the contractor in case of failure of work completion in the specified period of time. The penalty will be imposed for every day of delay immediately and automatically after the expiry of the completion period without prior notice or any legal action.
- 1.34.2 Aqaba Water Company has the right to deduct these penalty charges plus the supervision dues from the amounts entitled to the Winning Bidder. The deduction of such amounts does not exempt the Winning Bidder from his responsibilities to and obligations towards the contract.
- 1.34.3 If the Winning Bidder or any of its affiliates, sub-contractor fails to meet the agreed upon Implementation plan of the project and misses one or more of milestones, ignoring written warnings submitted to the Winning Bidder; Aqaba Water Company has the right to appoint a third-party on the expense of the Winning Bidder to complete the work on the delayed portions of the project.
- 1.34.4 The imposed penalty will be imposed on each working day of delay where the penalty equals 200JOD/Day and not exceeding the total amount of the signed contract.

1.35 Insurance

- 1.35.1 Insurance secured by the eligible/winning bidder(s) shall be issued by insurance companies acceptable to AW.
- 1.35.2 The insurance specified may be in a policy or policies of insurance, primary or excess
- 1.35.3 Such insurance shall be in force on the date of execution of the Contract and shall remain continuously in force for the duration of the RFP and/or Contract.
- 1.35.4 The winning bidder(s) and its sub-contractors shall secure and maintain the following insurance :
- 1.35.4.1 Commercial General Liability insurance with limit equal or exceeds to the contract value.
- 1.35.4.2 The policy shall be on an "occurrence" basis, shall include contractual liability coverage and AW shall be named an additional insured.
- 1.35.4.3 Professional Liability Insurance or Errors and Omissions insurance providing coverage for 1) the claims that arise from the errors and omissions of the winning bidder(s) or its sub-contractors and 2) the negligence or failure to render a professional service by the winning bidder(s) or its subcontractors.
- 1.35.5 Acceptance of the insurance by AW shall not relieve, limit or decrease the liability of the Winning Bidder(s).
- 1.35.6 Any deductibles or retention shall be the responsibility of the winning bidder(s)
- 1.35.7 The winning bidder(s) shall control any special or unusual hazards and be responsible for any damages that result from those hazards, installation accidents, car accidents...etc.

- 1.35.8 AW does not represent that the insurance requirements are sufficient to protect the winning bidder(s) interest or provide adequate coverage.

1.36 AW Right to Return, Reject, Replace or Withhold the Proposed Solution in Total, Part and/or any Component

- 1.36.1 AW reserves the right to return, reject, replace or withhold any or all of the proposed solution component(s) in case the solution or any of its component have been found; by AW; of no value to the total solution, is not functioning as it has been designed by the manufacturer, provides an extra complexity, malfunctioning, has high error ratio, requires high maintenance or for any other unforeseen reason.
- 1.36.2 In such case(s), AW will issue a written notice to the winning bidder and any related party informing of the issue.

1.37 Change Orders

By the winning bidder to AW

- 1.37.1 As indicated by AW law, change orders issued by the winning bidder can't exceed 25% of the total contract value to be signed between AW and the winning bidder.

By AW to the winning bidder

- 1.37.2 AW may, at its own discretion, issue written directions to acquire, re-order, modify or replace a certain product or service. Such changes (the "Change Order") will be submitted by AW in writing and the winning bidder will need to promptly address the change within no more than five (5) working days from date of receiving the change order, advise AW on time and budget required and request the consent of AW to proceed with the "Change Order".
- 1.37.3 All Change Order or Orders will become an integral part of this RFP and later the agreement and the scope of work.
- 1.37.4 It is to emphasize and supersede any implied or written clause with respect to change in quantities. AW reserves the right and at any point in time to change the quantities in a manner that suites its business requirements and objectives without the need of the winning bidder consent. Such changes will be communicated through a Change Order.

1.38 Objections

- 1.38.1 Prior to AW awarding the contract, AW will inform all unsuccessful bidders that the of its decision and allow unsuccessful bidders to raise their objections within a timeframe not to exceed three (3) working days from the date of AW message. Unsuccessful Bidders have the right to provide their objections using the designed AW form but are not allowed to change their bids or proposals.
- 1.38.2 All objections will be examined and looked into carefully by AW bid evaluation committee prior to signing any contract.
- 1.38.3 Unsuccessful bidders will be informed on the objection status and may be called for an official meeting

1.39 USAID Procurement Laws and Regulations

- 1.39.1 As this procurement is funded by USAID through the FARA agreement signed between AW and USAID, it shall be clear that the bidder comply with USAID Source and

Nationality Code – 937. It is mandatory to comply with USAID procurement and comply with Code 937 and the followings

a. Source and Nationality of Procurements

- Except as specified in this contract or as USAID may otherwise agree in writing, all goods financed under this contract shall have their “source,” and the suppliers of all goods and services financed under this contract shall have their “nationality,” in countries included in Geographic Code 937. Goods and services financed under this contract must be available for purchase in the applicable Geographic Code at the time of purchase. Geographic Code 937 includes: Jordan, the United States or a developing country (for a list of eligible developing countries, please see: <https://www.usaid.gov/sites/default/files/documents/1876/310maa.pdf>).
 - “Source” means the country from which a commodity is shipped to Jordan, or Jordan itself if the commodity is located in Jordan at the time of the purchase. Where, however, a commodity is shipped from a free port or bonded warehouse in the form in which received therein, “source” means the country from which the commodity was shipped to the free port or bonded warehouse. (see, [22 CFR 228.01](#)).
 - “Nationality” refers to the place of legal organization, ownership, citizenship, or lawful permanent residence (or equivalent immigration status to live and work on a continuing basis) of suppliers of commodities and services.
 - "Code 937" is defined as the United States, the cooperating/recipient country, and developing countries other than advanced developing countries, and excluding prohibited sources. USAID maintains a list of developing countries, advanced developing countries, and prohibited sources, which will be available in USAID's Automated Directives System, ADS 310 (see, [22 CFR 228.03\(a\)](#)).
 - China is an advanced developing country, per ADS 310.3.1.3, which references World Bank definitions {<https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>}, and is therefore excluded from Geographic Code 937.
 - Any individual transaction not exceeding \$25,000, excluding those specifically requiring USAID approval, may be procured from any non-prohibited source or nationality, Geographic Code 935. Geographic Code 935 includes any country is not a prohibited source. For a list of prohibited sources, please see: <https://www.usaid.gov/sites/default/files/documents/1864/310mac.pdf>.
 - In addition to the source and nationality requirements above, any motor vehicles purchased with funds under this contract must be manufactured in the United States, or a waiver from USAID must be approved.
- b. The bidder has to provide evidence that the product is manufactured in USA or approved country under code 937
- c. Procuring any solution component from Dubai / United Arab Emirates is rejected and will not be accepted by AW nor reimbursed to bidder.

1.39.2 Complying with USAID procurement laws and regulation for this RFP is mandatory. Failure to comply with USAID laws and regulations will result in contract defaulting, disqualification of the bidder and AW will not be held liable to reimburse the contractor for any costs or fees.

- 1.39.3 It is the bidder complete and total responsibility to educate himself of the related USAID regulations and can communicate with AW for any clarification if required.
- 1.39.4 As this is a USAID financed procurement, AW will reimburse the winning bidder upon receiving the official acceptance by USAID and upon transferring the money from USAID to AW.

1.40 Bidders Presentation to BEC Procedure

The Bidder will be invited to give a presentation of his proposal at the time and venue as decided by AW. The presentation session will be conducted per the following:

- a. The presenters will be the proposed Program Manager accompanied with the subject matter specialist.
- b. Other Bidder team members may be attending to support presenters occasionally.
- c. The presentation shall be given 90 minutes only without interruption and with no chance to extend more under any excuse.
- d. The presentation shall use PDF format and will be submitted in hard and soft copies at the end of the session to AW and Bid Evaluation Committee to be added to the technical proposal content.
- e. The presentation shall not deviate from the submitted proposal, add to it, mention any pricing data, address any of the attendees from AW side by any personal mean or use unclear promises.
- f. The presentation shall be fully in English language.
- g. Attendees from AWC will include but not limited to the BEC, AW seniors, consultants and any expert AW may find appropriate to invite.
- h. The presentation will be followed by a 15-minute break, where the Bidder team will leave to another reserved room.
- i. AW team will write down questions and clarifications to be submitted to the project manager after the 15-minute break.
- j. Another break for 30 minutes will be given for the Bidder's team to write down answers and clarifications. (the room will be equipped with an A4 black and white printer)
- k. The Program Manager will be back to the presentation room accompanied with the Subject Matter Expert only to submit written answers and clarifications and only 15 minutes will be given to present answers and clarifications verbally.
- l. The written document of questions and answers will be added to the technical proposal

2. PROPOSAL FORMAT

The Bidder shall present a written technical proposal to address the functional, technical and other requirements listed herein, and explain how the Bidder plans to approach each requirement. Bidders are given wide latitude in the degree of detail they offer or the extent to which they reveal plans, designs, examples, processes, and procedures. Proposals must be fully responsive to the requirements. Proposals must identify any deviations from the requirements. Enough detail should be included to demonstrate the Bidder's knowledge of the project and their ability to satisfy each requirement. Bidders are also required to present a written financial proposal bounded separately.

To accelerate execution and simplify proposal evaluation and to assure that each proposal receives the same orderly review; all proposals shall adhere to the format described in this section.

Proposals should comply with the following:

- Sections and pages should be numbered sequentially
- Clearly specify any and all variances from specifications specified by the RFP
- Include a table of contents listing all sections, figures, and tables
- Include an acronym list
- Separate major sections and appendices by labelled ring binder index tabs
- Font type is Arial size is 10pt
- Address the requirements completely and accurately using the required format
- **Any additional pages exceeding the maximum number of pages indicated in the following section will not be reviewed or considered as part of the evaluation and may result in proposal technical disqualification.**
- **Failure to provide a clear and concise information will negatively impact eligible bidder(s) technical evaluation and may result in his disqualification.**
- **Proposal shall include all costs items as requested by the pricing sheets including implementation/professional services.**

Proposals should be bound separately and organized in sections as follow:

2.1 Technical Proposal – Envelope 1

The Technical proposal shall have the layout and content as described in the following table:

Section No.	Title	Max Pages	Contents
1	Eligibility and Compliance to RFP Requirements	Limited to the listed content. No Text, illustrations or write-ups	<ol style="list-style-type: none"> 1. Bid-Bond 2. Signed Statement of Conformance Sheet (3. Signed NDA 4. Company Registration certificate and company contact coordinates 5. Year established (include former firm names and years established, if applicable) 6. Type of ownership and parent company (if any) 7. Bidder's contact name, address, and phone number (if different from Item no.1) 8. Audited Financial Statements for the last 3 years 9. Any certificates, agreement(s) between multiple partners or certificates
2	Executive Summary	Two (2) Pages	<p>Include a brief executive summary of the major facts, solution benefit and features of the proposal including any conclusions, important assumptions, and recommendations.</p> <p>The executive summary should be specifically designed for review by a non-technical audience and senior management.</p>
3	Understanding of the Project Requirements	Three (3) Pages	<p>This section should describe the eligible bidder understanding of the project nature, objectives, requirements and business impact. The write-up should be focused on analyzing RFP requirements, business challenge and how the solution is addressing such challenges.</p>
4	Profile and Capabilities	Three (3) Pages	<p>Provide a brief description of their corporate and other organizational history and experience in performing similar implementation service. The description should include details about the technical organization of the Bidder including the number, qualifications and experience of the professional staff.</p> <p>Include information that highlights their particular abilities to successfully complete the RFP requirements and how the Bidder will structure, develop and manage the project.</p>
5	Project Implementation Approach and Methodology	Ten (10) Pages	<p>This section should describe the approach, techniques and methodology by which the Bidder plans to accomplish all the work discussed in this RFP. This section should start with a brief statement that demonstrates the Bidder's understanding of the nature and desired</p>

Section No.	Title	Max Pages	Contents
			<p>outcomes of the project.</p> <p>The Bidder is requested, where appropriate, to make reference to supporting literature describing the details of proposed application and implementation services and techniques to be used, or other supporting material that he feels is relevant. If included, this supporting literature must be referenced in the response to the specification and included in an appendix to the Eligible Bidder's proposal. The inclusion of supporting literature or standard descriptions of the Bidder's approach, methodologies, software development tools and their features and benefits will be considered as supporting documentation only, and is not sufficient to satisfy the terms of this RFP</p>
6	Reference to Similar Implementation	Two (2) Pages	<p>Each bidder shall provide at least Three references about already implemented similar projects in Jordan or other cities/regions. Similar project/experience is defined as a design of water projects completed within the last five years, which shall include as a minimum; design of hydraulic modeling, design of water master plan, and preparation of the detailed design reports, design drawings and tender documents.</p>
7	Project Deliverables	Two (2) Pages	<p>This section shall present a summary of key dates, milestones and associated deliverables found in the work plan. A description of what AW shall expect to see and/or receive on the associated date should be described and/or presented as examples</p>
8	Requirements from AW	One (1) Page	<p>Eligible Bidder(s) shall use this section to indicate any requirements that AW is to provide for the execution of the project. The requirements can be logistic, human resources, infrastructure, existing data (in digital form or hard copy) or other resources</p>
10	Appendix – A CVs and Gantt Chart		<ul style="list-style-type: none"> • CV of Proposed Staff • Project Gantt Chart

2.2 Commercial/Financial Proposal – Envelope 2

2.2.1 Introduction

Bidders are required to submit their financial proposal in a separately bound envelope (sealed envelope). The Bidder will be responsible for delivering the required outputs for the cost quoted. Aqaba Water will not be responsible for any additional cost due to missing Items from the quote but essential to fulfilling the project requirements. This would result in proposal disqualification and rejection or assumed as Zero cost.

2.2.2 Contents of the Price Proposal

This section outlines required contents of the price proposal of the project. The Bidder may provide a more detailed cost structure than that required below, if they believe that it can clarify their case or justify additional costs, as long as the main required information is provided. The price proposal shall consist of the following:

2.2.2.1 Cost Summary

This section must provide a comprehensive cost summary for the proposed costs; including:

Item	Total Cost in JOD Exclusive of any Taxes
Professional Services Fees	
Travel, lodging and Accommodation	
Any other tasks or item(s) required to completely deploy and operate the proposed solution. Provide the quotation for each item in a separate row.	
Total:	
Custom Tax	
Sales Tax	
Grand Total	

It is the responsibility of the Bidder to make all the arrangements for the software licensing and to provide AW with the software licenses to support the total number of users.

2.2.2.2 Detailed Cost Breakdown

Detailed Cost breakdown – To be provided in Microsoft Excel Sheets Format – Unprotected Documents. The tables shall also be part of the submitted commercial (financial) proposal.

All Bidders shall provide a detailed cost analysis for the proposed solution. The Bidder must provide an itemized costing for all component parts of system, documentation, training and any other items relating to the bid that have been used in compiling the unit prices listed below.

Price Template 1: Professional Services Template for each Work-stream items costing (Do NOT include any hardware, software or items listed in template 1)

- For each work stream, please fill in the following sheet, in case additional information need to be provided or quoted please provided in an additional table and clearly label it and mark it by the work-stream name

Professional Services for Each Work-Stream; Name:								
No	Item Description	Resource Profile (PM, SE, O)	Duration in Person Days	Type (PM, IS, DC, O)	Person Day Fee	Total Fees	AW Discount	Net Price In JOD
1								
							Total:	
							Custom Tax:	
							Sales Tax:	
							Any Other Taxes:	
							Grand Total in JoD:	

- Type: PM: Project Management, IS: Implementation Services, DC: Data/Application conversion and migration, O: Others please specify.
- Resource Profile: PM: Project Manager, SE: Senior Engineer, O: Other please specify profile

Price Template 2: Travel, lodging and Accommodation Expenses

Training Courses Costing Sheet					
No	Resource Profile	Expense Type	QTY	Unit Price	Line Total Price
1					
					Total:
					Custom Tax:
					Sales Tax:
					Any Other Taxes:
					Grand Total in JoD:

Expense Type shall clearly indicate the nature of the expense such as airfare, hotel accommodation, in-land transportation, per-diem...etc. Quotes shall be detailed per each resource and per each expense type. (ex: Project Manager – In-land Transportation, Project Manager – Hotel Accommodation, Project Manager – airfare....etc)

Price Template 3: Other Items

Other Items Costing Sheet						
No	Item Name and Description	Why the item is required	QTY	Unit Price	Line Price	Total
1						
Total:						
Custom Tax:						
Sales Tax:						
Any Other Taxes:						
Grand Total in JOD:						

If the additional items are hardware, software or professional services please use the dedicated template and link it to the work stream.

Bidders are requested to provide an appropriate standard contract of Eligible Bidder company including standard terms and conditions.

3. BID FORMS – TO BE INCLUDED IN THE BIDDER’S PROPOSAL

3.1 Eligible Bidder and Contact Information

Please provide the following Eligible Bidder and contact information. To be provided to all parties in the joint venture, agreement, collaboration or any sort of business relationship.

Company Information	
Registered Name	<input type="text"/>
Jurisdiction of Incorporation	<input type="text"/>
Place of Registration (registration body, city, country)	<input type="text"/>
Legal Form	<input type="text"/>
Date of Incorporation	<input type="text"/>
Company / License Number	<input type="text"/>
Attach financial results for the past 3 years. Name of the file attachment: <input type="text"/>	

Parent Company Information (if applicable)	
Registered Name	<input type="text"/>
Jurisdiction of Incorporation	<input type="text"/>
Place of Registration (registration body, city, country)	<input type="text"/>
Legal Form	<input type="text"/>
Date of Incorporation	<input type="text"/>
Company / License Number	<input type="text"/>
Attach financial results for the past 3 years. Name of the file attachment: <input type="text"/>	

Contact Details	
<i>Please provide name and contact details of the assigned Account Representative:</i>	
First Name, Last Name:	<input type="text"/>
Title:	<input type="text"/>
Address:	<input type="text"/>
City:	<input type="text"/>
Country:	<input type="text"/>
Postal Code:	<input type="text"/>
Telephone Number:	<input type="text"/>
Mobile Number:	<input type="text"/>
Fax Number:	<input type="text"/>
Email Address:	<input type="text"/>

3.2 Eligible Bidder Presence

Please provide the following profile information. To be provided to all parties in the joint venture, agreement, collaboration or any sort of business relationship.

Regional Presence	
Number of Offices in Jordan	<input type="text"/>
Number of Offices in Region	<input type="text"/>
Number of Offices Globally	<input type="text"/>
Number of Employees in Jordan	<input type="text"/>
Number of Employees in Region	<input type="text"/>
Number of Employees Globally	<input type="text"/>
Key Jordan/Region Clients (list up to 5)	1. <input type="text"/>
	2. <input type="text"/>
	3. <input type="text"/>
	4. <input type="text"/>
	5. <input type="text"/>
Key Jordan/Regional Clients (list up to 5)	1. <input type="text"/>
	2. <input type="text"/>
	3. <input type="text"/>
	4. <input type="text"/>
	5. <input type="text"/>

3.3 Reference Projects

Provide below a list of all similar projects conducted in the past 3 years. Please use the following template for your response and place a letter “X” in the managed services columns to illustrate that the project is indeed of a similar scope. To be provided to all parties in the joint venture, agreement, collaboration or any sort of business relationship.

Client Name	Country	Similar Project Name	Start Date	End Date	Effort (man-months)	Referee Details (name, position, telephone, email)
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	
			mm/yy	mm/yy	months	

- In addition to the list of all projects, provide detailed reference information for 4 relevant client projects conducted within the past 3 to 5 years

Reference Project #n				
Year	Country	Company	Duration	Project Size
<i>[Enter starting year of project as YYYY]</i> YYYY	<i>[Enter country name where project was implemented]</i> 	<i>[Enter company name for which the project was implemented]</i> 	<i>[Enter project duration in months]</i> 	<i>[Enter project budget in Thousands of \$, JOD]</i> \$ Thousands
Contact Person		Project Title and Relevant Scope		
<i>[Enter the name, title, telephone number, and e-mail of an employee of the client company, whom AW may contact for reference information]</i> 		<i>[Enter the project title]</i> <i>[Indicate the relevant scope involved, classify work as structured in the workstreams]</i>		

Project Description

[Enter a short narrative of the project scope, methodologies used and results achieved, max 200 words]

3.4 Resource CVs

Resource CV Format			
First name, last name	<input type="text"/>	Years with company	<input type="text"/>
Title / seniority level	<input type="text"/>	Years of experience	<input type="text"/>
Base location	<input type="text"/>	Education qualifications	<input type="text"/>
Nationality	<input type="text"/>	Professional qualifications	<input type="text"/>
Languages	<input type="text"/>		
Reference project summary	Project 1 Client Name: <input type="text"/> Date: <input type="text"/> to <input type="text"/> <input type="text"/>	Project 2 Client Name: <input type="text"/> Date: <input type="text"/> to <input type="text"/> <input type="text"/>	Project 3 Client Name: <input type="text"/> Date: <input type="text"/> to <input type="text"/> <input type="text"/>
Reference projects narrative (max 300 characters per data field)	Project 1 Situation: <input type="text"/> Contribution: <input type="text"/> Results achieved: <input type="text"/>	Project 2 Situation: <input type="text"/> Contribution: <input type="text"/> Results achieved: <input type="text"/>	Project 1 Situation: <input type="text"/> Contribution: <input type="text"/> Results achieved: <input type="text"/>
Referee	[Insert contact details of a client from one of the above projects who can attest to the consultant's capabilities and performance] <input type="text"/>		

We, the undersigned, certify that to the information, details and any academic, technical or vocal credential provided in the CV above, correctly describe the employee qualifications, his experience and academic achievements and certification. We also are aware that any false information shall result in either disqualification of the proposal and if later was part of the implementation project shall constitute sufficient ground for contract cancellation and penalties.

Employee Signature

Authorized Representative Name: _____ Signature

3.5 Sub-Contractor Profiles

Provide below, where applicable, the profiles of the proposed sub-contractors.

Proposed Sub-Contractor Number n	
Company Name	<input type="text"/>
Office Location(s)	<input type="text"/>
Number of Employees	<input type="text"/>
Describe the proposed role of the sub-contractor, making an estimate of staff numbers and stating which program/project phase(s) they will be involved in.	<input type="text"/>
Describe whether the sub-contractor would be operating from on-shore or off-shore, as well as the mix of on-site and off-site activities.	<input type="text"/>
Is the Eligible Bidder currently engaged in any contractual relationships with the sub-contractor? Please describe.	<input type="text"/>
Describe any relevant project experience with the sub-contractor.	<input type="text"/>

3.6 Eligible Bidder's Proposed Deliverables

Eligible Bidders should fully populate the following table;

Eligible Bidder Deliverables

ID #	Project and Phase	Eligible Bidder Deliverables	Brief Description	Eligible Bidder Responsibility	AW Responsibility
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

4. STATEMENT OF CONFORMANCE

Eligible bidders need to fill in the Statement of Conformance provided below, sign it by an authorized representative of the company and stamp it with the company official stamp. Enter “Yes” or “No” in the left column to indicate your conformance level (without any additional words or qualifying statements like “Agree in Principle”, “Agree with conservation” ...etc)

Mandatory Requirements Checklist (Statement Of Conformance)	
Agree & Confirm	Requirement
	1. We have read this RFP and we hereby agree and confirm with all the terms, conditions and project scope of the This RFP
	2. We confirm that the prices provided in our commercial proposal are comprehensive, conform with the RFP requirement
	3. We have structured our technical and commercial proposals based on the RFP requirements
	4. We have included in our technical and commercial proposals all tools, processes and resources required to successfully complete the project on time, quality and as requested by the RFP.
	5. We conform that any missing item will be assumed at zero cost and AW can't be held liable for any reimbursement or payment to be made.
	6. We have no hidden or un-declared cost items
	7. We confirm that the proposal has been prepared internally without the assistance of any external party or any previously or currently associated vendor(s) with Aqaba Water Company.
	8. We confirm that our company is an independent company that is not or nor has been associated directly or indirectly with any existing or previous vendor(s) who has or in a legal, business, commercial or contractual dispute with Aqaba Water Company
	9. We confirm that we have read and fully understood the USAID Procurement laws and regulations and shall comply with in full.
	10. We confirm and agree that our company will sign the contract directly with Aqaba Water Company without any third-party or middleman
	11. We confirm that we have developed, provided information and presented all the information required by the RFP and any additional information that will help Aqaba Water Company to select the winning bidder.
	12. Non-disclosure Agreement. We hereby confirm that our company agrees to the AW NDA agreement and that all employees involved in the preparation of the proposal and proposed for project implementation have signed a similar NDA with our company

Authorized Representative Name & Signature:

5. NON-DISCLOSURE AGREEMENT

By

Company Name

Company Address

Company P.O. Box

Company City and Zip code

Company Country

Company Tel:

Company Fax:

Company Commercial Register

RECITALS

- a) This Agreement discusses certain matters in connection with the RFP Requirements, referred to in this Agreement as the “Business Purpose”, which requires Aqaba Water Company to disclose certain information to **Company Name**; and
- b) In this Agreement, **Company Name** shall also be referred to as the “Eligible Bidder”.

THE ELIGIBLE BIDDER HEREBY AGREES THE FOLLOWING:

1. Confidential Information

All information, whether commercial, financial, technical or otherwise, including without limitation all secret or confidential information of Aqaba Water Company in whatever form, together with all analyses, compilations, data, studies or other documents prepared by the Eligible Bidder which are derived from or in connection with such information or which contain or are based in whole or in part upon such information, shall be referred to in this Agreement as “Confidential Information”.

2. Disclosure of Confidential Information

Aqaba Water Company hereto agrees to disclose and provide to the Eligible Bidder such Confidential Information as is necessary for the Business Purpose. The Eligible Bidder acknowledges that Confidential Information is a valuable, special and unique asset belonging to Aqaba Water Company. The Eligible Bidder agrees that they shall not disclose the Confidential Information of Aqaba Water Company to any person, firm, corporation, association or any other entity for any reason or purpose whatsoever. However, the Eligible Bidder shall be permitted to disclose Confidential Information on a need-to-know basis to all staff, both support and management, employed by it or any of its subsidiary, affiliated or associated companies, provided that the terms of this Agreement are made known to such staff,

who will be bound by the terms of this Agreement.

Aqaba Water Company further agrees that Confidential Information may be disclosed to the Eligible Bidder's professional advisers, agents and consultants provided that such professional advisers, agents and consultants sign an undertaking relating to confidentiality on the same terms and conditions as contained herein.

The Eligible Bidder agrees that they shall not utilize, employ, exploit or in any other manner whatsoever use Confidential Information disclosed by Aqaba Water Company other than for the Business Purpose without the express written consent of Aqaba Water Company.

The Eligible Bidder shall restrict Confidential Information received from Aqaba Water Company to the officers and employees of the Eligible Bidder on a need to know basis and will not, save as expressly provided in this Agreement, disclose Confidential Information to any other persons.

3. Title

All Confidential Information of Aqaba Water Company is acknowledged by the Eligible Bidder to be the property of Aqaba Water Company and the disclosure of Confidential Information shall not be deemed to confer on the Eligible Bidder any rights to such Confidential Information.

4. Standard of Care

The Eligible Bidder agrees that they shall protect the Confidential Information of Aqaba Water Company using not less than the same standard of care that the Eligible Bidder applies to its own Confidential Information and that Confidential Information shall be stored and handled in such a way as to prevent unauthorized disclosure.

5. Return of Confidential Information

Aqaba Water Company may request in writing at any time that any written Confidential Information disclosed pursuant to the terms of this Agreement and any copies thereof be returned with a written statement to the effect that upon such return the Eligible Bidder has not knowingly retained in its possession or under its control, either directly or indirectly, any Confidential Information or copies thereof, and the Eligible Bidder shall comply with any such request within seven (7) days of receipt of such request.

Any part of Confidential Information which consists solely of analyses, compilations, studies or other documents prepared for Aqaba Water Company and which the Eligible Bidder by agreement with Aqaba Water Company does not return to Aqaba Water Company will be destroyed by request of Aqaba Water Company, and such destruction will be confirmed by the Eligible Bidder in writing.

Should Aqaba Water Company make such a request to return or destroy Confidential Information and the Eligible Bidder has acted in accordance with the request, then the Eligible Bidder will have no further responsibility for the Confidential Information and any work products developed based upon such Confidential Information referred to in the request.

6. Excluded Information

The obligations pursuant to this Agreement shall not apply to any Confidential Information that:

- a) is or becomes publicly known, otherwise than as a consequence of a breach of this Agreement;
- b) is developed independently by the Eligible Bidder without access to the Confidential Information;
- c) is disclosed by the Eligible Bidder to satisfy the legal demand by a competent Court of Law or government body, provided however that in these circumstances the Eligible Bidder shall advise Aqaba Water Company prior to disclosure so that Aqaba Water Company has an opportunity to defend, limit or protect against such production or disclosure, and
a) provided further that the Eligible Bidder will disclose only that portion of Confidential Information which is legally required to be disclosed and the Eligible Bidder will exercise its reasonable efforts to obtain a protective order or other reliable assurance that confidential treatment will be accorded to any Confidential Information so required to be disclosed;
- d) is disclosed to a third party pursuant to written authorization from Aqaba Water Company;
- e) consists solely of generalized ideas, concepts, know-how or techniques relating to computer hardware or software; or

f) is received from a third party without similar restrictions and without breach of this Agreement.

Except as provided above, the obligations of paragraphs 2, 3, 4 and 5 of this Agreement shall survive the completion of the Business Purpose or the termination for whatever reason of this Agreement.

8. Entire Agreement and Severability

This Agreement contains the entire agreement with respect to the subject matter of this Agreement and supersedes all prior agreements by the Eligible Bidder pertaining to Confidential Information, whether written or oral, with respect to the subject matter of this Agreement.

In the event that any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision of this Agreement, which shall be construed as if such invalid, illegal or unenforceable provision had never been set forth herein, and the Agreement shall be carried out as nearly as possible according to its original terms and intent.

9. Notices

All notices, demands or other communications under this Agreement shall be given or made in writing, and shall be delivered personally, or sent by certified or registered mail, with return receipt requested, addressed to the Eligible Bidder at the address set out at the head of this Agreement or at such other addresses as may be designated by notice from the Eligible Bidder, with a copy sent by Fax at such number as the Eligible Bidder hereto shall designate from time to time. Any notice, demand or other communication given or made by mail in the manner prescribed in this paragraph shall be deemed to have been received seven (7) days after the date of mailing.

10. Additional Provisions

The Eligible Bidder acknowledges that a breach of this Agreement and unauthorized disclosure of Confidential Information is likely to cause substantial and irreparable damages to Aqaba Water Company and therefore, in the event of any such breach, in addition to other available remedies, Aqaba Water Company shall have the right to seek specific performance and/or other injunctive and equitable relief.

The Eligible Bidder shall execute and deliver such other documents and do such other acts and things as may be necessary or desirable to carry out the terms, provisions and purposes of this Agreement. No amendment, interpretation or waiver of any provisions of this Agreement shall be effective unless made in writing and signed by Aqaba Water Company and the duly authorized representative of the Eligible Bidder.

The failure to enforce or to require the performance at any time of any one of the provisions of this Agreement shall not be construed to be a waiver of such provision, and shall not affect either the validity of this Agreement or any part hereof or the right of Aqaba Water Company thereafter to enforce each and every provision in accordance with the terms of this Agreement.

The headings of paragraphs are used for convenience only and shall not affect the meaning or construction of the contents of this Agreement.

This Agreement may be executed in counterparts, all of which shall constitute one Agreement, and each such counterpart shall be deemed to have been made, executed and delivered on the date set out at the head of this Agreement, without regard to the dates of times when such counterparts may actually have been made, executed or delivered.

11. Governing Law

This Agreement and the relationships of the Eligible Bidder in connection with the subject matter of this Agreement shall be governed by and determined in accordance with the laws of the Hashemite Kingdom of Jordan and the Eligible Bidder submits to the non-exclusive jurisdiction in relation to any legal actions or proceedings arising out of or in connection with this Agreement.

12. Representations and Warranties

The Eligible Bidder represents and warrants to Aqaba Water Company that it is a corporation duly organized and validly existing in the jurisdiction of its incorporation. The Eligible Bidder represents that they have full corporate power and authority to enter into this Agreement and to do all things necessary for the performance of this Agreement.

13. Validity

This Agreement shall become effective from the date indicated at the head of this document.

The termination or the completion of the Business Purpose for any reason, shall not affect the obligations set out in this Agreement for a period of 5 years from the date of termination or completion of the Business Purpose.

The undersigned being the duly authorized representative of **Company Name** do hereby agree to abide by the provisions of this agreement.

On behalf of Company Name

Signed

Printed

Title

Date

6. SCOPE OF WORK

6.1 Background

Jordan has one of the poorest sustainable levels of water resources in the world to serve residents and other economic uses. The low precipitation levels, especially in the southern part of Jordan compared to the north, climate change impacts, the severe level of water losses from the existing water distribution networks (about 50% non-revenue water (NRW)) and rapid population growth result in a highly challenging situation to keep the water supply at acceptable levels and to limit the heavy financial losses from the sector.

On December 15, 2021, the Water Authority of Jordan (WAJ) signed a management contract with Aqaba Water company (AW) to manage the water and wastewater services in the Karak, Tafilah, and Ma'an governorates, expanding the service area of AW to cover all southern governorates of Jordan. AW has not experienced this size of service area.

In addition, the Government of Jordan (GoJ) is planning to construct the Aqaba Amman Water Desalination and Conveyance Project (AAWDCP) "National Conveyor". This project is designed to desalinate and convey water from Aqaba to Amman and the southern and northern regions. Consequently, improvements to all recipient water supply systems are necessitated to properly handle the additional water quantities and changes in resources (without which there will be excessive additional water and financial losses).

Dealing with the above-mentioned challenges and changes, AW needs a comprehensive master plan for the southern governorates. This master plan is to be later integrated with the National Water Strategy and National Water Infrastructure Master Plan developed by the Ministry of Water and Irrigation (MWI) and WAJ with the support of USAID WGA project. These efforts provide comprehensive guidance which enables AW to improve the efficiency of its operations and reduce water losses to the best feasible levels. Jordan also needs an overall, detailed hydraulic model for the southern governorates to support the GoJ, WAJ and AW to achieve informed and sustainable improvement of the subject water systems. The hydraulic model also acts as a planning tool to support AW in prioritizing restructuring and rehabilitation needs of their water supply and distribution networks and identify the needed investments for the adaptation of National Conveyor and similar projects.

6.1.1 Objective of Study

The overall objective is for a specialized engineering services firm to prepare a water master plan and detailed hydraulic model for the four southern governorates, including detailed assessments and surveys of Aqaba, Ma'an, and Tafileh Governorates, and to combine master plan outputs with the Karak Water Master Plan (which is in preparation under another project), to produce a comprehensive Water Master Plan for the southern governorates and provide the national water infrastructure master plan with the details needed for identifying the future water investments.

This master plan shall study and evaluate the existing systems in the southern governorates and identify needed improvements. This plan is intended to assist the MWI, WAJ and AW with decisions on cost-effective resource allocation and capital investment priorities to meet municipal water needs through the year 2050, taking into consideration expected population growth, demand trends, expected water loss reductions as per the new NRW water strategy (2022-2040), and the suite of currently planned strategic projects particularly the national conveyor project that is expected to contribute to the water supply within the planning period.

The hydraulic model for the southern governorates will be a key input to the AW master plan and will also be an input to an overall detailed hydraulic model for the entire kingdom (northern, middle and southern governorates) – the latter being a tool to support the GoJ to achieve measurable improvement within, and greater sustainability of, the water sector. It will provide a solid platform for the MWI to decide on water allocation and additional resources needed and their timing.

Most importantly, the model and master plan will guide sector investments by properly addressing priorities among existing and planned water infrastructure systems.

The study is expected to accomplish the following main outcomes:

1. Development of a calibrated hydraulic model (HM), including hydraulic network analysis and calibration, taking into consideration intended future water resources, operation schemes and system expansions.
2. Preparation of a master plan and development of capital investment priorities to meet Jordan's municipal water needs through 2050 for the project area, taking into consideration the anticipated NRW reduction as per the new NRW strategy.
3. Preparation of a detailed design report, detailed design drawings and tender documents for Tafilah City and Petra District.

6.1.2 Institutional background

AW is a limited liability company (LLC) which owns and operates all water production and distribution assets, and sewage collection and treatment assets, in the Governorate of Aqaba, and bills and collects all associated charges from the customers served. It operates with stand-alone finance and management resources. Its shares are owned by WAJ (85%), an independent administrative body subordinated to the MWI which governs public water supply and wastewater service in Jordan, as well as Aqaba Development Company (15%), which is owned fully by the Aqaba Special Economic Zone Authority (ASEZA), the development arm of the GoJ in the Aqaba Special Economic Zone (ASEZ). AW's additional service areas will include the Governorates of Ma'an, Tafilah and Karak via a management contract signed at the end of 2021, with a phased implementation starting in Ma'an on January 1, 2022, in Tafila on April 1, 2022, and in Karak on July 1, 2022.

6.2 Existing Water Supply Systems

6.2.1 Tafilah Governorate

Tafilah governorate is located in southwestern Jordan, 183 km south of Amman. It is bounded by Karak governorate to the north and Ma'an governorate to the south and the east, and to Wadi Araba and the Dead Sea to the west. The total area of the governorate is 2,209 km², which is equivalent to 2.5% of the Kingdom's total area. It consists of three districts: Tafilah Qasabah, Bsaira, and Hasa, and 37 localities.

The total number of subscribers in the governorate is 17,430 and the population coverage for water connections is 94.6%. The governorate's water distribution systems have a high average NRW%, estimated at around 65.6% in 2020.

According to the Department of Statistics (DOS) 2018 projection, the total population in Tafilah governorate is 104,000. Based on the medium growth scenario by DOS, the population is expected to be about 145,000 in 2040.

Tafilah governorate is supplied mainly from a number of local wellfields: Hasa, Zabdah, Hasa Al Balad, and Jorof Ad Darawish. The total production of the wells in 2018 was about 6.8 million cubic meters (MCM). The major wellfield in the governorate is Hasa wellfield, which contributes 80% of the total supply. According to a GIZ 2020 study, the total projected production will drop to about 0.35 MCM/year by 2040.

The water supply systems in Tafilah are a mix of pumped and gravity supply schemes. The total length of the network is about 620,000 km. The system includes 16 reservoirs and eight pumping stations. The length of the primary system is 112 km, while the length of the secondary system is 130 km. Most of the primary and secondary system pipes are either steel or ductile iron (DI).

The existing water supply system can be split into three sub-systems:

- The main Tafilah water supply system: the main water reservoir in the system is Al Harir reservoir, fed from Al Hasa wellfields through a system of three cascading pumps. Al Harir reservoir feeds by gravity both the old and new Ain El-Baidha reservoirs, which in turn feed Eewath, Tafilah Bsaira, and Salama reservoirs. Eewath reservoir feeds in turn Gharandal and Al Qadisiya reservoirs through pumping. The system also includes Al les reservoir, which is fed mainly from Zabdah wellfield and feeds by gravity Tafilah and Ayma reservoirs. Al les reservoir is fed by pumping Rehab reservoir.
- Al Hasa New Tank: the system is fed from Hasa Al Balad wellfield and feeds the Al Hasa locality by gravity.
- Jorof Ad Darawish water supply system: the system is fed from Jorof Ad Darawish well and feeds through pumping Jurf locality.

6.2.2 Ma'an Governorate

Ma'an governorate is located in the southern part of Jordan. It consists of four districts: Ma'an Qasabah, Petra, Shobak, and Huseiniya; seven subdistricts; and 66 localities. The elevation ranges from 1,735 masl in Naqab to 700 in Modawwarah.

The total number of subscribers to the system is 25,000. The system percentage coverage for water connections is 99.4%. The governorate experienced a very high average NRW level of around 64.6% in 2020. According to the DOS 2018 projection report, the total population in Ma'an Governorate is 171,000. Based on the medium growth scenario by DOS the population will be about 217,000 in 2040.

Ma'an governorate is fed mainly from a number of local wellfields: Al Tahooneh, Samneh, Wadi Arja, Al Jafr, Jitheh, Al Fujayj, Mohammadiyyeh, Manshiyyeh, Modawwarah, Mraighah, Qurain, Tell Burma, Taqatqa, Huseiniya, Halet A'mmar, Shobak, Al Qa'a, Athroh, Wahida, and Sateh Ma'an. The total production of the wells in 2018 was about 16 MCM. Major wellfields include Al Tahooneh, Samneh, and Jitheh, which contribute 17%, 14%, and 12% respectively of the total supply to the governorate.

According to a GIZ 2020 study, the projected production will drop to 0.91 MCM/year in 2040.

The water supply system in Ma'an is mainly a mixed pumped and gravity supply scheme. The total length of the network is 976,000 km. The system includes 33 reservoirs and 17 pumping stations. The length of the primary system is 75 km, while the length of the secondary system is 262 km. Most of the primary and secondary system pipes are either steel or DI, with the percentage of steel pipes in the primary system about 56%, and about 57% in the secondary system. Most of the tertiary system pipes are either polyethylene (PE) (31%), galvanized iron (GI) (20%), steel (42%), or DI (7%). The system has an existing storage capacity of 27,000 m³. The existing water supply system can be split into 11 subsystems:

- Main Ma'an water supply system: the main water reservoirs in the system are Al Tahooneh and Samneh reservoirs. Al Tahooneh is fed from Al Tahooneh and Jitheh wellfields, in addition to a 150 mm pipeline from Samneh reservoir. Al Tahooneh reservoir feeds by gravity Ma'an, Sateh Ma'an, and Mahatet Jerdaneh localities. Samneh reservoir is fed from Samneh wellfield. Samneh reservoir feeds Ma'an and Dabet El-Karam localities. Ma'an's system includes Sateh Ma'an reservoir, which is fed mainly from Sateh Ma'an well and feeds the Sateh Ma'an locality.
- Wadi Mousa water supply system: the main water reservoir in the system is Al Jitheh reservoir, which is fed from Jitheh wellfields. Al Jitheh reservoir feeds the Ail reservoirs, which in turn feed Qa'a and Taybah reservoirs. Qa'a reservoir feeds in turn Wadi Mousa new and old reservoirs through pumping. Wadi Mousa's system includes Abdaliyyeh reservoir, which is fed mainly from Abdaliyyeh wellfield and feeds Wadi Mousa old reservoirs by gravity.
- Shobak water supply system: there are three reservoirs in this system. Ad Dabbaghat reservoir is fed from Shobak wellfields (8, 10, and 13 wells) and feeds Bier El-Dabbaghat, Bier Khadad, Hawaleh, Jinineh, and Shammakh localities by pumping. Nijil reservoir is fed from Shobak wellfields (1B, 3A, and 4 wells). Nijil reservoir feeds, through pumping, Jayyeh, Maqari'yeh, Mansoorah, Abu Makhtoob, Al Fujayj, Faisaliyyeh, Haddadah, Shobak, and Jhair localities.

Hamza reservoir is fed from Shobak wellfields (6 and 6A wells). Hamza reservoir feeds Mothallath, Zaitoneh, and Zobeiriyyeh localities by pumping.

- Al Wahida Tank: the system is fed from Wahida well and feeds the Auhadah locality by gravity.
- Jafr water supply system: the system is fed from Jafr wellfield and feeds the Jafr locality through pumping.
- Al Mohammadiyyeh water supply system: the system is fed from Wadi Arja wellfield and feeds the Mohammadiyyeh locality through pumping.
- Athroh water supply system: the system is fed from Athroh well and feeds Etmayyah, Ashari, Jarba Saghiereh, Jarba Kbiereh, and Athroh localities through pumping.
- Modawwarah water supply system: the system is fed from Modawwarah well and feeds the Modawwarah locality through pumping.
- Manshiyyeh water supply system: the system is fed from Manshiyyeh well and feeds the Manshiyyeh locality through pumping.
- Huseiniya water supply system: the system is fed from Al Fujayj wellfield and feeds Huseiniya and Hashemiyyeh localities through pumping.
- Mraighah water supply system: the system is fed from Mraighah and Qurain wells and feeds Mraighah, Qurain, Haiad, Swaimreh, Abu El-Lissan, Qasemeah, Tasan, Dabbet Hanoot, and Naqab localities through pumping.

6.2.3 AQABA WATER SUPPLY SYSTEM

Aqaba Governorate is located in southern Jordan, and it gains its importance as containing the only seaport of Jordan. It consists of two districts, Aqaba Qasabah and Quairah, and four sub-districts including Aqaba, Wadi Araba, Quairah, and Disi, in addition to 28 localities. According to the DOS 2018 projection report the total population of Aqaba Governorate is 203,000. Based on the medium growth scenario by the DOS, the population will be 263,000 in 2040.

Aqaba governorate is fed from a number of local wellfields: Qa' a Disi, Mnaishier, Rahmeh, Qatar, Reisheh, Fienan, Shakriyyeh, and Um Mithla. The total production of the wells in 2018 was about 19 MCM. The major wellfield is Qa'a Disi. According to a GIZ 2020 study, the projected production will drop only slightly by 2040.

The water supply system in Aqaba is a mix of pumped and gravity systems. The total length of the network is 913 km. The system includes 43 reservoirs and 21 pumping stations. The length of the primary system is 123 km, while the length of the secondary system is 38 km and the tertiary system is 752 km. The system has an existing storage capacity of 8000 m3. The existing water supply system can be split into two main systems:

- The Aqaba Special Economic Zone Authority (ASEZA) and Quairah water supply system: the main water reservoir in the system is the collection reservoir, which is fed from Abu-Dab'ah, Al-Qa'a, and Rum wellfields. The collection reservoir feeds Rashidia PS through a 300 mm connection, which branches off an 800 mm pipe, and Al-Etihad PS through a 150 mm connection that branches off the 800 mm pipe. Both pump stations are located in the Quairah District. The collection reservoir also feeds Mezfer reservoir and the terminal reservoir, which in turn feeds the ASEZA System. The ASEZA system has an additional source, which is the KEMAPCO desalination plant. ASEZA and Quairah water supply systems have some scattered systems which include Disi, Shakriyyeh, Twiseh, and Ghal systems; each system is fed from its own local wells.

- the Wadi Araba water supply system: the system consists of five scattered systems: Qatar PS, Rahmeh PS, Al-Reisheh PS, Fienan reservoir, and Mathkooor Wellfield, and each system is fed from its own local wells.

The table below summarizes the network lengths in the targeted governorates.

Governorate	Primary network length (km)	Secondary network length (km)
Tafileh	112	130
Ma'an	75	262
Aqaba	123	38

6.3 AVAILABLE INFORMATION

The Consultant shall appraise and evaluate all the available data, and use the relevant data related to the study. The following are the available studies at AW and the Consultant shall be responsible to collect all relevant projects and studies.

Previous studies

- Ma'an Water and Wastewater Master Plan February 2013 by USAID WIP
- Tafilah Water and Wastewater Master Plan February 2013 by USAID WIP
- National Water Infrastructure Master Plan, by USAID WMI December 2020
- Aqaba Water and Wastewater Master Plan by USAID WMI in 2019
- National Conveyor Project Hydraulic Models

Ongoing and Future Water Supply Projects

- NRW project funded by USAID:
 - Umbrella FARA Phase II – FARA 1 and 3
 - Umbrella FARA Phase III: FARA 2 Tafilah, FARA 3 Ma'an, FARA 05 National Bulk Meter and FARA 8
- Management Contract for Aqaba Water Company
- Aqaba Amman Water Desalination and Conveyance Project, or National Conveyance Project
- Water and Wastewater Master Plan for Karak Governorate – GIZ
- National Hydraulic Model for Primary System by GIZ, 2022
- National NRW Strategy (2022-2040) by USAID WGA
- Other USAID-WGA Master Plans

6.4 Conceptual Design Stage

6.4.1 DATA COLLECTION, INVESTIGATION AND ANALYSES

The preparation of the proposed master plan comprehensive verified data. The collection and review of this data will allow for the assessment of shortcomings in the existing database and the identification of areas where additional/supplementary or new data for planning purposes will have to be generated.

6.4.1.1 RECORDS AND DOCUMENTATION SEARCH

A thorough search will be conducted of all relevant records in the possession of the local authorities, WAJ, AW and previous consultant's reports, including a check of previous studies and designs, in order to review the present situation and confirm the strategic parameters.

Within the preparatory works, available data regarding the below-mentioned aspects will be collected and reviewed as to their reliability and suitability for the purposes of the preparation of the master plan:

- Background data on the national level, such as demographic development, development of gross domestic/national product - total and per capita, main economic activities, employment, income and expenditure, with the aim of identifying and assessing the main national parameters and their importance for the proposed master plan.
- Demographic, socio-economic and social data, covering the whole of the master plan area:
 - Spatial distribution of the population and population density
 - Past and present rates of population growth of the urban and rural population
 - Average size and composition of households, on the regional, urban and rural levels
 - Consumption patterns (structures and levels) of the target population including domestic, commercial, touristic and industrial usage, with particular attention to their water consumption (piped and informal water supplies)
 - Existing physical, socio-economic and social infrastructure
 - Development of the regional contribution to the gross domestic / national product - total and per capita, main economic activities, and employment
- The current situation regarding water services, spatial distribution of supplies, seasonal, daily and hourly variations in supplies, quality of supplies, etc.
- Development/ Land use plans – existing and future.
- Current water consumption records.
- Current water resources and production records.
- O&M data, including understanding of existing operation practice.
- Geographic Information System (GIS) Data.
- Existing hydraulic models.
- As built drawings.
- Previous studies.
- Planned water resources.
- Existing SCADA databases.

6.4.1.2 LITERATURE REVIEW

The Consultant shall collect and review in the Conceptual phase of the project all reports and data related to the project area as follows:

- Past reports/studies.
- Key technical data on the production, consumption, network extent, service connections, pipe materials, age of pipework, etc.
- Confirmation of water resources.
- Existing data and reports on distribution system and identification of broad expansion needs, metering needs in the distribution network, adequacy of transmission facilities to existing and proposed reservoirs.
- Demographic, population and housing data.

6.4.1.3 COLLECT AND UPDATE OF AVAILABLE DATA

The Consultant shall collect and update all data related to existing systems as follows:

- GIS data.
- All available maps and drawings such as latest projects' maps.
- Data related to customers such as number of customers and their location, consumption, complaints (type and location), etc.
- Data related to all existing facilities.
- Any other data the consultant opts to be essential to complete the study.

6.4.1.4 MAPPING

To be able to understand and review the extent of the water supply system in the project area, proper mapping will be of critical importance.

Accurate network drawings form an integral part for many further planning and construction activities as well as for proper system maintenance and operation.

The consultant shall review the existing base maps in detail. Thus, the Consultant will have to carry out a thorough network survey to verify the as-built drawing, locating all pipelines including service connections, valves, verifying pipeline information collected by field survey teams for areas with no records and any new modification to the network made by the Client to areas covered by as-built drawings, verifying interconnection details. Drawings shall be updated accordingly

The consultant shall provide and review the following:

- Department of Lands and Survey (DLS) maps.
- Municipalities planning and land use maps; These maps are important for the project and will be the basis for the mapping and verification of the water system.
- Topographical maps.
- Geological maps.

6.4.1.5 FIELD SURVEY OF EXISTING SYSTEM FACILITIES AND NETWORKS

The Consultant shall visit and assess all water facilities which at present contribute to the water supply of the project area, such as well fields, pumping stations, transmission mains and reservoirs. On this basis the Consultant shall update the documentation on the present status of these facilities and propose necessary improvements. The Consultant shall also collect basic cost parameters for investment and operation. The consultant, based on his own assessment, shall study the current operation scenarios and recommend the required development for those scenarios.

A comprehensive field survey of the existing water distribution network shall be carried out by qualified Engineers from various disciplines accompanied by the Client operators, who will actualize, review and assess all aspects of the distribution, the mode of operation. At the end of this effort the Consultant shall be able to prepare system layout for all water systems for all pipes including service connections in GIS in accordance with the Client pre-established database structure and layout of system facilities in AutoCAD. The main sources for the required data are:

- existing network drawings
- as-built drawings
- knowledge of the Client operators
- the Consultant's field Survey of the distribution networks

The Consultant will review the existing network drawings in close co-operation with the Client staff. Missing information will be collected by field survey, which shall include pipe diameters, type, age, material, location, valves such as air release valves, wash out, isolation valves, the exact location of pipeline interconnections (if not visible in valve chambers), comparison of the pipe routing in the field with the pipe routing at the map etc.

Where contradictions are evident, spot checks will be carried out on site to confirm the existence of interconnections, diameter and material of pipelines. Their technical conditions will also be assessed. The excavation of trial holes might be necessary at selected locations.

At the end of this exercise a complete system layout for the entire water pipe network will be prepared in Arc-Info format and a layout of system facilities in AutoCAD format.

The Consultant will conduct an assessment for the South Coast pipeline including visual inspection, test pits, and burst records wherever needed.

Where deemed necessary, pipe locations and connections shall be verified by utilizing pipe detectors, valve locators and other equipment needed for execution of the study. The required equipment shall be provided by the Consultant.

6.4.1.6 WATER QUALITY DATA

The consultant shall collect all data related to water quality for the water resources in the project area. The consultant shall also perform the necessary analyses of this data to be able to assess the current situation of the existing resources and perform a desk study and develop proposals accordingly.

6.4.1.7 REVIEW OF THE OPERATION OF EXISTING SYSTEM

The consultant shall review the operation of the existing system by collecting and studying any related data and information. This shall enable the consultant to model and analyze the existing system. The consultant shall also prepare hydraulic schematics (elevation diagrams) for the existing system.

6.4.2 PREPARATION OF DESIGN CRITERIA

The consultant shall prepare the design criteria for all related components, in addition to the design criteria for the restructuring, rehabilitation and extension of existing systems and take into account international design standards.

6.4.3 POPULATION AND DEMAND PROJECTION

On the basis of available maps and other information the Consultant shall verify the settlement pattern and economic activities within the study area with special concern towards water consumption categories needed for the assessment and forecast of the water demand. Assessment of population number and density and its future expected development shall be executed on the basis of town sub-areas by appropriate means to be explained by the Consultant. In particular he shall:

- Evaluate records on average water consumption and population.
- Analyzes seasonal, daily and hourly fluctuations in the water demand taking into consideration the intermittent supply in his assessment.

6.4.4 EXISTING WATER DISTRIBUTION SYSTEM HYDRAULIC MODELING

The consultant shall use Bentley Water GEMS for all hydraulic modeling required in this contract since this software is adopted by AW.

As a first step the existing water supply system for the project area including transmission mains, primary and secondary networks shall be analyzed and assessed to identify the actual deficiencies of the system and their causes. On this basis a concept for the network's optimization and re-structuring shall be elaborated.

- The model shall include pipes of 100 mm diameters and above. Main distribution pipes with diameters less than 100 mm shall also be added to the model. Any other pipe or elements of any size considered as relevant to modeling and analysis shall be added.
- Verification of the existing transmission main lines and primary networks, their hydraulic capacity and its sufficiency for well defined, clear hydraulic conditions and preparation of proposals for reinforcement.
- Verification of the existing secondary pipe system, its hydraulic capacity and later on recommendations for its reinforcement and restructuring.
- Review of existing supply zones (hydraulic zoning).
- Analysis according to existing supply schemes.
- Review of existing storage capacities.

Based on the hydraulic analyses results, the Consultant shall identify existing bottlenecks, problem areas in terms of extreme high or low pressures.,

Taking into account the results of these investigations, the Consultant shall then identify and discuss technically and economically feasible development strategies for the existing water supply system regarding a phased implementation of proposals.

Special emphasis shall be given to the graphical presentation of the schematic layout of the proposed system variants. Layouts shall indicate the basic elements of the revised systems, recommended zoning, proposed network modifications, etc, all considering the envisaged extension of settlement areas and future water resources.

6.4.5 KEY DELIVERABLES

The following represent the deliverables at this stage:

- Site investigation report and drawings
- Conceptual report including all findings and conclusions during this stage
- Conceptual phase drawings

6.5 Master plan and preliminary design

6.5.1 Network Analysis and Modeling

6.5.1.1 FUTURE WATER SYSTEM HYDRAULIC MODEL AT YEAR INTERVALS

The developed model shall be used for operation optimization in terms of the required flow and pressure for the different supplied zones. The model is required to be flexible so different operational scenarios can be tested. The hydraulic model for the proposed system shall be developed in 5 years intervals and up to the planning horizon of 2050.

The Consultant shall recommend operation strategies (for pumps, main transfer lines, reservoirs and distribution network) of the water supply system according to the results found. The particular tasks of the Consultant shall include:

- Proposals of water supply taking into consideration the future water resources and its expected capacity and commissioning dates.
- Proposals for gravity supply to the extent possible and feasible.
- Proposals for new system facilities or modifications to existing facilities required to accommodate future demands and the restructuring works.
- Continuous supply when and where possible.
- Proposals for improved distribution and pressure zoning (hydraulic zoning), metering districts, etc.
- Preparation of an emergency plan in case of big problems (Failure in the main pump stations or breakage in the main transmission lines. Scenarios will be agreed between the Client and the Consultant).
- Update the water balance, as well as sub systems balances.

6.5.1.2 RESTRUCTURING AND REHABILITATION RESULTS

In close cooperation with the Client the consultant shall establish a restructuring and rehabilitation strategy to ensure that all efforts should target water loss reduction and meeting current and future water demand.

Physical losses can be dramatically reduced by pressure reduction and replacement of corroded pipes. The proposed strategy of restructuring the system into manageable distribution zones and the further division of district zones for both monitoring and pressure control is therefore the most appropriate response to reducing water losses.

To achieve this strategy, the consultant shall propose division of the project area into three levels of water supply zone:

- Resource Zones – linked to the major water resources.
- Distribution Zones – linked by a system of transmission mains and pumping stations to supply large reservoirs, which provide gravity supply as far as possible to the distribution networks.
- District Zones – a sub-division of distribution zones, the extent of the zone being designed to limit maximum water pressures to 5 bars and the minimum to 2.5 bars at average flow allowing some variation according to the demand condition.

Pressure control shall be achieved by using pressure reduction valves (PRVs) to limit the maximum and minimum pressures. The design shall also include installing bulk meters to measure flow in the

distribution and district zones for a better control and understanding of NRW at all parts of the network.

The use of additional storage in the distribution zones reservoirs can lead to a reduction in chlorine content. Both hydraulic and quality aspects can be effectively investigated and mitigated using appropriate network analysis of water systems.

6.5.2 Preliminary Design Drawings

The components of the preliminary design shall be provided in sufficient detail and in the appropriate scales to be incorporated in the final design. This will comprise of the following:

- System schematic showing the primary system and system facilities.
- Elevation diagram for the proposed water distribution system showing main distribution zones and their districts.
- General layout of the whole primary system showing proposed pipes.
- Layouts of the restructured and rehabilitated distribution system showing distribution and districts zones boundaries.
- Layout and dimensioning of the proposed facilities .
- Details of the proposed renovation works in the existing facilities.

Based on the hydraulic analysis all of the basic parameters for the water distribution and storage system shall be compiled and presented for approval by the Client. These will include average demand and peak seasonal and diurnal demand, storage facility requirements, pumping stations, operational requirements including chlorination, and minimum and maximum pressure standards. The overall layout of the water distribution system, the location of the pumping station(s) and water storage facilities will be prepared as part of the preliminary engineering design.

The proposed works identified in the preliminary design and hydraulic analysis shall be broken down into suitable priority projects and phases as agreed with the Client and shall be supplemented by the related implementation and budget requirement schedule. The implementation schedule and the related schedule of budget requirements shall allow for a flexible updating/modification of cost and implementation sequence to enable the Client to apply for funding of packages by donor agencies as well as local budgets.

Special emphasis shall be given to mapping and graphical presentation of all results, as recommended zoning for metering, pressure and flow control, indication of necessary network modifications, network plans, etc.

Standardized drawings for major elements and /structures of similar nature of the distribution system (such as valve chambers, air release valves, house connections, washouts etc.) shall be contained in the Consultant's presentation.

6.5.3 Identification of a Priority Program for Systems Improvement

It can be assumed that a number of technically and economically viable program measures will compete for a limited amount of funds budgeted for the project.

In such a situation, it becomes necessary that the consultant shall develop a priority investment program which optimizes the anticipated impacts of the proposed measures under the existing budgetary constraints.

As far as the elaboration of a priority investment program for the proposed program is concerned, the Consultant shall proceed along the following lines:

- Ongoing projects and the existing financial commitments for implementing projects in the southern governorates.
- In general, measures will be considered for inclusion into the priority investment program only if the results of the economic cost / benefit analyses demonstrate their technical and economical viability; this, usually would mean that the resulting economic internal rates of return of the measures concerned must exceed or at least be equal to the imputed rate of opportunity costs in Jordan.
- The selection criteria of priority works are to be addressed through needs and urgency, and the priority is to be based on reducing NRW, achieving the acceptable level of service and covering poor-income areas.
- Based on the preceding, scores shall be attributed to measures concerning the reduction of NRW (high score), among other factors to be agreed with the Client.
- When different project / program components / measures compete for limited funds, the most appropriate multi criteria matrix to be adopted when determining the sequence of measures to be implemented.
- Following this, those measures would be included in the priority investment program, in decreasing order, that have the highest products (net present value times score) up to the point where the accumulated financial investment costs related to the measures considered for inclusion into the priority investment program are equal to the volume of funds available for investment purposes.

6.5.4 Investment Costs

The design horizon for the Master Plan is to be the year 2050. The phased implementation of the proposed measures should take into consideration the physical and/or economical lifespan. During the course of the preliminary design a number of alternative solutions for the different water supply systems will be developed.

Construction cost estimates will be prepared for all proposed rehabilitation and new works recommended for the existing water supply facilities.

In order to provide a realistic cost estimate, the construction cost estimates will be based on:

- pipe and plant manufacturers' current supply prices
- current rates for similar types of work in Jordan

The accuracy of the construction estimates will depend very closely on the collection of data from similar projects in Jordan. In this respect rates should be adjusted for inflation and special characteristics of each project area.

The preliminary bills of quantities shall include the main components e.g. pipe material, pipe laying costs (main lines and distribution), pumping stations, wells, pumping plant, storage facilities, global costs for power generation and supply. Provision for physical and financial contingencies shall be also included.

The preliminary designs and bills of quantities will be drawn up in a manner to enable the Client to proceed rapidly to the final/ detailed design and tender documentation.

6.5.5 key deliverables

The following represent the deliverables at this stage:

- Master plan report
- Detailed hydraulic model for all southern governorates with source data

- Preliminary design report and drawings

6.6 Detailed design and preparation of tender documents for petra district and tafila city

Tender documents for the contract packages to be agreed by the Client shall be prepared to the highest standard taking into consideration USAID requirements.

The scope under the detailed design will include the development of the works identified in the preliminary design phase for the following:

- Tafilah city and its primary system including the rehabilitation of the well head structures in Hasa well field.
- Ayl district including the upgrade and rehabilitation of its primary system.

6.6.1 Perform Topographic Surveys for New Mains and proposed facilities

A review of available plans and surveys that has been gathered in the earlier phases of the project and its suitability to prepare detailed design for the proposed works in the project area.

Most up to date street maps for the project areas shall be used, these drawings should be checked and updated according to the latest Land and Survey Department maps and the Ministry of Municipalities and Rural Affairs maps. The consultant will check the accuracy of these maps through his field survey and the topo-survey work. Survey and leveling along the main pipelines (with diameter 100 mm and larger) alignment will be required for the preparation of construction profile drawings at 1:1000 scale horizontally and 1:100 vertically.

Performance of the additional surveys will be undertaken to ensure compliance with the requirements of the work. The surveys performed will include:

- Topo survey of routes of the proposed mains with diameters 100 mm and larger and the proposed zones boundary.
- Field survey for the new house connections which will include plot number, basin, details of water network inside the property, location of water meter and the optimum way for connecting the plot to the main network in the street.
- Location of existing services to the extent possible.
- Topo survey for the proposed system facilities.

6.6.2 Carry out Geotechnical Investigations for Proposed Facilities

The purpose of geotechnical investigations is to determine soil properties at the chosen proposed facilities sites in order to design the foundations for the structures. The Consultant shall determine the requirements for geological stability of the sites and for soil surveys and foundation investigations.

The Consultant will submit for approval the test and investigation programme. The investigation program will also include tests at the proposed primary mains routes as follows:

- 1 borehole drilling (core drilling except in chert) 3 m deep per three kilometer length of main.
- 3 penetration tests per site, if needed.
- Laboratory tests: moisture content, dry density, Atterberg limits, oedometer tests, specific gravity, direct shear.
- evaluate the aggressiveness of soil by resistivity tests.

The routes of the proposed primary mains shall be also investigated as to the kind of soil, so that rocks and rocky soils can be avoided, and if necessary.

The Consultant shall bear the cost of performing the soil investigation.

At the end of the investigations, a geotechnical report will be presented by the consultant. This will define the various assumptions to be taken into account in designing the structures foundations.

6.6.3 Prepare Final Design Criteria

The consultant shall prepare the final design criteria which will form the basis for the development of the final engineering plans and specifications.

Design criteria will include such information as types of pipe, relevant standards codes for pipe, pressure class; types of joints and fittings; protection, lining and coating of pipes; depth of cover; types of backfill, road reinstatements, electromechanical works, requirements for chambers, etc.

6.6.4 Prepare Detailed Design

The scope of work shall comprise but not be limited to:

- Detailed design and structural calculations and reinforcement drawings for all civil structures. Detailed design of pipe works in or outside buildings and detailed design of electromechanical installations.
- Detailed design and Field verification of zone boundaries (including topographical survey) in order to allocate plots and their service connections to distinct district zones.
- Detailed design and field verification of works needed for isolation of the individual zones, such as cutting of pipes, relocation of connections, required gate valves, etc. taking into consideration the operation of the water system remains within the design criteria limitations.
- Required PRV's and pressure parameters (night/day, winter/summer, upstream/ downstream).
- Detailed design and hydraulic verification of the defined zones with respect to reinforcement and replacement pipes and defined locations of reservoirs and pumping station .
- Detailed design and field verification (incl. topographical survey) of locations for manholes and chambers for air valves, bulk meters, PRV's, wash-outs, etc .
- Detailed design and field verification (incl. topographical survey) of locations for reservoirs and pumping stations.
- Detailed design and field verifications including topographical surveys and longitudinal profiles for all proposed pipes with diameters of 100 mm and larger .
- Design of ground reservoirs (whether new or extension of existing ones), elevated reservoirs (water towers) and pumping stations (whether new or modification of existing ones), and well facilities .
- Detailed design of electromechanical works, including cabling, control equipment, panels, power supply, etc. and all electrical works .
- Prepare a design report including detailed design calculations input, output, applied theory, discussions and recommendations including all the input data, output results of all verifications, assessment, analysis and recommendations .

- The consultant shall prepare the design for introducing the System Control And Data Acquisition (SCADA) system for the project area.

6.6.5 Prepare Tender Design Drawings

Prepare the detailed design drawings for all the needed works as per the following requirements:

- Pipeline Drawings: Preparing drawings with appropriate scale to show lot number, route, type and diameter of water lines, including isolation valves, washout valves, air relief valves and pressure reducing valves, ... etc. All other existing utilities such as electric cables, telephone cables and sewers shall be shown on separate drawing of the same scale .
- System Facilities Drawings: Preparing drawings with an appropriate scale for the pumping stations (to show the contents of each pumping units, suction and delivery components, etc.) well fields (to show site plans, piping and fittings , etc.) reservoirs (to show plans , inlet and outlet water lines , drainage lines , etc.) and other required buildings and facilities (to show architectural , civil mechanical, electrical details) .
- Profile Drawings: Preparing profile drawings for each design drawing of pipelines at a vertical scale of 1:100 and a horizontal scale of 1:1000 which show clearance(s) between proposed construction and existing utilities including sewers and power lines. The aforementioned drawings and respective scales are considered minimal to adequately show the work.
- Special structures to scale 1:50 (chambers, manholes, etc.).
- Typical details of pipeline construction.

6.6.6 Prepare Conditions and Technical Specifications

Detailed instruction to bidders, Conditions of Contract, and Technical Specifications shall be prepared in this task. Specifications shall clearly set forth the work to be performed, and the materials and workmanship clearly and precisely. Specifications shall be prepared taking into consideration USAID source and nationality requirements.

The specifications will cover all materials and types of work included in the project. The specifications will be consistent with the plans and vice-versa. The Conditions of Tender and Conditions of Contract will be prepared in general compliance with "International Conditions of Contract for Works of Civil and Mechanical Engineering Construction" and as directed by the Client.

6.6.7 Prepare Schedules and Bills of Quantities

Schedules and Bills of Quantities will be prepared in this task suitable for Tendering. The Schedule and Bills of Quantities will define work to be undertaken and will provide quantities of work for the various types of material and construction work to be performed. The Schedules and Bills of Quantities shall be prepared in accordance with normal procedures, which will be discussed and approved by the client.

6.6.8 Prepare Confidential Construction Cost Estimate

Final cost estimates will be prepared based on unit costs for each item in the Bills of Quantities. The unit costs will be based on a detailed analysis of the cost of equipment, materials, labor, and the contractor's overheads and profit to complete the work.

6.6.9 Training and Know-How Transfer

Two engineers from the Client staff will be seconded to the Consultant during the whole duration of the contract. The Consultant shall work with Client staff day by day and make his duties clear for

them. The staff will be fully seconded and integrated into the consultant's team. After the completion of the work the Client engineers are expected to:

- Fully understand methodology used for establishment of the hydraulic model.
- Fully capable to update the hydraulic model based on the required modifications to the hydraulic system.
- Utilize the hydraulic information for the use of the operational department. Carry out the hydraulic simulation of different operational scenarios and test the results. (Fixing parameters and simulating the effect on the others).
- Train new Client engineers and technicians on the use of the applied computer model.

The consultant is required to organize training sessions (and provide training documents, hard and soft copies) for the future hydraulic model main/administrative users. These users should then be able to train other users.

6.7 Expected Outputs

The following schedule for deliverables shall apply:

Deliverable	Duration/Delivery Time	Entry Criteria
Inception Report	1 Month	After commencement
Draft Conceptual Report	3 Months	After commencement
Final Conceptual Report	1 Month	After receiving comments
Draft Master Plan and Preliminary Design Report	3 Months	After approval of conceptual report
Final Master Plan and Preliminary Design Report	1 Month	After receiving comments
Draft Detailed Design Report and tender Documents for Petra and Tafilah	3 Months	After approval of Conceptual Report
Final Detailed Design Report and Tender Documents for?	1 Month	After receiving comments

All reports shall be submitted in draft and final versions. The Consultant shall consider a time of 2 weeks for commenting by the client.

The Consultant shall submit 2 copies of each report. All reports shall contain an executive summary and shall be prepared in A4 format. A separate volume in A3 format may be prepared containing plans and drawings. In addition to these hardcopies, all documents (reports and drawings) have to be provided in digital format (MS Word and pdf-format, MS Excel, Water GEMS, drawings in AutoCAD, GIS and pdf-format) in English.

6.8 Implementation schedule

The project duration of services from the date of commencement is 9 months. The consultant shall prepare an implementation schedule within his offer.

6.9 Staffing

The Consultant must demonstrate that he has suitably qualified and experienced experts among its key personnel, who have the appropriate level of academic and professional qualifications and experience gained in similar projects to recognize and to deliver with respect to the management requirements.

The consultant shall submit a staffing schedule with the following minimum requirements:

- **Project Manager**
 - 15 years of professional experience in the water sector.
 - University degree in water resources management, hydraulics, hydrological and hydraulic modeling, civil or environmental engineering, or equivalent.
 - Project management for at least 5 projects of similar nature in preparation of master plans or and hydraulic modeling, feasibility studies and detailed design of water supply projects.
- **Hydraulic Modeler**
 - 10 years of professional experience in the water sector .
 - University degree in civil engineering or comparable fields .
 - Sound experience in hydraulic modeling of water supply systems for at least three projects.
- **Civil Engineer / Water**

- 15 years of professional experience in water projects.
- **Civil Engineer / Structural**
 - 15 years of professional experience in water supply projects.
- **Electrical / SCADA Engineer**
 - 15 years of professional experience in water supply projects.
- **Mechanical Engineer**
 - 15 years of professional experience in water supply projects.
- **CAD Operators**
- **GIS Specialist**

End of RFP