

	REQUEST FOR BID PROFESSIONAL SERVICES	Form No: RW SCM 00049 F Revision No: 09 Effective Date: 04 Nov 2024
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BID NUMBER: RW10411156/25

**PROVISION OF THE APPOINTMENT OF RAND WATER PROFESSORIAL
CHAIRS AT UNIVERSITIES TO CONDUCT RAND WATER SCIENTIFIC AND
ENGINEERING RELATED WORK FOR A 5 YEAR PERIOD**

ISSUE DATE:	WEDNESDAY, 25 JUNE 2025	
NON-COMPULSORY BRIEFING SESSION DATE:	03 JULY 2025 TIME : 10:30AM	
BRIEFING SESSION VENUE:	Online Teams Meeting : link below Join the meeting now	
CLOSING DATE:	FRIDAY, 25 JULY 2025	AT 12H00PM
SITE VIEWING DATE/S	N/A	

BIDDER INFORMATION				
BIDDER NAME				
POSTAL ADDRESS				
STREET ADDRESS				
TELEPHONE NUMBER	CODE		NUMBER	
CELLPHONE NUMBER				
E-MAIL ADDRESS 1				
E-MAIL ADDRESS 2				
VAT REGISTRATION NUMBER				
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		CENTRAL SUPPLIER DATABASE No:	MAAA.....
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	[TICK APPLICABLE BOX] ☐ Yes ☐ No		B-BBEE STATUS SWORN AFFIDAVIT (EMEs and QSEs)	[TICK APPLICABLE BOX] ☐ Yes ☐ No

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:			
BUYER		SOURCING MANAGER	
CONTACT PERSON	Trudy Padayachee	CONTACT PERSON	Semakaleng Mangoali
TELEPHONE NUMBER	(011) 682 0798	TELEPHONE NUMBER	(011) 682 0396
E-MAIL ADDRESS (Enquiries must be made to this address)	tpadayac@randwater.co.za	E-MAIL ADDRESS	smangoal@randwater.co.za

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C4. SITE INFORMATION.....95

SECTION A: BID

PART T1: BIDDING PROCEDURES

T1.1. BID NOTICE AND INVITATION TO BID

Rand Water invites bids for the PROVISION OF THE APPOINTMENT OF RAND WATER PROFESSORIAL CHAIRS AT UNIVERSITIES TO CONDUCT RAND WATER SCIENTIFIC AND ENGINEERING RELATED WORK FOR A 5 YEAR PERIOD.	
Procurement Procedure	Rand Water uses a single volume approach.
Awarding Strategy	The number of suppliers to be awarded this bid is Multiple (Maximum of 10)
Access to the Bid Documents	The bid documents are downloadable on the National Treasury e-Tender Publication portal which can be accessed through the following link: http://www.etenders.treasury.gov.za. No bid documents will be issued to Contractors at site meetings. Please ensure that bid documents have been downloaded from the National Treasury e-Tender Publication portal prior to the site meeting date. Bids shall only be submitted on the bid documentation that is issued by the Employer. This bid document (as issued through the National Treasury e-Tender Publication portal) must be submitted in full together with the returnable documents.
Bid Clarifications	Bidders can seek clarification by no later than fifteen (15) calendar days before the bid closing date. Rand Water will provide a final response on clarifications by no later than ten (10) calendar days before the closing date.
Bid Addenda	Rand Water shall issue addenda, where applicable, by no later than ten (10) calendar days before the closing date. Bid addenda will be published on the eTender Publication Portal.
Bid Submission Location	Bids must be submitted before or on closing date and time at the following address: <i>Rand Water Head Office 522 Impala Road Glenvista 2058 (in the Bid Submissions Box at the Main Gate)</i>
Bid Validity	To be valid for 180 days after closing date Rand Water reserves the right to extend the validity period for a period reasonable for business requirements.

T1.2. BID DATA

The Standard Conditions for Bidding are outlined below and must be read in conjunction with the applicable procurement legislative prescripts:

CLAUSE NUMBER	BID DATA
T1.2.1	The Employer is Rand Water.
T1.2.2	The bid documents issued by the Employer are detailed on the contents page of this bid document.
T1.2.3	The Employer's Representative/s is stated on the cover page of this bid document.
T1.2.4	The Employer shall evaluate this bid in accordance with the evaluation criteria stated in this bid.
T1.2.5	The arrangement for a non-compulsory site meeting (where applicable) is as stated in the Notice and Invitation to Bid.
T1.2.6	The due date for seeking clarification is as stated in the Bid Notice and Invitation to Bid.
T1.2.7	Bidders may propose alternative bid offer only if the main tender offer, strictly in accordance with all the requirements of this bid document, is also submitted as well as a schedule that compares the requirements of this bid document with the alternative requirements that are proposed. An alternative bid offer will only be considered if the main bid offer is the winning bid. Additionally, the following statements shall apply: • Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative bid offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. • Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. • Pricing Data must reflect all assumptions in the development of the pricing proposal. • <i>The pricing of the alternative bid offer may not exceed the pricing of the main bid offer.</i> Acceptance of an alternative bid offer will mean acceptance in principle of the offer. In the event that the alternative bid offer is accepted, it will be a contractual obligation for the Contractor to accept full responsibility and liability that the alternative bid offer complies in all respects with the Employer's standards and requirements.
T1.2.8	Bidders must submit one (1) original bid document and returnables. USB flash drive with pdf format of the bid document and returnables may be provided in addition of the required document.

	The Employer's address for delivery of the bid offers is stated in the Bid Notice and Invitation to Bid. The bid submission must be sealed and endorsed with both the bid number and the description of the bid, as it appears on the front cover of this bid.
T1.2.9	Telephonic, telegraphic, telex, facsimile or e-mailed bid offers will not be accepted.
T1.2.10	The closing time for submission of bid offers is as stated in the Bid Notice and Invitation to Bid.
T1.2.11	The bid offer validity period is as stated in the Bid Notice and Invitation to Bid. <i>No bid substitutions will be allowed after the closing date and time.</i>
T1.2.12	See 2.1 List of Returnable Documents for a comprehensive list of certificates and additional documents required for submission with this bid.
T1.2.13	<i>Rand Water's evaluation process comprises of the following steps. Specific criteria to be utilised for this bid are contained in <u>T1.3 Evaluation Criteria</u></i> a) Test for responsiveness/Pre - qualification <i>Refer to the criteria as stated in T1.3 of this bid document. All test for responsiveness must be met in order for the bid submission to be considered further.</i> b) Functionality evaluation <i>Refer to the criteria as stated in T1.3 of this bid document. A minimum score of 70 points must be obtained for the bid submission to be considered further.</i> c) Preference Point System <i>The (80/20 or 90/10) Preferential Point System will be used to evaluate price and specific goal on received written price quotations. Where 80/ 90 will be allocated for Price and 20 / 10 for the Specific goals.</i> i. Price Analysis ii. Specific Goal Rand Water specific goal is to empower previously disadvantaged designated groups. This specific goal will be evaluated and measured by using the SANAS accredited B-BBEE certificate or sworn affidavit for QSE or EME or the dtic B-BBEE certificate. Points will be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below: WHERE PROCUREMENT VALUE IS R0 < R50 000 000 (INCL. VAT): $P_s = 80 * \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$ WHERE PROCUREMENT RAND VALUE IS >= R50 000 000 (INCL. VAT):

$$P_s = 90 * \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where:

- Ps = Points scored for comparative price of bid or offer under consideration
 Pt = Comparative price of bid or offer under consideration
 Pmin = Comparative price of lowest acceptable bid or offer.

Rand Water does not bind itself to accept the bid with the lowest price

BBBEE STATUS (P_p = 10/20 maximum)

Quantification of procurement contribution to B-BBEE

Points will be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Contributor	Status Level of	Number of point (90/10 system)	Number of point (80/20 system)
1		10	20
2		9	18
3		6	14
4		5	12
5		4	8
6		3	6
7		2	4
8		1	2
Non-compliant contributor		0	0

Bidders will not be disqualified from the bidding process for not submitting a certificate substantiating the B-BBEE status level of contribution or is a non-compliant contributor. ***Such a bidder will score zero (0) out of maximum of 10/20 for B-BBEE***

d) Objective Criteria

Refer to the criteria as stated in [T1.3 Evaluation Criteria](#) of this bid document.

A bid must be awarded to the bidder who scored the highest total number of points in terms of the preference point systems (price and B-BBEE points), unless objective criteria in terms of section 2(1)(f) of the Act justify the award of the bid to another bidder.

SUMMARY

The total number of functionality/ quality (P_F) shall be the sum total of the product of quality criteria by weight allocated.

The total number of adjudication points (P_T) shall equal the sum of the bid price points (P_s) and the BBBEE status points (P_p) i.e.

$$P_T = P_s + P_p$$

Rand Water does not bind itself to accept the bid with the highest number of adjudication points.

T1.2.14

Rand Water shall provide to the successful bidder the signed copy of the contract after completion and signing of the form of offer and acceptance.

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T1.3. EVALUATION CRITERIA

T1.3.1. TEST FOR RESPONSIVENESS

1. Fully Completed and signed Form of Offer and Acceptance
2. The use of correction fluid or any other similar substance to make corrections is not permitted.

T1.3.2. FUNCTIONALITY EVALUATION

Bid submissions will be evaluated on the criteria outlined in items (A-D) below. Each Item (A to D) has an assigned “Weight” and “Rating” scale. During the evaluation process, Bidders shall be assigned a “Rating” for each item in A to D.

The maximum “Score” that a Bidder can achieve will be equal to the “Weight” for a particular item. The Total Scores of each functionality criterion will be multiplied by its weight and then the total score summed up to a total score out of 100.

Responses are required to meet a minimum of 70 percent to be further evaluated.

	SUPPLIERS ARE URGED TO SPECIFY THE SCOPE OF WORK FOR WHICH THEY WILL BE SUBMITTING THEIR TENDER.									
Scope of work	Water Utilization	Public Health and Environment	Organic Chemistry	Electrical Engineering	Mechanical Engineering	Civil and Structures Engineering	Engineering and Asset Management	Digital Technology and Information	Legal Compliance and Governance	Supply Chain Management
Mark with an X to Select appropriate research										

Service providers are urged to select appropriate research above and ensure that they complete and submit relevant functional evaluation

documents to support the selected research they are tendering for.

1. Responses for Rand Water Chair in Water Utilization required to meet a minimum of 70 percent to be further evaluated.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
A. HUMAN RESOURCE CAPACITY (25)	The minimum number of resources the University or departments shall have on submission these resources shall have Degrees and a minimum of 5 years' experience. The purpose is to establish an overall picture of the institution's human resource capacity and ability to undertake the work. Attached proof of relevant qualifications (Qualification in Water Management, Environmental Science, Civil Engineering, or Hydrology)					
1) Hydrology, 2) Water Quality Analysis, 3) Environmental Sciences	T2.2.8	25	A minimum of five (5) related CV's with at least One Professorship and relevant qualifications (PhD in Water Management, Environmental Science, Civil Engineering, or Hydrology) and 5+ years' experience in the field.	A minimum of three (3) related CV's with at least One Professorship and relevant qualifications (MSc in Water Management, Environmental Science, Civil Engineering, or Hydrology) and 5+ years' experience in the field.	A minimum of one (1) related CV's with degree in Water Management, Environmental Science, Civil Engineering, or Hydrology) and 5+ years' experience in the field.	No submission or submission that does not at least meet weak requirements.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
B.PROJECT RISK MANAGEMENT (25)	As per risk register provided. Provide a full report on the risk’s response plan					
Response to tender document risks register	T2.2.11	25	Effectively address 100% of risks on the risks register including filling of all the response actions and response strategies for every risk. Identification of additional appropriate risks including response actions and strategies	Effectively address 50% of risks on the risks register including filling of all the response actions and response strategies for every risk. No identification of additional risks.	Risk response not aligned with project scope e.g supplier has indicated “Avoid”, “Medium” and no additional risk identified.	No submission
C. METHOD STATEMENT (25)	Specific method statement in accordance with the scope of work, logical and aligned to the scope of work.					
Technical Approach & Methodology		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
Understanding of Scope & Objectives		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
Feasibility & Resource Allocation		5	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
D. PROJECT PROGRAMME (25)	This plan shall indicate the integration of the method statement. The aim and the research objective(s) of the project clearly outlined on a Gantt chart format indicating activities.					
1. Programme Schedule		25	Bidder presents a strong, feasible, and well-managed project programme in line with the scope of work.	Basic plan incorporating all the activities in relation to scope. Basic demonstration of milestones.	Basic approach but lacks depth in key areas	No submission or submission that does not at least meet weak requirements.
Total		100				

2. Responses for Rand Water Chair in Public Health and Environment required to meet a minimum of 70 percent to be further evaluated.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
A. HUMAN RESOURCE CAPACITY (25)	The minimum number of resources the University or departments shall have on submission These resources shall have Degrees and a minimum of 5+ years' experience. the purpose is to establish an overall picture of the institution's human resource capacity and ability to undertake the work. Attached proof of relevant qualifications (Bachelor of Public Health (BPH), Bachelor of Environmental Science (BES) and BSC or higher qualifications)					
1) Environmental Science 2) Integrated Water Resource Management 3) Epidemiology	T2.2.8	25	A minimum of five (5) related CV's with at least One Professorship and relevant qualifications (PhD in Public Health or (Environmental Science and 5+ years' experience in the field.	A minimum of three (3) related CV's with at least One Professorship and relevant qualifications (MSc in Public Health or (Environmental Science and 5+ years' experience in the field.	A minimum of one (1) related CV's with degree in Public Health or (Environmental Science and 5+ years' experience in the field.	No submission or submission that does not at least meet weak requirements.
B.PROJECT RISK MANAGEMENT (25)	As per risk register provided. Provide a full report on the risk's response plan					

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Response to tender document risks register	T2.2.11	25	Effectively address 100% of risks on the risks register including filling of all the response actions and response strategies for every risk. Identification of additional appropriate risks including response actions and strategies	Effectively address 50% of risks on the risks register including filling of all the response actions and response strategies for every risk. No identification of additional risks.	Risk response not aligned with project scope e.g supplier has indicated "Avoid", "Medium" and no additional risk identified.	No submission
C. METHOD STATEMENT (25)	Specific method statement in accordance with the scope of work, logical and aligned to the scope of work.					
Technical Approach & Methodology		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
Understanding of Scope & Objectives		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Feasibility & Resource Allocation		5	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
D. PROJECT PROGRAMME (25)	This plan shall indicate the integration of the method statement. The aim and the research objective(s) of the project clearly outlined on a Gantt chart format indicating activities.					
1. Programme Schedule		25	Bidder presents a strong, feasible, and well-managed project programme in line with the scope of work.	Basic plan incorporating all the activities in relation to scope. Basic demonstration of milestones.	Basic approach but lacks depth in key areas	No submission or submission that does not at least meet weak requirements.
Total		100				

3. Responses for Rand Water Chair in Organic Chemistry required to meet a minimum of 70 percent to be further evaluated.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
A. HUMAN RESOURCE CAPACITY (25)	The minimum number of resources the University or departments shall have on submission These resources shall have Degrees and a minimum of 5 years' experience. the purpose is to establish an overall picture of the institution's human resource capacity and ability to undertake the work. Attached proof of relevant qualifications (in chemistry)					
1) Chemical Engineering 2) Analytical Chemistry 3) Environmental Science	T2.2.8	25	A minimum of five (5) related CV's with at least One Professorship and relevant qualifications (PhD chemistry, Organic Chemistry or Environmental Sciences) and 5+ years' experience in the field.	A minimum of three (3) related CV's with at least One Professorship and relevant qualifications (MSc Chemistry, Organic Chemistry or Environmental Sciences) and 5+ years' experience in the field.	A minimum of one (1) related CV's with degree in Chemistry, Organic Chemistry or Environmental Sciences) and 5+ years' experience in the field.	No submission or submission that does not at least meet weak requirements.
B.PROJECT RISK MANAGEMENT (25)	As per risk register provided. Provide a full report on the risk's response plan					

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Response to tender document risks register	T2.2.11	25	Effectively address 100% of risks on the risks register including filling of all the response actions and response strategies for every risk. Identification of additional appropriate risks including response actions and strategies	Effectively address 50% of risks on the risks register including filling of all the response actions and response strategies for every risk. No identification of additional risks.	Risk response not aligned with project scope e.g supplier has indicated "Avoid", "Medium" and no additional risk identified.	No submission
C. METHOD STATEMENT (25)	Specific method statement in accordance with the scope of work, logical and aligned to the scope of work.					
Technical Approach & Methodology		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
Understanding of Scope & Objectives		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.

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1. Programme Schedule		25	Bidder presents a strong, feasible, and well-managed project programme in line with the scope of work.	Basic plan incorporating all the activities in relation to scope. Basic demonstration of milestones.	Basic approach but lacks depth in key areas	No submission or submission that does not at least meet weak requirements.
Total		100				

4. Responses for Rand Water Chair in Electrical Engineering required to meet a minimum of 70 percent to be further evaluated.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
A. HUMAN RESOURCE CAPACITY (25)	The minimum number of resources the University or departments shall have on submission These resources shall have Degrees and a minimum of 5 years' experience. the purpose is to establish an overall picture of the institution's human resource capacity and ability to undertake the work. Attached proof of relevant qualifications (BEng, MSc, or PhD in Electrical Engineering, and any relevant professional certifications (e.g., registration with engineering councils or bodies).					
1) Power Plant Engineering 2) Electrical Engineering 3) Electronic Engineering 4) Electrical Assets Engineering	T2.2.8	25	A minimum of Five related CV's with at least one Professorship and relevant qualifications (PhD in Electrical Engineering, and any relevant professional certifications (e.g., registration with engineering councils or bodies) and 5+ years' experience in the field.	A minimum of Three related CV's with at least One Professorship and relevant qualifications (MSc in Electrical Engineering, and any relevant professional certifications (e.g., registration with engineering councils or bodies) and 5+ years' experience in the field.	A minimum of One related CV's with degree in Electrical Engineering, and any relevant professional certifications (e.g., registration with engineering councils or bodies) and 5+ years' experience in the field.	No submission or submission that does not at least meet weak requirements.
B.PROJECT RISK MANAGEMENT (25)	As per risk register provided. Provide a full report on the risk's response plan					

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Response to tender document risks register	T2.2.11	25	Effectively address 100% of risks on the risks register including filling of all the response actions and response strategies for every risk. Identification of additional appropriate risks including response actions and strategies	Effectively address 50% of risks on the risks register including filling of all the response actions and response strategies for every risk. No identification of additional risks.	Risk response not aligned with project scope e.g supplier has indicated "Avoid", "Medium" and no additional risk identified.	No submission
C. METHOD STATEMENT (25)	Specific method statement in accordance with the scope of work, logical and aligned to the scope of work.					
Technical Approach & Methodology		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
Understanding of Scope & Objectives		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.

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D. PROJECT PROGRAMME (25)	This plan shall indicate the integration of the method statement. The aim and the research objective(s) of the project clearly outlined on a Gantt chart format indicating activities.					
1. Programme Schedule		25	Bidder presents a strong, feasible, and well-managed project programme in line with the scope of work.	Basic plan incorporating all the activities in relation to scope. Basic demonstration of milestones.	Basic approach but lacks depth in key areas	No submission or submission that does not at least meet weak requirements.
Total		100				

5. Responses for Rand Water Chair in Mechanical Engineering required to meet a minimum of 70 percent to be further evaluated.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
A. HUMAN RESOURCE CAPACITY (25)	The minimum number of resources the University or departments shall have on submission These resources shall have Degrees and a minimum of 5 years' experience. the purpose is to establish an overall picture of the institution's human resource capacity and ability to undertake the work. Attached proof of relevant qualifications (BEng/BSc in Mechanical Engineering)					
1) Mechanical Engineering 2) Design Engineer 3) Mechanical Assets Management	T2.2.8	25	A minimum of Five related CV's with at least One Professorship and relevant qualifications (PhD in Mechanical Engineering) and 5+ years' experience in the field.	A minimum of Three related CV's with at least one Professorship and relevant qualifications (MSc in Mechanical Engineering) and 5+ years' experience in the field.	A minimum of One related CV's with relevant qualifications degree in Mechanical Engineering) and 5+ years' experience in the field.	No submission or submission that does not at least meet weak requirements.
B.PROJECT RISK MANAGEMENT (25)	As per risk register provided. Provide a full report on the risk's response plan					

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
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C. METHOD STATEMENT (25)	Specific method statement in accordance with the scope of work, logical and aligned to the scope of work.					
Technical Approach & Methodology		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
Understanding of Scope & Objectives		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Feasibility & Resource Allocation		5	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
D. PROJECT PROGRAMME (25)	This plan shall indicate the integration of the method statement. The aim and the research objective(s) of the project clearly outlined on a Gantt chart format indicating activities.					
1. Programme Schedule		25	Bidder presents a strong, feasible, and well-managed project programme in line with the scope of work.	Basic plan incorporating all the activities in relation to scope. Basic demonstration of milestones.	Basic approach but lacks depth in key areas	No submission or submission that does not at least meet weak requirements.
Total		100				

6. Responses for Rand Water Chair in Civil and Structures Engineering required to meet a minimum of 70 percent to be further evaluated.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
A. HUMAN RESOURCE CAPACITY (25)	The minimum number of resources the University or departments shall have on submission These resources shall have Degrees and a minimum of 5 years’ experience. the purpose is to establish an overall picture of the institution's human resource capacity and ability to undertake the work. Attached proof of relevant qualifications (BEng/BSc in Civil or Structural Engineering)					
1) Structural Engineering 2) Geotechnical Engineering 3) Civil Engineering	T2.2.8	25	A minimum of Five related CV's with at least One Professorship and relevant qualifications (PhD in Civil or Structural Engineering) and 5+ years’ experience in the field.	A minimum of Three related CV's with at least One Professorship and relevant qualifications (MSc in Civil or Structural Engineering) and 5+ years’ experience in the field.	A minimum of One related CV's with degree in Civil or Structural Engineering) and 5+ years' experience in the field	No submission or submission that does not at least meet weak requirements.
B.PROJECT RISK MANAGEMENT (25)	As per risk register provided. Provide a full report on the risk’s response plan					

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Response to tender document risks register	T2.2.11	25	Effectively address 100% of risks on the risks register including filling of all the response actions and response strategies for every risk. Identification of additional appropriate risks including response actions and strategies	Effectively address 50% of risks on the risks register including filling of all the response actions and response strategies for every risk. No identification of additional risks.	Risk response not aligned with project scope e.g supplier has indicated "Avoid", "Medium" and no additional risk identified.	No submission
C. METHOD STATEMENT (25)	Specific method statement in accordance with the scope of work, logical and aligned to the scope of work.					
Technical Approach & Methodology		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
Understanding of Scope & Objectives		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Feasibility & Resource Allocation		5	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
D. PROJECT PROGRAMME (25)	This plan shall indicate the integration of the method statement. The aim and the research objective(s) of the project clearly outlined on a Gantt chart format indicating activities.					
1. Programme Schedule		25	Bidder presents a strong, feasible, and well-managed project programme in line with the scope of work.	Basic plan incorporating all the activities in relation to scope. Basic demonstration of milestones.	Basic approach but lacks depth in key areas	No submission or submission that does not at least meet weak requirements.
Total		100				

7. Responses for Rand Water Chair in Engineering and Asset Management required to meet a minimum of 70 percent to be further evaluated.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
A. HUMAN RESOURCE CAPACITY (25)	The minimum number of resources the University or departments shall have on submission These resources shall have Degrees and a minimum of 5 years' experience. the purpose is to establish an overall picture of the institution's human resource capacity and ability to undertake the work. Attached proof of relevant qualifications (in Engineering, Asset Management, or a related field)					
1) Maintenance Management 2) Operations Management 3) Asset Life Cycle Management 4) Project Management 5) Contracts Management	T2.2.8	25	A minimum of Five related CV's with at least One Professorship and relevant qualifications (PhD in Engineering, Asset Management, or a related field) and 5+ years' experience in the field.	A minimum of Three related CV's with at least One Professorship and relevant qualifications (MSc in Engineering, Asset Management, or a related field) and 5+ years' experience in the field.	A minimum of One related CV's with relevant degree in Engineering, Asset Management, or a related field) and 5+ years' experience in the field.	No submission or submission that does not at least meet weak requirements.
B.PROJECT RISK MANAGEMENT (25)	As per risk register provided. Provide a full report on the risk's response plan					

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Response to tender document risks register	T2.2.11	25	Effectively address 100% of risks on the risks register including filling of all the response actions and response strategies for every risk. Identification of additional appropriate risks including response actions and strategies	Effectively address 50% of risks on the risks register including filling of all the response actions and response strategies for every risk. No identification of additional risks.	Risk response not aligned with project scope e.g supplier has indicated "Avoid", "Medium" and no additional risk identified.	No submission
C. METHOD STATEMENT (25)	Specific method statement in accordance with the scope of work, logical and aligned to the scope of work.					
Technical Approach & Methodology		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
Understanding of Scope & Objectives		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Feasibility & Resource Allocation		5	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
D. PROJECT PROGRAMME (25)	This plan shall indicate the integration of the method statement. The aim and the research objective(s) of the project clearly outlined on a Gantt chart format indicating activities.					
1. Programme Schedule		25	Bidder presents a strong, feasible, and well-managed project programme in line with the scope of work.	Basic plan incorporating all the activities in relation to scope. Basic demonstration of milestones.	Basic approach but lacks depth in key areas	No submission or submission that does not at least meet weak requirements.
Total		100				

8. Responses for Rand Water Chair in Digital Technology and Information required to meet a minimum of 70 percent to be further evaluated.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
A. HUMAN RESOURCE CAPACITY (25)	The minimum number of resources the University or departments shall have on submission These resources shall have Degrees and a minimum of 5 years’ experience. the purpose is to establish an overall picture of the institution's human resource capacity and ability to undertake the work. Attached proof of relevant qualifications (Degree Digital Technology, Information Systems, or Cybersecurity)					
1) Software Development/E ngineering 2) Data Analysis 3) Cybersecurity	T2.2.8	25	A minimum of Five related CV's with at least One Professorship and relevant qualifications (PhD in Computer Science, Digital Technology, Information Systems/Technology, or Cybersecurity and 5+ years' experience in the field.	A minimum of Three related CV's with at least One Professorship and relevant qualifications. (MSc in Computer Science, Digital Technology, Information Systems/Technology, or Cybersecurity and 5+ years' experience in the field.	A minimum of One related CV's with relevant degree in Computer Science, Digital Technology, Information Systems/Technology, or Cybersecurity and 5+ years' experience in the field.	No submission or submission that does not at least meet weak requirements.
B.PROJECT RISK MANAGEMENT (25)	As per risk register provided. Provide a full report on the risk’s response plan					

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Response to tender document risks register	T2.2.11	25	Effectively address 100% of risks on the risks register including filling of all the response actions and response strategies for every risk. Identification of additional appropriate risks including response actions and strategies	Effectively address 50% of risks on the risks register including filling of all the response actions and response strategies for every risk. No identification of additional risks.	Risk response not aligned with project scope e.g supplier has indicated "Avoid", "Medium" and no additional risk identified.	No submission
C. METHOD STATEMENT (25)	Specific method statement in accordance with the scope of work, logical and aligned to the scope of work.					
Technical Approach & Methodology		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
Understanding of Scope & Objectives		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Feasibility & Resource Allocation		5	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
D. PROJECT PROGRAMME (25)	This plan shall indicate the integration of the method statement. The aim and the research objective(s) of the project clearly outlined on a Gantt chart format indicating activities.					
1. Programme Schedule		25	Bidder presents a strong, feasible, and well-managed project programme in line with the scope of work.	Basic plan incorporating all the activities in relation to scope. Basic demonstration of milestones.	Basic approach but lacks depth in key areas	No submission or submission that does not at least meet weak requirements.
Total		100				

9. Responses for Rand Water Chair in Legal Compliance and Governance required to meet a minimum of 70 percent to be further evaluated.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
A. HUMAN RESOURCE CAPACITY (25)	The minimum number of resources the University or departments shall have on submission These resources shall have Degrees and a minimum of 5 years' experience. the purpose is to establish an overall picture of the institution's human resource capacity and ability to undertake the work. Attached proof of relevant qualifications (in Water Management, Environmental Science, Civil Engineering, or Hydrology)					
1) Legal Compliance 2) Corporate Governance 3) Corporate Law Compliance 4) Litigation Analysis	T2.2.8	25	A minimum of Five related CV's with at least One Professorship and relevant qualifications (B Com Law, LLB or PhD in Compliance, Corporate Law, or Governance) and 5+ years' experience in the field.	A minimum of Three related CV's with at least One Professorship and relevant qualifications (BCom Law, LLB or PhD in Compliance, Law, or Governance) and 5+ years' experience in the field.	A minimum of One related CV's with relevant qualifications and no submission of supporting evidence of qualifications.	No submission or submission that does not at least meet weak requirements.
B.PROJECT RISK MANAGEMENT (25)	As per risk register provided. Provide a full report on the risk's response plan					

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Response to tender document risks register	T2.2.11	25	Effectively address 100% of risks on the risks register including filling of all the response actions and response strategies for every risk. Identification of additional appropriate risks including response actions and strategies	Effectively address 50% of risks on the risks register including filling of all the response actions and response strategies for every risk. No identification of additional risks.	Risk response not aligned with project scope e.g supplier has indicated "Avoid", "Medium" and no additional risk identified.	No submission
C. METHOD STATEMENT (25)	Specific method statement in accordance with the scope of work, logical and aligned to the scope of work.					
Technical Approach & Methodology		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
Understanding of Scope & Objectives		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
Feasibility & Resource Allocation		5	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
D. PROJECT PROGRAMME (25)	This plan shall indicate the integration of the method statement. The aim and the research objective(s) of the project clearly outlined on a Gantt chart format indicating activities.					
1. Programme Schedule		25	Bidder presents a strong, feasible, and well-managed project programme in line with the scope of work.	Basic plan incorporating all the activities in relation to scope. Basic demonstration of milestones.	Basic approach but lacks depth in key areas	No submission or submission that does not at least meet weak requirements.
Total		100				

10. Responses for Rand Water Supply Chain Management required to meet a minimum of 70 percent to be further evaluated.

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
A. HUMAN RESOURCE CAPACITY (25)	The minimum number of resources the University or departments shall have on submission These resources shall have Degrees and a minimum of 5 years' experience. the purpose is to establish an overall picture of the institution's human resource capacity and ability to undertake the work. Attached proof of relevant qualifications (in Supply Chain Management or Business Administration)					
1) Logistics Management 2) Inventory Management 3) Supply Chain Management	T2.2.8	25	A minimum of Five related CV's with a minimum of at least One Professorship and relevant qualifications (PhD in Supply Chain Management or Business Administration) and 5+ years' experience in the field.	A minimum of Three related CV's with at least One Professorship and relevant qualifications (MSc in Supply Chain Management or Business Administration) and 5+ years' experience in the field.	A minimum of One related CV's with relevant degree in Supply Chain Management or Business Administration) and 5+ years' experience in the field.	No submission or submission that does not at least meet weak requirements.
B.PROJECT RISK MANAGEMENT (25)	As per risk register provided. Provide a full report on the risk's response plan					
Response to tender document risks register	T2.2.11	25	Effectively address 100% of risks on the risks register including filling of all the response actions and response strategies for every risk. Identification of additional appropriate risks including response actions and strategies	Effectively address 50% of risks on the risks register including filling of all the response actions and response strategies for every risk. No identification of additional risks.	Risk response not aligned with project scope e.g supplier has indicated "Avoid", "Medium" and no additional risk identified.	No submission

CRITERION	RETURNABLE SCHEDULE REFERENCE	WEIGHT	RATING SCALE			
			GOOD (100%)	MODERATE (66.7%)	WEAK (33.33%)	NONE (0%)
C. METHOD STATEMENT (25)	Specific method statement in accordance with the scope of work, logical and aligned to the scope of work.					
Technical Approach & Methodology		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
Understanding of Scope & Objectives		10	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
Feasibility & Resource Allocation		5	Comprehensively articulated and covers all key points on the subject.	Not comprehensive but adequately covering key points.	Basic and lacking more details	No submission or submission that does not at least meet weak requirements.
D. PROJECT PROGRAMME (25)	This plan shall indicate the integration of the method statement. The aim and the research objective(s) of the project clearly outlined on a Gantt chart format indicating activities.					
Programme Schedule		25	Bidder presents a strong, feasible, and well-managed project programme in line with the scope of work.	Basic plan incorporating all the activities in relation to scope. Basic demonstration of milestones.	Basic approach but lacks depth in key areas	No submission or submission that does not at least meet weak requirements.
Total		100				

T1.3.4. PREFERENCE POINT SYSTEM

The **90/10** will be applied in this bid.

T1.3.5. OBJECTIVE CRITERIA

Rand Water shall apply objective criteria in accordance with the PPPFA.

Rotation of suppliers for bids will be done on the following conditions:

- a) *Aggregate value of R250 million (inclusive of all taxes) awarded.*
- b) *Where an award to be made to the supplier results in the cumulative value exceeding the rotation threshold for bids, that award can be made which will constitute the last award to the supplier in the financial year.*
- c) *As its objective criteria, Rand Water shall therefore not award to a Bidder that scores the highest points, if such Bidder has already exceeded the rotation threshold for bids.*

In making the determination on the aggregate value of work awarded to a supplier, Rand Water shall consider the supplier's relations and as such, where Rand Water had awarded work to entities and/or persons that are related and/or inter-related to the supplier, the value of such awards shall be used as a measure of assessing the aggregate value of the work awarded to the supplier.

PART T2: RETURNABLE DOCUMENTS

T2.1. LIST OF RETURNABLE DOCUMENTS

T2.1.1 ALL RETURNABLES ARE REQUIRED FOR PURPOSES OF EVALUATION IRRESPECTIVE OF WHETHER THEY ARE DESIGNATED MANDATORY OR NOT.

T2.1.2 Returnable required at Tender closing (disqualifiable):

These returnables are required to be fully completed, signed (if required on the returnable) and submitted with the bid at Bid closing date and time. If not fully completed, signed (if required on the returnable) and/or submitted by Bid closing, the bidder will be disqualified.:

No.	Description	Action Required
1.	Test for responsiveness/ Pre-qualifiers (List as per T1.3.1)	Attach copies
2.	Form of Offer	Submit fully completed and signed copy
3	- Compulsory Enterprise Questionnaire - SBD 6.1 Preference Points - SBD 4 Bidder's Disclosure	- Complete T.2.2 - Complete 6.1 - Complete 4
4	Pricing Schedule / Bill of Quantities (BoQ)	Attach copy
5	Resolution Letter for the Main Contractor (a letter authorising the person completing the bid to sign on behalf of the company)	Attach copy

T2.1.2 Returnable required at Tender Closing date and time for evaluation

These returnables are required to be submitted at bid closing date and time. A bidder that does not submit the required returnable at stipulated deadline or submits an incomplete returnable; will not be disqualified but will be scored accordingly.

No.	Description	Action Required
1.	- Refer to Functionality evaluation T1.3.2 for required documents.	Submit document as referenced in T1.3.2
2.	B-BBEE or Sworn affidavit certificate	Attach copy
3.	Qualifications to Bid	Complete T2.2.5

T2.1.3 Returnable required at Tender closing (non-disqualifiable)

These returnables are required to be fully completed, signed (if required on the returnable) and submitted with bid at Bid closing date and time; however, if not submitted by Bidder or submitted with incomplete information or without a required signature, the Senior Buyer / Sourcing Manager will, in writing, request the bidder to submit the returnable within 5 working days. If the returnable is not fully completed, signed if required and/or received by the Senior Buyer / Sourcing Manager within 5 working days of the request, the bidder will be disqualified.

No.	Description	Action Required
1	Declaration of Insurance	Complete T2.2.7
2	3-year financial statements (audited in accordance with the organisation's relevant PI score, however limited to a minimum assurance level of an Independent Review). In addition, the current year's management report must be submitted i.e. (Income statement, Balance sheet and cash flow statement)	Attach copies
3.	Requirements with regard to fluctuations in the cost of labour and materials.	Complete T2.2.6

T2.2. RETURNABLE SCHEDULES

T2.2.1. COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CSD Number:

Section 4: Particulars of sole proprietors and partners in partnerships:

Name *	Identity Number *	Personal income tax number *

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 5: Particulars of companies and close corporations

Company registration Number:	
Close Corporation number:	
Tax reference number:	

Section 6: SBD 4 issued by National Treasury must be completed for this bid.

Section 7: SBD 6.1 issued by National Treasury must be completed for this bid.

I the undersigned, who warrants that he/she is duly authorized to do so on behalf of the enterprise:

- i) authorizes the employer to verify the Bidders tax clearance status from the South African Revenue Services that it is in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other bidding entities submitting bid offers and have no other relationship with any of the Bidders or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Name of Bidder:

Signed by or on
behalf of Bidder:

Official
Capacity:

Date:

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state? **YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

.....

¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

- 2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract?

YES/NO

- 2.3.1 If so, furnish particulars:

.....

3 DECLARATION

I, the undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

² Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF
PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND
COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS
DECLARATION PROVE TO BE FALSE.

.....	
Signature	Date
.....	
Position	Name

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 To be completed by the organ of state

- a) The applicable preference point system for this tender is the **90/10** preference point system.
- b) The 90/10 **preference point system** will be applicable in this tender. The lowest/highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	90
SPECIFIC GOALS	10
Total points for Price and SPECIFIC GOALS	100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to

mean that preference points for specific goals are not claimed.

- 1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

$$\begin{array}{ccc}
 \text{80/20} & \text{or} & \text{90/10} \\
 \\
 P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right) & \text{or} & P_s = 90 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)
 \end{array}$$

Where

- P_s = Points scored for price of tender under consideration
- P_t = Price of tender under consideration
- P_{min} = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

$$\begin{array}{ccc}
 80/20 & \text{or} & 90/10 \\
 \\
 Ps = 80 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right) & \text{or} & Ps = 90 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)
 \end{array}$$

Where

- Ps = Points scored for price of tender under consideration
 Pt = Price of tender under consideration
 Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
 - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,
- then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)
B-BBEE Status Level of Contributor	Number of point (90/10 system)	
1	10	
2	9	
3	6	
4	5	
5	4	
6	3	
7	2	
8	1	
Non-compliant contributor	0	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:
.....

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company
- ☐ State Owned Company

[TICK APPLICABLE BOX]

- 4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:
- i) The information furnished is true and correct;
 - ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
 - iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
 - iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary

..... SIGNATURE(S) OF TENDERER(S)	
SURNAME AND NAME:	
DATE:	
ADDRESS:	
	
	
	

T2.2.2. RECORD OF ADDENDA TO BID DOCUMENT

We acknowledge receipt of communications from the Employer amending the bid document before the submission of this bid offer. We confirm that these amendments have been taken into account in this bid offer.

Notice Number	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official

Capacity: _____

Date: _____

T2.2.4. ALTERNATIVE BID

- T2.2.4.1. Alternative bids will be accepted on the conditions described in [T1.2 Bid Data](#) (CIDB Clause C2.12)
- T2.2.4.2. Should the Bidder wish to submit an alternative bid he shall set out his proposals clearly hereunder or alternatively state them in a covering letter attached to his bid and referred to hereunder, failing which the bid will be deemed to be unqualified.
- T2.2.4.3. If no departures or modifications are described, the schedule shall be marked NIL and signed by the Bidder.

Page	Item	Proposed alternative	Price saving (if any) to the Employer if proposal is accepted

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____



Should the Bidder wish to qualify any aspect of the bid (e.g. limitations, assumptions, limited liability, etc.), he shall set out his terms clearly hereunder or alternatively state them in a covering letter attached to his bid and referred to hereunder, failing which the bid will be deemed to be unqualified.

[illegible]

Official Capacity:

T2.2.6. REQUIREMENTS WITH REGARD TO FLUCTUATIONS IN THE COST OF LABOUR AND MATERIALS (NOT APPLICABLE)

T2.2.6.1. The Bidder shall delete whichever of the following statements are not applicable to the bid. *Where the Bidder has not indicated the applicability of fluctuations, Rand Water shall regard the fluctuations as not applicable.*

FLUCTUATIONS IN - Wages and allowances: *TO APPLY/NOT TO APPLY
Price of materials: *TO APPLY/NOT TO APPLY

* Delete whichever is not applicable.

FORMULAE OR BASIS FOR THE ADJUSTMENT OF THE BID PRICE

If firm prices are not quoted the Bidder shall supply the following information:

T2.2.6.2. Formula by which the bid price is to be multiplied in order to arrive at the adjusted price:

.....
.....

T2.2.6.3. Definition of all symbols used in the above formula:

.....
.....
.....
.....

T2.2.6.4. Any special materials or equipment to be excluded from the application of the formula stating the method and basis of price variation to be applied to such materials or equipment:

.....
.....
.....

Name of Bidder:

Signed by or on
behalf of Bidder:

Official
Capacity:

Date:

T2.2.7. DECLARATION OF INSURANCES

I/We hereby declare that the insurance policies enumerated below have been effected by me/us in accordance with the Contract Data.

Cover effected	Insurer	Policy	Expiry date
COVID			
Unemployment Insurance			
Employer's Liability			
Motor Vehicle Liability			
Contractor's Equipment			
Manufacturing/Fabrication Premises			
Professional Indemnity	as applicable		

Table T2.2.6: Declaration of Insurance

Copies of the abovementioned policies are attached.

In respect of COVID, a copy of the current receipt and letter of good standing is attached.

Name of Contractor: _____

Signed by or on behalf of Contractor: _____ Official Capacity: _____

Date: _____

NOTE: This schedule shall be completed and submitted to Rand Water within 14 days from the commencement date of the contract and will serve as a condition precedent. The Contractor shall ensure that all policies are in place for the full period under the contract, and where policies need to be renewed and/or any changes effected, Rand Water is to be provided with the renewal confirmation and/or details of changes within 14 days of such renewal or changes.

T2.2.8. RECORD OF PREVIOUS EXPERIENCE, QUALITY OF WORKMANSHIP AND SAFETY

The Bidder shall provide details of **completed** works (similar to the work set out in this bid). Individuals listed as references must be contactable and willing to provide information relating to the performance of the Bidder (in terms of safety and health, workmanship, documentation, timeous completion, etc.). In order to verify the quality of workmanship, an inspection of the works may also be undertaken should Rand Water deem it necessary.

The Bidder must take into cognisance the functionality criteria in providing the record of previous experience. Information must be provided in the following format:

Description of Works	
Project Title :	
High level project description:	
Client :	
Contract No. :	
Contract Value (excl. VAT) :	
Role ^(Note 1) :	
Award Date :	
Completion Date :	
Location of Works :	
Project Manager :	
Construction Manager :	
Contact Details of Reference at Client Company	
Name :	
Position Held :	
Tel :	Cell :
Fax :	email :
Note 1 – Role refers to the Contractor's responsibility w.r.t. the claimed experience. For example Single Contractor, Main Contractor but with electrical sub – contractor, Sub – contractor for civil construction etc.	

Name of Bidder:

Signed by or on
behalf of Bidder:

Official
Capacity:

Date:

T2.2.9. RECORD OF PREVIOUS EXPERIENCE, QUALITY OF WORKMANSHIP AND SAFETY

The Bidder shall provide details of **completed** works (similar to the work set out in this bid). Individuals listed as references must be contactable and willing to provide information relating to the performance of the Bidder (in terms of safety and health, workmanship, documentation, timeous completion, etc.). In order to verify the quality of workmanship, an inspection of the works may also be undertaken should Rand Water deem it necessary.

The Bidder must take into cognisance the functionality criteria in providing the record of previous experience. Information must be provided in the following format:

Description of Works	
Project Title :	
High level project description:	
Client :	
Contract No. :	
Contract Value (excl. VAT) :	
Role ^(Note 1) :	
Award Date :	
Completion Date :	
Location of Works :	
Project Manager :	
Construction Manager :	
Contact Details of Reference at Client Company	
Name :	
Position Held :	
Tel :	Cell :
Fax :	email :
Note 1 – Role refers to the Contractor's responsibility w.r.t. the claimed experience. For example Single Contractor, Main Contractor but with electrical sub – contractor, Sub – contractor for civil construction etc.	

Name of Bidder:

Signed by or on
behalf of Bidder:

Official
Capacity:

Date:

T2.2.10. RECORD OF PREVIOUS EXPERIENCE, QUALITY OF WORKMANSHIP AND SAFETY

The Bidder shall provide details of **completed** works (similar to the work set out in this bid). Individuals listed as references must be contactable and willing to provide information relating to the performance of the Bidder (in terms of safety and health, workmanship, documentation, timeous completion, etc.). In order to verify the quality of workmanship, an inspection of the works may also be undertaken should Rand Water deem it necessary.

The Bidder must take into cognisance the functionality criteria in providing the record of previous experience. Information must be provided in the following format:

Description of Works	
Project Title :	
High level project description:	
Client :	
Contract No. :	
Contract Value (excl. VAT) :	
Role ^(Note 1) :	
Award Date :	
Completion Date :	
Location of Works :	
Project Manager :	
Construction Manager :	
Contact Details of Reference at Client Company	
Name :	
Position Held :	
Tel :	Cell :
Fax :	email :
Note 1 – Role refers to the Contractor's responsibility w.r.t. the claimed experience. For example Single Contractor, Main Contractor but with electrical sub – contractor, Sub – contractor for civil construction etc.	

Name of Bidder:

Signed by or on
behalf of Bidder:

Official
Capacity:

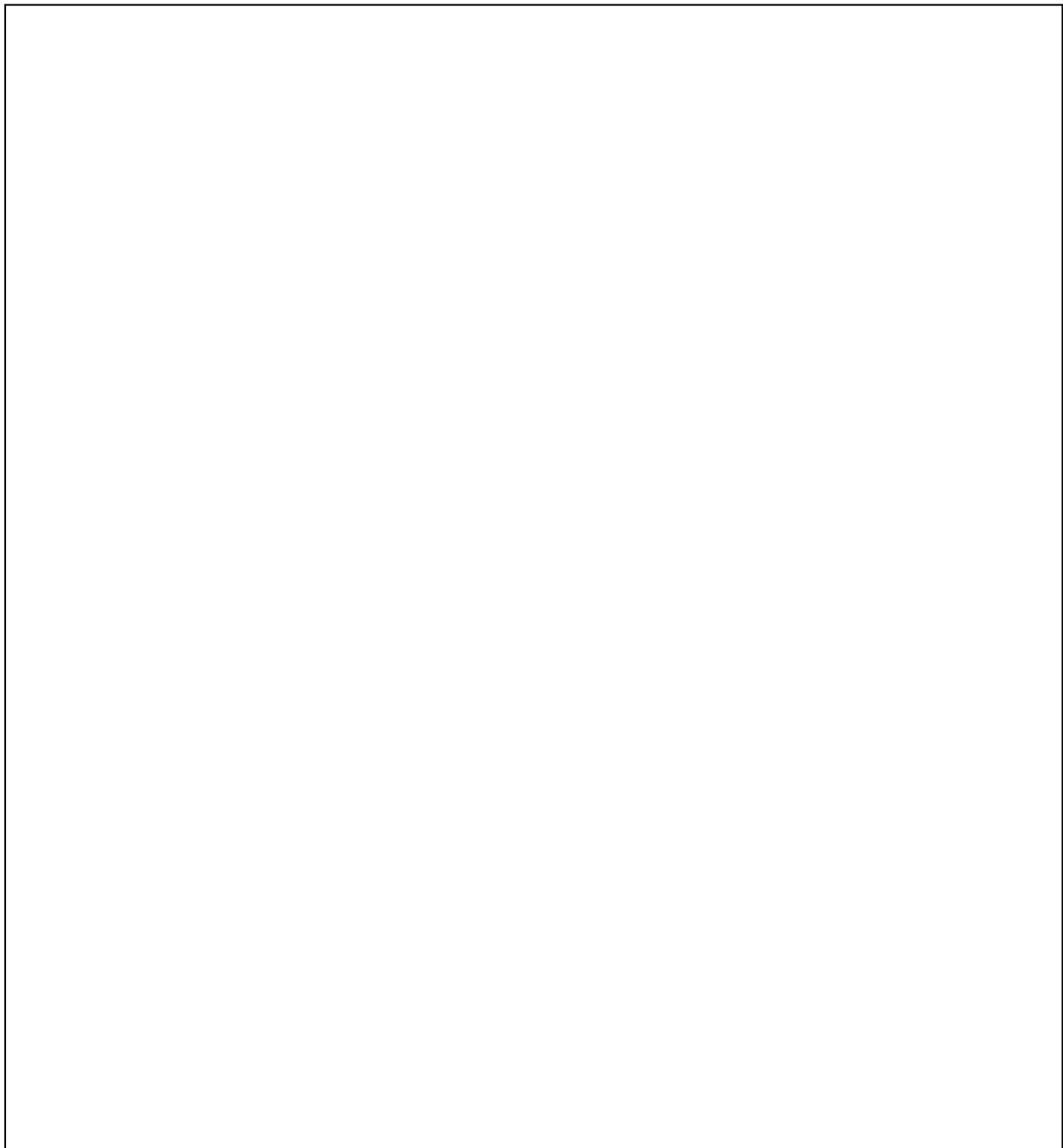
Date:

T2.2.11. HUMAN RESOURCE CAPACITY SCHEDULE

The aspects covered by T2.2.8.1, T2.2.8.2 and T2.2.8.3 will be viewed in conjunction with each other to establish an overall picture of the Bidder's capacity and ability to undertake the work specified in this document.

T2.2.11.1. Project Team Organogram vs. Company Organogram

The Bidder shall detail in the block below their company organogram and the Resources dedicated to this contract must be clearly indicated. In addition, sub-contractor and Joint-Venture arrangements must be clearly indicated:



cont.

[illegible]

Doc No. RW SCM 00049 F

T2.2.11.3. List of Current Contracts (Work Load)

Contract or Work Title	Client	Contract Value (excl. VAT)	Role ^{NOTE 1}	Progress
				Award Date: Completion Date: % Complete: Stage ^{NOTE2} :
				Award Date: Completion Date: % Complete: Stage ^{NOTE2} :
				Award Date: Completion Date: % Complete: Stage ^{NOTE2} :
				Award Date: Completion Date: % Complete: Stage ^{NOTE2} :
				Award Date: Completion Date: % Complete: Stage ^{NOTE2} :

NOTES

1. Role refers to the Contractor's responsibility w.r.t. the claimed experience for example Single Contractor, Main Contractor but with Electrical subcontractor, Sub-contractor for civil construction etc.
2. Stage refers to the current stage of the work (example design, procurement, construction, installation, commissioning, handed over, in Defects Liability Period etc.)
3. Attach additional signed copies of this schedule if insufficient space is available.

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____



The following are lists of major items of relevant equipment that are presently owned / leased / hired or planned to be purchased / leased / hired and will be available for this contract if the bid is accepted:

[illegible]

Name of Bidder:

Official Capacity:

Date:

T2.2.13. SAFETY, HEALTH, AND ENVIRONMENT

1. Safety and Health Policy

Bidders shall submit a copy of their company's internal Safety and Health Policy.

2. Safety, Health and Environment (SHE) Plan

Bidders shall submit the project specific SHE plan as per the project specific SHE Specification

3. Safety, Health and Environment (SHE) Risk assessment

Bidders shall submit the project specific SHE risk assessment.

4. DIFR Status

Bidders shall furnish their DIFR Status for 2 years in the table below, based on the following formula.

$$DIFR \text{ (annual)} = \frac{(\text{Number of Disabling Injuries})(200000)}{(\text{Number of Hours Worked})}$$

Number of Hours Worked (annual) = Total Number of Employees x Average Hours Worked per Employee per Year

	Current Year	Last Year
Number of Disabling Injuries		
Total Number of Employees		
Average Hours Worked per Employee per Year		
Number of Hours Worked per Year		
Calculated DIFR		

Table T2.2.17: Safety, Health, and Environment

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official

Capacity: _____

Date: _____

T2.2.14. PROJECT RISK MANAGEMENT

PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT									
Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:									
RISK IDENTIFICATION						QUALITATIVE RISK ASSESSMENT		RISK RESPONSE PLAN	
#	RISK CATEGORY	RISK EVENT	CAUSE	EFFECT	THREAT OR OPPORTUNITY	PROBABILITY	IMPACT	RESPONSE STRATEGY	RESPONSE ACTIONS
1	Research Team	Project not completed	Researcher leaving institution before contract ends	Unfinished project	Financial loss	Likely	Medium		
2	Stakeholder needs	Research not completed	Chair not understanding the requirements	Reputational damage	Financial loss	Likely	Low		
3	Research Method	Methodology unsuitable	Research methodology not approved	Organisational requirements not met	Financial loss	Unlikely	Low		

PROJECT RISK MANAGEMENT REGISTER FOR CONTRACT Please fill in the blank columns labelled Response Strategy and Response Action for each Risk Event listed in the table below:									
RISK IDENTIFICATION						QUALITATIVE RISK ASSESSMENT		RISK RESPONSE PLAN	
#	RISK CATEGORY	RISK EVENT	CAUSE	EFFECT	THREAT OR OPPORTUNITY	PROBABILITY	IMPACT	RESPONSE STRATEGY	RESPONSE ACTIONS
4									
5									

Name of Bidder: _____

Signed by or on
behalf of Bidder: _____

Official
Capacity: _____

Date: _____

Please note: Should more than one Scope of work be tendered for, submit a separate Letter of Acceptance for each designated Research Chair (T1.3.2) as applicable

SECTION B: CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

C1.1. FORM OF OFFER AND ACCEPTANCE

LETTER OF TENDER

DESCRIPTION: PROVISION OF THE APPOINTMENT OF RAND WATER PROFESSORIAL CHAIRS AT UNIVERSITIES TO CONDUCT RAND WATER SCIENTIFIC AND ENGINEERING RELATED WORK FOR A 5 YEAR PERIOD.

TENDER NO: RW10411156/25

TO: The Tender Box
Rand Water Head Office
522 Impala Road
Glenvista
Johannesburg
Attention: Ms Semakaleng Mangoali

We have examined the Conditions of Contract, Specifications, Drawings, Schedules, the attached Appendix and Addenda No.'s for the execution of the above named Works. We offer to execute and complete the Works and remedy any defects therein in conformity with this Tender which includes all said documents, for the total sum of in **South African Rand (ZAR** _____) (**Amount in Words inclusive of all taxes**) or such other sum as may be determined in accordance with the Conditions of Contract.

The total ZAR value quoted above, to include the sum of imported equipment/material sourced directly from outside South Africa. The applicable currency of origin/s must be converted to South African Rand (ZAR) using the closing rate of exchange as published by SARB on the date, one week (7 day calendar days) prior to the closing date for the Tender.

The Tenderer shall further complete the offer/letter and stipulate the sum in the currency of origin (i.e. Euro, USD, GBP or any other currency) as noted below.

for the sum of in **Euro** (€ _____)
(_____ **Amount in Words inclusive of all taxes***)
or such other sum as may be determined in accordance with the Conditions of Contract.

for the sum of in **USD** (\$ _____)
(_____ **Amount in Words inclusive of all taxes ***)
or such other sum as may be determined in accordance with the Conditions of Contract.

for the sum of in **GBP** (£ _____)
(_____ **Amount in Words inclusive of all taxes ***)
or such other sum as may be determined in accordance with the Conditions of Contract.

for the sum of in **any other currency** _____
(_____ **Amount in Words inclusive of all taxes ***)
or such other sum as may be determined in accordance with the Conditions of Contract.

***Applies to international suppliers that are registered for all taxes in South Africa**

We accept your suggestions for the appointment of the DAB, as set out in the Appendix to Tender.

We agree to abide by this Tender for a period of 180 days from the Submission Date and Time for Tenders and it shall remain binding upon us and may be accepted at any time before that date. We acknowledge that the Appendix forms part of this Letter of Tender.

If this offer is accepted, we will provide the specified Performance Security, commence the Works as soon as is reasonably practicable after the Commencement Date, and complete the Works in accordance with the above-named documents within the Time for Completion.

Unless and until a formal Agreement is prepared and executed this Letter of Tender, together with your written acceptance thereof, shall constitute a binding contract between us.

We understand that you are not bound to accept the lowest or any tender you may receive.

Signature..... in the capacity of.....

duly authorized to sign tenders for and on behalf of.....

Address:

Date:.....

Signature of Witness: _____ Signature of Witness: _____

Name of Witness: _____ Name of Witness : _____

Date : _____ Date : _____

C1.1.2. CONTRACT AGREEMENT

This Agreement made on the _____ day of (month) _____ (year) _____
between

RAND WATER
(hereinafter called “the Employer”)

And

(hereinafter called “the Contractor”).

Whereas the Employer desires that the Works known as **PROVISION OF THE APPOINTMENT OF RAND WATER PROFESSORIAL CHAIRS AT UNIVERSITIES TO CONDUCT RAND WATER SCIENTIFIC AND ENGINEERING RELATED WORK FOR A 5 YEAR PERIOD** should be executed by the Contractor, and has accepted a bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement:
 - a. The Letter of Award
 - b. The Letter of Bid (incorporating the Appendix to Tender)
 - c. The Conditions of Contract
 - d. The Employer’s Requirements
 - e. The Returnable Schedules
 - f. The Contractor’s Proposal
 - g. The Bid Addenda (where applicable)
 - h. Additional Information Provided by Contractor (where applicable)
3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein, in conformity with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price at the times and in the manner prescribed by the Contract.

Authorised signature of Employer

Authorised signature of Contractor

for and on behalf of the Employer

for and on behalf of the Contractor

Name:

Designation: **GROUP CHIEF EXECUTIVE**

Date:

Name:

Designation: _____

Date:

In the presence of the undersigned witnesses:

Name:

Signature: _____

Date:

Name:

Signature: _____

Date:

C1.2. CONTRACT DATA

C1.2.1. GENERAL CONDITIONS

The General Conditions of Contract are based on the “Client/Consultant Model Services Agreement” as published by the Federation Internationale des Ingenieurs-Conseils (FIDIC).

Fourth Edition 2006

As published by the Federation Internationale des Ingenieurs-Conseils (FIDIC)

C1.2.2. PARTICULAR CONDITIONS OF CONTRACT

The General Conditions shall be amended by the Particular Conditions of Contract as detailed herein.

The following clauses – of the “Client/Consultant Model Services Agreement”, Fourth Edition 2006, as published by the Federation Internationale des Ingenieurs-Conseils (FIDIC) shall be amended as stated below:

1 GENERAL PROVISIONS

1.1 Definitions

The following words and expressions shall have the meanings assigned to them except where the context otherwise requires:

1.1.1 “**Accepted Contract Amount**” means the amount recorded in the Letter of Acceptance unless otherwise defined in the Contract Agreement; which amount may be adjusted under the terms of the Agreement.

1.1.2 “**Agreed Compensation**” means additional sums as defined in Annexure1 [*Remuneration and Payment Schedule*] which are payable under the Agreement.

1.1.3 “**Agreement**” means the terms and conditions comprising the documents listed in the Letter of Acceptance, unless otherwise defined in the Contract Agreement.

1.1.4 “**Client**” means Rand Water which is a body corporate established in terms of Section 83 of the Water Services Act 107 of 1997, who employs the Consultant, and legal successors to the Client and permitted assignees, to perform the Services.

1.1.5 “**Commencement Date**” means the date recorded in the Letter of Acceptance, unless otherwise defined in the Contract Agreement.

1.1.6 “**Consultant**” means the professional firm or individual named in the Agreement, who is employed by the Client to perform the Services.

1.1.7 “**Contract Documents**” means the Contract Agreement as well as all the documents listed therein, or the documents listed in the Letter of Acceptance if there is no Contract Agreement.

1.1.8 “**Country**” means the Republic of South Africa.

1.1.9 “**day**” means a calendar day and a “**year**” means 365 days.

1.1.10 “**Letter of Acceptance**” means the letter of formal acceptance, signed by the Client, of the Consultant's tender.

1.1.11 “**Party**” means the Client or the Consultant and “**Parties**” means the Client and Consultant collectively while “**third party**” means any other person or entity as the context requires.

1.1.12 “**Project**” means the project named in the Particular Conditions for which the Services are to be required.

1.1.13 “**Services**” means the services defined in Appendix 1 [*Scope of Services*] to be performed by the Consultant in accordance with the Agreement and comprise Normal Services, Additional Services and Exceptional Services.

1.1.14 “**Time for Completion**” means the time period stated for this purpose in the Particular Conditions.

1.1.15 “**Works**” means the permanent works (if any) to be executed (including the goods and equipment to be supplied to the Client) for the achievement of the Project.

1.1.16 “**written**” or “**in-writing**” mean hand-written, type-written, printed or electronically made, and resulting in a permanent un-editable record.

1.2 Interpretation

1.2.1 The headings herein shall not be taken into consideration in the interpretation of these Conditions.

1.2.2 The singular includes the plural and vice-versa where the context requires.

1.2.3 The documents forming this Agreement are to be taken as being mutually explanatory of one another, if there is a conflict between any

of the provisions contained in the contract documentation the precedence of such documents shall be in the order prescribed in the Contract Agreement.

1.2.4 Words indicating one gender include all genders.

1.2.5 Provisions including the word “agree”, “agreed” or “agreement” require the agreement to be recorded in writing, and signed by both Parties.

1.3 Communications

Whenever provision is made for the giving or issue of any notice, instruction or other communication by any person, such communication shall be in writing in the language of the Agreement, which notice, instruction or other communication shall not be unreasonably withheld or delayed.

1.4 Governing Language and Law

1.4.1 The language of the Agreement is English.

1.4.2 The Agreement shall be governed, construed and interpreted in accordance with the law of the Republic of South Africa.

1.5 Changes in Legislation

If after the date of the Agreement the cost or duration of the Services is altered as a result of changes in or additions to the laws or regulations in any country in which the Services are required by the Client to be performed the agreed remuneration and time for completion shall be adjusted accordingly.

1.6 Whole Agreement

The Contract Documents constitute the whole agreement between the Parties and no prior representation, and/or previous agreement, and/or representation, and/or previous agreement, and/or negotiations whether oral or written, which is not incorporated in the Agreement shall be of any force or effect. In addition no representation or agreement or addendum varying, adding to, deleting or cancelling this Agreement shall be of any force or effect unless reduced to writing and signed non-electronically by both Parties.

1.7 Waiver

No grant by either Party to the other of any indulgences, condonation, waiver or allowance shall, in respect of any specific event or circumstance other than in respect of which the grant was made, constitute a waiver of the rights of the grantor in terms of the Agreement or an estoppel of the grantor's right to enforce the provisions of the Agreement.

1.8 Assignment

Neither the Client nor the Consultant shall, without the written consent of the other, assign the Contract or any part thereof or any obligation under the Contract.

1.9 Subcontracting

The Consultant shall not without the written consent of the Client initiate or terminate any sub-contract for performance of all or part of the Services.

1.10 Intellectual Property Rights

For the purposes of this Sub-Clause, Intellectual Property means statutory and common law proprietary rights in respect of patents, designs, copyright, know how, confidential information, domain names, drawings, data and all other rights in respect of Intellectual Property compiled, created or prepared in execution of the Services to be performed in terms of the Agreement.

As between the Parties, all rights, title and interest and copyright in and to any Intellectual Property, and other intellectual property rights in the

Consultant's documents and other design documents made by (or on behalf of) the Consultant and in and to any and all documents prepared in connection with the Agreement shall vest in the Client.

1.11 Notices

Notices to be served under the Agreement shall be in writing and will take effect from receipt at the addresses stated in the Particular Conditions. Delivery can be by email and/or registered post.

1.12 Publications

The Consultant, either alone or jointly with others, shall not publish any material relating to the Services or the Project without the prior written approval of the Client.

1.13 Conflict of Interest Corruption and Fraud

Notwithstanding any penalties that may be enforced against the Consultant under the Law, the Client will be entitled to terminate the Agreement in accordance Sub-Clause 4.6.2 and the Consultant shall be deemed to have breached Sub-Clause 3.3.1 if it is shown that the Consultant is guilty of:

- a) offering, giving, receiving or soliciting anything of value with a view to influencing the behaviour or action of anyone, whether a public official or otherwise, directly or indirectly in the selection process or in the conduct of the Agreement; or
- b) misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of the Client, including the use of collusive practices intended to stifle or reduce the benefits of free and open competition.

1.14 Confidentiality

Unless otherwise provided for in the Agreement, and with the exception of those matters set out hereinbelow, the Parties warrant that each shall keep confidential all matters relating to the Project, and that the Parties, their employees, agents and servants shall not divulge or disclose to any organisation or any person any information, data, documents, secrets, dealings, transactions or affairs relating to or incidental to the Works and/or the Project.

The obligation of confidentiality shall not apply to the following:-

- (a) any matter generally available in the public domain otherwise than as a result of a breach of this Sub-Clause;
- (b) any disclosure which may reasonably be required for the performance of that Party's obligations under the Agreement;
- (c) disclosure of information which is required by statute, regulation or any other law;
- (d) the provision of information to contractors, consultants, sub-contractors or suppliers for purposes of executing the Works and/or the Project, provided that the obligations of confidentiality herein shall be imposed mutatis mutandis upon such contractors, consultants, sub-contractors or suppliers in their respective contracts; or
- (e) the provision of information to any third person with the express written permission of the other Party.

2. THE CLIENT

2.1 Information

The Client shall timeously provide to the Consultant, free of cost, all information that may be reasonably required for the provision of the Services. The Consultant shall be entitled to rely on the accuracy and completeness of such information furnished by or on behalf of the Client.

2.2 Decisions

The Client shall give his decision on all matters properly referred to him in writing by the Consultant within a reasonable time so as not to delay the Services to be provided.

2.3 Equipment and Facilities

The Client shall make available, free of cost, to the Consultant for the purpose of the Services the equipment and facilities described in Annexure 2 [*Schedule of Personnel, Equipment, Facilities and Services of Others to be Provided by the Client*].

2.4 Client's Personnel

2.4.1 In consultation with the Consultant, the Client shall at his own cost arrange for the selection and provision of personnel in his employment to the Consultant in accordance with Annexure 2 [*Schedule of Personnel, Equipment, Facilities and Services of Others to be Provided by the Client*]. In connection with the provision of the Services such personnel shall take instructions only from the Consultant.

2.4.2 If the Client cannot supply Client's personnel for which he is responsible and it is agreed to be necessary for the satisfactory performance of the Services, the Consultant shall arrange for such supply as an Additional Service.

2.5 Client's Representative

2.5.1 The Client shall appoint a Client's Representative to carry out those duties delegated to him in terms of the Agreement and in addition shall monitor and report to the Client on conformance by the Consultant with the provisions of the Agreement. In addition the Client's Representative shall be authorised to receive, on behalf of the Client, all notices, correspondence and other communications issued pursuant to the Agreement.

2.5.2 The Client's Representative shall have no authority to relieve the Consultant of any of its duties, obligation or responsibilities under the Agreement or to amend any of the terms thereof.

2.5.3 All services to be provided by the Consultant shall be to the reasonable satisfaction of the Client's Representative. In addition the Client's Representative may instruct the Consultant to:-

- (a) appoint additional personnel at no cost to the Client where the Client's Representative considers that the Consultant is not complying with the provisions of the Contract and/or to
- (b) terminate the involvement of any person on the Contract where the Client's Representative considers the presence of such person to be contrary to the interests of the Agreement and/or the Project.

2.5.4 No approval given by the Client's Representative shall relieve the Consultant of its obligations under the Contract.

2.5.5 Where the Client's Representative is required to determine value, quantities, cost or extensions of time he shall consult and endeavour to reach agreement with the Consultant and in all cases shall determine such matters fairly, reasonably and in accordance with the Agreement.

2.5.6 The Client's Representative may from time to time delegate any of his duties to an assistant, and may at any time revoke any such delegation. Such delegation or revocation shall be in writing and shall not take effect until a copy of same has been delivered to both Parties.

2.5.7 Any determination, instruction, inspection, examination, test, consent, approval or other similar act by an assistant delegated in terms of Sub-Clause 2.5.6 shall have the same effect as if it had been given by the Client's Representative itself. However, in the event of the Consultant questioning or disputing any determination or instruction, given by the said assistant, the Consultant may refer such matter to the Client's Representative, who shall confirm, reverse or vary such determination or instruction.

2.6 Services of Others

The Client shall at its cost arrange for the provision of services from others as described in Annexure 2 [*Schedule of Personnel, Equipment, Facilities and Services of Others to be Provided by the Client*] and the Consultant shall co-operate with the suppliers of such services but shall not be responsible for them or their performance.

2.7 Payment of Services

The Client shall pay the Consultant for the Services in accordance with Clause 5 [*PAYMENT*] hereof.

3. THE CONSULTANT

3.1 Scope of Services

The Consultant shall perform Services relating to the Project. The Scope of Services to be provided are as stated in Appendix 1 [*Scope of Services*].

3.2 Normal, Additional and Exceptional Services

3.2.1 Normal Services are those described as such in Appendix 1 [*Scope of Services*].

3.2.2 Additional Services are those described as such in Appendix 1 [*Scope of Services*] or which by written agreement of the Parties are otherwise additional to Normal Services.

3.2.3 Exceptional Services are those which are not Normal or Additional Services but which are necessarily performed by the Consultant in accordance with Sub-Clause 4.7 [*Exceptional Services*].

3.3 Duty of Care and Exercise of Authority

3.3.1 The Consultant shall exercise reasonable skill, care and diligence in the performance of its obligations under the Agreement.

3.3.2 Where the Services include the exercise of powers to certify or exercise discretion in terms of a contract between the Client and any third party the Consultant shall act in accordance with that contract, but as an independent professional acting with reasonable skill, care and diligence.

3.4 Client's Property

Anything supplied by or paid for by the Client for the use of the Consultant shall be the property of the Client and where practical shall be so marked.

3.5 Supply of Personnel

3.5.1 The personnel who are proposed by the Consultant to work in the Country shall be subject to acceptance by the Client with regard to their qualifications and experience; such acceptance shall not be unreasonably withheld.

3.5.2 Where the Client requires the Consultant to nominate key Personnel in Annexure 6 [*Schedule of Consultant's Key Personnel*] hereto, such Personnel shall not be removed from the Project without the Client's express permission. Substituted Personnel shall have equivalent qualifications and experience.

3.5.3 The Consultant shall furnish the Client and the Client's Representative with a list of addresses and telephone numbers of personnel in the Consultant's organisation who may be contacted in any emergency both during and outside normal working hours.

3.6 Consultant's Representative

3.6.1 The Consultant shall appoint a Consultant's Representative who shall give of his whole time to directing the execution of the Services to be provided by the Consultant in terms of the Agreement. In addition the Consultant's Representative shall be authorised to receive, on behalf of the Consultant, all notices, instructions, consents, approvals, certificates, determinations, correspondence and other communications issued pursuant to the Agreement.

3.6.2 The Consultant shall not revoke the appointment of the Consultant's Representative without the prior consent of the Client's Representative.

3.6.3 The Consultant's Representative may from time to time delegate any of his duties to any competent person, and may at any time revoke any such delegation. Such delegation or revocation shall be in writing and shall not take effect until the Client's Representative has received prior notice signed by the Consultant's Representative, specifying the powers, functions and authority being delegated or revoked.

3.7 Changes in Personnel

3.7.1 If it is necessary to replace any of the personnel provided by the Consultant, the Consultant shall arrange for replacement by a person of comparable competence as soon as reasonably possible.

3.7.2 The cost of such replacement shall be borne by the Consultant except where the replacement is requested by the Client, and in such case:

- (a) the request shall be in writing stating the reasons for it; and
- (b) the Client shall bear the cost of replacement unless it is agreed that misconduct or inability to perform satisfactorily is accepted as the reason for the replacement by the Consultant.

3.8 Co-operation with Others

The Consultant may be required to perform the Services in conjunction with other consultants or specialists who are providing services to the Project and he may make recommendations to the Client in respect of such appointments for certain parts of the Project. In such case the Consultant shall only be responsible for his own performance and the performance of his sub-consultants or specialists who have specifically been appointed by the Consultant to assist him with the Services to be provided under this Agreement.

3.9 Statutory Obligations, Notices Fees and Charges

3.9.1 The Consultant shall at all times conform in all respects with the provisions of any Act of Parliament, Regulations, Bye-law of any Local or any other Statutory Authority or other Enactment having the force of law which may be applicable to the performance of its obligations under the Agreement and shall indemnify, and keep indemnified the Client, against damages that it may suffer as a result of any breach by the Consultant, its agents or employees, including any hired labour, of any such Act, Regulation, Bye-law or other Enactment and including all legal costs on the attorney and client scale which may be payable as a result of any claims or proceedings in respect of the Agreement.

3.9.2 The Consultant shall be responsible for payment of all costs, taxes, duties, levies and charges arising out of compliance with such laws and regulations.

3.9.3 The Consultant shall be liable for, and shall indemnify the Client against any claim arising out of the Consultant's non-compliance with any laws and regulations applicable to the execution of this Agreement.

3.10 Progress Meetings

3.10.1 The Consultant shall arrange and attend meetings with the Client and/or its representatives at the request of the Client, but not less frequently than once every month during the currency of the Agreement, in order to monitor the progress of the Services to be provided.

3.10.2 The purpose of the meetings is also to raise and address matters of concern to the Client, and/or the Consultant. The Consultant shall be responsible for chairing the meetings, taking minutes and distributing minutes within one week of the date of each meeting.

3.11 Safety Procedures

At all times the Consultant shall:-

- (a) comply strictly with the Client's site SHE Specifications/Rules, applicable legislation, other requirements and regulations from time to time in force, a copy of which is deemed to be incorporated into and shall be read as part of the Agreement;
- (b) be responsible for the safety and welfare of all its employees and shall comply to all relevant SHE requirements;
- (c) familiarize himself with all the Client's internal SHEQ systems, regulations, policies and procedures and all legislative or statutory requirements with regard to the health and safety of the Consultant's employees;
- (d) ensure that all his personnel are fully briefed with regards to all relevant policies and safety procedures and that all personnel have attended any required inductions;
- (e) ensure that all personnel sign their acceptance of these procedures and regulations – which signed documents are to be kept in a register which is to be made available at all times for inspection;
- (f) at its own cost provide all of its employees with all necessary safety equipment, namely, safety boots, hard hats, overalls etc. and will at all times adhere to the Client's standards as well as the site rules and regulations, including his sub-consultants and their employees, the South African safety regulations in particular, the Occupational Health and Safety Act (No. 85 of 1993) and relevant regulations and their latest revisions;
- (g) be responsible for the discipline of its employees and shall, at the Client's request, remove from the site any incompetent or undesirable employees.

3.12 Security

The Consultant shall at all times remain responsible for the security of his own equipment. In addition the Consultant shall fully acquaint himself and strictly comply with all the Client's security regulations particularly with regard to personnel, plant, material and equipment entering or leaving the Client's property.

3.13 Health and Safety

3.13.1 The Consultant is responsible for the safety and welfare of its employees and Sub-consultants employed on the Project and shall provide medical facilities as such facilities shall only be provided for by the Client under special circumstances.

3.13.2 The Consultant's attention is directed to the requirements of the Occupational Health and Safety Act No. 85 of 1993 as amended, its Regulations and the site rules and regulations of the Client shall at all

times be adhered to by the Consultant, his employees and his Sub-consultants.

3.16 Protection of the Environment

The Consultant's attention is directed to Client's SHEQ Policy a copy of which is appended to the Agreement as Appendix 2 (Technical Part).

The Consultant shall comply with all requirements, stipulations and the like of any Environmental Impact Assessment undertaken and/or issued in respect of the Project and/or the Works.

4.COMMENCEMENT, COMPLETION, VARIATION AND TERMINATION

4.1 Effective Date

5. The Agreement is effective from the date of the Letter of Acceptance or on the effective date of the Contract Agreement whichever is the latter.

6.

7. 4.2 Commencement and Completion

The Services shall be commenced on the Commencement Date, shall proceed in accordance with the Time Schedule in Annexure 3 [*Time Schedule for Services*], and shall be completed within the Time for Completion, subject to extensions in accordance with the Agreement.

4.3 Variations

4.3.1 The Client may order variations to the Services in writing or may request the Consultant to submit proposals, including the time and cost implications, for variations to the Services.

4.3.2 The incorporation into the Agreement of any variations to the Services ordered by the Client, including any increase in the Consultant's fees and reimbursable costs, shall be agreed between the Consultant and the Client.

4.4 Delays

If the Services are impeded or delayed by the Client or his contractors so as to increase the scope, cost or duration of the Services:

- (a) the Consultant shall inform the Client of the circumstances and probable effects;
- (b) the increase in scope and/or costs shall be regarded as an Additional Service; and
- (c) the time for completion of the Services shall be increased accordingly.

4.5 Changed Circumstances

If circumstances arise for which neither the Client nor Consultant is responsible and which make it irresponsible or impossible for the Consultant to perform in whole or in part the Services in accordance with the Agreement he shall promptly dispatch a notice to the Client.

In these circumstances:

- (a) if certain Services have to be suspended, the time for their completion shall be extended until the circumstances no longer apply plus a reasonable period not exceeding 42 days for resumption of them; and
- (b) if the speed of performing certain Services has to be reduced, the time for their completion shall be extended as may be made necessary by the circumstances.

4.6 Abandonment, Suspension or Termination

4.6.1 The Client may suspend all or part of the Services or terminate the Agreement by notice of at least 30 days to the Consultant who shall

immediately make arrangements to stop the Services and minimise further expenditure.

4.6.2 If the Client considers that the Consultant is without good reason not discharging his obligations he can inform the Consultant by notice stating the grounds for the notice. If a satisfactory reply is not received within 14 days the Client may by a further notice terminate the Agreement provided that such further notice is given within 35 days of the Client's former notice.

4.6.3 After giving at least 14 days notice to the Client, the Consultant may by a further notice of a least 42 days terminate the Agreement, or at his discretion without prejudice to the right to terminate, may suspend or continue suspension of performance of the whole or part of the Services:-

- (a) when 28 days after the due date for payment of an invoice he has not received payment of that part of it which has not by that time been contested in writing, or
- (b) when Services have been suspended under either Sub-Clause 4.5 [*Changed Circumstances*] or Sub-Clause 4.6.1 and the period of suspension has exceeded 182 days.

4.7 Exceptional Services

4.7.1 Upon the occurrence of circumstances described in Sub-Clause 4.5 [*Changed Circumstances*] or abandonment or suspension or resumption of Services or upon termination of the Agreement otherwise than under the provisions of Sub-Clause 4.6.2 any necessary work or expense by the Consultant extra to the Normal and Additional Services shall be regarded as Exceptional Services.

4.7.2 The performance of Exceptional Services shall entitle the Consultant to extra time necessary for their performance and to payment for performing them.

4.8 Rights and Liabilities of Parties

4.8.1 Termination of the Agreement shall not prejudice or affect the accrued rights or claims and liabilities of the Parties.

4.8.2 After termination of the Agreement the provisions of Sub-Clause 6.4 [*Limit of Compensation*] shall remain in force.

5. PAYMENT

5.1 Payment to the Consultant

5.1.1 The Client shall pay the Consultant for Normal Services in accordance with the Conditions and with the details stated in Annexure 1 [*Remuneration and Payment*], and shall pay for any Additional Services at rates and prices which are given in or based on those in Annexure 1 [*Remuneration and Payment*] so far as they are applicable but otherwise as are agreed in accordance with Sub-Clause 4.3 [*Variations*].

5.1.2 Unless otherwise agreed in writing the Client shall pay the Consultant in respect of Exceptional Services:

- (a) as for Additional Services for extra time spent by the Consultant's personnel in the performance of the Services, and
- (b) the net cost of all other extra expense incurred by the Consultant.

5.1.3 Where the Client has required the Consultant to appoint selected consultants as the Consultant's sub-consultants, fees owed to those sub-consultants shall be due to the Consultant in addition to the Consultant's own fees.

5.2 Time for Payment

5.2.1 The Consultant shall submit monthly statements/invoices complete with all supporting documentation thereto to the Client by the 25th day of the month following the month in which the Services were rendered.

In the event that the Consultant fails to submit a statement by the 25th day of the month any late submission will only be evaluated in the next month.

Payment will be effected 30 days from date of statement.

5.2.2 If the Consultant does not receive payment by the due date in terms of Sub-Clause 5.2.1 he shall be paid Agreed Compensation at the rate defined in the Particular Conditions on the sum overdue reckoned from the due date for payment of the invoice until the actual date on which payment is received. Such Agreed Compensation shall not affect the rights of the Consultant stated in Sub-Clause 4.6.3.

5.3 Currencies of Payment

The currencies applicable to the Agreement are those stated in Annexure 1 [*Remuneration and Payment Schedule*]

5.4 Disputed Invoices

If any item or part of an item in an invoice submitted by the Consultant is contested by the Client, the Client shall give notice with reasons of his intention to withhold payment and shall not delay payment on the remainder of the invoice. Sub-Clause 5.2.2 shall apply to all contested amounts which are finally determined to have been payable to the Consultant.

5.5 Independent Audit

5.5.1 The Consultant shall maintain up-to-date records which clearly identify relevant time and expense and shall make these available to the Client on reasonable request.

5.5.2 Except where the Agreement provides for lump sum payments, not later than twelve months after the completion or termination of the Services, the Client can at notice of not less than 7 days require that a reputable firm of accountants nominated by him audit any amount claimed by the Consultant by attending during normal working hours at the office where the records are maintained.

6. LIABILITIES

6.1 Liability of the Parties

6.1.1 Neither Party shall be liable to the other for loss of profit or other special damages unless such loss of profit or other special damages was expressly contemplated at the time of entering into the Agreement.

6.1.2 In the event of the Client having a claim against the Consultant, the Client shall be entitled to set off such claim against any amounts due to the Consultant, or to deduct same from any security held by the Client, notwithstanding that such claim may be unliquidated.

6.2 Compensation

If it is considered that either party is liable to the other, compensation shall be payable only on the following terms:

- (a) Such compensation shall be limited to the amount of reasonably foreseeable loss and damage suffered as a result of such breach, but not otherwise;

In any event, the amount of such compensation will be limited to the amount specified in Sub-Clause 6.4 [*Limit of Compensation*].

6.3 Duration of Liability

Neither the Client nor the Consultant shall be considered liable for any loss or damage resulting from any occurrence unless a claim is formally

made on him before the expiry of the relevant period stated in the Particular Conditions, or such earlier date as may be prescribed by law.

6.4 Limit of Compensation

6.4.1 The maximum amount of compensation payable by either party to the other in respect of liability under this Agreement is limited to the amount stated in the Particular Conditions. This limit is without prejudice to any Agreed Compensation specified under Sub-Clause 5.2.2 or otherwise imposed by the Agreement.

6.4.2 Each Party agrees to waive all claims against the other in so far as the aggregate of compensation which might otherwise be payable exceeds the maximum amount payable.

6.4.3 If either Party makes a claim for compensation against the other Party and this is not established the claimant shall entirely reimburse the other for his costs incurred as a result of the claim.

6.5 Indemnity

So far as the law governing this Agreement permits, the Client shall indemnify the Consultant against the adverse effects of all claims including such claims by third parties which arise out of or in connection with the Agreement including any made after the expiry of the period of liability referred to in Sub-Clause 6.3 [*Duration of Liability*], except insofar as they are covered by the insurances arranged under the terms of Clause 7 [*INSURANCE*].

6.6 Exceptions

Sub-Clauses 6.4 [*Limit of Compensation*] and 6.5 [*Indemnity*] do not apply to claims arising:

- (a) from deliberate default or reckless misconduct, or
- (b) otherwise than in connection with the performance of obligations under the Agreement.

7. INSURANCE

7.1 Professional Indemnity

The Consultant agrees to arrange and keep in force professional indemnity insurance cover in respect of the Services provided under this Agreement to the extent of the liability under Sub-Clause 6.4 [*Limit of Compensation*] until the time at which that liability shall cease in terms of Sub-Clause 6.3 [*Duration of Liability*]. The insurance cover may alternatively be provided by means of an equivalent performance bond.

7.2 Additional Insurances

The Consultant agrees to arrange and maintain at its own cost until the time at which liability shall cease in terms of Sub-Clause 6.3 [*Duration of Liability*], the following additional insurances:-

- (a) Third Party Liability Insurance;
- (b) Comprehensive Motor Vehicle Insurance;
- (c) Fidelity Guarantee;
- (d) Workers Compensation;
- (e) Group Personal Accident;
- (f) Group Life Assurance;

8. SETTLEMENT OF DISPUTES

8.1 Amicable Dispute Resolution

The Parties shall seek to resolve in good faith any dispute or difference arising between them in respect of any matter connected with this Agreement, including the validity of the Agreement, and may not initiate any further proceedings until either Party has, by written notice to the other, declared that such negotiations have failed.

8.2 Mediation

Any such dispute or claim, which cannot be settled between the Parties, may be referred by the Parties, without legal representation, to mediation by a single mediator. The mediator shall be selected by agreement between the Parties and, failing such agreement, shall be nominated by the Chairman of the Association of Arbitrators of Southern Africa. The cost of the mediation shall be born equally between the Parties.

8.3 Arbitration

8.3.1 If either Party were unwilling to agree to mediation or be dissatisfied with the opinion expressed by the mediator or should the mediation fail then such Party may refer the dispute to arbitration by a single arbitrator to be mutually agreed upon or, failing agreement, to be nominated by the Chairman of the Association of Arbitrators (Southern Africa). The Arbitration shall be in terms of the Rules for the Conduct of Arbitrations as published by the said Association of Arbitrators. Referral to arbitration under this Sub-Clause shall take place within three months of the date of notice from either party declaring that the settlement negotiations under Sub-Clause 8.1 [*Amicable Dispute Resolution*] have failed, or, if mediation is agreed on, within three months of the date of the mediator's opinion or the date upon which the mediator declares that the mediation has failed, Claims not bought within the time periods set out herein will be deemed to be waived.

8.3.2 The said Rules shall be those Rules current at the date of declaration of the dispute.

8.3.3 The Arbitration shall be held in Johannesburg in the language of the Agreement.

CLAUSE	CLAUSE HEADING	CONDITION
5	PAYMENT 5.2 Time for Payment	Agreed compensation for overdue payment % per annum
6	LIABILITIES 6.3 Duration of Liability	Duration of liability is 5 years calculated from the commencement date.
	6.4 Limit of Compensation	Insert Rand Value

PART C2: PRICING DATA

C2.1. PRICING ASSUMPTIONS

1. These Bills of Quantities (C2.2) shall be used to assist both parties in administering and agreeing any changes/variations, which may arise during the course of the Contract.
2. These Bills of Quantities shall be used to calculate the value of work completed in the evaluation of interim/final payments.
3. The Contractor is deemed to have allowed opposite each item contained in these Bills of Quantities whatever costs and charges it may consider necessary for the carrying out, complying with and due observance of the provisions, conditions and requirements set out in the Contract.
4. No claim whatsoever will be entertained in respect of errors or omissions in pricing due to the brevity of a description of any item contained in these Bills of Quantities which items are fully described or can reasonably be inferred when read in conjunction with the relevant clauses provided for in the Conditions of Contract, Specifications, Drawings or other relevant documentation.
5. Any item left un-priced will be deemed to be provided for elsewhere and no claim for any extras arising out of the Contractor's omission to price any item will be entertained.

C2.2. PRICING SCHEDULES / BILLS OF QUANTITIES (BoQ)

The Bidder must refer to **C2.2: Pricing Schedule / Bill of Quantities (BoQ)** provided with this bid document.

The Bidder is required to submit the following:

- Excel® format of the completed pricing schedule or BoQ in a compact disc (CD) or USB flash drive.
- Printed format and signed version of the completed pricing schedule or BoQ.
- Please submit separate Pricing Schedule for each designated Scope of Work applied for.

C2.2. Pricing Schedule (As per designated Research Chair)

Services	Description	Amount (R)	
Year 1	Salaries		
	Running Cost: Capacity Building/Consumables		
Year 2	Salaries		
	Running Cost: Capacity Building/Consumables		
Year 3	Salaries		
	Running Cost: Capacity Building/Consumables		
Year 4	Salaries		
	Running Cost: Capacity Building/Consumables		
Year 5	Salaries		
	Running Cost: Capacity Building/Consumables		
Additional Services	Pertaining to all stages of the project		
	Total Exl Vat		
	Vat @ 15%		
	Total Incl. Vat		

PART C3: SCOPE OF WORK

C3.1. DATES FOR DELIVERY AND COMPLETION

1. It is estimated that the Contract will be placed on or before September 2025 access to undertake work will only become available after the issue of the Site Access Certificate.(if applicable)
2. All equipment, plant, design documentation shall be handed over by 31 August 2028 and the Bidder's programme shall comply with this requirement by the Employer. (if Applicable)
3. The contract shall end upon the exhaustion of funds on the purchase order or after 5 years whichever occurs earlier **(Unless an EOT is granted by Delegated Authority)**.

C3.2. SCOPE OF WORK

1. SCOPE FOR FUTURE RAND WATER PROFESSORIAL RESEARCH CHAIRS FOR A 5-YEAR PERIOD

The Rand Water Chair must develop a research niche, relevant to the South African water supply sector, which will position the University and Rand Water at the forefront of local and international developments. Activities will include teaching at the advanced undergraduate level, being a study leader for graduate and undergraduate research projects, liaising with Rand Water, performing investigations and research for Rand Water, and supervising of support staff. The holder of the Rand Water Chair will be on a defined contract as a full-time academic staff member of the University, at the level of Associate or Full Professor.

The university must motivate its ability to host a professorial chair and conduct relevant research that is aligned with Rand Water's identified needs. This motivation will take the form of an oral presentation to Rand Water, together with substantive supporting documentation as detailed in Section 5. The motivation must include a proposed 5-year research programme with estimated costs. The full submission will be used to assess the ability of the university to undertake the work, the extent to which the proposed research is required by Rand Water and will meet Rand Water's need for additional information, as well as to rate the university against the criteria used by Rand Water's commercial department, in consultation with the respective Divisions in Rand Water.

The following provides details on each Chair proposed with potential research areas that are aligned with Rand Water's needs. The Chair can expand on the scope depending on their knowledge of specialised areas, an extensive motivation should be given for the expanded scope for consideration by Rand Water.

Rand Water Chair in Water Utilization

The primary responsibility of the candidate will be to effectively manage diverse research projects in the field of applied water treatment technology. Research conducted by the Rand Water Chair must be directly related, or provide strong support, to the full water cycle with a focus on potable water treatment, water quality, and water services infrastructure. Potential research areas to be addressed by the Chair include, but are not limited to:

- Technical and economic benchmarking of potable water treatment technologies and consideration of alternate water treatment process options for Rand Water.
- Impacts of water treatment chemicals on water quality and Rand Water infrastructure.
- Application of established and novel membrane-based technologies for water treatment.
- Evaluation of conventional and advanced oxidation processes to address both biological challenges and undesirable organic compounds in water.
- Assessment of appropriate technologies for the treatment of wastewater and other polluted water sources to industrial and potable standards.
- Contribution to the skills development program within Rand Water. This may involve the development of training materials or direct training of Rand Water staff on topics relevant to water treatment process technology.
- Predictive modelling of raw water quality and impacts on treatment processes.
- Determine the impact of the failing municipal wastewater treatment infrastructure on the raw water quality of the Vaal Barrage and Vaal Dam catchments.

- Understanding the link between nutrient loading from wastewater treatment works on the raw water quality of the Barrage Reservoir and the resultant impact on the growth of alien invasive plants such as Hyacinth and Water Lettuce.
- Understand the reputational risk to Rand Water of uncontrolled alien invasive vegetation growth on the Vaal Barrage Reservoir.
- Look into communication models between Rand Water; DWS and municipalities in ensuring efficacy in service delivery for the protection of water resources.
- Removal of natural organic matter and targeted synthetic organic compounds through enhanced coagulation, adsorption and/or advanced oxidation processes.
- Application of established and novel membrane-based technologies for potable water treatment.
- Alternative water disinfectants and the practical applicability to long distribution network.
- Water treatment processes monitoring with water quality instrument using digital imaging and artificial intelligence (AI) technology.
- Formulation of cost effective and energy efficient technology approaches for the treatment of wastewater and other polluted water sources to industrial and potable standards.

Rand Water Chair in Public Health and Environment

The Rand Water Chair in Public Health and Environment needs to be knowledgeable on water (both potable water and wastewater) and the impact of water on human health (the relationship between water and health) as well as the environmental aspects of water. The primary responsibility of the Public Health and Environment Chair will be to effectively manage and implement diverse research projects in the field of drinking water related to human health risk assessment and epidemiology. The Rand Water Chair in Public Health and Environment should be able to work within a trans-disciplinary environment. Work to be done by the Chair in Organic Chemistry and the Water Utilization Chair will be integrated to ensure that all the needs of Rand Water are met.

Rand Water maintains an extensive monitoring programme from catchment to point of sale to Water Service Authorities (customer municipalities) that exceeds the requirements of the South African National Standard for Drinking Water (SANS 241: 2015). Information obtained daily from this monitoring programme is used to verify that potable water supplied to consumers is safe for consumption (compliance to SANS241: 2015 is deemed acceptable risk). It is necessary to better understand other concepts regarding risk to consumers.

Potential research areas to be addressed by the Chair include, but are not limited to:

- Investigating linkages between Rand Water's water quality and consumer health.
- The prevalence and significance of priority emerging contaminants of concern including Per Fluorinated compounds, ARV's and TB medication, Hormones, Recreational drugs, Microplastics, Radionuclides and radioactive components, *etcetera* (determine what emerging contaminants can Rand Water expect in the short term, medium term and long term, potential human health impacts, methodologies available for screening these contaminants, levels at which these contaminants are present in Rand Water's source and treated waters and what the required limits in drinking water are, removal methods). Rand Water is capacitating itself to embark on reuse. While Rand Water requires information to confirm the continued treatment efficacy of its current drinking water treatment plants, Rand Water additionally wishes to expand its baseline monitoring database to inform future decisions regarding reuse.

- Enhancing Rand Water capacity on epidemiology.
- Through risk assessments and epidemiological investigations, confirm the safety of drinking water.
- Providing direction to supplying safe water beyond achieving compliance to specifications, standards, or guidelines.
- Ability to influence, apply, and integrate research findings conducted in other fields (microbiology, chemistry, and water utilisation) in risk assessment studies for Rand Water.
- Finding correlation between international epidemiological databases and South African conditions to motivate/support use of World Health Organisation guidelines as South African standards.
- Assist with the identification of new and emerging health issues of concern in the drinking water industry.
- Conduct risk assessment studies using Rand Water's historical data.
- Conduct hazard analysis and critical control point (HACCP) principle for the water reuse for Rand Water and identify potential risks associated with direct wastewater reuse.
- Pilot the water reuse using different philosophies.
 - Investigate water quality of harvested rainwater for use in the landscape, vegetable production and for animal and human consumption.
 - Investigate water quality of grey water for use in the landscape and vegetable production.
 - Investigate small scale "domestic" water purification of grey water for use in the landscape and vegetable production.
 - Investigate and develop the standards and parameters for small scale "domestic/business/urban" grey water for use in the landscape and vegetable production.

Rand Water Chair in Organic Chemistry

The primary responsibility of the Chair will be to effectively manage diverse research projects in the field of trace organic contaminants in drinking water (identification, analysis, and removal, natural organic matter (NOM) characterization). Potential research areas are indicated below but not limited to:

- New methods for the qualification of priority organic micro-pollutants.
- Characterisation techniques for natural organic matter (NOM).
- Disinfection by-product formation in relation to NOM and synthetic organic matter.
- Qualification of organic coagulant residues in drinking water.
- Development and application of novel technologies for the removal of organic compounds in drinking water treatment.
- Identify the eminent emerging contaminants of concern that include pharmaceuticals, domestic chemicals, agricultural chemicals, and personal care products (determine what emerging contaminants can Rand Water expect in the short term, medium term and long term, potential human health impacts, methodologies available for screening these contaminants, levels at which these contaminants are present in Rand Water's source and treated waters and what the required limits in drinking water are, removal methods).
- Determine the additional post-chlorination and chloramination disinfection by-products including their actual levels and acceptable limits. Further investigations shall include the

determination of disinfection by products associated with the use of polymeric organic coagulants for water treatment, concentration levels and acceptable limits, and their potential impact on consumers.

- Collaborate with Chair in Public Health and Water Utilization in formulating solutions for Rand Water.

Rand Water Chair in Electrical Engineering

This project aims to research and evaluate remote monitoring technologies for critical equipment within bulk water pumping stations. The focus will be on Medium-Voltage (MV) and Low-Voltage (LV) switchgear, large pump motors, and high-voltage transformers.

Objectives of the research chair include but not limited to:

- Identify and assess various remote monitoring technologies suitable for monitoring the health and performance of MV/LV switchgear, large pump motors, and high-voltage transformers in bulk water pumping stations including predictive maintenance systems or technologies.
- Evaluate the effectiveness of these technologies in:
 - Detecting potential equipment failures or anomalies.
 - Providing real-time data for predictive maintenance.
 - Optimizing energy consumption and operational efficiency.
- Analyse the cost-benefit implications of implementing remote monitoring solutions.
- Develop recommendations for the most suitable remote monitoring technologies for bulk water pumping stations, considering factors like:
 - Technical capabilities.
 - Cost-effectiveness.
 - Scalability and integration with existing systems.
 - Data security and reliability.

The project deliverables include but not limited to:

- A comprehensive report outlining the research findings, including:
 - A review of existing remote monitoring technologies relevant to bulk water pumping stations.
 - Detailed evaluation of shortlisted technologies, including their functionalities, limitations, and implementation considerations.
 - A comparative analysis of cost-benefit scenarios for different remote monitoring solutions.
 - Clear recommendations on the most suitable technologies for various equipment types within the pumping station.
- An executive summary that provides a concise overview of the research and key recommendations.

The project deliverables will be considered successful if they meet the following criteria:

- The report comprehensively overviews remote monitoring technologies relevant to bulk water pumping stations.

- The evaluation of technologies is thorough, considering technical capabilities, cost-effectiveness, ease of implementation, and data security.
- The recommendations are clear, well-supported, and address the specific needs of the academic institution.
- The final report is well-written and organized and meets all agreed-upon formatting requirements.
- The academic institution's specific requirements or preferences regarding the desired functionalities of the remote monitoring solutions should be clearly outlined.
- Information about access to relevant data or facilities at the pumping station, if applicable, can be included.

This scope of work provides a framework for the research project. It can be further tailored to incorporate the academic institution's specific capabilities or areas of interest.

Rand Water Chair in Mechanical Engineering

This project explores digital twin technology's potential benefits and applications for bulk water pumping systems including predictive maintenance systems or technologies. The research will be conducted with Academic Institutions to leverage their expertise in relevant fields.

Objectives of the research chair include but not limited to:

- Identify the key components and functionalities of a digital twin for a bulk water pumping system, including:
 - Physical asset models simulating pump operations, hydraulics, and electrical systems.
 - Sensor data integration for real-time monitoring and performance analysis.
 - Operational data analysis and anomaly detection capabilities.
 - Predictive maintenance functionalities to optimize repair and maintenance schedules.
- Evaluate the potential benefits of implementing digital twins for bulk water pumping systems, including:
 - Improved operational efficiency and energy savings.
 - Enhanced system reliability and reduced downtime.
 - Proactive maintenance strategies for extending equipment life.
 - Improved decision-making through data-driven insights.
- Analyse the challenges and limitations of implementing digital twins in bulk water pumping systems.
- Develop recommendations for a phased approach to implement a digital twin solution for a bulk water pumping system, considering factors such as:
 - Existing data infrastructure and sensor availability.
 - Interoperability requirements for integrating with existing systems.
 - Scalability and adaptability to future system upgrades.
 - Cost-effectiveness and return on investment (ROI).

The project deliverables include but not limited to:

- A comprehensive research report outlining the findings, including:
 - A detailed explanation of digital twin technology and its relevance to bulk water pumping systems.
 - An analysis of existing case studies and applications of digital twins in the water industry.
 - A breakdown of a digital twin's key components and functionalities for bulk water pumping systems.
 - A thorough evaluation of potential benefits and challenges associated with digital twin implementation.
 - A roadmap for a phased approach to implementing a digital twin solution in a bulk water pumping system context.
- An executive summary providing a concise overview of the research and key recommendations.

The project deliverables will be considered successful if they meet the following criteria:

- The report comprehensively overviews digital twin technology and its potential applications in bulk water pumping systems.
- The analysis of benefits and challenges is well-supported by research and evidence.
- The proposed roadmap for implementing a digital twin solution is clear and feasible and considers future scalability.
- The final report is well-written and organized and meets all agreed-upon formatting requirements.

- Any specific requirements or areas of interest of the academic institution regarding the research focus can be included here.
- If access to specific data sets or facilities at the pumping station is desired, it should be outlined in this section.

This scope of work provides a framework for the research project on digital twins for bulk water pumping systems. It can be further customized to incorporate the collaborating academic institution's specific expertise and research interests.

Rand Water Chair Civil and Structures Engineering

This project aims to explore the chemical resistance of concrete, the deterioration of concrete in aggressive water, and the repair and rehabilitation of concrete structures. The research will contribute to the understanding and improvement of concrete durability and longevity, particularly in water-related applications.

Furthermore, the primary focus of these projects will be on the exploration of Structural Health Monitoring Systems for buildings, water retaining structures, and other civil structures.

Objectives of the research chair include but not limited to:

- Chemical Resistance of Concrete:
 - Investigate the effects of various chemicals (e.g., chlorides, sulphates, acids) on concrete durability.
 - Investigate the resistance of various types of concrete to different chemical agents, focusing on those commonly found in water.
 - Explore innovative materials or additives to enhance chemical resistance (e.g. novel admixtures or surface coatings, etc.).
- Deterioration of Concrete in Aggressive Water:
 - Identify mechanisms causing concrete deterioration in aggressive water environments (e.g., soft water, chemical dosing) and rate of concrete deterioration.
 - Explore localized corrosion mechanisms and early warning systems.
 - Assess the impact on structural integrity and service life.
 - Propose preventive measures.
- Repair and Rehabilitation of Water Retaining Concrete Structures:
 - Evaluate existing repair methods for concrete reservoirs, sedimentation tanks, canals, dams, and other civil structures.
 - Leak detection and repairs to reservoirs, tanks, canals and dams.

- Repairs and maintenance under live conditions,
- Reservoir cleaning under live conditions.
- Develop effective methods for the repair and rehabilitation of concrete structures that have undergone deterioration.
- Consider long-term performance and cost-effectiveness.
- Consider sustainability aspects and life-cycle analysis.
- To develop innovative and efficient structural health monitoring systems.
- To enhance the understanding of the behaviour and performance of various civil structures under different conditions.
- To develop trend analysis and deterioration patterns for predictive modelling.
- To devise strategies for improving the durability and longevity of these structures.

The project deliverables include but not limited to:

- Detailed reports on each of the three research areas, including methodologies, findings, and recommendations (e.g. Thesis, etc.).
- Laboratory test results (e.g., concrete samples exposed to aggressive water, chemical resistance tests).
- Performance testing of repair materials.
- Development of practical guidelines for the construction and maintenance of water-retaining concrete structures based on the research findings.
- Preparation of academic papers suitable for publication in peer-reviewed journals.
- Comprehensive reports detailing the findings of the research (e.g. Thesis, etc.).
- Prototypes of the developed structural health monitoring systems.
- Recommendations for the implementation of these systems in real-world scenarios.
- Preparation of academic papers suitable for publication in peer-reviewed journals.

The project deliverables will be considered successful if they meet the following criteria:

- The research should be rigorous, innovative, and contribute significantly to the existing body of knowledge.
- The findings should have practical implications for the construction and maintenance of water-retaining concrete structures.
- All deliverables should be completed within the agreed-upon timeline.

The research should also consider the following specific areas of interest:

- Consideration of the environmental impact of different types of concrete and their resistance to chemical agents.
- Analysis of the cost-effectiveness of different repair and rehabilitation methods.
- Exploration on advances in condition assessment and field testing (i.e. non-destructive testing) of concrete structures.
- Exploration of future trends in concrete technology and their potential impact on the research areas.

Rand Water Chair in Engineering and Asset Management

This project aims to investigate the role of digital technologies in transforming asset management practices for bulk water supply utilities. The research will be conducted with Academic Institutions to leverage their expertise in relevant fields.

Objectives of the research chair include but not limited to:

- Analyse existing asset management practices within bulk water supply utilities, focusing on challenges and opportunities for improvement.
- Identify and evaluate digital technologies to enhance asset management effectiveness in bulk water supply systems. These technologies may include:
 - Internet of Things (IoT) sensors for real-time condition monitoring of critical assets (pumps, pipes, valves, etc.)
 - Big data analytics for analysing sensor data, identifying trends, and predicting asset failures.
 - Geographic Information Systems (GIS) for integrating spatial data with asset information for improved visualization and decision-making.
 - Cloud computing for scalable data storage and access to asset management tools.
 - Artificial Intelligence (AI) and machine learning for predictive maintenance and optimizing repair schedules.
- Investigate the integration of these digital technologies with existing asset management systems and workflows within a bulk water supply utility.
- Analyse the potential benefits of implementing digital technologies in asset management, including:
 - Extended asset lifespan through proactive/predictive maintenance.
 - Reduced downtime and operational costs.
 - Improved decision-making through data-driven insights.
 - Enhanced system reliability and water security. This includes an integrated hydraulic modelling and monitoring system.
- Identify potential challenges and risks associated with digital technology adoption in asset management, such as:
 - Cybersecurity threats and data security concerns.
 - Integration challenges with existing infrastructure.
 - Cost considerations and return on investment (ROI).
 - Integrated asset management and monitoring system.
- Exploration of alternative energy supply opportunities
 - Hydropower
 - Solar power
 - Wind energy etc.
- Project Management Guidance
 - Re-establish the Project Controls Department (conduct assessment, establish framework and assess resource structure).
 - Project portfolio management, program management and appropriate/suitable project management approach including Organisational Project Management (OPM) practices.
 - Project preparation for large infrastructure projects.

- Best Practices: Introduce and recommend industry best practices for project management, including methodologies, tools, and techniques.
- Process Optimization: Assist in optimizing workflows and processes to enhance efficiency and project outcomes. Integration of process/interrelation of process throughout BWS
- Risk Management: Provide strategies for risk assessment and mitigation in projects.
- Quality Assurance: Help establish standards and protocols for quality assurance and control within the Project Controls office.
- Professional Development and Mentorship
 - Career Path Guidance: Advise team members on career development opportunities, including specialization areas within GIS, Project Management, Contracts Management and Document Management
 - Professional Registration: Guide professional registration and certification processes including necessary qualifications and steps to achieve registration.
 - Skills Enhancement: Recommend courses, workshops, and training programs to enhance technical and professional skills.
 - Mentorship Program: Develop and implement a mentorship program where University Chair members provide one-on-one or group mentoring sessions, addressing career goals, challenges, and professional growth.
 - Contract Management System: Dashboard view set, easy access by management at all level, viewing of contract data live/ be it on weekly or monthly basis
- Technological and Industry Trends
 - Project Management technologies and AI
 - Emerging Technologies: Recommend emerging technologies, tools, and software in the GIS and Document Management field.
 - Recommend best fit tool for dashboard reporting – Integrating both schedule and financial performance of projects, and information Management
 - Recommend Project Support tool (governance, project scheduling tool, earn value management implementation and provide training
 - Industry Trends: Provide insights and suggestions into current and future trends in GIS and related fields, ensuring the team stays updated.
 - Innovation Encouragement: Encourage the adoption of innovative approaches and solutions within the team's projects and daily operations.
 - Recommend the best fit technology for Document Management Systems and Document Control, storage, retrieval and system integration
 - Innovative Digital Transformation tools for Document Management Systems, Tools and Methodologies.
 - Training and accreditation in the Document Management field.

The project deliverables include but not limited to:

- A comprehensive research report outlining the findings, including:
 - A review of existing asset management practices in bulk water supply utilities.
 - An analysis of relevant digital technologies and their potential applications in asset management.
 - An evaluation of the integration challenges and opportunities associated with digital technologies.

- A thorough assessment of potential benefits and risks of implementing digital technologies for asset management.
- Recommendations on strategies for adopting digital technologies within a bulk water supply utility's asset management framework.
- An executive summary providing a concise overview of the research and key recommendations.

Rand Water Chair in Digital Technology and Information

The primary responsibility of the candidate will be to effectively manage diverse research projects in the field of Digital Technology and Information (DTI).

The primary role of the DTI Chair will be the development and execution of research projects with clear measurable objectives in response to research questions raised by Rand Water for the research topics to enable digital transformation towards a “smart utility”.

The broad scope of converged digital technology, as it relates to the water and sanitation sector or a “smart” water utility, including:

- Information Technology (IT): The traditional Information Technology and the composite term Information and Communications Technology (ICT), process automation and information/ business systems;
- Operational Technology (OT): Automation, Control systems (CS), Sensory Technology, Laboratory Systems and Technology, or Business Technology (BT); and
- Communication Technology: All communications or telecommunications technology related to data, telemetry, voice, satellite, radio links and video.
- Industrial Internet of Things (IIoT) (i.e. instrumentation, edge computing, control and sensory networks).
- Integration of all organisational technologies through a systems approach/configuration management.

The above include, but are not limited to, infrastructure asset management, circular-economy and water purification related technologies. These technologies include:

- I. hardware, such as servers, switches, Personal Computers (PCs), Programmable Logic Controller (PLC), Human-Machine Interface (HMI), and
- II. software, such as operating systems, applications, databases, Enterprise Resource Planning (ERP), Enterprise Asset Management (EAM) systems, Supervisory Control and Data Acquisition (SCADA) and Manufacturing eExecution Systems (MES).

The focus to be on the Next Generation (4th / 5th) Industrial Revolution Technologies, consisting of a wide range of new and innovative digital technologies that are applied to the water and sanitation sector.

The scope includes all disciplines and aspects that contribute to the intellectual capital of the organisation, including data, information, records, content, intelligence and knowledge, as it relates to a water utility and its digital technology. It includes, but is not limited to, digital records, data science and advanced data analytics, online and real-time monitoring and assessment, big data

and asset condition data, digital twins for simulation and analytics, blockchain, “datafication” and “databotics”, as well as artificial intelligence and machine learning as the future creators of knowledge.

The scope covers the management and governance of digital technology and information, as described above. It includes, but is not limited to, general digital technology (IT/ OT) controls and assurance (e.g. change and release management), enterprise architecture and standards management, risk and opportunity management, IT and OT convergence and integration, digital ethics and digital trust, the governance and management of data, information, records and knowledge, as well as information and cyber security and resilience.

The initial list of specific research requirements for the medium term are:

- Cyber Security in the Water utility environment;
- ‘Databotics’ – a combination of big data, data analytics and artificial intelligence (AI)/ Machine Learning (ML) to improve decision making;
- Use of AI/ ML and Generative AI (Gen AI) application within the water utility;
- Industrial Grade Wireless Private Network – Connectivity;
- Collaborative Robots (Cobots), Smartdust, Bionics and Quantum Computing;
- Fully Autonomous Operations and Swarms within water utility; and
- Use of Blockchain within Supply Chain Management.

These may be altered as and when necessary, during the duration of the Professorial Chair.

The project deliverables include but not limited to:

- Comprehensive publishable and peer reviewed research reports outlining the findings of the research studies.
- An executive summary providing a concise overview of the research and key recommendations.
- Presentation(s) to the Rand Water process owner(s) on the outcome of the research studies.

The project deliverables will be considered successful if they meet the following criteria:

- The reports provide a comprehensive overview of digital technologies and information related discipline in terms of its potential to enhance Rand Water’s objective to become a “smart utility”
- The analysis of benefits, risks, and challenges is well-supported by research and evidence.
- The recommendations for adopting the findings are clear and practical and consider the specific needs of Rand Water.
- The final report is well-written, peer reviewed and publishable.

The education and training of Rand Water members on advanced Digital Technology and Information (DTI) related subjects, especially related to the research scope and research topics identified above, is part of the scope of this Professorial Chair. This includes, but is not limited to, data science.

Rand Water Chair in Legal Compliance and Governance

The primary responsibility of the candidate will be to effectively manage diverse research projects in the field of Legal Compliance and Governance.

The broad scope of work includes but is not limited to:

- IP research in the context of international law / intellectual property rights protection in the digital age. Digital copyright laws and their impact on innovation. Business strategies for protecting intangible property rights.
- Theories developed through legal precedents and decisions from various jurisdictions: International Trade and Innovation. Legal frameworks driving international trade and underlying economic regulation principles
- Business Procedures/Policy when conducting business across borders. Different international business contracts and their legal implications.
- Legal requirements related to intellectual property and rewards for innovators in SOE.
- Legal requirements for RW regarding International Collaborators, including similarities and differences in systems and principles re- R&D innovation.
- Land and Water law in relation infrastructure, encroachments and expropriation law.
- Plant and Equipment Valuations- matchmaking, bench marking and mentoring.
- Drone regulations in SA and internationally and their implications on RWs' investment in technology.
- Influence of artificial intelligence on the legal profession. How technology is changing the legal practice.
- Different international business contracts and their legal implications.
- Risk regarding debt owed to RW which can and if not managed properly, affect the financial sustainability and viability of Rand Water.
- Research in the fields of artificial intelligence (AI) and data protection to foster collaboration between academia, industry, and government to address key challenges, develop best practices, and promote ethical use of AI technologies while ensuring the privacy and security of data.
- Research on how advancements in AI technology, particularly in data processing and analysis, intersect with existing privacy laws such as POPIA, and other regional regulations. The outcome would include recommendations for updating or refining Rand Water's data protection framework.

- Research on challenges and legal implications associated with cross-border transfer of data in AI applications. Identify regulatory barriers and develop strategies for the organization to navigate international data transfer requirements while ensuring data protection compliance.
- Explore the use of AI algorithms for real-time monitoring of regulatory changes and updates. This includes the possibility of developing (or adopting) automated systems capable of identifying relevant regulations, assessing their impact on business operations, and recommending compliance actions.
- Investigate AI-driven approaches for risk assessment and prediction in regulatory compliance. This also looks at predictive models that analyse historical compliance data, identify patterns, and anticipate potential compliance breaches or risks.
- Explore AI techniques for detecting and investigating fraud, misconduct, and non-compliance within Rand Water. This may entail the development or adoption of machine learning models that analyse transactional data, communication patterns, and behavioural anomalies to identify suspicious activities.
- Investigate the use of AI-powered chatbots and virtual assistants for providing regulatory guidance and support to employees. This may entail developing or adopting conversational AI interfaces capable of answering compliance-related queries, providing policy information, and guiding users through regulatory requirements.
- Assess the current state of AI and data protection education and training programs. Develop curriculum guidelines and educational resources to equip professionals with the knowledge and skills needed to address regulatory compliance challenges in AI-driven environments.
- Organisational policy development and public policy making.

Rand Water Chair in Supply Chain Management

The primary responsibility of the candidate will be to effectively manage diverse research projects in the field of Supply Chain Management.

The initial list of specific research requirements for the medium term are:

- Best Practices: Research and recommend industry best practices for SCM including various strategies.
- Process Optimization: Assist in optimizing workflows and processes to enhance efficiency within the SCM value chain.
- Risk Management: Provide strategies for risk assessment and mitigation in SCM.
- Quality Assurance: Help establish standards and protocols for quality assurance.
- Contract Management system - Dashboard view set, Status of each contract, viewing of contract data live/ be it on weekly or monthly basis.

- Bid/RFQ Tracker: Dashboard view set, Status of each Bid/RFQ, viewing of data live/ be it on weekly or monthly basis.
- Career Path Guidance: Advise team members on career development opportunities, including specialization areas.
- Professional Registration: Guide professional registration.
- Skills Enhancement: Recommend courses, including development of a SCM graduate programme and training programs to enhance professional skills.
- Emerging Technologies: E-procurement technologies, tools, and software in the SCM environment.

Requirements

The Universities are expected to have a good track record of managing collaborative research projects involving post-graduates and post-doctoral researchers. Ideally, the University should have successfully concluded projects for government institutions or entities in the private sector. Research findings should have been published in internationally recognized journals and presented at the best international conferences consistently for several years.

PART C4: SITE INFORMATION

C4. SITE INFORMATION

Rand Water Head office. 522 Impala Road, Glenvista 2058.