

**Terms of Reference for the Hiring of the Consultancy Services for Detailed Design,
Procurement Assistance, & Construction Supervision for QWASA**

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TERMS OF REFERENCE (DETAILED DESIGN, Procurement Assistance, & Construction Supervision)

1. Introduction

The Government of Balochistan has obtained a credit (No. 7790-PAK) from the World Bank for the implementation of the Balochistan Water Security and Productivity Improvement Project (BWSPiP). The BWSPiP Component B (Improvement of Quetta Water Supply Systems) will be implemented by the Government of Balochistan through Public Health Engineering Department with support from other government department and various consultants. A full description of the project is available in the Project Appraisal Document at <https://documents1.worldbank.org/curated/en/099051225163528707/pdf/BOSIB-d5f825d8-fa60-461f-b51f-0994a030c196.pdf>.

Quetta, the provincial capital of Balochistan, faces severe water scarcity driven by rapid urbanization, declining groundwater levels, climate variability, and aging infrastructure. The city depends heavily on over-exploited alluvial aquifers, with extraction exceeding recharge, resulting in falling water tables and deteriorating water quality. The existing water supply system suffers from limited storage, inefficient distribution, high non-revenue water, and weak operation and maintenance, leading to irregular and inadequate access to safe drinking water.

To address these challenges, the Government of the Islamic Republic of Pakistan, through the Government of Balochistan (GoB), with financing from the World Bank (IDA), is implementing the **Balochistan Water Security and Productivity Improvement Project (BWSPiP)**. The project aims to enhance water security, strengthen flood resilience, improve agricultural productivity, and reinforce institutional systems for sustainable and climate-resilient water resources management across selected river basins and flood-prone areas of the province.

The **Improvement of Quetta Water Supply Systems (IQWSS)** is a key sub-project under the Balochistan Water Security and Productivity Improvement Project (BWSPiP), focusing on both infrastructure development and institutional capacity building. The project encompasses a range of interventions, including water and wastewater infrastructure improvement, enhancement and monitoring of groundwater systems, water supply infrastructure rehabilitation, surface water conveyance studies, rainwater harvesting and watershed management, as well as institutional strengthening of Q-WASA. The Q-WASA Project Management Unit (QWASA-PIU) is responsible for the overall implementation, coordination, and supervision of all IQWSS activities.

2. Objectives

The Government of Balochistan, through the QWASA-PIU, will select and engage a consulting firm that will provide services as per these TOR for an intended completion period of 51 months. These services will generally provide detailed designs for all the interventions mentioned in the approved PC-I and role of engineer during execution of all schemes and post defects notification period (DNP) closure.

They will assist the PIU in project planning and management, progress reporting, procurement planning and overall project management. Their work will primarily cover:

General Project Management Support

(i) Project and Contract Management

To ensure effective planning, coordination, and implementation of project activities, including preparation of annual work plans, monitoring progress, and ensuring compliance with contractual, technical, and fiduciary requirements.

(ii) Detailed Engineering Design and Verification

To undertake detailed engineering designs, including verification of site-specific conditions, ensuring that all designs are technically sound, cost-effective, and aligned with long-term system sustainability.

(iii) Construction Supervision and Quality Assurance

To supervise all civil, mechanical, and electrical works, ensuring adherence to design specifications, quality standards, and timelines, along with implementation of quality assurance and quality control mechanisms.

Specific Project Implementation Support:

(iv) Baseline Assessment of Water Supply and Sanitation Services

To take stock of all existing secondary data and analytical work on Quetta's water and sanitation services and the water resources of Quetta District, including feasibility reports, grey literature, and relevant assessments (hydrogeological, geological, climatic, meteorological, etc.), in order to produce an evidence-based Inception Report and a realistic Project Implementation Plan. The review shall also include the following:

- Utility performance metrics, such as hours and frequency of service, distribution efficiency and leakages, water quality at source, Non-Revenue Water (NRW) (physical and commercial), etc.
- Water and sanitation access metrics, such as the number of connections, primary source of household water, primary means of sanitation, and water quality at the consumer level (point of use).
Note: In both of the above, where there are disparities and deviations from the averages due to locational and socio-economic factors, these must be specified.
- Groundwater/hydrogeological profile of Quetta Valley.

(v) District Metered Areas (DMA) Pilot Program Design and Supervision

- Identify suitable locations, based on technical and institutional parameters, for the establishment of pilot District Metered Areas (DMAs) within QWASA zones for pressure management, leakage control, and Non-Revenue Water (NRW) reduction.
- Conduct condition surveys and feasibility studies for each DMA to identify priority investments (works and equipment) and future operational requirements.

- Prepare detailed designs, cost estimates, a roll-out strategy, Asset O&M and DMA Management Plans, and procurement planning and documentation for each DMA.
- Supervise all construction and installation works under the DMA pilot program.
- Develop a hydraulic model for each DMA and provide technical support for the procurement and contract management of the associated SCADA system¹.

(vi) Rehabilitation and Construction of Water Filtration Plants

- Conduct condition surveys of non-functional water filtration plants to identify repair, rehabilitation, and replacement requirements.
- Identify and assess suitable locations for the construction of new water filtration plants, giving due consideration to raw water quality, source sustainability, treatment requirements, service coverage, and water quality issues affecting the poorest settlements.
- Prepare detailed designs, technical specifications, cost estimates, procurement documentation, and implementation plans for the rehabilitation of existing and Installation of new water filtration plants.
- Supervise the rehabilitation, Installation, testing, commissioning, and performance verification of water filtration plants.

(vii) Design and Deployment of remote monitoring and supervision system for civil works supervision that is GIS -supported.

(viii) Design and Supervision of Groundwater monitoring and recharge solutions (both grey infrastructure and nature-based solutions), based on recommendations of the Project's Quetta Valley Watershed and Groundwater Management Plan.

(ix) Technical appraisal, detailed design, procurement, and supervision of discrete, unidentified priority works to be identified by the Client during the currency of the Contract. These shall be treated as provisional sums and shall be executed upon specific instruction from the Client, using the existing technical capacities of the Contract.

The assignment shall be carried out over the project implementation period, i.e., up to 20th February 2031, with a provision for extension, if required, to support project closing activities up to the Project Closing Date.

3. Engineering Detailed Design

The Project comprises a comprehensive range of interventions under Subcomponents B1 to B4, including water supply and wastewater infrastructure improvements, groundwater monitoring and managed aquifer recharge systems, rehabilitation and upgrading of water supply infrastructure, surface water conveyance, rainwater harvesting and watershed management, and institutional strengthening of Q-WASA within Quetta District.

¹ To be procured separately by the Client

The Consultant shall be responsible for the preparation of detailed engineering designs, technical specifications, drawings, Bills of Materials (BOMs), cost estimates, and bidding documents for the assigned project interventions, in accordance with the approved PC-I. The Consultant shall also provide construction supervision, contract administration, quality assurance, and technical support during implementation to ensure that all works are executed in accordance with the approved designs, technical specifications, contractual requirements, and applicable environmental and social requirements.

Environmental and Social Assessment

- The Consultant shall support the PIU in the preparation and implementation of Environmental and Social Management Plans (ESMPs) for the DMA's implementation and in monitoring contractors' compliance with the ESMP requirements.

4. COMMUNITY MOBILIZATION

Effective community mobilization and stakeholder engagement will be essential for facilitating successful planning, implementation, and long-term sustainability of the Project interventions. The Consultant shall adopt an inclusive, participatory, gender-responsive, and culturally appropriate approach to stakeholder engagement in accordance with the Project's Stakeholder Engagement Plan (SEP), Environmental and Social Commitment Plan (ESCP), Environmental and Social Management Framework (ESMF), Gender Action Plan (GAP), and other applicable Environmental and Social Standards (ESSs) of the World Bank.

Without limiting the Consultant's responsibilities described above, the Consultant shall integrate stakeholder engagement and community participation into all relevant project activities and shall, inter alia:

1. Prepare and implement a Community Mobilization and Stakeholder Engagement Plan, including consultation schedules, communication strategies, stakeholder mapping, and reporting arrangements.
2. Support the PIU in conducting baseline socio-economic surveys, household surveys, stakeholder consultations, and field verification activities required for project planning, detailed design, implementation, monitoring, and evaluation.
3. Ensure meaningful consultation and participation of affected communities, local authorities, women, vulnerable and marginalized groups, civil society organizations, and other relevant stakeholders throughout project implementation.
4. Coordinate closely with the PIU Social Development Specialist, Gender Specialist, Environmental Specialist, WASH Specialist, Q-WASA, and other relevant agencies to ensure that stakeholder engagement activities are effectively planned, implemented, monitored, and documented.
5. Support the implementation of the Stakeholder Engagement Plan (SEP), Gender Action Plan (GAP), and project grievance redress mechanisms by facilitating public consultations, information disclosure, awareness activities, and stakeholder feedback throughout the assignment.
6. Provide technical support for community awareness, behaviour change communication, and capacity-building activities related to sustainable water supply, sanitation, water conservation, climate resilience, public health, environmental protection, and responsible consumer practices, as required under the Project.
7. Ensure active community participation in the planning, design, and implementation of DMA's, water supply improvement, sanitation, and watershed management interventions, particularly for schemes involving public standposts, public toilets, and rainwater harvesting structures.

5. TIME-BASED COMPONENT (CONSTRUCTION SUPERVISION)

5.1 Project and Contract Management

The Consultant shall provide comprehensive project implementation support to the Client throughout the implementation period and shall act as the Engineer/Contract Administrator for all contracts assigned under the Project. The Consultant shall support the Client in project planning, implementation scheduling, procurement, contract administration, construction supervision, quality assurance, financial and physical progress monitoring, and compliance with applicable environmental and social requirements, in accordance with the Government of Pakistan regulations, the World Bank Procurement Regulations, and the World Bank Environmental and Social Framework (ESF).

The Consultant shall assist the Client in the preparation and periodic updating of the Project Implementation Plan, Annual Work Plans, Procurement Plan, implementation schedules, expenditure forecasts, and budgets. The Consultant shall also support the maintenance of the Project Operations Manual (POM), project monitoring systems, and the preparation of periodic implementation reports in accordance with the reporting requirements of the Government of Balochistan and the World Bank.

Specifically, the Consultant shall:

1. Assist the Client in preparing the Mid-Term Review and the Project Completion Report (PC-IV), together with other reports required by the Government of Pakistan and the World Bank during Project implementation.
2. Support procurement planning and implementation, including preparation of technical specifications, engineering designs, Bills of Quantities (BOQs), cost estimates, bidding documents, bid evaluations, contract negotiations (where applicable), and contract award recommendations, in accordance with the World Bank Procurement Regulations and the approved Procurement Plan.
3. Provide support in contract administration and management for works, goods, non-consulting services, and consulting services, including review of contractual submissions and claims, certification of payments, management of variations, and support in dispute resolution, where required.
4. Monitor implementation of the Project's environmental and social instruments, including the Environmental and Social Management Plans (ESMPs), Stakeholder Engagement Plan (SEP), Labor Management Procedures (LMP), Resettlement Plans (where applicable), and other requirements under the Environmental and Social Commitment Plan (ESCP), and verify contractors' compliance with these requirements throughout implementation.

5.2 Engineering Supervision

The Consultant shall provide full-time engineering supervision for all works contracts implemented under the Project and shall ensure that all works are executed in accordance with the approved designs, technical specifications, contract requirements, applicable codes and standards, and environmental and social requirements.

The consultant will:

1. Act as the Engineer (or Supervising Engineer, as applicable under the Conditions of Contract) for all works and associated supply and installation contracts.
2. Review and approve contractors' work programs, method statements, shop drawings, material submittals, and other technical submissions, and prepare construction and as-built drawings where required under the Contract.
3. Supervise construction, installation, testing, commissioning, and defects rectification for all project facilities and equipment, and verify that the completed works comply with the approved designs, technical specifications, contractual requirements, and applicable standards.
4. Establish and implement quality assurance and quality control (QA/QC) procedures, including inspection and testing protocols, material approval procedures, occupational health and safety requirements, and environmental compliance monitoring.
5. Verify the quality and suitability of construction materials, review laboratory and field test results, and require corrective actions where quality standards are not achieved.
6. Review and certify contractors' progress, interim payment certificates (IPCs), variations, claims, and final accounts, and recommend appropriate actions to the Client.
7. Monitor construction progress against the approved implementation schedule, identify delays and risks, recommend corrective measures, and promptly notify the Client of any material deviations affecting project implementation.
8. Prepare and submit monthly, quarterly, and other progress reports covering physical and financial progress, quality assurance, safeguards compliance, contract status, key risks, and recommended actions.
9. Maintain comprehensive photographic and video records documenting the major stages of construction and include these records as supporting documentation for Interim Payment Certificates (IPCs) and project completion.
10. Review and finalize Operation and Maintenance (O&M) Manuals, ensuring that draft manuals are submitted during construction and finalized before commissioning and handover.
11. Inspect completed works, recommend substantial completion and final acceptance, assist in issuing Taking-Over and Completion Certificates, oversee defects liability obligations, and verify restoration and demobilization of all construction sites.
12. Maintain complete contract records and provide technical advice to the Client on contractual, engineering, and implementation matters throughout the Project execution period.

6. DELIVERABLES AND SCHEDULE

The following Table 6.1 below describes the schedule of deliverables:

Table 6.1: Key Deliverables and Delivery Schedule

#	Document	Copies	Due
1	Draft Inception Report (including Baseline Assessment of Water Supply and Sanitation Services and Project Implementation Plan)	05	30 days after the effectiveness of the Consulting Services Agreement
2	Final Inception Report	05	One week after the receipt of the Client's comment on the Draft Inception Report
3	Monthly Progress Report (Physical & Financial)	05	10 th of the following month
4	Quality Assurance Plan (QA/QC Manual)	05	Before starting the physical activities
5	District Metered Area (DMA) Feasibility Study, Detailed Design, and Implementation Report	10	Prior to procurement of the DMA pilot works

#	Document	Copies	Due
	(including identification of suitable DMA locations, condition surveys, detailed designs, BOQs, cost estimates, roll-out strategy, and DMA Management Plan).		
6	Detailed Design Reports (including technical specifications, design calculations, drawings, BOQs, cost estimates, bidding documents, and supporting investigations, where required, for each contract package)	10	Prior to procurement of the respective contract package
7	Quarterly Progress Report (Physical & Financial)	10	10 th of the first month of following quarter
8	Annual Summary Progress Report (Physical & Financial)	10	10 th of the first month of following year
9	Annual Progress Report (Physical & Financial)	10	During first month of the following year
10	Annual Quality Control / Assurance Report	10	10 th of the first month of following year
11	Revised Planning Commission Proforma-I (PC-I)	10	As and when required
12	Planning Commission Proforma-IV (PC-IV) and Inputs to the World Bank Implementation Completion and Results Report (ICR)	50	At completion of project activities
13	Complete inventory of works/activities completed	1	At completion of the project
14	Special Reports, including Bidding Documents, Screening Reports, Design Reports, Working Drawings, Bid Evaluation Reports, Contractual Forms, and As-Built Drawings.	10	As and when required
15	O&M Manual (separately for each work contract)	05	On completion of 50% work of each contract
16	Geotechnical investigation and hydrological analysis report	5	Prior to execution of works

7. STAFFING AND DEPLOYMENT

Table 7.1 provides a preliminary estimate (subject to change) of the person-months required for the entire assignment. Consultants should propose a staffing plan and skill mix necessary to meet the objectives and the scope of work.

Consultants are strongly encouraged to ensure a gender balance across the team, and to ensure appropriate skills and experience in gender issues relevant to Project implementation.

No.	Position	No of Staff	Inception Report	Design Phase	Supervision Phase	Total M/M
A. Key Staff for Detailed Design and Supervision			M/M	M/M	M/M	
1	Team Leader	1	1	6	30	37
2	Senior Urban Water Utility Specialist (Technical)	1	1	8	30	39
3	Senior Urban Water Utility Specialist (Institutional)	1	1	8	30	39
4	Contract Engineer / Procurement & Contract Specialist	1	1	8	30	39
5	GIS and Data Manager	1	1	6	20	27
6	Chief Resident Engineer	1	0	1	42	43
	Sub Total (A)					224
B. Non Key Staff						
B-1 Engineering Detailed Design (08 Months)						
7	Senior Water Supply / Hydraulic Engineer	1		8		8
9	Electro-Mechanical Engineer	1		8		8
10	Watershed Management Specialist	1		8		8
11	Hydro-Geologist	1		8		8
13	Junior Engineer (1)	1		8		8
14	CAD Operators (01)	1		8		8
15	Quantity Surveyors (02)	2		8		16
16	Field Surveyors (02)	2		8		16

17	Computer Operators (01)	1		8		8
	Sub-Total B					96
B-2 Engineering Supervision (42 Months)						
16	Resident Engineer (1 Position)	1			42	42
18	Material Engineer (1 Position)	1			42	42
19	Design Review Engineer (1 Position)	1			42	42
20	Site Supervision Engineers (1 Position)	1			42	42
21	Site Surveyors (1 Position)	1			42	42
22	Environmental Engineer/ Environmental Compliance Expert (01 Position)	1			42	42
23	Environmental Field Officer (1 position)	1			42	42
24	Social Expert (1 Position)	1			42	42
26	Social Field Officer / Occupational Health and Safety (OHS) Officer (1 position)	1			30	30
27	Monitoring and Evaluation Officer	1			42	42
28	Other Staff (03), peons, office guard, drivers, sweeper	3			42	126
29	Computer Operators (01)	1			42	42
30	CAD Operators (01)	1			42	42
31	Quantity Surveyors (01)	1			42	42
	Sub Total					660
	Sub Total (A+B)					980

C. Other Cost

		Qty	Months
30	Rent and POL/ maintenance/ repair (4 x 4 Wheel Drive) +POL+ driver (3 Nrs)	3	51
31	Rental Office Building (Head office at Quetta including utilities and food items for staff (LS)	1	51
32	Stationary, Photostate etc (LS)	1	
33	Purchase of office equipment, computers, laptop, printers, digital cameras (Drone and Digital), office furniture etc & topographic/ Alignment Survey (LS)		

Deployment of Consultant's personnel:

To maintain the quality assurance of the assignment, the deployment of consultant's staff is subject to need-based and prior approval of the Client.

8. REQUIREMENTS FOR KEY STAFF: -

Designation	Qualification	Experience
Team Leader	- Bachelor's or Master's degree in Civil Engineering, Water Resources Engineering, Water Supply Engineering or Environmental Engineering or a related field from a recognized institution. - Registration with the Pakistan Engineering Council (PEC) as Professional Engineer.	- Minimum 15 years of professional experience in planning, design, implementation, and management of Urban water supply and sanitation projects. - At least 7 years of experience as a Team Leader, Deputy Team Leader, Project Manager, Resident Engineer, or in a similar leadership role on donor-funded or large public sector infrastructure projects. - Demonstrated experience in conducting baseline assessments, detailed engineering design, contract management, construction supervision, and quality assurance of water supply infrastructure projects.

Designation	Qualification	Experience
		• Considerable experience in urban water utility improvement projects, including water distribution networks, District Metered Areas (DMAs), Non-Revenue Water (NRW) reduction, hydraulic modelling, water treatment, groundwater management, or SCADA-based water supply systems. • Demonstrated experience in leading multidisciplinary teams and managing complex projects in diverse cultural and geographical settings. • Proven track record of successfully delivering projects on time, within budget, and to the satisfaction of stakeholders. • Fluency in English required; proficiency in local languages.
Contract / Procurement Engineer	• Bachelor's or Master's degree in Civil Engineering, Water Resources Engineering / management, Construction Management, Procurement, or a related field from a recognized institution. • Professional certification in contract management, procurement, or related discipline preferred.	• Minimum of 10 years of experience in contract management and procurement, preferably in the context of infrastructure projects. • Demonstrated experience in managing procurement processes, including preparation of bidding documents, bid evaluation, and contract negotiation. • Strong technical background in civil engineering, construction management, or related field, with expertise in contract administration, construction supervision, and quality assurance. • Experience working in multicultural and multidisciplinary teams, with the ability to effectively communicate and collaborate with diverse stakeholders.

Designation	Qualification	Experience
		• Proficiency in project management software and Microsoft Office applications, with the ability to generate reports, analyze data, and track project progress. • Familiarity with environmental and social framework policies and requirements, as well as project management principles and practices. • Excellent analytical, negotiation, and communication skills, with the ability to effectively manage contractual relationships and resolve disputes.
GIS and Data Manager	• Bachelor's or Master's degree in Geographic Information Systems, Geography, Environmental Science, Civil Engineering, or a related field from a recognized institution. • Professional certification in GIS or related discipline preferred.	• Minimum of 5–8 years of experience in Geographic Information Systems (GIS) and spatial data management, preferably in water supply, sanitation, or infrastructure projects. • Demonstrated experience in developing and managing GIS databases, conducting spatial analysis, and producing maps and visualizations to support project planning, engineering design, construction supervision, and decision-making. • Proficiency in GIS software and tools, such as ArcGIS, QGIS, Google Earth, and other data management platforms for data collection, processing, analysis, and storage. • Demonstrated experience in the design, development, or implementation of GIS-supported remote monitoring and supervision systems for infrastructure or civil works projects, including integration of spatial data, field monitoring applications, dashboards, and georeferenced reporting, will be an added advantage.

Designation	Qualification	Experience
		• Experience working with multidisciplinary teams and stakeholders to integrate GIS data and analysis into engineering design and supervision activities. • Familiarity with environmental and social framework requirements, as well as project management principles and practices.
Chief Resident Engineer	• Bachelor's / Master's degree in Civil Engineering, Water Resources Engineering, Water Supply Engineering, Construction Engineering, or a related engineering discipline from a recognized university. • Professional Registration with the Pakistan Engineering Council (PEC) as Professional Engineer	• Minimum 15 years of professional experience in construction supervision and contract administration of infrastructure projects, with substantial experience in urban water supply, water resources, groundwater management, watershed management, or related infrastructure projects. • Demonstrated experience in supervising construction of water supply infrastructure, including transmission pipelines, distribution networks, pumping stations, reservoirs, water treatment facilities, and associated civil, mechanical, and electrical works. • Experience in supervising rehabilitation and improvement of water distribution systems, including implementation of District Metered Areas (DMAs), pressure management systems, Non-Revenue Water (NRW) reduction measures, pipeline rehabilitation, and network improvement works, will be an added advantage. • Demonstrated experience in supervision of groundwater monitoring systems, managed aquifer recharge (MAR) interventions, groundwater recharge structures, watershed management works, nature-based solutions

Designation	Qualification	Experience
		(NbS), or other water resources management infrastructure will be highly desirable. • Proven experience in contract administration under FIDIC or similar international conditions of contract, including review of contractors' work programmes, Interim Payment Certificates (IPCs), variation orders, extension of time (EOT), claims, and contractual correspondence. • Strong experience in construction quality assurance and control, including materials testing, compliance with technical specifications, and enforcement of health, safety, and environmental (HSE) standards on site. • Experience in leading multidisciplinary and multicultural teams, with excellent communication, coordination, and stakeholder engagement skills, including interaction with clients, contractors, government agencies, and local communities. • Familiarity with environmental and social safeguard frameworks (including World Bank ESF or similar), including supervision of ESMP implementation and Resettlement Action Plans (RAP), where applicable.
Senior Urban Water Utility Specialist (Technical)	• Bachelor's or Master's degree in Civil, Electrical, Mechanical Engineering, Water & Sanitation, Water Resources Engineering, or a related field from a recognized institution.	• Minimum 10 years of professional experience in the planning, design, hydraulic analysis, and optimization of urban water supply systems and water resources infrastructure projects.

Designation	Qualification	Experience
	Valid Registration with Pakistan Engineering Council	- Strong technical expertise in water supply engineering, including advanced hydraulic modeling and network analysis (using software such as EPANET, WATERGEMS or equivalent), design of transmission and distribution systems, and optimization of water supply networks. - Proven experience in the hydraulic and mechanical design of pumping stations, including pump selection, pump head calculations, pumping system optimization, surge analysis, pump performance evaluation, energy efficiency assessment, and associated electro-mechanical systems. - Demonstrated experience in the design and rehabilitation of transmission mains, distribution networks, service reservoirs, elevated storage tanks, valve chambers, pressure reducing stations (PRVs), bulk flow metering systems, and associated hydraulic structures. - Experience in the planning, design, and optimization of District Metered Areas (DMAs), including network segmentation, pressure management, leakage assessment, Non-Revenue Water (NRW) reduction strategies, water balance analysis, and distribution system efficiency improvement. - Experience in reviewing and integrating SCADA systems, telemetry, instrumentation, flow and pressure monitoring systems, and smart water utility technologies into water supply infrastructure projects will be an added advantage.

Designation	Qualification	Experience
		• Demonstrated ability to provide technical support during construction, including review of shop drawings, design modifications, commissioning procedures, performance testing, and troubleshooting of hydraulic and mechanical systems. • Ability to work effectively in multicultural and multidisciplinary teams, with strong communication and coordination skills for engagement with clients, contractors, and other stakeholders.
Senior Urban Water Utility Specialist (Institutional)	• Bachelor's / Master's degree in Civil Engineering, Environmental Engineering, Water Resources Engineering, Public Health Engineering, Urban Planning, Public Policy, Public Administration, Development Studies, Environmental Sciences, Social Sciences, or a related discipline from a recognized university. • Strong understanding of urban water utility management, institutional development, service delivery improvement, and sector governance.	• Minimum 8–10 years of professional experience in the planning, implementation, coordination, or institutional strengthening of water supply, sanitation, WASH, urban utility, or development projects. • Demonstrated experience in utility performance improvement, institutional strengthening, service delivery enhancement, operational planning, or governance reforms within water supply and sanitation utilities or public sector institutions. • Experience in supporting implementation of utility modernization initiatives, including preparation of Standard Operating Procedures (SOPs), business process improvements, asset management practices, customer service improvements, and operational performance monitoring systems. • Experience in coordinating with engineering, environmental, social, procurement, financial management,

Designation	Qualification	Experience
		communication, and monitoring & evaluation teams for integrated implementation of WASH programs.
Watershed Management Specialist	• Master's degree in Water Resources Engineering, Civil Engineering (with specialization in Water Resources), Hydrology, Hydrogeology, Environmental Engineering, Watershed Management, Natural Resources Management, Environmental Sciences, or a related discipline. • Professional certification in watershed management, hydrology, or natural resource management is an advantage.	• Minimum 5 to 8 years of professional experience in watershed management, integrated water resources management (IWRM), hydrology, hydrogeology, catchment management, or climate-resilient water resources planning, with demonstrated experience in watershed planning and implementation. • Demonstrated experience in watershed characterization, hydrological and catchment assessments, erosion and sedimentation studies, runoff estimation, and preparation of watershed management plans using field investigations and analytical tools. • Proven experience in the planning, design, or implementation of watershed management interventions, including managed aquifer recharge (MAR), groundwater recharge structures, check dams, recharge ponds, infiltration basins, recharge wells, rainwater harvesting systems, soil and water conservation measures, and other nature-based solutions (NbS) for water resources management. • Experience in integrating watershed management with groundwater management, climate resilience, water security planning, and sustainable water resources management for urban or peri-urban catchments will be highly desirable.

Designation	Qualification	Experience
		• Experience in coordinating with hydrologists, hydrogeologists, civil engineers, environmental specialists, GIS specialists, government agencies, and local communities for planning and implementation of watershed management interventions. • Familiarity with environmental and social framework requirements, climate-resilient landscape management, and integrated water resources management (IWRM) principles. • Demonstrated experience preparing watershed management plans, technical studies, and analytical reports for donor funded projects.
Hydro Geologist	Bachelors or Master's degree in Hydrogeology, Applied Hydrogeology, Geology (with specialization in Hydrogeology), Earth Sciences (with specialization in Hydrogeology), or Groundwater Resources Management from a recognized university. Specialized training and/or certification in groundwater exploration, aquifer characterization, hydrogeological investigations, groundwater modelling (e.g., MODFLOW), managed aquifer recharge (MAR), geophysical surveys, groundwater monitoring systems, aquifer testing, or integrated groundwater resources management (IWRM) will be preferred.	• Minimum 5 to 8 years of professional experience in groundwater investigations, hydrogeological studies, groundwater monitoring, aquifer assessment, groundwater modelling, and groundwater resources management. • Demonstrated experience in planning, designing, or supervising groundwater monitoring systems, production wells, observation wells, piezometers, aquifer testing, groundwater recharge structures, and managed aquifer recharge (MAR) interventions. • Proven experience in groundwater exploration using hydrogeological investigations, geophysical surveys, borehole logging, pumping tests,

Designation	Qualification	Experience
		groundwater quality assessments, and aquifer characterization. • Experience in the preparation or implementation of groundwater management plans, aquifer recharge strategies, or climate-resilient groundwater management projects. • Experience with groundwater modelling software such as MODFLOW, Visual MODFLOW, FEFLOW, or equivalent will be an added advantage. • Experience working on donor-funded infrastructure projects • Familiarity with GIS, remote sensing, groundwater databases, and groundwater monitoring information systems.

9. CONSULTANTS OFFICE

The Consultant shall establish main office in Quetta in close proximity (walking distance) from the CLIENT office.

10. FACILITIES FROM THE CLIENT

The Client will facilitate the Consultants to obtain all reports, maps, data, or any other information relevant to the project and available with provincial Public Health Engineering Department, Q-WASA or other line departments. The Client will also provide the Consultants with all permissions and approvals needed by the Consultants to obtain (if available) maps, aerial photographs, remote sensing data and images, or to import into Pakistan equipment and supplies needed to enable the consultants to carry out the Tasks relevant to the assignment. The Client will assist the Consultants and each of its personnel with work permits and such other documents as shall be necessary to enable them to perform their services; and also assist in issuance of entry and exit visas, residence permits, and other necessary documents for the expatriate employees of the Consultants and their eligible dependents, required for their stay in Pakistan. Any duties, fees or other port charges on staff or equipment shall not be reimbursable by Client.

Equipment, computers, instruments and furniture etc acquired by the Consultants under the Consultancy Services shall be returned to the Public Health Engineering Department.

11. QUALIFICATION OF CONSULTANTS

The selection criteria and requirements are:

1. Firm should have corporate capacity for offering similar services (Core business) for Ten (10) years.
2. At least five (5) similar assignments completed/undertaken in the last ten years, indicating the nature and scope of these assignments in areas of Detailed design, supervision, procurement, contract administration, quality assurance, environment, management planning, implementation of resettlement action plan,
3. The firm should provide details, including documentary evidences regarding contract awards, reference letters, undertaken projects completion/ongoing progress from the clients along with postal address and client contact numbers, stating the scope of services and deliverables of projects completed/under taken in the last Ten (10) years,
4. In the case of a Joint Venture (JV), the details of such projects will be provided separately for the primary or associated consultant.
5. Details of the logistic capacity of the firm, including general availability of technically qualified staff.

12. SELECTION PROCESS

A consulting firm will be selected in accordance with the Quality and Cost Based Selection (QCBS) method set out in the World Bank's Procurement Regulations (September 2023) www.worldbank.org/procure.