

**TERMS OF REFERENCE**

**FOR THE**

**THE APPOINTMENT OF THE PROFESSIONAL SERVICE PROVIDERS FOR MULTI-DISCIPLINARY  
SERVICES IN ENGINEERING & ASSOCIATED FIELD – FOR THE PERIOD OF 36 MONTHS AS  
AND WHEN REQUIRED**

**JUNE 2022**

## **1. OBJECTIVE OF TERMS OF REFERENCE**

The purpose of the Terms and reference (ToR) is to assist the service providers in outlining the relative scope of works for the respective multi-disciplinary Engineering fields. The information on the ToR should be read and used solely for the purpose of understanding the scope of work that the respective Professional Service Providers will undertake and cannot be utilised for any other purpose.

## **2. DISCLAIMER**

The information contained within the ToR has been compiled to the best of the ability of Bloem Water and cannot be used against Bloem Water by the service provider for any other purpose, but technical assistance for the bidding and where there is contestation the ToR purpose is mainly to serve a guideline to understand the scope of work and thus supplement the technical information that will be required in the bidding process for ease of reference.

## **3. INTRODUCTION AND BACKGROUND**

Bloem Water is a Water Board, with the mandate to provide water services to the Southern and Central areas of the Free State Province. Bloem Water, formerly known as the Bloem Area Water Board, was established in 1991 in terms of Section 108(2) of the Water Act, 1956. The primary reason for establishing the Water Board was to operate the Caledon/Bloemfontein Government Water Scheme, constructed to supply purified water to the Municipal areas of Bloemfontein, Bainsvlei, Bloemspruit, Botshabelo and Dewetsdorp. The name was officially changed from "Bloem Area Water Board" to "Bloem Water" in 1994.

Bloem Water derives its primary mandate from the Water Services Act, Act 108 of 1997 and is, in terms of the Public Finance Management Act (PFMA), Act 1 of 1999, Schedule 3B, a National Government business entity, which reports to the Executive Authority, represented by the Minister of Water and Sanitation through the Department of Water and Sanitation (DWS).

During 1995 the Service Area of Bloem Water<sup>1</sup> was extended to include the southern Free State, adding towns such as Bethulie and Phillippolis. In 1996 the Minister further extended the area of supply to include the Thaba Nchu district, which added the responsibility to supply water directly to the inhabitants of rural areas, in addition to the formal urban areas. This was a new field of operation for Bloem Water, which prior to that was purely a supplier of bulk purified water. This added responsibility included not only activities in rural areas, but also required the provision of the full range of activities necessary for the delivery of retail water services to the end consumer. More recently the service area has been extended to include parts of the eastern Free State up to the town of Ladybrand. Today Bloem Water supplies water to a population in excess of 1.2 million people in the areas referred to above

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<sup>1</sup>

## Employer's Objective

The appointed Panel of Professional Service Provider should provide Engineering Services for the respective areas of their speciality in various Engineering disciplines as will be expected in Water and Sanitation environment for **Section 29 Activities and Section 30 Activities** as stipulated by the Water Services Act.

## SCOPE OF WORK

This appointment requires the provision of multi-disciplinary Professional Services functions as described below is not exhaustive and includes amongst others the following functions:

CATEGORY	DISCIPLINE	TICK (APPLICABLE)
A	Mechanical Engineering	
B	Electrical Engineering	
C	Civil and Structural Engineering	
D	Process Engineering	
E	Condition Assessment	
F	Additional Specialist Services (Please state if not covered)	

### 1. Project Management & Related Functions

- Project Planning & Costing
- Technical Pre-Feasibility and Feasibility investigations
- Concept and Design Development
- Development of documentation for Procurement for related Infrastructure Projects
- Project management and Contract Administration
- Compilation of construction drawings and as built drawings
- Development of the Business Plans of the respective Water Services Authorities
- The development of the Water Services Development Plan in Water Services Authorities

### 2. Process Engineering

#### 2.1. Optimization of Water and wastewater Treatment Works Process & Operations

The process engineering and Optimization of Water and wastewater Treatment Works Process & Operations to reduce the operating or input cost associated with production of potable Water or discharge of Waste Water Treated effluent for the following:

- Power Factor corrections, Energy conservation
- Dam safety inspections

- Optimization of water and wastewater Treatment Works processes
- Water loss reduction, and unaccounted for water
- All associated pumpstations
- All associated plant equipment (Auxillary equipment)

## **2.2. Conducting of the Infrastructure Technical Audits for the following**

- (i) Water and wastewater Treatment Works
- (ii) Pump stations
- (iii) Associated pipelines
- (iv) Reservoirs
- (v) Boreholes Infrastructure
- (vi) Dam Walls

## **2.3. Development of associated compliance documents**

- Development of Water Safety Plans in respective Water Services Authorities
- Compliance to Green & Blue Drop Assessment and Requirements
- Development of the Master Plan for Water and Waste Water Infrastructure in Water Services Authorities in accordance to the IDPs of the municipalities.

## **3. Additional Specialist Services**

- Geo-technical investigations, Engineering surveys
- Geophysical Investigation, Hydrocensus for Ground Water Exploration
- Environmental Impact Assessment & Compliance and monitoring of Environmental regulations and requirements
- Waste Disposal License Applications
- Water use License Application
- To develop the Water Conservation and Water Demand management strategies
- Classification and Rehabilitation of Sludge for Water and Waste Water Treatment Works
- Land acquisitions, expropriations and Way leave applications
- Servitude determination and registration

## **4. Condition Assessment**

- Structural integrity Assessment of the Pre-Stressed Concrete Pipelines, Ductile Pipeline, Steel pipeline
- Condition Assessment of all associated components related to water and waste water treatment works
- Compilation of the Operations and maintenance manuals associated with the development of water and waste water treatment works.

Any other Engineering related assignment that is not defined above which is required by the Employer in Water and Sanitation space.

#### **4. USE OF REASONABLE SKILL AND CARE**

The Service Provider is therefore required to provide all aspects of the Service with all reasonable care, diligence and skill in accordance with generally accepted professional techniques and standards.

Safety of persons and property is of paramount importance, closely followed by the minimization of disruption and inconvenience to the traveling public and businesses below. If there is any conflict between the Specific Requirements and the Guideline Scope of Services document referred to above, the Specific Requirements shall take precedence.

#### **5. BRIEF**

The Panel of The Service Provider shall be expected to perform the following but not limited to: : Civil & Structural ; Mechanical; Electrical & Instrumentation as well as Environmental, Water and Waste Water Process Engineering ,Ground Water Exploration, Dam Safety Inspections , Condition Assessment of Water and Sanitation Infrastructure, Project Management which are cover in the water value chain from abstraction, treatment and distribution and also in the treatment of the waste water and reticulation network. And any other professional Services or additional Services related to the Provision of Water and Waste Water Treatment as per the mandate of the Water Services Providers( Water Board) and the Water Services Authorities ( Municipalities) as defined in the Water Services Act and related acts.

##### **6.1 Report stage**

The Service Provider shall inspect the site(s) to familiarize with the nature of the site(s) and the conditions under which work (both the provision of professional services and construction work by others) is going to have to be executed.

##### **6.2 Reporting Requirements**

Once construction is underway, the Service Provider shall submit Monthly cost reports to the Employer showing expenditure in respect of both the Service Providers appointment and the construction contract together with the anticipated spend to the end of the financial year in question.

Quality assurance progress reports shall be submitted to the employer as work progresses every month, rather than in the form of one single report at the end of the construction period.

#### **6. APPLICABLE NATIONAL AND INTERNATIONAL STANDARDS**

The Service Provider shall take cognizance of, and adhere to, all applicable national and international standards in the execution of his own work and when compiling specifications for construction Drawings. International standards should only be used where no national standards exist, or where it is the norm to use or refer to international standards.

Although not bound in or issued with this document, the following SABS 1200 Standardized Specification for Civil Engineering Construction, SABS 16000 Standardized Specification for Electrical Works as approved by the Council of the South African Bureau of Standards shall apply to this Contract. The Contractor shall be in possession of these Standardized Specifications and their related SABS 0120 Code of Practice which apply equally and shall keep a copy of each on site for reference by him and the Engineer for the duration of the Contract.

For "Workmen's Compensation Act" read "Compensation for Occupational Injuries and Diseases Act, 1993 (Act No.130 of 1993)" wherever it appears. For "Machinery and Occupational Safety Act" and

"Mines and Works Act" read "Occupational Health and Safety Act, 1993 (Act 85 of 1993)" wherever they appear.

Copies of SABS 1200 Standardized Specifications are available from the South African Bureau of Standards, Private Bag X191, Pretoria, 0001.

## **7. FORMAT OF COMMUNICATION**

All requests for formal approval from the Employer, or any other body, shall be submitted in writing in hardcopy format. Interim payment claims shall be submitted in the same format, accompanied by an original tax invoice. Ad-hoc communication between the Employer and the Service Provider may be conducted per facsimile or in electronic format (e-mail).

All plans and contract documents submitted for approval shall be in hardcopy format.

## **8. CLAIMS FOR PAYMENT**

The Service Provider may submit interim claims for payment (invoices) as the work in terms of this contract progresses, but not more frequently than at monthly intervals. All interim claims must be accompanied by an original tax invoice. Payment claims (tax invoice) must be submitted on or before the 20th of a month. Payment will be effected within 30 days of the date on the tax invoice.

## **9. EMPLOYER'S RIGHT TO RECOVER COSTS**

The Employer reserves the right to recover, by way of a deduction from any amount due to the Service Provider, any additional cost which the Employer incurs arising out of non-performance/negligence of the Service Provider.

## **PROJECT PROPOSALS (Procurement Process)**

Bidders are required to submit, at their own cost, the Project Proposal, which consists of the following documents:

- Standard Bidding and Returnable documents which have to be completed in full and signed by the authorised signatory;
- A **Technical Proposal**, to show the ability of the PSP to perform the required scope of work as described in this term of reference; and

## **PREPARATION OF TECHNICAL PROPOSAL**

The Technical Proposal should be prepared in to address the following main aspects:

- Past experience of the PSP on similar tasks performed;
- Methodology and proposed approach indicating the PSP's understanding of the scope of work and the expected deliverables.
- The capability of the proposed team to perform the required tasks; and
- Locality Demonstrate office facilities and presence in the respective areas.

A list of similar projects and the cost of services provided has to be provided, including the contact details of clients so that verification can be done if required. The capability of the technical team is an important aspect of the evaluation of Technical Proposals. It is therefore important that the Technical Proposal must present the key personnel in the team, their capability, experience and their roles Abbreviated CV's of the key personnel in the team must

form attachments to the Technical Proposal. The criteria for the assessment of the Technical Proposal are shown in **Annexure B**.

## **EXPERTISE REQUIRED**

The Professional Service Provider must submit with their proposal an experience record of similar work that have been completed successfully, with active references that can be contacted to verify such experience.

The Professional Service Provider must also submit Curricula Vitae and experience background of all key professionals that will be available to perform the required task. It must be ensured that suitably experienced professionals with expertise to cover all the diverse tasks and activities to be performed will be available to complete the tasks timeously.

The Team should comprise of some of the following expertise but not limited to :

- Civil Engineer
- Process Engineer;
- Water treatment Engineer or Technologist;
- Pipelines and pump stations key expert;
- Mechanical Engineer;
- Electrical Engineer;
- Control & instrumentation Engineer/Technologist (Field instruments, Plant controls (PLC & HMI), reporting system (SCADA) and communication (Telemetry)
- Environmentalist

The team leader will be responsible for the overall execution and coordination of the work and reporting to the client and for delivery of products. He/she must have experience from the elaboration for similar projects and relevant experience in water and Sanitation infrastructure projects. The minimum required professional experience in this field is 10 years

The other Project team members shall have at least 7 years professional experience in the abovementioned fields of expertise (and minimum requirement of a relevant Degree).

## **EVALUATION OF TECHNICAL PROPOSALS**

Bloem Water will evaluate all proposals in terms of the Preferential Procurement Policy Framework Act, No. 5 of 2000 (PPPFA). A three-stage evaluation process will be followed to evaluate the bids, namely:

### **STAGE 1: ADMINISTRATIVE COMPLIANCE**

Bids will be checked for the submission and completeness of the following documents:

- Briefing Session is not compulsory
- All Standard Bidding Documents duly completed and signed;
- A valid original Tax Clearance certificate or pin issued ; and
- An original Certificate specifying the BBBEE status level of a contributor, if the Bidder intends to claim BBBEE points.
- The Employer will only enter into a formal contract with a tenderer who is registered on the National Treasury Central Supplier Data Base. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture

Failure to submit the above documents, as specified, will render the bid non-responsive.

## **STAGE 2: FUNCTIONAL/TECHNICAL EVALUATION**

The technical evaluation of all responsive proposals will be done according to the following criteria and weighting, which are described in more detail in **Annexure B**:

- Past experience: 25 points;
- Methodology: 30 points;
- Team capability: 25 points; and
- Locality presence in the local area: 20 points.

Attaining the Functionality score qualifies the bidder to enter the last stage of evaluation, but it is not factored into the final score.

Only Proposals scoring at least **80% for Functionality** will qualify for the third stage of adjudication. Bids that fall below the minimum threshold of 80% will be regarded technically unacceptable and will not be considered in the third stage

## **WORK PROGRAMME**

A detailed Work Programme, broken down into specific tasks with time allocated for each task, must be submitted. The critical path shall be indicated. The Work Programme must indicate all milestones and target dates for deliverables.

## **DELIVERABLES**

### **STANDARD BIDDING DOCUMENTS**

All Standard Bidding Document (SBD) forms contained in this Bid document must be completed in full, signed by the authorised signatory and submitted as the first pages of the Technical Proposal. The SBD forms include the following:

- SBD1: Invitation to bid and company information
- SBD4: Disclosure Forms

Submission of all completed SBD forms is a requirement for evaluation of administrative compliance and Bids will be regarded as non-responsive if the relevant SBD forms have not been completed and signed.

## **SUBMISSION OF PROPOSALS**

Bidders should take note of the following requirements regarding the submission of Technical and Financial Proposals:

- One (1) original plus four (4) copies of the Technical Proposal must be submitted.
- Proposal documents must be placed singly in an envelope that is sealed and marked "ORIGINAL" or "COPY" as the case may be.
- Envelopes must be clearly addressed according to the instructions on the Invitation to Bid (Form SBD 1) and marked with the Bid number, and Bidder's name and address.
- The Technical Proposal must be submitted in sealed envelope.

Joint ventures are required to submit a formal agreement between the parties involved in the joint venture. The percentage involvement of each firm in the joint venture must be clearly stated.



Project Description: The Appointment of the Professional Service Providers for Multi-Disciplinary Services in Engineering & Associated Field – for the Period of 36 Months as and when required  
Project Number: BW 265/ PSP/21

**ANNEXURE A**

**CRITERIA FOR EVALUATION OF A TECHNICAL PROPOSAL**

## Stage 2: Functional/Technical Evaluation

Description of Evaluation Criteria	Points
<b>1. Company Experience in applicable discipline (<i>Attach Appointment letters with contactable reference</i>)</b>	<b>25</b>
<b>Demonstrate company experience in Projects that relates to Water and Sanitation sector, completed in the last 10 years with project value of more than R10 million per project</b>	
a) 8 or more Projects - 25 Points	
b) 2 - 7 more Projects - 15 Points	
<b><i>N.B: Bloem Water Reserves the right to verify references provided</i></b>	
<b>2. Team/ Project Leader (<i>Attach CV and qualification certificates</i>)</b>	<b>15</b>
<b>2.1. Expertise of Professional/Engineer/Technologist related to each discipline</b>	
a. Professional/ Engineer/Technologist with a qualification in a relevant profession and registered with a professional body (e.g ECSA/SABTACO/SACAP/SACPCMP) and with 10 years or more of relevant experience in this field - 15 Points	
b. Professional/Engineer/Technologist with a qualification in a relevant Profession and registered with a professional body (e.g ECSA/SABTACO/SACAP/SACPCMP) and with 5-9 years of relevant experience in this field - 10 Points	
<b>2.2. Support Staff with organogram (<i>Attach CV and qualification certificates</i>)</b>	<b>10</b>
A <b>team organogram</b> must be provided indicating key positions such as, Task Leader and support Team members who will be actively involved with the project Persons proposed for these positions must be identified and supported by <b>CV's of one to two pages each to be included in an Appendix</b> . Brief capability statements must be given for each designated team member, emphasizing recent experience relevant to the task envisaged.	
a. Organogram with 5 or more support staff including CV - 10 Points	
b. Organogram with less than 5 support staff CV - 5 Points	
<b>3. Methodology - Limited to 20 A4 pages (Text for all documents shall be Arial 11 font at 1.5 spacing)</b>	<b>30</b>
3a. Bidders are required to provide a brief description of their <b>approach and methodology, illustrating their understanding of the scope of work, time frames, and deliverables</b> - 10 Points	
3b. The Bidder is expected to provide a brief outline of <b>the work to be done, placing emphasis on the important or critical aspects of each task</b> . Where the Scope of Services is silent on particular issues, bidders must clearly state which issues can be expected to arise and which additional tasks may be necessary - 10 Points	

3c. The Bidder must submit a proposed <b>programme of work illustrating their understanding of the best way to organise the work.</b> The work programme must be presented in a Gantt chart (MS Projects) illustrating the dates at which critical milestones can be reached and indicating the critical path - 10 Points	
<b>4. Locality</b>	<b>20</b>
a. Bloem Water area of supply or where Bloem Water implements secondary activities - 20 Points	
b. Office based outside of Bloem Water area of supply and its secondary activities - 5 Points	
<i>"Original (or certified copy) of municipal rates clearance certificate or a certified copy of the lease agreement with the lessor municipal rates certificate (Bloem Water reserves the right to conduct physical verification of premises). Not older than 3 months"</i>	
<b>Total Evaluation points</b>	<b>100</b>