

TENDER DOCUMENT GOODS AND SERVICES		 CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD
SUPPLY CHAIN MANAGEMENT		
SCM - 542	Approved by Branch Manager: February 2024	Version: 10

TENDER NO: 238S/2023/24
TENDER DESCRIPTION: TABLE MOUNTAIN GROUP (TMG) AQUIFER SECTION 1: REGIONAL MONITORING AND SECTION 2: STEENBRAS WELLFIELD IMPACT MONITORING, CITY OF CAPE TOWN
CONTRACT PERIOD: FROM COMMENCEMENT DATE (NOT BEFORE 1 JULY 2025) UNTIL 30 JUNE 2028

CLOSING DATE	28 MAY 2024
CLOSING TIME	10:00 am
TENDER BOX NUMBER	122
TENDER FEE	R200

Non – refundable tender fee payable to the City of Cape Town (CCT) for a hard copy of the tender document. This fee is not applicable to website downloads of the tender document.

TENDERER	
NAME of Company/Close Corporation or Partnership / Joint Venture/ Consortium or Sole Proprietor /Individual (hereinafter the "Tenderer")	
TRADING AS (if different from above)	
Registration number of Tenderer	
Physical address and chosen domicilium citandi et executandi of Tenderer	

NATURE OF TENDER OFFER (please indicate below)	
Main Offer (see clause 2.2.11.1)	
Alternative Offer (see clause 2.2.11.1)	

TENDER SERIAL NO.:
SIGNATURES OF CCT OFFICIALS AT TENDER OPENING
1
2
3

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THE TENDER

T.1 GENERAL TENDER INFORMATION

TENDER ADVERTISED	:	26 MAY 2024
SITE VISIT/CLARIFICATION MEETING	:	Time: 10:00am on Date: 10 May 2024 (Not compulsory, but strongly recommended)
VENUE FOR SITE VISIT/CLARIFICATION MEETING	:	A virtual clarification meeting will be conducted via Skype for Business. Tenderers who wish to participate in the meeting must connect via the link below: https://meet.capetown.gov.za/philani.msimango/n3mhg56z
TENDER BOX & ADDRESS	:	Tender Box as per front cover at the Tender & Quotation Boxes Office , 2 nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town. : The Tender Document (which includes the Form of Offer and Acceptance) completed and signed in all respects, plus any additional supporting documents required, must be submitted in a sealed envelope with the name and address of the tenderer, the endorsement " TENDER NO. 238S/2023/24: - TENDER DESCRIPTION: TABLE MOUNTAIN GROUP (TMG) AQUIFER SECTION 1: REGIONAL MONITORING AND SECTION 2: STEENBRAS WELLFIELD IMPACT MONITORING, CITY OF CAPE TOWN ", the tender box number and the closing date indicated on the envelope. The sealed envelope must be inserted into the appropriate official tender box before closing time. If the tender offer is too large to fit into the abovementioned box or the box is full, please enquire at the public counter (Tender Distribution Office) for alternative instructions. It remains the tenderer's responsibility to ensure that the tender is placed in either the original box or as alternatively instructed.
CCT TENDER REPRESENTATIVE	:	Name: Philani Msimango Email: Philani.Msimango@capetown.gov.za
CCT TENDER REPRESENTATIVE (SCM)	:	scm.commsafe@capetown.gov.za

TENDERERS MUST NOTE THAT WHEREVER THIS DOCUMENT REFERS TO ANY PARTICULAR TRADE MARK, NAME, PATENT, DESIGN, TYPE, SPECIFIC ORIGIN OR PRODUCER, SUCH REFERENCE SHALL BE DEEMED TO BE ACCOMPANIED BY THE WORDS "OR EQUIVALENT"

T.2 CONDITIONS OF TENDER

2.1 General

2.1.1 Actions

2.1.1.1 The City of Cape Town (hereafter referred to as the "CCT") and each tenderer submitting a tender offer (hereinafter referred to as the "tenderer" or the "supplier") shall comply with item T.2 of this Tender Document Goods and Services (hereinafter referred to as these "Conditions of Tender"). The tenderer and the CCT shall collectively hereinafter be referred to as the "Parties" and individually a "Party"). In their dealings with each other, the Parties shall discharge their duties and obligations as set out in these Conditions of Tender, timeously and with integrity, and behave equitably, honestly and transparently, and shall comply with all legal obligations imposed on the Parties herein and in accordance with all applicable laws.

The Parties agree that this tender Document Goods and Services (hereinafter referred to as the "Tender" / "Tender Document"), its evaluation and acceptance and any resulting contract shall also be subject to the CCT's Supply Chain Management Policy ('SCM Policy') that was applicable on the date the bid was advertised and as amended from time to time. If the CCT adopts a new SCM Policy which contemplates that any clause therein would apply to the Contract emanating from this tender (hereinafter referred to as the "Contract"), such clause shall also be applicable to that Contract. Please refer to this document contained on the CCT's website.

Abuse of the supply chain management system is not permitted and may result, inter alia, (1) in the tender being rejected; (2) cancellation of the contract; (3) restriction of the supplier, and/or (4) the exercise by the CCT of any other remedies available to it as provided for in the SCM Policy and/or the Contract and/or this tender and/or any applicable laws.

2.1.1.2 The CCT, the tenderer and their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the CCT shall declare any conflict of interest to the CCT at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict, and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

2.1.1.3 The CCT shall not seek, and a tenderer shall not submit a tender, without having a firm intention and capacity to proceed with the contract.

2.1.2 Interpretation

2.1.2.1 The additional requirements contained in Annexure F to the contract (hereinafter referred to as the "returnable documents" / "Returnable Schedules") are part of these Conditions of Tender and are specifically hereby incorporated into these Conditions of Tender.

2.1.2.2 These Conditions of Tender and returnable Documents which are required for CCT's tender evaluation purposes herein, shall form part of the Contract arising from the CCT's corresponding invitation to tender.

2.1.3 Communication during tender process

Verbal or any other form of communication, from the CCT, its employees, agents or advisors during site visits/clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the CCT, unless communicated by the CCT in writing to suppliers / tenderers by its Director: Supply Chain Management or his nominee. Similarly, any communication of the tenderer / supplier that is not reduced to writing by the tenderer / supplier, its employees, agents or advisors, shall not be regarded as binding on the CCT, unless communicated to the CCT in writing by the suppliers / tenderers, or their duly authorised representatives.

2.1.4 The CCT's right to accept or reject any tender offer

2.1.4.1 The CCT may accept or reject any tender offer and may cancel the corresponding tender process or reject all tender offers at any time before the formation of a contract. The CCT may, prior to the award of the tender, cancel a tender if:

- (a) due to changed circumstances, there is no longer a need for the services, works or goods requested;
or
- (b) funds are no longer available to cover the total envisaged expenditure; or
- (c) no acceptable tenders are received;
- (d) there is a material irregularity in the tender process; or
- (e) the Parties are unable to negotiate market related pricing.

The CCT shall not accept or incur any liability to a tenderer for such cancellation or rejection, but will give written reasons for such action upon receiving a written request to do so.

2.1.5 Procurement procedures

2.1.5.1 General

Unless otherwise stated in the Conditions of Tender, a contract will be concluded with the tenderer who scores the highest number of tender adjudication points for the respective section of monitoring. Tenders can tender for one or both sections of monitoring, and must indicate the sections tendered for in the **Pricing Schedule (Item 5.15)**.

The CCT intends to appoint the highest ranked tenderer ("the winner") for each of Section 1 and Section 2 for the allocation of work. Where the same tenderer scores the highest number of tender adjudication points for both sections, both sections may be awarded to the tenderer ("the winner") on condition that the tenderer demonstrated that sufficient resources will be available to undertake the work. If insufficient responsive bids are received, the CCT reserves the right to appoint fewer tenderers, or not to appoint any tenderers at all.

An alternative to 'the winner' will not be awarded.

The contract period shall be from the commencement date of the contract (not before 1 July 2025) until 30 June 2028.

2.1.5.2 Proposal procedure using the two stage-system

A two-stage system will not be followed.

2.1.5.3 Nomination of Standby Bidder

"Standby Bidder" means a bidder, identified by the CCT at the time of awarding a bid that will be considered for award should the contract be terminated for any reason whatsoever. In the event that a contract is terminated during the execution thereof, the CCT may consider the award of the contract, or non-award, to the Standby Bidder in terms of the procedures included its SCM Policy, as amended from time to time.

2.1.6 Objections, complaints, queries and disputes/ Appeals in terms of Section 62 of the Systems Act/ Access to court

2.1.6.1 Disputes, objections, complaints and queries

In terms of Regulations 49 and 50 of the Local Government: Municipal Finance Management Act, 56 of 2003 Municipal Supply Chain Management Regulations (Board Notice 868 of 2005):

- a) Persons aggrieved by decisions or actions taken by the CCT in the implementation of its supply chain management system, may lodge within 14 days of the decision or action, a written objection or complaint or query or dispute against the decision or action.

2.1.6.2 Appeals

- a) In terms of Section 62 of the Local Government: Municipal Systems Act, 32 of 2000 a person whose rights are affected by a decision taken by the CCT, may appeal against that decision by giving written notice of the appeal and reasons to the City Manager within 21 days of the date of the notification of the decision.
- b) An appeal must contain the following:
 - i. Must be in writing
 - ii. It must set out the reasons for the appeal
 - iii. It must state in which way the Appellant's rights were affected by the decision;
 - iv. It must state the remedy sought; and
 - v. It must be accompanied with a copy of the notification advising the person of the decision
- c) The relevant CCT appeal authority must consider the appeal and **may confirm, vary or revoke** the decision that has been appealed, but no such revocation of a decision may detract from any rights that may have accrued as a result of the decision.

2.1.6.3 Right to approach the courts and rights in terms of Promotion of Administrative Justice Act, 3 of 2000 and Promotion of Access to Information Act, 2 of 2000

The sub- clauses above do not influence any affected person's rights to approach the High Court at any time or its rights in terms of the Promotion of Administrative Justice Act (PAJA) and Promotion of Access to Information Act (PAIA).

- 2.1.6.4** All requests referring to sub clauses 2.1.6.1 and 2.1.6.2 must be submitted in writing to:
The City Manager - C/o the Manager: Legal Compliance Unit, Legal Services Department, Office of the City Manager
Via hand delivery at: 20th Floor, Tower Block, 12 Hertzog Boulevard, Cape Town 8001
Via post at: Private Bag X918, Cape Town, 8000
Via email at: MSA.Appeals@capetown.gov.za

- 2.1.6.5** All requests referring to clause 2.1.6.3 must be submitted in writing to:
The City Manager - C/o the Manager: Access to Information Unit, Legal Service Department, Office of the City Manager
Via hand delivery at: 20th Floor, Tower Block, 12 Hertzog Boulevard, Cape Town 8001
Via post at: Private Bag X918, Cape Town, 8000
Via email at: Access2info.Act@capetown.gov.za

2.1.6.6 The minimum standards regarding accessing and 'processing' of any personal information belonging to another in terms of Protection of Personal Information Act, 2013 (POPIA).

For purposes of this clause 2.1.6.6, the contract and these Conditions of Tender, the terms "data subject", "Personal Information" and "Processing" shall have the meaning as set out in section 1 of POPIA, and "Process" shall have the corresponding meaning.

The CCT, its employees, representatives and sub-contractors may, from time to time, Process the tenderer's and/or its employees', representatives' and/or sub-contractors' Personal Information, for purposes of, and/or relating to, the tender, the contract and these Conditions of Tender, for research purposes, and/or as otherwise may be envisaged in the CCT's Privacy Notice and/or in relation to the CCT's Supply Chain Management Policy or as may be otherwise permitted by law. This includes the Processing of the latter Personal Information by the CCT's due diligence assurance provider, professional advisors and the Appeal Authority as applicable. The CCT's justification for the processing of such aforesaid Personal Information is based on section 11(1)(b) of POPIA, i.e., in terms of which the CCT's Processing of the said Personal Information is necessary to carry out actions for the conclusion and/or performance of the contract, to which the applicable data subject (envisaged in this clause 2.1.6.6 above) is a party.

All requests relating to data protection must be submitted in writing to:
The City Manager - C/o the Information Officer, Office of the City Manager
Via hand delivery at: 20th Floor, Tower Block, 12 Hertzog Boulevard, Cape Town 8001
Via post at: Private Bag X9181, Cape Town, 8000
Via email at: Popia@capetown.gov.za

2.1.6.7 Compliance to the CCTs Appeals Policy.

In terms of the CCT's Appeals Policy, a fixed upfront administration fee will be charged. In addition, a surcharge may be imposed for vexatious and frivolous or otherwise manifestly inappropriate tender related appeals.

The current approved administration fee is R300.00 and may be paid at any of the Municipal Offices or at the Civic Centre in Cape Town using the GL Data Capture Receipt attached as Annexure F.13: Appeal Application Form. Alternatively, via EFT into the CCT's NEDBANK Account: CITY OF CAPE TOWN and using Reference number: 198158966. Bidders are required to send proof of payment when lodging their appeal.

The current surcharge for vexatious and frivolous or otherwise manifestly inappropriate tender related appeals will be calculated as ½ (Administrative cost of the tender appeal) + 0.25 % (Appellant's tender price).

Should the payment of the administration fee of R300.00 or the surcharge not be received, such fee or surcharge will be added as a Sundry Tariff to the bidder's municipal account.

In the event where the bidder does not have a Municipal account with the CCT, the fee or surcharge may be recovered in terms of the CCT's Credit Control and Debt Collection By-law, 2006 (as amended) and its Credit Control and Debt Collection Policy.

2.1.7 CCT Supplier Database Registration

Tenderers are required to be registered on the CCT Supplier Database as a service provider. Tenderers must register as such upon being requested to do so in writing and within the period contained in such a request, failing which no orders can be raised or payments processed from the resulting contract. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture.

Tenderers who wish to register on the CCT's Supplier Database may collect registration forms from the Supplier Management Unit located within the Supplier Management / Registration Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5). Registration forms and related information are also available on the CCT's website www.capetown.gov.za (follow the Supply Chain Management link to Supplier registration).

It is each tenderer's responsibility to keep all the information on the CCT Supplier Database updated.

2.1.8 National Treasury Web Based Central Supplier Database (CSD) Registration

Tenderers are required to be registered on the National Treasury Web Based Central Supplier Database (CSD) as a service provider. Tenderers must register as such upon being requested to do so in writing and within the period contained in such a request, failing which no orders can be raised or payments processed from the resulting contract. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture.

Tenderers who wish to register on the National Treasury Web Based Central Supplier Database (CSD) may do so via the web address <https://secure.csd.gov.za>.

It is each tenderer's responsibility to keep all the information on the National Treasury Web Based Central Supplier Database (CSD) updated.

2.2 Tenderer's obligations

2.2.1 Eligibility Criteria

2.2.1.1 Tenderers are obligated to submit a tender offer that complies in all aspects to the conditions as detailed in this tender document and the Conditions of Tender. An 'acceptable tender must "COMPLY IN ALL" aspects with the tender, Conditions of Tender, all Specifications (i.e., item C.5 below, hereinafter the "Specifications"), pricing instructions herein and the Contract including its conditions.

2.2.1.1.1 Submit a tender offer

Only those tender submissions from which it can be established, *inter alia* that a clear, irrevocable and unambiguous offer has been made to CCT, by whom the offer has been made and what the offer constitutes, will be declared responsive.

2.2.1.1.2 Compliance with requirements of CCT SCM Policy and procedures

Only those tenders that are compliant with the requirements below will be declared responsive:

- a) A completed **Details of Tenderer** to be provided (applicable schedule below to be completed);
- b) A completed **Certificate of Authority for Partnerships/ Joint Ventures/ Consortiums** to be provided authorising the tender to be made and the signatory to sign the tender on the partnership /joint venture/consortium's (applicable schedule below to be completed);
- c) A copy of the partnership / joint venture / consortium agreement to be provided, where applicable.
- d) A completed **Declaration of Interest – State Employees** to be provided and which does not indicate any non-compliance with the legal requirements relating to state employees (applicable schedule below to be completed);
- e) A completed **Declaration – Conflict of Interest and Declaration of Bidders' past Supply Chain Management Practices** to be provided and which does not indicate any conflict or past practises that renders the tender non-responsive based on the conditions contained thereon (applicable schedules below to be completed);
- f) A completed **Certificate of Independent Bid Determination** to be provided and which does not indicate any non-compliance with the requirements of the schedule (applicable schedule below to be completed);
- g) The tenderer (including any of its representatives, directors or members), has not been restricted in terms of abuse of the Supply Chain Management Policy,
- h) The tenderer's tax matters with SARS are in order, or the tenderer is a foreign supplier that is not required to be registered for tax compliance with SARS;
- i) The tenderer is not an advisor or consultant contracted with the CCT whose prior or current obligations creates any conflict of interest or unfair advantage;
- j) The tenderer is not a person, advisor, corporate entity or a director of such corporate entity, who is directly or indirectly involved or associated with the bid specification committee;
- k) A completed **Authorisation for the Deduction of Outstanding Amounts Owed to the CCT** to be provided and which does not indicate any details that renders the tender non-responsive based on the conditions contained thereon (applicable schedules below to be completed);
- l) The tenderer (including any of its representatives, directors or members), has not been found guilty of contravening the Competition Act 89 of 1998, as amended from time to time;
- m) The tenderer (including any of its representatives, directors or members), has not been found guilty on any other basis listed in the Supply Chain Management Policy.

2.2.1.1.3 Compulsory clarification meeting

Not Applicable

2.2.1.1.4 Minimum score for functionality

Only those tenders submitted by tenderers who achieve the minimum score for functionality as stated below will be declared responsive.

The description of the functionality criteria and the maximum possible score for each is shown in the table below. The score achieved for functionality will be the sum of the scores achieved, in the evaluation process, for the individual criteria.

Functionality Scoring for Section 1: Regional Monitoring

Description of functionality criteria	Position	Maximum points per criteria		Maximum possible score (A+B)
		Qualification (A)	Experience (B)	
Qualifications and demonstrated experience of the key staff in relation to the scope of work	Project Leader	8	8	16
	Freshwater Ecologist	6	6	12
	Botanical Ecologist	6	6	12
	Hydrologist	5	5	10
	Hydrogeologist	5	5	10

Maximum possible functionality score for key staff	60
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Description of functionality criteria	Project description	Maximum points per category (A) and (B)	Maximum possible score (A x B)
Demonstrated experience of the tendering entity with respect to comparable projects.	Botanical assessment and or monitoring within natural fynbos biome or similar	0 projects = 0 points 1 project = 4 points 2 projects = 8 points 3 projects or more = 12 points	12
	Wetland assessment and or monitoring within natural fynbos biome or similar	0 projects = 0 points 1 project = 4 points 2 projects = 8 points 3 projects or more = 12 points	12
	Integrated Water resource assessment and monitoring	0 projects = 0 points 1 project = 4 points 2 projects = 8 points 3 projects = 12 points 4 projects or more = 16 points	16
Maximum possible functionality score for experience of tendering entity			40
Maximum possible score for functionality (key staff + experience of tendering entity)			100

Functionality Scoring for Section 2: Steenbras Wellfield Impact Monitoring

Description of functionality criteria	Position	Maximum points per criteria		Maximum possible score (A+B)
		Qualification (A)	Experience (B)	
Qualifications and experience of the key staff in relation to the scope of work	Project Leader	8	8	16
	Freshwater Ecologist	6	6	12
	Botanical Ecologist	6	6	12
	Hydrologist	5	5	10
	Hydrogeologist	5	5	10
Maximum possible functionality score for key staff				60

Description of functionality criteria	Project description	Maximum points per category (B)	Maximum possible score (A x B)
Demonstrated experience of the tendering entity with respect to	Botanical assessment and or monitoring within natural fynbos biome or similar	0 projects = 0 points 1 project = 3 points 2 projects = 6 points 3 projects or more = 9 points	9

comparable projects.	Wetland assessment and or monitoring within natural fynbos biome or similar	0 projects = 0 points 1 project = 3 points 2 projects = 6 points 3 projects or more = 9 points	9
	Intergrated water resource assessment and or monitoring	0 projects = 0 points 1 project = 4 points 2 projects = 8 points 3 projects or more = 12 points	12
	Impact assessment and or monitoring of infrastructure development in or next to water courses	0 projects = 0 points 1 project = 5 points 2 projects or more = 10 points	10
Maximum possible functionality score for experience of tendering entity			40
Maximum possible score for functionality (key staff + experience of tendering entity)			100

The minimum qualifying score for functionality is **70** out of a maximum of **100** for **Sections A and/or B respectively**. Tenderers that fail to achieve the minimum score for functionality will be declared as non-responsive.

Where the entity tendering is a Joint Venture, the tenderer's tender response must be accompanied by a statement describing exactly what aspects of the work will be undertaken by each party to the joint venture (appended to Schedule 1 - Certificate of Authority for Partnerships/ Joint Ventures/ Consortiums, Volume 2: Returnable Schedules). The experience of sub-contractors will not be considered when evaluating functionality.

Tenderers shall ensure that all relevant information has been submitted with the tender offer in the prescribed format to ensure optimal scoring of functionality points for each Evaluation Criteria. Failure to provide all information **IN THIS TENDER SUBMISSION** could result in the tenderer not being able to achieve the specified minimum scoring.

A more detailed explanation of the functionality criteria is given below:

SECTION 1: REGIONAL MONITORING

Experience of key staff:

Points will be awarded for the experience of key staff in accordance with the table below. Each position will be scored in terms of (a) qualification, and (b) years' experience.

As example, the position of "Freshwater Ecologist" can score a maximum of 12 points made up of (a) 6 points if in possession of a MSc degree or higher, and (b) 6 points if he/she has more than 5 years' experience. Furthermore, the position of "Botanical Ecologist" can score a maximum of 12 points but will only score 7 points if (a) he/she is in possession of a BSc(Hons) degree = 3 points, and (b) 3 – 5 years' experience = 4 points.

Position	Criteria	
	Natural Science Qualification relevant to proposed position (A)	Years' experience (B)
Project Leader (Maximum = 16 points)	<ul style="list-style-type: none"> • MSc or higher = 8 points • BSc (Hons) = 3 points • BSc or National Diploma = 1 point • No Qualification = 0 points 	<ul style="list-style-type: none"> • More than 10 years = 8 points • More than 7; less than 10 years = 6 points • More than 4; less than 7 years = 4 points • Less than 4 years = 0 points
Freshwater Ecologist (Maximum = 12 points)	<ul style="list-style-type: none"> • MSc or higher = 6 points • BSc (Hons) = 3 points • BSc or National Diploma = 1 point • No Qualification = 0 points 	<ul style="list-style-type: none"> • More than 5 years = 6 points • More than 3; less than 5 years = 4 points • Less than 3 years = 0 points
Botanical Ecologist (Maximum = 12 points)	<ul style="list-style-type: none"> • MSc or higher = 6 points • BSc (Hons) = 3 points • BSc or National Diploma = 1 point • No Qualification = 0 points 	<ul style="list-style-type: none"> • More than 5 years = 6 points • More than 3; less than 5 years = 4 points • Less than 3 years = 0 points

Position	Criteria	
	Natural Science Qualification relevant to proposed position (A)	Years' experience (B)
Hydrologist (Maximum = 10 points)	<ul style="list-style-type: none"> • MSc, MEng or higher = 5 points • BSc (Hons) or BEng = 2 points • BSc or National Diploma = 1 point • No Qualification = 0 points 	<ul style="list-style-type: none"> • More than 5 years = 5 points • More than 3; less than 5 years = 3 points • Less than 3 years = 0 points
Hydrogeologist (Maximum = 10 points)	<ul style="list-style-type: none"> • MSc or higher = 5 points • BSc (Hons) = 2 points • BSc or National Diploma = 1 point • No Qualification = 0 points 	<ul style="list-style-type: none"> • More than 5 years = 5 points • More than 3 less than 5 years = 3 points • Less than 3 years = 0 points

Different individuals shall be identified for each of the key personnel listed, except that the project leader can also fulfil one of the other key personnel roles where meeting the requirements. **The same personnel cannot be used for Sections 1 and 2 where a tenderer tenders for both sections.**

Details of the key personnel and their CV's shall be appended to **Schedule 13A: Key Personnel.**

Experience of tendering entity

Points will be awarded for the experience of the tendering entity, as detailed in the table below.

Description	Points (A)	Maximum points per category (B)
Botanical assessment and or monitoring within natural fynbos biome or similar	4 points for every project	0 projects = 0 points 1 project = 4 points 2 projects = 8 points 3 projects or more = 12 points
Wetland assessment and or monitoring within natural fynbos biome or similar	4 points for every project	0 projects = 0 points 1 project = 4 points 2 projects = 8 points 3 projects or more = 12 points
Water resource assessment and monitoring	4 points for every project	0 projects = 0 points 1 project = 4 points 2 projects = 8 points 3 projects = 12 points 4 projects or more = 16 points

The following shall be noted with respect to "projects":

- In order to be considered a "project", a minimum of 10 person days per requirement had to be spent on the project;
- Projects that cover more than one of the requirements can be listed under all requirements that are covered provided that the minimum person days had been spent per requirement; and
- The same projects can be considered for Section 1 (Regional Monitoring) and Section 2 (Impact Monitoring).

Tenderers shall ensure that all relevant information is submitted in **Schedule 13B: Tendering Entity Track Record** in the prescribed format. Tenderers must provide reference letters, preferably in the format of the pro-forma letter provided in **Schedule 13B**. Failure to provide all the required information may result in the tenderer being declared non-responsive.

SECTION 2: STEENBRAS WELLFIELD IMPACT MONITORING

Experience of key staff:

Points will be awarded for the experience of key staff in accordance with the table below. Each position will be scored in terms of (a) qualification, and (b) years' experience.

As example, the position of "Freshwater Ecologist" can score a maximum of 12 points made up of (a) 6 points if in possession of a MSc degree or higher, and (b) 6 points if he/she has more than 5 years' experience. Furthermore, the position of "Botanical Ecologist" can score a maximum of 12 points but will only score 7 points

if (a) he/she is in possession of a BSc(Hons) degree = 3 points, and (b) 3 – 5 years' experience = 4 points.

Position	Criteria	
	Natural Science Qualification relevant to proposed position (A)	Years' experience (B)
Project Leader (Maximum = 16 points)	<ul style="list-style-type: none"> • MSc or higher = 8 points • BSc (Hons) = 3 points • BSc or National Diploma = 1 point • No Qualification = 0 points 	<ul style="list-style-type: none"> • More than 10 years = 8 points • More than 7; less than 10 years = 6 points • More than 4; less than 7 years = 4 points • Less than 4 years = 0 points
Freshwater Ecologist (Maximum = 12 points)	<ul style="list-style-type: none"> • MSc or higher = 6 points • BSc (Hons) = 3 points • BSc or National Diploma = 1 point • No Qualification = 0 points 	<ul style="list-style-type: none"> • More than 5 years = 6 points • More than 3; less than 5 years = 4 points • Less than 3 years = 0 points
Botanical Ecologist (Maximum = 12 points)	<ul style="list-style-type: none"> • MSc or higher = 6 points • BSc (Hons) = 3 points • BSc or National Diploma = 1 point • No Qualification = 0 points 	<ul style="list-style-type: none"> • More than 5 years = 6 points • More than 3; Less than 5 years = 4 points • Less than 3 years = 0 points
Hydrologist (Maximum = 10 points)	<ul style="list-style-type: none"> • MSc, MEng or higher = 5 points • BSc (Hons) or BEng = 2 points • BSc or National Diploma = 1 point • No Qualification = 0 points 	<ul style="list-style-type: none"> • More than 5 years = 5 points • More than 3; less than 5 years = 3 points • Less than 3 years = 0 points
Hydrogeologist (Maximum = 10 points)	<ul style="list-style-type: none"> • MSc or higher = 5 points • BSc (Hons) = 2 points • BSc or National Diploma = 1 point • No Qualification = 0 points 	<ul style="list-style-type: none"> • More than 5 years = 5 points • More than 3; less than 5 years = 3 points • Less than 3 years = 0 points

Different individuals shall be identified for each of the key personnel listed, except that the project leader can also fulfil one of the other key personnel roles where meeting the requirements. **The same personnel cannot be used for Sections 1 and 2 where a tenderer tenders for both sections.**

Details of the key personnel and their CV's shall be appended to **Schedule 13A: Key Personnel.**

NB: In the event that any personnel at contract stage be replaced, they must be replaced with the same or higher requirements as per the initial personnel provided for in there tender submission.

Experience of tendering entity

Points will be awarded for the experience of the tendering entity, as detailed in the table below.

Description	Points (A)	Maximum points per category (B)
Botanical assessment and or monitoring within natural fynbos biome or similar	3 points for every project	0 projects = 0 points 1 project = 3 points 2 projects = 6 points 3 projects or more = 9 points
Wetland assessment and or monitoring within natural fynbos biome or similar	3 points for every project	0 projects = 0 points 1 project = 3 points 2 projects = 6 points 3 projects or more = 9 points
Integrated water resource assessment and or monitoring	4 points for every project	0 projects = 0 points 1 project = 4 points 2 projects = 8 points 3 projects or more = 12 points
Impact assessment and or monitoring of infrastructure development in or next to water courses	5 points for every project	0 projects = 0 points 1 project = 5 points 2 projects or more = 10 points

The following shall be noted with respect to “projects”:

- In order to be considered a “project”, a minimum of 10 person days per requirement had to be spent on the project;
- Projects that cover more than one of the requirements can be listed under all requirements that are covered provided that the minimum person days had been spent per requirement; and
- The same projects can be considered for Section 1 (Regional Monitoring) and Section 2 (Impact Monitoring).

Tenderers shall ensure that all relevant information is submitted in **Schedule 13B: Tendering Entity Track Record** in the prescribed format. Tenderers must provide reference letters, preferably in the format of the pro-forma letter provided in **Schedule 13B**. Failure to provide all the required information may result in the tenderer being declared non-responsive.

2.2.1.1.7 Provision of samples

Not applicable to this tender.

2.2.2 Cost of tendering

The CCT will not be liable for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

2.2.3 Check documents

The documents issued by the CCT for the purpose of a tender offer are listed in the index of this tender document.

Before submission of any tender, the tenderer should check the number of pages, and if any are found to be missing or duplicated, or the figures or writing is indistinct, or if the Price Schedule contains any obvious errors, the tenderer must apply to the CCT at once to have the same rectified.

2.2.4 Confidentiality and copyright of documents

The tenderer shall treat as strictly confidential all matters arising in connection with the tender. Use and copy the documents issued by the CCT only for the purpose of preparing and submitting a tender offer in response to the invitation.

2.2.5 Reference documents

The tenderer shall obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, Conditions of Contract and other publications, which are not attached but which are incorporated into the tender document(s) by reference.

2.2.6 Acknowledge and comply with notices

The tenderer shall acknowledge receipt of notices to the tender documents, which the CCT may issue, and shall fully comply with all instructions issued in the said notices, and if necessary, apply for an extension of the closing time stated on the front page of the tender document, in order to take the notices into account. Notwithstanding any requests for confirmation of receipt of the said notices issued, the tenderer shall be deemed to have received such notices if the CCT can show proof of transmission thereof via electronic mail, facsimile, or registered post or other lawful means.

2.2.7 Clarification meeting

The tenderer shall attend, where required, a clarification meeting at which tenderers may familiarise themselves with aspects of the proposed work, services or supply and pose questions. Details of the meeting(s) are stated in the General Tender Information (i.e., in item T.1 above).

Tenderers should be represented at the site visit/clarification meeting by a duly authorised person who is suitably qualified and experienced to comprehend the implications of the work involved.

2.2.8 Seek clarification

The tenderer shall request clarification of the tender documents, if necessary, by notifying the CCT at least one week before the closing time stated in the General Tender Information (i.e., in item T.1 above), where possible.

2.2.9 Pricing the tender offer

2.2.9.1 The tenderer shall comply with all pricing instructions as stated on the Price Schedule.

2.2.10 Alterations to documents

The tenderer shall not make any alterations or additions to the tender documents, except to comply with instructions issued by the CCT in writing, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

2.2.11 Alternative tender offers

2.2.11.1 Unless otherwise stated in the Conditions of Tender, the tenderers may submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted.

If a tenderer wishes to submit an alternative tender offer, he/she/it shall do so as a separate offer on a complete set of tender documents. The alternative tender offer shall be submitted in a separate sealed envelope clearly marked "Alternative Tender" in order to distinguish it from the main tender offer.

Only the alternative of the highest ranked acceptable main tender offer (that is, submitted by the same tenderer) will be considered, and if appropriate, recommended for award.

Alternative tender offers of any but the highest ranked main tender offer will not be considered.

An alternative tender offer to the highest ranked acceptable main tender offer that is priced higher than

the main tender offer may be recommended for award, provided that the ranking of the alternative tender offer is higher than the ranking of the next ranked acceptable main tender offer.

The CCT will not be bound to consider alternative tenders and shall have sole discretion in this regard.

In the event that the alternative is accepted, the tenderer warrants that the alternative offer complies in all respects with the CCT's standards and requirements as set out in the tender document.

2.2.11.2 Acceptance of an alternative tender offer by the CCT may be based only on the criteria stated in the Conditions of Tender or applicable criteria otherwise acceptable to the CCT.

2.2.12 Submitting a tender offer

2.2.12.1 The tenderer is required to submit one tender offer only on the original tender documents as issued by the CCT, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the Conditions of Contract and described in the Specifications. Only those tenders submitted on the tender documents as issued by the CCT together with all Tender Returnable Documents duly completed and signed will be declared responsive.

2.2.12.2 The tenderer shall return the entire tender document to the CCT after completing it in its entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

2.2.12.3 The tenderer shall sign the original tender offer where required in terms of the Conditions of Tender. The tender shall be signed by a person duly authorised by the tenderer to do so. Tenders submitted by joint ventures of two or more firms shall be accompanied by the document of formation / founding document of the joint venture or any other document signed by all Parties, in which is defined precisely the conditions under which the joint venture will function, its period of duration, the persons authorised to represent and obligate it, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner.

2.2.12.4 Where a two-envelope system is required in terms of the Conditions of Tender, place and seal the returnable documents listed in the Conditions of Tender in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the CCT's address and identification details stated in the General Tender Information (i.e., item T.1 above), as well as the tenderer's name and contact address.

2.2.12.5 The tenderer shall seal the original tender offer and copy packages together in an outer package that states on the outside only the CCT's address and identification details as stated in the General Tender Information. . If it is not possible to submit the original tender and the required copies (see 2.2.12.3) in a single envelope, then the tenderer must seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY" in addition to the aforementioned tender submission details.

2.2.12.6 The CCT shall not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

2.2.12.7 Tender offers submitted by facsimile or e-mail will be rejected by the CCT, unless stated otherwise in the Conditions of Tender.

2.2.12.8 By signing the offer part of the Form of Offer (**C.2.1**) the tenderer warrants and agrees that all information provided in the tender submission is true and correct.

2.2.12.9 Tenderers shall properly deposit its bid in the designated tender box (as detailed on the front page of this tender document) on or before the closing date and before the closing time, in the relevant tender box at the Tender & Quotation Boxes Office situated on the 2nd floor, Concourse Level, Civic Centre, 12 Hertzog Boulevard, Cape Town. If the tender submission is too large to fit in the allocated box, please enquire at the public counter for assistance.

2.2.12.10 The tenderer must record and reference all information submitted contained in other documents for example cover letters, brochures, catalogues, etc. in the Returnable Schedule titled **List of Other Documents Attached by Tenderer**.

2.2.13 Information and data to be completed in all respects

Tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the CCT as non-responsive.

2.2.14 Closing time

2.2.14.1 The tenderer shall ensure that the CCT receives the tender offer, together with all applicable documents specified herein, at the address specified in the General Tender Information herein prior to the closing time stated on the front page of the tender document.

2.2.14.2 If the CCT extends the closing time stated on the front page of the tender document for any reason, the requirements of these Conditions of Tender apply equally to the extended deadline.

2.2.14.3 The CCT shall not consider tenders that are received after the closing date and time for such a tender (late tenders).

2.2.15 Tender offer validity and withdrawal of tenders

2.2.15.1 The tenderer shall warrant that the tender offer(s) remains valid, irrevocable and open for acceptance by the CCT at any time for a period of 120 days after the closing date stated on the front page of the tender document.

2.2.15.2 Notwithstanding the period stated in clause 2.2.15.1 above, bids shall remain valid for acceptance for a period of twelve (12) months after the expiry of the original validity period, unless the CCT is notified in writing of anything to the contrary by the bidder. The validity of bids may be further extended by a period of not more than six months subject to mutual agreement by the parties, administrative processes and upon approval by the City Manager, unless the required extension is as a result of an appeal process or court ruling.

In circumstances where the validity period of a tender has expired, and the tender has not been awarded, the tender process is considered "completed", despite there being no decision (award or cancellation) made. This anomaly does not fall under any of the listed grounds of cancellation and should be treated as a "non award". A "non award" is supported as a recommendation to the CCT's Bod Adjudication Committee ("BAC") for noting.

2.2.15.3 A tenderer may request in writing, after the closing date, that its tender offer be withdrawn. Such withdrawal will be permitted or refused at the sole discretion of the CCT after consideration of the reasons for the withdrawal, which shall be fully set out by the tenderer in such written request for withdrawal. Should the tender offer be withdrawn in contravention hereof, the tenderer agrees that:

- a) it shall be liable to the CCT for any additional expense incurred or losses suffered by the CCT in having either to accept another tender or, if new tenders have to be invited, the additional expenses incurred or losses suffered by the invitation of new tenders and the subsequent acceptance of any other tender;
- b) the CCT shall also have the right to recover such additional expenses or losses by set-off against monies which may be due or become due to the tenderer under this or any other tender or contract or against any guarantee or deposit that may have been furnished by the tenderer or on its behalf for the due fulfilment of this or any other tender or contract. Pending the ascertainment of the amount of such additional expenses or losses, the CCT shall be entitled to retain such monies, guarantee or deposit as security for any such expenses or loss, without prejudice to the CCT's other rights and/or remedies available to it in accordance with any applicable laws.

2.2.16 Clarification of tender offer, or additional information, after submission

Tenderer's shall promptly provide clarification of its tender offer, or additional information, in response to a written request to do so from the CCT during the evaluation of tender offers within the time period stated in such request. No change in the competitive position of tenderers or substance of the tender offer is sought,

offered, or permitted.

Note: This clause does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the CCT elect to do so.

Failure, or refusal, to provide such clarification or additional information within the time for submission stated in the CCT's written request may render the tender non-responsive.

2.2.17 Provide other material

2.2.17.1 Tenderer's shall promptly provide, upon request by the CCT, any other material that has a bearing on the tender offer, the tenderer's commercial position (including joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the CCT for the purpose of the evaluation of the tender. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the CCT's request, the CCT may regard the tender offer as non-responsive.

2.2.17.2 The tenderer shall provide, on written request by the CCT, where the transaction value inclusive of VAT **exceeds R 10 million**:

- a) audited annual financial statement for the past 3 years, or for the period since establishment if established during the past 3 years, if required by law to prepare annual financial statements for auditing;
- b) a certificate signed by the tenderer certifying that the tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days;
- c) particulars of any contracts awarded to the tenderer by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract;
- d) a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic.

Each entity to a Consortium/Joint Venture bid shall submit separate certificates/statements in the above regard.

2.2.17.3 Tenderers shall be required to undertake to fully cooperate with the CCT's external service provider appointed to perform a due diligence review and risk assessment upon receipt of such written instruction from the CCT.

2.2.18 Samples, Inspections, tests and analysis

Tenderers shall provide access during working hours to premises for inspections, tests and analysis as provided for in the Conditions of Tender or Specifications.

If the Specifications requires the tenderer to provide samples, these shall be provided strictly in accordance with the instructions set out in the Specification.

If such samples are not submitted as required in the bid documents or within any further time stipulated by the CCT in writing, then the bid concerned may be declared non-responsive.

The samples provided by all successful bidders will be retained by the CCT for the duration of any subsequent contract. Bidders are to note that samples are requested for testing purposes therefore samples submitted to the CCT may not in all instances be returned in the same state of supply and in other instances may not be returned at all. Unsuccessful bidders will be advised by the Project Manager or dedicated CCT Official to collect their samples, save in the aforementioned instances where the samples would not be returned.

2.2.19 Certificates

The tenderer must provide the CCT with all certificates as stated below:

2.2.19.1. Preference Points for Specific Goals

In order to qualify for preference points for HDI and/or Specific Goals, it is the responsibility of the tenderer to submit documentary proof (Company registration certification, Central Supplier Database report, BBBEE certificate, Proof of Disability, Financial Statements, commissioned sworn affidavits, etc.) in support of tenderer claims for such preference for that specific goal.

Tenderers are further referred to the content of the Preference Schedule for the full terms and conditions applicable to the awarding of preference points.

2.2.19.2 Evidence of tax compliance

Tenderers shall be registered with the South African Revenue Service (SARS) and their tax affairs must be in order and they must be tax compliant subject to the requirements of clause 2.2.1.1.2.h. In this regard, it is the responsibility of the Tenderer to submit evidence in the form of a valid Tax Compliance Status PIN issued by SARS to the CCT at the Supplier Management Unit located within the Supplier Management / Registration Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5), or included with this tender. The tenderer must record its Tax Compliance Status PIN number on the **Details of Tenderer** pages of the tender submission.

Each party to a Consortium/Joint Venture shall submit a separate Tax Compliance Status Pin.

Before making an award the CCT must verify the bidder's tax compliance status. Where the recommended bidder is not tax compliant, the bidder should be notified of the non-compliant status and be requested to submit to the CCT, within 7 working days, written proof from SARS that they have made arrangement to meet their outstanding tax obligations. The proof of tax compliance submitted by the bidder must be verified by the CCT via CSD or e-Filing. The CCT should reject a bid submitted by the bidder if such bidder fails to provide proof of tax compliance within the timeframe stated herein.

Only foreign suppliers who have answered "NO" to all the questions contained in the Questionnaire to Bidding Foreign Suppliers section on the **Details of Tenderer** pages of the tender submission, are not required to register for a tax compliance status with SARS.

2.2.20 Compliance with Occupational Health and Safety Act, 85 of 1993

Tenderers are to note the requirements of the Occupational Health and Safety Act, 85 of 1993. The Tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the Tenderer shall submit **upon written request to do so by the CCT**, a Health and Safety Plan in sufficient detail to demonstrate the necessary competencies and resources to deliver the goods or services all in accordance with the Act, Regulations and Health and Safety Specification.

2.2.21 Claims arising from submission of tender

By responding to the tender herein, the tenderer warrants that it has:

- a) Inspected the Specifications and read and fully understood the Conditions of Contract.
- b) Read and fully understood the whole text of the Specifications and Price Schedule and thoroughly acquainted himself with the nature of the goods or services proposed and generally of all matters which may influence the Contract.
- c) visited the site(s) where delivery of the proposed goods will take place, carefully examined existing conditions, the means of access to the site(s), the conditions under which the delivery is to be made, and acquainted himself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials, plant and equipment to and from the site(s) and made the necessary provisions for any additional costs involved thereby.
- d) requested the CCT to clarify the actual requirements of anything in the Specifications and Price Schedule, the exact meaning or interpretation of which is not clearly intelligible to the Tenderer.
- e) Received any notices to the tender documents which have been issued in accordance with the CCT's Supply Chain Management Policy.

The CCT will therefore not be liable for the payment of any extra costs or claims arising from the submission of the tender.

2.3 The CCT's undertakings

2.3.1 Respond to requests from the tenderer

2.3.1.1 Unless otherwise stated in the Conditions of Tender, the CCT shall respond to a request for clarification received up to one week (where possible) before the tender closing time stated on the front page of the tender document.

2.3.1.2 The CCT's duly authorised representative for the purpose of this tender is stated on the General Tender Information page above.

2.3.2 Issue Notices

If necessary, the CCT may issue addenda in writing that may amend or amplify the tender documents to each tenderer during the period from the date the tender documents are available until one week before the tender closing time stated in the Tender Data. The CCT reserves its rights to issue addenda less than one week before the tender closing time in exceptional circumstances. If, as a result a tenderer applies for an extension to the closing time stated on the front page of the tender document, the CCT may grant such extension and, shall then notify all tenderers who drew documents.

Notwithstanding any requests for confirmation of receipt of notices issued, the tenderer shall be deemed to have received such notices if the CCT can show proof of transmission thereof via electronic mail, facsimile or registered post.

2.3.3 Opening of tender submissions

2.3.3.1 Unless the two-envelope system is to be followed, CCT shall open tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the Conditions of Tender.

Tenders will be opened immediately after the closing time for receipt of tenders as stated on the front page of the tender document, or as stated in any Notice extending the closing date and at the closing venue as stated in the General Tender Information.

2.3.3.2 Announce at the meeting held immediately after the opening of tender submissions, at the closing venue as stated in the General Tender Information, the name of each tenderer whose tender offer is opened and, where possible, the prices indicated.

2.3.3.3 Make available a record of the details announced at the tender opening meeting on the CCT's website (<http://www.capetown.gov.za/en/SupplyChainManagement/Pages/default.aspx>.)

2.3.4 two-envelope system

2.3.4.1 Where stated in the Conditions of Tender that a two-envelope system is to be followed, the CCT shall open only the technical proposal of tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the Conditions of Tender and announce the name of each tenderer whose technical proposal is opened.

2.3.4.2 The CCT shall evaluate the quality of the technical proposals offered by tenderers, then advise tenderers who have submitted responsive technical proposals of the time and place when the financial proposals will be opened. The CCT shall open only the financial proposals of tenderers, who have submitted responsive technical proposals in accordance with the requirements as stated in the Conditions of Tender, and announce the total price and any preference claimed. Return unopened financial proposals to tenderers whose technical proposals were non responsive.

2.3.5 Non-disclosure

The CCT shall not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

2.3.6 Grounds for rejection and disqualification

The CCT shall determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

2.3.7 Test for responsiveness

2.3.7.1 Appoint a Bid Evaluation Committee and determine after opening whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.

2.3.7.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the CCT's opinion, would:

- a) Detrimentially affect the scope, quality, or performance of the goods, services or supply identified in the Specifications,
- b) Significantly change the CCT's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of any material deviation or qualification.

The CCT reserves the right to accept a tender offer which does not, in the CCT's opinion, materially and/or substantially deviate from the terms, conditions, and specifications of the tender documents.

2.3.8 Arithmetical errors, omissions and discrepancies

2.3.8.1 Check the responsive tenders for:

- a) The gross misplacement of the decimal point in any unit rate;
- b) Omissions made in completing the Price Schedule; or
- c) Arithmetic errors in:
 - i) line item totals resulting from the product of a unit rate and a quantity in the Price Schedule; or
 - ii) The summation of the prices; or
 - iii) Calculation of individual rates.

2.3.8.2 The CCT must correct the arithmetical errors in the following manner:

- a) Where there is a discrepancy between the amounts in words and amounts in figures, the amount in words shall govern.
- b) If pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as tendered shall govern, and the unit rate shall be corrected.
- c) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if Price Schedules apply) to achieve the tendered total of the prices.

Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of the arithmetical error in the manner described above.

2.3.8.3 In the event of tendered rates or lump sums being declared by the CCT to be unacceptable to it because they are not priced, either excessively low or high, or not in proper balance with other rates or lump sums, the tenderer may be required to produce evidence and advance arguments in support of the tendered rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the CCT is still not satisfied with the tendered rates or lump sums objected to, it may request the tenderer to amend these rates and lump sums along the lines indicated by it.

The tenderer will then have the option to alter and/or amend the rates and lump sums objected to and such other related amounts as are agreed on by the CCT, but this shall be done without altering the tender offer in accordance with this clause.

Should the tenderer fail to amend his tender in a manner acceptable to and within the time stated by the CCT, the CCT may declare the tender as non-responsive.

2.3.9 Clarification of a tender offer

The CCT may, after the closing date, request additional information or clarification from tenderers, in writing on any matter affecting the evaluation of the tender offer or that could give rise to ambiguity in a contract arising from the tender offer, which written request and related response shall not change or affect their competitive position or the substance of their offer. Such request may only be made in writing by the Director: Supply Chain Management using any means as appropriate.

2.3.10 Evaluation of tender offers

2.3.10.1 General

2.3.10.1.1 The CCT may reduce each responsive tender offer to a comparative price and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the Conditions of Tender.

2.3.10.1.2 For evaluation purposes only, the effects of the relevant contract price adjustment methods will be considered in the determination of comparative prices as follows:

- a) If the selected method is based on bidders supplying rates or percentages for outer years, comparative prices would be determined over the entire contract period based on such rates or percentages.
- b) If the selected method is based on a formula, indices, coefficients, etc. that is the same for all bidders during the contract period, comparative prices would be the prices as tendered for year one.
- c) If the selected method is based on a formula, indices, coefficients, etc. that varies between bidders, comparative prices would be determined over the entire contract period based on published indices relevant during the 12 months prior to the closing date of tenders.
- d) If the selected method includes an imported content requiring rate of exchange variation, comparative prices would be determined based on the exchange rates tendered for the prices as tendered for year one. The rand equivalent of the applicable currency 14 days prior to the closing date of tender will be used (the CCT will check all quoted rates against those supplied by its own bank).
- e) If the selected method is based on suppliers' price lists, comparative prices would be the prices as tendered for year one.
- f) If the selected method is based on suppliers' price lists and / or rate of exchange, comparative prices would be determined as tendered for year one whilst taking into account the tendered percentage subject to rate of exchange (see sub clause (d) for details on the calculation of the rate of exchange).

2.3.10.1.3 Where the scoring of functionality forms part of a bid process, each member of the Bid Evaluation Committee must individually score functionality. The individual scores must then be interrogated and calibrated if required where there are significant discrepancies. The individual scores must then be added together and averaged to determine the final score.

2.3.10.2 Decimal places

Score financial offers, preferences and functionality, as relevant, to two decimal places.

2.3.10.3 Scoring of tenders (price and preference)

2.3.10.3.1 Points for price will be allocated in accordance with the formula set out in this clause based on the price per item / rates as set out in the **Price Schedule (Section C4)**:

- Based on the sum of the prices/rates in relation to a typical project/job.

2.3.10.3.2 Points for preference will be allocated in accordance with the provisions of **Preference Schedule** and the table in this clause.

2.3.10.3.3 The terms and conditions of **Preference Schedule** as it relates to preference shall apply in all respects to the tender evaluation process and any subsequent contract.

2.3.10.3.4 Applicable formula:

The 80/20 preference point system will apply to this tender

The 80/20 price/preference points system will be applied to the evaluation of responsive tenders up to and including a Rand value of R50'000'000 (all applicable taxes included), whereby the order(s) will be placed with the tenderer(s) scoring the highest total number of adjudication points.

Price shall be scored as follows:

$$Ps = 80 \times \left(1 - \frac{(Pt - Pmin)}{Pmin}\right)$$

Where: Ps is the number of points scored for price;
Pt is the price of the tender under consideration;
Pmin is the price of the lowest responsive tender.

Preference points shall be based on the Specific Goal as per below:

Table B1: Awards above R750 000 and up to R50 mil (VAT Inclusive)

#	Specific goals allocated points	Preference Points (80/20) <i>Equal/ below R50 mil</i>	Evidence	Additional Guidance
<i>Persons, or categories of persons, historically disadvantaged- (HDI) by unfair discrimination on the basis of</i>				
1	Gender are women (ownership)* >75% - 100% women ownership: 5 points >50% - 75% women ownership: 4 points >25% - 50% women ownership: 3 points >0% - 25% women ownership: 2 points 0% women ownership = 0 points	5	<ul style="list-style-type: none"> Company Registration Certification Central Supplier Database report 	<ul style="list-style-type: none"> Issued by the Companies and Intellectual Property Commission Report name: CSD Registration report
2	Race are black persons (ownership)* >75% - 100% black ownership: 5 points >50% - 75% black ownership: 4 points >25% - 50% black ownership: 3 points >0% - 25% black ownership: 2 points 0% black ownership = 0 points	5	<ul style="list-style-type: none"> B-BBEE certificate; Company Registration Certification Central Supplier Database report 	<ul style="list-style-type: none"> South African National Accreditation System approved certificate or commissioned sworn affidavit Issued by the Companies and Intellectual Property Commission Report name: CSD Registration report

3 Disability are disabled persons (ownership)* <i>WHO disability guideline</i> >2% ownership: 3 points >0% - 2% ownership: 1.5 point 0% ownership = 0 points	3	<ul style="list-style-type: none"> • Proof of disability • Company Registration Certification 	<ul style="list-style-type: none"> • Medical certificate/ South African Revenue Services disability registration • Issued by the Companies and Intellectual Property Commission
<i>Reconstruction and Development Programme (RDP) as published in Government Gazette</i>			
4 Promotion of Micro and Small Enterprises <i>Micro with a turnover up to R20million and Small with a turnover up to R80 million as per National Small Enterprise Act, 1996 (Act No.102 of 1996)</i> <i>SME partnership, sub-contracting, joint venture or consortiums</i>	7	<ul style="list-style-type: none"> • B-BBEE status level of contributor; • South African owned enterprises; • Financial Statement to determine annual turnover 	<ul style="list-style-type: none"> • Specifically in line with the respective sector codes which the company operates, • South African National Accreditation System approved certificate or commissioned sworn affidavit • Certificate of incorporation or commissioned sworn affidavit • Latest financial statements (1 Year)
Total points	20		

*Ownership: main tendering entity

2.3.10.5 Risk Analysis

Notwithstanding compliance with regard to any requirements of the tender, the CCT will perform a risk analysis in respect of the following:

- a) reasonableness of the financial offer
- b) reasonableness of unit rates and prices
- c) the tenderer's ability to fulfil its obligations in terms of the tender document, that is, that the tenderer can demonstrate that he/she possesses the necessary professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, capacity, experience, reputation, personnel to perform the contract, etc.; the CCT reserves the right to consider a tenderer's existing contracts with the CCT in this regard
- d) any other matter relating to the submitted bid, the tendering entity, matters of compliance, verification of submitted information and documents, etc.

The conclusions drawn from this risk analysis will be used by the CCT in determining the acceptability of the tender offer.

No tenderer will be recommended for an award unless the tenderer has demonstrated to the satisfaction of the CCT that he/she has the resources and skills required.

2.3.11 Negotiations with preferred tenderers

The CCT may negotiate the final terms of a contract with tenderers identified through a competitive tendering process as preferred tenderers provided that such negotiation:

- a) Does not allow any preferred tenderer a second or unfair opportunity;
- b) Is not to the detriment of any other tenderer; and
- c) Does not lead to a higher price than the tender as submitted.

If negotiations fail to result in acceptable contract terms, the City Manager (or his delegated authority) may terminate the negotiations and cancel the tender, or invite the next ranked tenderer for negotiations. The original preferred tenderer should be informed of the reasons for termination of the negotiations. If the decision is to invite the next highest ranked tenderer for negotiations, the failed earlier negotiations may not be reopened

by the CCT.

Minutes of any such negotiations shall be kept for record purposes.

The provisions of this clause will be equally applicable to any invitation to negotiate with any other tenderers.

In terms of the CCT's SCM Policy, tenders must be cancelled in the event that negotiations fail to achieve a market related price with any of the three highest scoring tenderers.

2.3.12 Acceptance of tender offer

Notwithstanding any other provisions contained in the tender document, the CCT reserves the right to:

2.3.12.1 Accept a tender offer(s) which does not, in the CCT's opinion, materially and/or substantially deviate from the terms, conditions, and specifications of the tender document.

2.3.12.2 Accept the whole tender or part of a tender or any item or part of any item or items from multiple manufacturers, or to accept more than one tender (in the event of a number of items being offered), and the CCT is not obliged to accept the lowest or any tender.

2.3.12.3 Accept the tender offer(s), if in the opinion of the CCT, it does not present any material risk and only if the tenderer(s):

- a) is not under restrictions, has any principals who are under restrictions, or is not currently a supplier to whom notice has been served for abuse of the supply chain management system, preventing participation in the CCT's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing, complies with the legal requirements, if any, stated in the tender data, and
- e) is able, in the opinion of the CCT, to perform the contract free of conflicts of interest.

If an award cannot be made in terms of anything contained herein, the CCT reserves the right to consider the next ranked tenderer(s).

2.3.12.4 The CCT reserves the right not to make an award, or revoke an award already made, where the implementation of the contract may result in reputational risk or harm to the CCT as a result of (inter alia):

- a) reports of poor governance or unethical behaviour, or both;
- b) association with known notorious individuals and family of notorious individuals;
- c) poor performance issues, known to the CCT;
- d) negative media reports, including negative social media reports;
- e) adverse assurance (e.g. due diligence) report outcomes; and
- f) circumstances where the relevant vendor has employed, or is directed by, anyone who was previously employed in the service of the state (as defined in clause 1.53 of the SCM Policy), where the person is or was negatively implicated in any SCM irregularity.

2.3.12.5 The CCT reserves the right to nominate a Standby Bidder at the time when an award is made and in the event that a contract is terminated during the execution thereof, the CCT may consider the award of the contract, or non-award, to the Standby Bidder in terms of the procedures included its SCM Policy.

2.3.13 Prepare contract documents

2.3.13.1 If necessary, revise documents that shall form part of the contract and that were issued by the CCT as part of the tender documents to take account of:

- a) Notices issued during the tender period,
- b) Inclusion of some of the returnable documents, and
- c) Other revisions agreed between the CCT and the successful tenderer.

2.3.13.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

2.3.14 Notice to successful and unsuccessful tenderers

2.3.14.1 Before accepting the tender of the successful tenderer the CCT shall notify the successful tenderer in writing of the decision of the CCT's Bid Adjudication Committee to award the tender to the successful tenderer. No rights shall accrue to the successful tenderer in terms of this notice

2.3.14.2 The CCT shall, at the same time as notifying the successful tenderer of the Bid Adjudication Committee's decision to award the tender to the successful tenderer, also give written notice to the other tenderers informing them that they have been unsuccessful.

2.3.15 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these Conditions of Tender, but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

TENDER DOCUMENT GOODS AND SERVICES		 CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD
SUPPLY CHAIN MANAGEMENT		
SCM - 542	Approved by Branch Manager: February 2024	Version: 10 Page 26 of 80

TENDER NO: 238S/2023/24
TENDER DESCRIPTION: TABLE MOUNTAIN GROUP (TMG) AQUIFER SECTION 1: REGIONAL MONITORING AND SECTION 2: STEENBRAS WELLFIELD IMPACT MONITORING, CITY OF CAPE TOWN
CONTRACT PERIOD: FROM COMMENCEMENT DATE (NOT BEFORE 1 JULY 2025) UNTIL 30 JUNE 2028

THE CONTRACT

THE CITY OF CAPE TOWN	
A metropolitan municipality, established in terms of the Local Government: Municipal Structures Act, 117 of 1998 read with the Province of the Western Cape: Provincial Gazette 5588 dated 22 September 2000, as amended ("the Purchaser") herein represented by	
AUTHORISED REPRESENTATIVE	Director Bulk Services Water and Sanitation

AND

SUPPLIER	
NAME of Company/Close Corporation or Partnership / Joint Venture/ Consortium or Sole Proprietor /Individual (The "Supplier" / "tenderer")	
TRADING AS (if different from above)	
REGISTRATION NUMBER	
PHYSICAL ADDRESS / CHOSEN DOMICILIUM CITANI ET EXECTUANDI OF THE SUPPLIER	
AUTHORISED REPRESENTATIVE	
CAPACITY OF AUTHORISED REPRESENTATIVE	

(HEREINAFTER COLLECTIVELY REFERRED TO AS "THE PARTIES" AND INDIVIDUALLY AS "THE PARTY")

NATURE OF TENDER OFFER (please indicate below)	
Main Offer (see clause 2.2.11.1)	
Alternative Offer (see clause 2.2.11.1)	

C.1 DETAILS OF TENDERER/SUPPLIER

1.1 Type of Entity (Please tick one box)

- Individual / Sole Proprietor
 Close Corporation
 Company
 Partnership or Joint Venture or Consortium
 Trust
 Other:

1.2 Required Details (Please provide applicable details in full):

Name of Company / Close Corporation or Partnership / Joint Venture / Consortium or Individual /Sole Proprietor	
Trading as (if different from above)	
Company / Close Corporation registration number (if applicable)	
Postal address	Postal Code _____
Physical address (Chosen Domicilium Citandi Et Executandi)	Postal Code _____
Contact details of the person duly authorised to represent the tenderer	Name: Mr/Ms _____ (Name & Surname) Telephone : (_____) _____ Fax : (_____) _____ Cellular Telephone: _____ E-mail address: _____
Income tax number	
VAT registration number	
SARS Tax Compliance Status PIN	
CCT Supplier Database Registration Number (See Conditions of Tender)	
National Treasury Central Supplier Database registration number (See Conditions of Tender)	
Is tenderer the accredited representative in South Africa for the Goods / Services / Works offered?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, enclose proof
Is tenderer a foreign based supplier for the Goods / Services / Works offered?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, answer the Questionnaire to Bidding Foreign Suppliers (below)
Questionnaire to Bidding Foreign Suppliers	a) Is the tenderer a resident of the Republic of South Africa or an entity registered in South Africa? <input type="checkbox"/> Yes <input type="checkbox"/> No
	b) Does the tenderer have a permanent establishment in the Republic of South Africa? <input type="checkbox"/> Yes <input type="checkbox"/> No
	c) Does the tenderer have any source of income in the Republic of South Africa? <input type="checkbox"/> Yes <input type="checkbox"/> No
	d) Is the tenderer liable in the Republic of South Africa for any form of taxation? <input type="checkbox"/> Yes <input type="checkbox"/> No
Other Required registration numbers	Not required.

C.2 FORM OF OFFER AND ACCEPTANCE

238S/2023/24 - TABLE MOUNTAIN GROUP (TMG) AQUIFER SECTION 1: REGIONAL MONITORING AND SECTION 2: STEENBRAS WELLFIELD IMPACT MONITORING, CITY OF CAPE TOWN

C.2.1 Offer (To Be Completed by the Tenderer as Part of Tender Submission)

The tenderer, identified in the offer signature table below,

HEREBY AGREES THAT by signing the *Form of Offer and Acceptance*, the tenderer:

1. confirms that it has examined the documents listed in the Index (including Schedules and Annexures) and has accepted all the Conditions of Tender;
2. confirms that it has received and incorporated any and all notices issued to tenderers issued by the CCT;
3. confirms that it has satisfied itself as to the correctness and validity of the tender offer; that the price(s) and rate(s) offered cover all the goods and/or services specified in the tender documents; that the price(s) and rate(s) cover all its obligations and accepts that any mistakes regarding price(s), rate(s) and calculations will be at its own risk;
4. offers to supply all or any of the goods and/or render all or any of the services described in the tender document to the CCT in accordance with the:
 - 4.1 terms and conditions stipulated in this tender document;
 - 4.2 specifications stipulated in this tender document; and
 - 4.3 at the prices as set out in the **Price Schedule**.
5. accepts full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on it in terms of the Contract.

SIGNED AT _____ (PLACE) ON THE _____ (DAY) OF _____ (MONTH AND YEAR)

For and on behalf of the Supplier
(Duly Authorised)
Name and Surname:

Witness 1 Signature
Name and Surname:

Witness 2 Signature
Name and Surname:

INITIALS OF CCT OFFICIALS		
1	2	3

FORM OF OFFER AND ACCEPTANCE (continued)

238S/2023/24 - TABLE MOUNTAIN GROUP (TMG) AQUIFER SECTION 1: REGIONAL MONITORING AND SECTION 2: STEENBRAS WELLFIELD IMPACT MONITORING, CITY OF CAPE TOWN

C.2.2 Acceptance (To Be Completed by the CCT)

By signing this part of this *Form of Offer and Acceptance*, the CCT accepts the tenderer's (if awarded the Supplier's) offer. In consideration thereof, the CCT shall pay the Supplier the amount due in accordance with the conditions of contract. Acceptance of the Supplier's offer shall form an agreement between the CCT and the Supplier upon the terms and conditions contained in this document.

The terms of the agreement are contained in the Contract (as defined) including drawings and documents or parts thereof, which may be incorporated by reference.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the *Tender Returnable Documents* as well as any changes to the terms of the offer agreed by the tenderer and the CCT during this process of offer and acceptance, are contained in the *Schedule of Deviations* attached to and forming part of this *Form of Offer and Acceptance*. No amendments to or deviations from said documents are valid unless contained in the *Schedule of Deviations*.

The Supplier shall within 2 (two) weeks after receiving a complete, copy of the Contract, including the *Schedule of Deviations* (if any), contact the CCT to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documents to be provided in terms the *Special Conditions of Contract*. Failure to fulfil any of these obligations in accordance with these terms shall constitute a repudiation / breach of the agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the Commencement Date, being the date upon which the Supplier confirms receipt from the CCT of 1 (one) complete, signed copy of the Contract, including amendments or deviations contained in the *Schedule of Deviations* (if any).

For and on behalf of the City of Cape Town
(Duly Authorised)
Name and Surname:

Witness 1 Signature
Name and Surname:

Witness 2 Signature
Name and Surname:

FORM OF OFFER AND ACCEPTANCE (continued)

**238S/2023/24 - TABLE MOUNTAIN GROUP (TMG) AQUIFER SECTION 1:
REGIONAL MONITORING AND SECTION 2: STEENBRAS WELLFIELD
IMPACT MONITORING, CITY OF CAPE TOWN**

C.2.4 Confirmation of Receipt (To be Completed by Supplier upon Acceptance)

The Supplier identified in the offer part of the Contract hereby confirms receipt from the CCT of 1 (one) complete, signed copy of the Contract, including the *Schedule of Deviations* (if any) on:

The..... (Day)
Of..... (Month)
20..... (year)
At..... (Place)

For the Supplier: Signature(s)
Name(s)
Capacity
Signature and name of witness:
Signature Name

**ONLY TO BE
COMPLETED AT
ACCEPTANCE STAGE**

C.3 OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

**AGREEMENT MADE AND ENTERED INTO BETWEEN THE CCT (HEREINAFTER CALLED THE "CCT")
AND**

.....
(Supplier/Mandatory/Company/CC Name)

IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 85 OF 1993 AS AMENDED.

I,, representing

....., as an employer in its own right in its own right, do hereby undertake to ensure, as far as is reasonably practicable, that all work will be performed, and all equipment, machinery or plant used in such a manner as to comply with the provisions of the Occupational Health and Safety Act (hereafter "OHS") and the Regulations promulgated thereunder.

I furthermore confirm that I am/we are registered with the Compensation Commissioner and that all registration and assessment monies due to the Compensation Commissioner have been fully paid or that I/We are insured with an approved licensed compensation insurer.

COID ACT Registration Number:

OR Compensation Insurer: Policy No.:

I undertake to appoint, where required, suitable competent persons, in writing, in terms of the requirements of OHS and the Regulations and to charge him/them with the duty of ensuring that the provisions of OHS and Regulations as well as the Council's Special Conditions of Contract, Way Leave, Lock-Out and Work Permit Procedures are adhered to as far as reasonably practicable.

I further undertake to ensure that any subcontractors employed by me will enter into an occupational health and safety agreement separately, and that such subcontractors comply with the conditions set.

I hereby declare that I have read and understand the Occupational Health and Safety Specifications contained in this tender and undertake to comply therewith at all times.

I hereby also undertake to comply with the Occupational Health and Safety Specification and Plan submitted and approved in terms thereof.

Signed aton the.....day of.....20....

Witness

Mandatory

Signed at..... on the.....day of.....20

Witness

for and on behalf of
CCT

C.4 PRICE SCHEDULE

Bid specifications may not make any reference to any particular trade mark, name, patent, design, type, specific origin or producer, unless there is no other sufficiently precise or intelligible way of describing the characteristics of the work, in which case such reference must be accompanied by the words "or equivalent".

TENDERERS MUST NOTE THAT WHEREVER THIS DOCUMENT REFERS TO ANY PARTICULAR TRADE MARK, NAME, PATENT, DESIGN, TYPE, SPECIFIC ORIGIN OR PRODUCER, SUCH REFERENCE SHALL BE DEEMED TO BE ACCOMPANIED BY THE WORDS 'OR EQUIVALENT'

Pricing Instructions:

- 4.1 State the rates and prices in Rand unless instructed otherwise in the Conditions of Tender.
- 4.2 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the General Tender Information.
- 4.3 All prices tendered must include all expenses, disbursements and costs (e.g. transport, accommodation etc.) that may be required for the execution of the tenderer's obligations in terms of the Contract, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the Contract as well as overhead charges and profit (in the event that the tender is successful). All prices tendered will be final and binding.
- 4.4 All prices shall be tendered in accordance with the units specified in this schedule.
- 4.5 Where a value is given in the Quantity column, a Rate and Price (the product of the Quantity and Rate) is required to be inserted in the relevant columns.
- 4.6 The successful tenderer is required to perform all tasks listed against each item. The tenderer must therefore tender prices/rates on all items as per the section in the Price Schedule. **An item against which no rate is/are entered, or if anything other than a rate or a nil rate (for example, a zero, a dash or the word "included" or abbreviations thereof) is entered against an item, it will also be regarded as a nil rate having been entered against that item, i.e. that there is no charge for that item. The Tenderer may be requested to clarify nil rates, or items regarded as having nil rates; and the CCT may also perform a risk analysis with regard to the reasonableness of such rates.**
- 4.7 Provide fixed rates and prices for the duration of the contract that are not subject to adjustment except as otherwise provided for in clause 17 of the Conditions of Contract and as amplified in the Special Conditions of Contract.
- 4.8 The short descriptions given in the Price Schedule below are brief descriptions used to identify the activities for which prices are required. Detailed descriptions of the activities to be priced are provided in the Scope of Work.
- 4.9 Tenderers are to note that only those recoverable expenses listed in the Pricing Schedule will be reimbursed. No reimbursement of costs for subsistence, typing, printing/copying (other than reports and/or tender documents), communications or computer hardware and/or software will be made and these costs will be deemed to be included in rates, sums, and prices for services rendered.
- 4.10 The tenderer may not group a number of items together and tender one lump sum for such group of items.
- 4.11 Where rates are to be provided based on categories of staff (e.g. Category B, Category C, etc. as defined by SACNASP or ECSA), the rates tendered for a higher category person shall be higher than the rate tendered for a lower category person (e.g. the rate for the Category B person shall not be lower than that of the Category C person). Failing to comply with this requirement may result in the tenderer being considered non-responsive.
- 4.12 A higher category person undertaking lower category work will be reimbursed at the lower category rate.
- 4.13 Monitoring staff shall be reimbursed for travelling expenses, for either the return office to site or return home to site journeys, whichever is the lesser.

4.14 The per kilometre rate for the reimbursement of travel expenses shall be limited to the rates published in the SARS Reimbursive Guideline – Guide for Employers in respect of Allowances (latest edition). The Service Provider must obtain the Employers approval before using a 4 x 4 vehicle for any site journeys. The rate for using a 4 x 4 vehicle shall be limited to the rate published by the Department of Public Works and Infrastructure (DPWI) for diesel vehicles with an engine capacity of 2501cc and higher. The current rate is R 6.64/km (excluding VAT). Any air travel will be for the tenderer’s account.

4.15 **Tenderers are only to price their Section of Preference as they have indicated below.**

The Tenderer shall mark, in any manner, in the table below the sections that are tendered for (leave blank / do not mark if not selecting a section):

Section	Description	Tendered for
1	Section 1: Regional Hydro(geo)logical and Ecological Monitoring	
2	Section 2: Steenbras Wellfield Hydrological and Ecological Monitoring	

4.16 NB: Tenderers complete electronic pricing schedule and to familiarize and acknowledge Schedule 15.

INITIALS OF CCT OFFICIALS		
1	2	3

Section 1: Regional Monitoring

Item	Description	Unit	Unit price / rate
A1	Contract Management		
A1.1	Contract Administration	Each (Monthly)	R
A1.2	Contract meetings with CCT	Each	R
A1.3	Contract meetings with CCT's Consultant Monitoring Task Team	Each	R
A1.4	Data analysis workshops with CCT Consultant Monitoring Task Team (days)	Each (Daily)	R
A1.5	Attendance and presentation at Stakeholder meeting	Each	R
A1.6	Field trip with new contractor for site hand-over (days)	Each (Daily)	R
A1.7	Additional costs associated with undertaking the contract (e.g. overheads, supervision, operating and maintaining offices, etc.) not covered elsewhere	Each (Monthly)	R
A2	Site Maintenance		
A2.1	Re-marking of transects and vegetation survey plots along the transects (excluding materials)		
A2.1.1	Re-marking per eco seep with 3 transects and vegetation plots every metre along whole transects	Each (Site)	R
A2.1.2	Re-marking per eco channel, 1 transect with vegetation plots every metre	Each (Site)	R
A2.1.3	Clearing of transects and access tracks via brush cutting to ensure access to monitoring stations (per site)	Each (Site)	R
A2.2	Maintenance of Equipment and Installation		
A2.2.1	Retrieve faulty equipment from the field, while on site, and handover to Employer	Each	R
A2.2.2	Retrieve faulty equipment from the field, if outside of scheduled field campaign, and handover to Employer (travel to site to be reimbursed under Item A9)	Each	R
A2.2.3	Reinstall new / repaired equipment as received from Employer, if during scheduled field campaign	Each	R
A2.2.4	Reinstall new / repaired equipment as received from Employer, if outside of scheduled field campaign (travel to site to be reimbursed under Item A9)	Each	R
A3	Field Work - Hydro(geo)logy		
A3.1	Field download of borehole or piezometer data loggers incl. manual measurement and in-situ chemistry		
A3.1.1	Monitoring borehole data loggers	Each	R
A3.1.2	Ecoseep piezometer data loggers	Each	R
A3.1.3	Extra-over to A3.1.1 or A3.1.2 for downloading additional logger installed at same site, e.g. baro logger	Each	R

Item	Description	Unit	Unit price / rate
A3.1.4	Extra-over to A3.1.1 for taking water sample from boreholes	Each	R
A3.1.5	Extra-over to A3.1.2 for taking water sample from piezometers	Each	R
A3.2	Water level and flow measurements at ecochannels, incl. field measureme		
A3.2.1	Field download of channel data loggers, incl. manual measurement and reading of stage plate level	Each	R
A3.2.2	Flow measurements at rated sections	Each	R
A3.2.3	Extra-over to A3.2.1 for taking water samples from stream	Each	R
A3.3	Field download weather station data		
A3.3.1	Field download weather station or microclimate station data	Each	R
A3.4	Soil moisture measurements		
A3.4.1	Measurement of soil moisture at 10 cm intervals, per soil moisture probe	Each (Probe)	R
A3.4.2	Field download soil moisture loggers per data logger (per site), if not included in A3.3.1	Each (Site)	R
A4	Lab analyses		
A4.1	Chemical analysis of groundwater		
A4.1.1	Chemical analysis of samples from boreholes, standard suite, biannually	Each	R
A4.1.2	Chemical analysis of samples from boreholes, full suite, annually	Each	R
A4.1.3	Isotope analysis of samples from boreholes	Each	R
A4.2	Chemical analysis of shallow soil water		
A4.2.1	Chemical analysis of samples from piezometers, standard suite plus nutrients, biannually	Each	R
A4.2.2	Chemical analysis of samples from piezometers, full suite, annually	Each	R
A4.2.3	Isotope analysis of samples from piezometers	Each	R
A4.3	Chemical analysis of surface water		
A4.3.1	Chemical analysis of samples from stream, standard suite plus nutrients, biannually	Each	R
A4.3.2	Chemical analysis of samples from streams, full suite, annually	Each	R
A4.3.3	Isotope analysis of samples from stream	Each	R
A5	Ecological Monitoring		
A5.1	Vegetation Monitoring in ecoseeps		
A5.1.1	Vegetation community structure along all three transects, per site	Each (Site)	R
A5.1.2	Vegetation density/count of up to 4 indicator species, per site (up to 8 plots per transect)	Each (Site)	R
A5.1.3	Vegetation health of up to 2 individual marked plants, per site (up to 8 plots per transect)	Each (Site)	R

Item	Description	Unit	Unit price / rate
A5.2	Vegetation Monitoring in ecochannels		
A5.2.1	Vegetation community structure along transect, per site	Each (Site)	R
A5.2.2	Vegetation density/count of up to 4 indicator species, per site (up to 8 plots per transect)	Each (Site)	R
A5.2.3	Vegetation health of up to 2 individual marked plants, per site (up to 8 plots per transect)	Each (Site)	R
A5.3	Macro Invertebrate Monitoring in all eco-channels, including sediment composition		
A5.3.1	Field measurement and collection for SASS score determination	Each (Site)	R
A5.3.2	Extra over to Item A5.3.1 for sample collection and species identification	Each (Site)	R
A5.4	Algae Monitoring in all eco-channels		
A5.4.1	Sample collection and biomass determination	Each (Site)	R
A5.4.2	Extra over to Item A5.4.1 for species identification	Each (Site)	R
A6	Aerial Photography & Remote Sensing		
A6.1	Obtain satellite imagery from MODIS and Sentinel 2 (per defined TSA group)	Each (TSA)	R
A6.2	Image processing and NDVI / MSI computing (per defined TSA group)	Each (TSA)	R
A6.3	Obtain, process and analyse drone footage of ecosites	Each (Site)	R
A7	Data Management		
A7.1	Data Capture		
A7.1.1	Capturing of hydro(geo)logical field measurements (Items A3) and lab results (Items A4) in prescribed format and upload to database (per monitoring round)	Each (Biannually)	R
A7.1.2	Capturing of ecological field measurements and lab results (Items A5) in prescribed format and upload to database (per monitoring round)	Each (Biannually)	R
A7.2	Data Quality Control		
A7.2.1	Data quality check of telemetry data, incl. regular check of data transmission and equipment health on telemetry/GSM system	Each (Monthly)	R
A7.2.2	Data quality control of field measurements and logger data, including calibration / correction of logger or telemetry data and upload of corrected data to database	Each (Biannually)	R
A7.3	Data quality control on ecological monitoring data and species identification		
A7.3.1	Macroinvertebrates	Each (Annually)	R
A7.3.2	Algae	Each (Annually)	R
A7.3.3	Vegetation	Each (Annually)	R
A7.4	Curation of specimens collected during contract period		
A7.4.1	Macroinvertebrates	Each (Annually)	R

Item	Description	Unit	Unit price / rate
A7.4.2	Algae	Each (Annually)	R
A7.4.3	Vegetation	Each (Annually)	R
A8 Data Analysis and Reporting			
A8.1	Monitoring Trip and Site Status Report	Each (Quarterly)	R
A8.2	Baseline Assessment Report for all data up to December of Year 3, per TSA (K1/K2, T2/T4, T6/T8, G1/B1)	Each	R
A9 Miscellaneous Tasks			
A9.1	Additional duties upon instruction of CCT or Monitoring Task Team:		
A9.1.1	Project Leader	Hour	R
A9.1.2	Senior freshwater ecologist	Hour	R
A9.1.3	Senior botanical ecologist	Hour	R
A9.1.4	Senior hydrologist	Hour	R
A9.1.5	Senior hydrogeologist	Hour	R
A9.1.6	Soil scientist	Hour	R
A9.1.9	Field technician	Hour	R
A9.2	Additional staff as required upon instruction of CCT or Monitoring Task Team:		
A9.2.1	Natural Scientist: botanical, zoological or ecological science		
A9.2.1a	Category A (Pr Sci Nat, SACNASP)	Hour	R
A9.2.1b	Category B (Pr Sci Nat, SACNASP)	Hour	R
A9.2.1c	Category C (Pr Sci Nat, SACNASP)	Hour	R
A9.2.1d	Category D (Cand Sci Nat, SACNASP)	Hour	R
A9.2.2	Natural Scientist: earth or water resource science		
A9.2.2a	Category A (Pr Sci Nat, SACNASP)	Hour	R
A9.2.2b	Category B (Pr Sci Nat, SACNASP)	Hour	R
A9.2.2c	Category C (Pr Sci Nat, SACNASP)	Hour	R
A9.2.2d	Category D (Cand Sci Nat, SACNASP)	Hour	R
A9.2.3	Other Scientist (e.g. statistics, computer science, database management, soil science, etc. not covered under Items A14.2.1 and A14.2.2)		
A9.2.3a	Category A or equivalent as per relevant SACNASP discipline	Hour	R
A9.2.3b	Category B or equivalent as per relevant SACNASP discipline	Hour	R
A9.2.3c	Category C or equivalent as per relevant SACNASP discipline	Hour	R
A9.2.3d	Category D or equivalent as per relevant SACNASP discipline	Hour	R
A9.2.4	Geomatics / GIS Practitioner		
A9.2.4a	Remote Sensing Expert (Professional)	Hour	R
A9.2.4b	Geospatial / Data Analyst (Professional)	Hour	R

Item	Description	Unit	Unit price / rate
A9.2.4c	GISc Professional (SAGC registered)	Hour	R
A9.2.4d	GISc Technologist (SAGC registered)	Hour	R
A9.2.4e	GISc Technician (SAGC registered)	Hour	R
A9.3 Printing costs for reports (refer to Pricing Instructions):			
A9.3.1	A1 (plain)	Pages	R
A9.3.2	A1 (colour)	Pages	R
A9.3.3	A3 (plain)	Pages	R
A9.3.4	A3 (colour)	Pages	R
A9.3.5	A4 (plain)	Pages	R
A9.3.6	A4 (colour)	Pages	R
A9.4 Recoverable expenses in respect of travelling (see Item 5.14 in Pricing Instructions)			
A9.4.1	Mileage, standard car	km	As published by SARS
A9.4.2	Mileage, 4x4 - offroad	km	As published by DPWI
A9.5 Other recoverable expenses			
A9.5.1	Recoverable expenses		N/a
A9.5.2	Markup on external recoverable expenses in A9.5.1	%	

Section 2: Steenbras Wellfield Impact Monitoring

Item	Description	Unit	Unit price / rate
B1	Project Management		
B1.1	Contract Administration	Each (Monthly)	R
B1.2	Contract meetings with CCT	Each	R
B1.3	Contract meetings with CCT's Consultant Monitoring Task Team	Each	R
B1.4	Data analysis workshops with CCT's Consultant Monitoring Task Team	Each (Daily)	R
B1.5	Attendance and presentation at Stakeholder meeting	Each	R
B1.6	Field trip with new contractor for site hand-over (days)	Each (Daily)	R
B1.7	Additional costs associated with undertaking the contract (e.g. overheads, supervision, operating and maintaining offices, etc.) not covered elsewhere	Each (Monthly)	R
B2	Site Maintenance		
B2.1	Re-marking of transects and vegetation survey plots along the transects (excluding materials)		
B2.1.1	Re-marking per eco seep with 3 transects and vegetation plots every metre along whole transects (H8_3a)	Each (Site)	R
B2.1.2	Re-marking per eco seep with 4 vegetation plots per soil moisture probe (4 SM probes in average)	Each (Site)	R
B2.1.3	Re-marking per infrastructure impact monitoring wetland, with 4 vegetation plots per piezometer (2 in average)	Each (Site)	R
B2.1.4	Re-marking per eco channel, 1 transect with vegetation plots every metre	Each (Site)	R
B2.1.5	Clearing of transects and access tracks via brush cutting to ensure access to monitoring stations (per site)	Each (Site)	R
B2.2	Maintenance of Equipment and Installation		
B2.2.1	Retrieve faulty equipment from the field, while on site, and handover to Employer	Each	R
B2.2.2	Retrieve faulty equipment from the field, if outside of scheduled field campaign, and handover to Employer (travel to site to be reimbursed under Item A9)	Each	R
B2.2.3	Reinstall new / repaired equipment as received from Employer, if during scheduled field campaign	Each	R
B2.2.4	Reinstall new / repaired equipment as received from Employer, if outside of scheduled field campaign (travel to site to be reimbursed under Item A9)	Each	R
B3	Field Work - Hydro(geo)logy		
B3.1	Field download of borehole or piezometer data loggers incl. manual measurement and in-situ chemistry		
B3.1.1	Monitoring borehole data loggers	Each	R
B3.1.2	Ecoseep piezometer data loggers	Each	R
B3.1.3	Extra-over to B3.1.1 or B3.1.2 for downloading additional logger installed at same site, e.g. baro logger	Each	R

Item	Description	Unit	Unit price / rate
B3.1.4	Extra-over to B3.1.1 for taking water sample from boreholes	Each	R
B3.1.5	Extra-over to B3.1.2 for taking water sample from piezometers	Each	R
B3.2	Water level and flow measurements at eco-channels		
B3.2.1	Field download of channel data loggers, incl. manual measurement and reading of stage plate level, as backup to telemetry	Each	R
B3.2.2	Flow measurements at rated sections	Each	R
B3.2.3	Extra-over to B3.2.1 for taking water samples from stream	Each	R
B3.3	Field download microclimate station data		
B3.3.1	Field download microclimate station data	Each	R
B3.4	Soil moisture measurements		
B3.4.1	Measurement of soil moisture at 10 cm intervals, per soil moisture probe	Each (Probe)	R
B3.4.2	Field download soil moisture loggers per data logger (per site), if not included in B3.3.1	Each (Site)	R
B4	Lab analyses		
B4.1	Chemical analysis of groundwater		
B4.1.1	Chemical analysis of samples from boreholes, standard suite, quarterly	Each	R
B4.1.2	Chemical analysis of samples from boreholes, full suite, annual	Each	R
B4.1.3	Isotope analysis of samples from boreholes	Each	R
B4.2	Chemical analysis of shallow soil water		
B4.2.1	Chemical analysis of samples from piezometers, standard suite plus nutrients, biannually	Each	R
B4.2.2	Chemical analysis of samples from piezometers, full suite, annually	Each	R
B4.2.3	Isotope analysis of samples from piezometers	Each	R
B4.3	Chemical analysis of surface water		
B4.3.1	Chemical analysis of samples from stream, standard suite plus nutrients, biannually	Each	R
B4.3.2	Chemical analysis of samples from streams, full suite, annual	Each	R
B4.3.3	Isotope analysis of samples from stream	Each	R
B5	Ecological Monitoring		
B5.1	Vegetation Monitoring in eco-seeps / wetlands		
B5.1.1	Vegetation community structure along transects, per site		
B5.1.1a	Eco seep with 3 transects and vegetation plots every metre along whole transects (H8_3a)	Each (Site)	R
B5.1.1b	Eco seep with 4 vegetation plots per soil moisture probe (4 SM probes in average)	Each (Site)	R
B5.1.1c	Infrastructure impact monitoring wetland, with 4 vegetation plots per piezometer (2 in average)	Each (Site)	R

Item	Description	Unit	Unit price / rate
B5.1.2	Extra-over to B5.1.1 for vegetation density/count of up to 4 indicator species, per plot	Each (Plot)	R
B5.1.3	Extra-over to B5.1.1 for vegetation health of up to 2 individual marked plants, per plot	Each (Plot)	R
B5.2	Vegetation Monitoring in eco-channels / river reaches		
B5.2.1	Vegetation community structure along transect, per site	Each (Site)	R
B5.2.2	Extra-over to B5.2.1 for vegetation density/count of up to 4 indicator species, per site (up to 8 plots per transect)	Each (Site)	R
B5.2.3	Extra-over to B5.2.1 for vegetation health of up to 2 individual marked plants, per site (up to 8 plots per transect)	Each (Site)	R
B5.3	Macro Invertebrate Monitoring in all eco-channels / river reaches, including sediment composition		
B5.3.1	Field collection and measurement for SASS score determination	Each (Site)	R
B5.3.2	Extra over to Item B5.3.1 for sample collection, preservation and species identification	Each (Site)	R
B5.4	Algae Monitoring in all eco-channels / river reaches		
B5.4.1	Sample collection and biomass determination	Each (Site)	R
B5.4.2	Extra over to Item B5.4.1 for species identification	Each (Site)	R
B5.5	Fish Monitoring in selected channels / river reaches		
B5.5.1	Field sample collection, species identification in the field and release of individuals back into stream	Each (Site)	R
B6	Aerial Photography & Remote Sensing		
B6.1	Obtain satellite imagery from MODIS and Sentinel 2 for Wellfield and near-field area	Sum	R
B6.2	Image processing and NDVI / MSI computing	Sum	R
B6.3	Obtain annual RGB and IR imagery from City Maps (free issue by Employer)	Sum	R
B6.4	Obtain, process and analyse drone footage of ecosites	Each (Site)	R
B7	Data Management		
B7.1	Data Capture		
B7.1.1	Capturing of hydro(geo)logical field measurements (Items B3) and lab results (Items B4) in prescribed format and upload to database (per monitoring round)	Each (Quarterly)	R
B7.1.2	Capturing of ecological field measurements and lab results (Items B5) in prescribed format and upload to database (per monitoring round)	Each (Biannually)	R
B7.2	Data Quality Control		
B7.2.1	Data quality check of telemetry data, incl. regular check of data transmission and equipment health on telemetry/GSM system	Each (Monthly)	R
B7.2.2	Data quality control of field measurements and logger data, including calibration / correction of logger or telemetry data and upload of corrected data to database (Raw data to be provided)	Each (Quarterly)	R

Item	Description	Unit	Unit price / rate
B7.3	Data quality control on ecological monitoring data and species identification		
B7.3.1	Macroinvertebrates	Each (Annually)	R
B7.3.2	Algae	Each (Annually)	R
B7.3.3	Vegetation	Each (Annually)	R
B7.3.4	Fish	Each (Annually)	R
B7.4	Curation of specimens collected during contract period		
B7.4.1	Macroinvertebrates	Each (Annually)	R
B7.4.2	Algae	Each (Annually)	R
B7.4.3	Vegetation	Each (Annually)	R
B8	Data Analysis and Reporting		
B8.1	Site and Data Status Report	Each (Quarterly)	R
B8.2	Infrastructure Impact Assessment Report	Each (Annually)	R
B8.3	Abstraction Impact Assessment Report	Each (Annually)	R
B9	Miscellaneous Tasks		
B9.1	Additional duties upon instruction of CCT or Monitoring Task Team:		
B9.1.1	Project Leader	Hour	R
B9.1.2	Senior freshwater ecologist	Hour	R
B9.1.3	Senior botanical ecologist	Hour	R
B9.1.4	Senior hydrologist	Hour	R
B9.1.5	Senior hydrogeologist	Hour	R
B9.1.6	Soil scientist	Hour	R
B9.1.7	Field technician	Hour	R
B9.2	Additional staff as required upon instruction of CCT or Monitoring Task Team:		
B9.2.1	Natural Scientist: botanical, zoological or ecological science		
B9.2.1a	Category A (Pr Sci Nat, SACNASP)	Hour	R
B9.2.1b	Category B (Pr Sci Nat, SACNASP)	Hour	R
B9.2.1c	Category C (Pr Sci Nat, SACNASP)	Hour	R
B9.2.1d	Category D (Cand Sci Nat, SACNASP)	Hour	R
B9.2.2	Natural Scientist: earth or water resource science		
B9.2.2a	Category A (Pr Sci Nat, SACNASP)	Hour	R
B9.2.2b	Category B (Pr Sci Nat, SACNASP)	Hour	R
B9.2.2c	Category C (Pr Sci Nat, SACNASP)	Hour	R
B9.2.2d	Category D (Cand Sci Nat, SACNASP)	Hour	R
B9.2.3	Other Scientist (e.g. statistics, computer science, database management, soil science, etc. not covered under Items B14.2.1 and B14.2.2)		
B9.2.3a	Category A or equivalent as per relevant SACNASP discipline	Hour	R

Item	Description	Unit	Unit price / rate
B9.2.3b	Category B or equivalent as per relevant SACNASP discipline	Hour	R
B9.2.3c	Category C or equivalent as per relevant SACNASP discipline	Hour	R
B9.2.3d	Category D or equivalent as per relevant SACNASP discipline	Hour	R
B9.2.4	Geomatics / GIS Practitioner		
B9.2.4a	Remote Sensing Expert (Professional)	Hour	R
B9.2.4b	Geospatial / Data Analyst (Professional)	Hour	R
B9.2.4c	GISc Professional (SAGC registered)	Hour	R
B9.2.4d	GISc Technologist (SAGC registered)	Hour	R
B9.2.4e	GISc Technician (SAGC registered)	Hour	R
B9.3	Printing costs for reports:		
B9.3.1	A1 (plain)	Pages	R
B9.3.2	A1 (colour)	Pages	R
B9.3.3	A3 (plain)	Pages	R
B9.3.4	A3 (colour)	Pages	R
B9.3.5	A4 (plain)	Pages	R
B9.3.6	A4 (colour)	Pages	R
B9.4	Recoverable expenses in respect of travelling		
B9.4.1	Mileage, standard car	km	As published by SARS
B9.4.2	Mileage, 4x4 - offroad	km	As published by DPWI
B9.5	Other recoverable expenses		
B9.5.1	Recoverable expenses		N/a
B9.5.2	Markup on external recoverable expenses in A9.5.1	%	

C.5 SPECIFICATION(S)

5.1 General

5.1.1 INTRODUCTION

The scope of work for the continuation of the regional baseline data collection for the Table Mountain Group Aquifer, the ecological monitoring of potential impacts of groundwater abstraction from the Steenbras Wellfield and identification/development of associated thresholds of potential concern, are detailed in the general specifications (5.2) and section specific conditions (5.3 and 5.4). These specifications, together with the appendices, form the project specific conditions and specifications for the monitoring activities required by the City of Cape Town.

This section consists of a description of the background and general employer's objectives.

5.1.2 BACKGROUND

Background to the TMGA Feasibility Study and Pilot Project / TMGA Groundwater Development under the New Water Programme

The Table Mountain Group Aquifer (TMGA) comprises two key fractured-sandstone aquifers separated by a 100 m thick aquiclude that in places has been faulted and can act as an aquitard. The option to augment the water supply to Cape Town by abstracting from the larger of these two aquifers, viz. the Peninsula Aquifer, has been investigated in the Table Mountain Group Aquifer Feasibility Study and Pilot Project (TMGA Project). Subsequently, the City initiated TMGA wellfield development in several areas investigated in the TMGA Project, including targeting the Nardouw and Peninsula aquifers at Steenbras.

The TMGA Project and subsequent TMGA Wellfield Development is currently undertaken by Zutari (Pty) Ltd and specialist subconsultants, comprising Umvoto and Southern Waters, inter alia. The TMGA Project was a phased study and has been underway since 2002. At the end of each phase, decisions are made on whether to proceed with the next phase and, if so, the way forward.

The main phases of the TMGA Water Resource Project are:

Inception Phase:	Negotiations took place with the City to finalise the Terms of Reference and the budget.
Preliminary Phase:	The study focused on the selection of the most favourable target areas for exploration drilling and pilot wellfields. Relevant factors and ramifications of these target areas were considered.
Exploratory Phase:	This phase was intended to verify the predicted aquifer characteristics through borehole siting, drilling and testing of exploration boreholes and thus to refine the siting of the target well-fields and evaluate the risks associated with doing so. 10 boreholes have been drilled in various target areas and it was recommended to explore a new target area and then to proceed to the Pilot Phase.
Pilot Testing Phase:	During this phase it was planned to drill a number of boreholes to develop at least one wellfield with a target yield of 3 to 5 million m ³ /a. The 2015-2018 drought expedited the pilot testing phase. An emergency water use license was issued to the City in 2017 and phase one of the TMGA: Steenbras Wellfield was developed with an authorization of 12 million m ³ /a.
Wellfield Development Phase	The TMGA: Steenbras Wellfield wellfield now forms part of the Western Cape Water Supply System and was issued a long term water use licence to abstract 16.5 million m ³ /a (during phase one) for 20 years. The development of two other wellfields (Theewaterskloof - Nuweberg area and Klipfontein area) will continue as it forms part of the City's Water Strategy. The development of other wellfields are put on hold.

The Inception, Preliminary and Exploration Phases are complete. During the Preliminary Phase, the need and importance for a task that focused specifically on monitoring of the surface water, the groundwater and the various ecological settings were identified.

The Exploratory Phase has been extended, while wellfield development is underway in the Steenbras area, Nuweberg area and Klipfontein area. The purpose of this eco/hydrological monitoring is to continue with the regional baseline data collection and to initiate the wellfield monitoring.

The Monitoring Task Team

The Monitoring Coordination Task was initiated at the end of the Preliminary Phase to ensure that all monitoring and data collection activities throughout the project are coordinated and that data are of consistent high standard and available for the different task teams when required. The responsibilities are:

- Develop and update Monitoring Protocol;
- Coordinate monitoring activities by external Monitoring Contractor;
- Supervise monitoring activities;
- Review and advise on monitoring;
- Data quality control, data verification and data auditing;
- Interpret relevance of data.

The Monitoring Task Team assists the City of Cape Town with the management of the external monitoring contract. Therefore, any proposed changes to the Scope of Work, timing of monitoring activities, or deviation to the stipulated methods must be accepted by the Monitoring Task Team and approved by the TMGA Monitoring Committee. Any changes that have financial and budget implications must, in addition, be discussed with the City of Cape Town.

The TMGA Monitoring Committee

Following water use licence approval conditions, a monitoring committee has been successfully established for the Steenbras TMG Schemes. The functions of the monitoring committees, comprising multiple stakeholders from civil society, regulatory authorities and interested community organisations, are as follows:

- Ensuring compliance with water use licence conditions and applicable environmental legislation in developing and operating groundwater schemes, including making recommendations on required changes to licence conditions or scheme operations.

- Making recommendations on mitigation measures to reduce impacts on connected water and terrestrial ecosystems as well as other water users.
- Providing a forum for discussing issues relating to the wellfield operations and management, and for raising, addressing and where possible, resolving any concerns.
- Promote awareness on the importance and value of groundwater as an important component of the City's water future.

5.1.3 EMPLOYERS OBJECTIVE

An Ecological and Hydro(geo)logical Monitoring Protocol was developed in 2005 in consultation with the Key Stakeholder Forum (KSF) of the TMGA Water Resource Project. This protocol formed the basis for the tender for undertaking the first 3-year contract period of monitoring, which was awarded in 2007 to the TMG Aquifer Ecological Monitoring Alliance (TMGA-EMA). The outcome resulted in a refinement of the monitoring sites and amendments to the monitoring activities, which were initiated during the second monitoring period from 2010 to 2014, carried out by the Freshwater Consulting Group (FCG). The current monitoring is carried out by FCG and GEOSS and commenced in April 2023. This tender intends to provide for the continuation of the regional monitoring and the Steenbras Wellfield monitoring from July 2025 onwards.

Monitoring of an ecosystem is an ongoing process. The condition of key ecosystem components are measured routinely and at repeated intervals following an event and the results compared with the same kinds of data collected prior to the event. There are three elements in a monitoring programme:

- data collection;
- data analysis, transformation, interpretation and storage, and
- information communication.

The approach to ecosystem monitoring in the TMGA Project is summarised as:

- There are distinct stages of monitoring, from data collection and interpretation to decision making and adaptive management;
- The monitoring will take place in different locations, distinguishing between regional monitoring and site specific monitoring:
 - Within selected Target Site Areas (TSAs), identified during the Preliminary and Exploratory Phases of the TMGA Project, individual seeps and channels, thought to be connected to the Peninsula Aquifer, have been selected for detailed monitoring. This is complemented as part of the wellfield development.
 - A regional monitoring network of boreholes, gauging stations and weather stations exists and is complemented as part of the wellfield development.
- The required monitoring activities relate to:
 - The water cycle (i.e. rain, surface water, groundwater);
 - The life cycle (i.e. aquatic and terrestrial ecosystems);
- The Monitoring Protocol is not a static document and will undergo revisions as and when new data, information and insights become available.

5.1.4 DESCRIPTION OF THE SERVICES REQUIRED

The Service Provider is required to provide the services described in (C5) Specifications, specifically in the general specifications (5.2) and section specific conditions (5.3 and 5.4).

5.1.5 EXTENT OF THE SERVICES

The services to be provided in terms of this Contract are inextricably linked to the Employer's three year capital budget. All services to be provided shall therefore be programmed in order to make full use of, but not exceed, the budget provision.

It should be noted that while the Employer has every intention of completing the full Scope of Work making full use of the budget provision, the Employer's budget is subject to periodic review. Should it become necessary to vary the scope of work or even suspend or terminate this contract, such variation, suspension or termination shall be dealt with in accordance with the provisions of the Standard Professional Services Contract as amended by the Contract Data.

The purchase of equipment and material and their installation are excluded from this contract. If required for replacement of damaged equipment, new or refurbished equipment will be provided by the Employer as a free issue via a separate Monitoring Equipment Contract.

5.1.6 USE OF REASONABLE SKILL AND CARE

The Service Provider's attention is drawn to the fact that the monitoring contract is of regional importance to the long-term sustainable water supply to the Western Cape area.

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

Safety of persons and property is of paramount importance, as well as the protection of the natural environment.

5.1.7 REFERENCE DATA

All previous monitoring reports are available for inspection at the offices of the Employer during the tender period. Copies of all such reports will be given to the appointed Service Provider for reference purposes.

5.1.8 APPLICABLE NATIONAL AND INTERNATIONAL STANDARDS

The Service Provider shall take cognisance of, and adhere to, all applicable national and international standards in the execution of his own work (e.g. SANS ISO 9001: 2015). International standards should only be used where no national standards exist, or where it is the norm to use or refer to international standards.

5.1.9 APPROVALS

The Service Provider shall be responsible for obtaining the following approvals from the Employer:

- (a) Approval of the priorities for monitoring, and the implementation programme,
- (b) Approval of the monitoring database format, if deviated from the prescribed format,
- (c) Approval to deviate from scheduled monitoring activities and timing thereof,
- (d) Approval of reports,
- (e) In respect of time based services, approval of the allocation of staff.
- (f) Approval for the employment of specialist sub-consultants.

In addition, the Service Provider shall be responsible for obtaining the following approvals:

- (a) Approval from relevant landowners for access to perform monitoring activities,
- (b) Approval from Cape Nature for taking samples in Nature Reserves and Conservancies.

Notwithstanding any approval received from the Employer, the Service Provider shall remain responsible for all work carried out by the Service Provider and its sub-consultants in terms of this contract.

5.1.10 FORMAT OF COMMUNICATION

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

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

5.1.11 KEY PERSONNEL

The Service Provider shall maintain the involvement of the key personnel as detailed in the Conditions of Tender.

Should it become necessary to replace any of the key personnel listed at the time of tender or during the course of this contract, they may only be replaced by individuals with similar or better qualifications and experience, who satisfy the minimum requirements and then only with the approval of the Employer.

5.1.12 MANAGEMENT MEETINGS

It is anticipated that meetings with the Employer and the Monitoring Task Team will take place every two months. In addition, four annual meetings are scheduled with the Monitoring Task Team to discuss data quality aspects and data analysis. The Service Provider shall however convene management meetings on an ad-hoc basis as and when necessary, and when called upon to do so by the Employer. The Service Provider shall be represented at these meetings by at least one of the key personnel.

All charges in respect of attendance at meetings and the provision of secretarial services shall be included in the tendered fees in the Price Schedule (Part C4).

5.1.13 CLAIMS FOR PAYMENT

The Service Provider may submit interim claims for payment (invoices) as the work (completed activities/tasks), in terms of this contract, progresses, but not more frequently than at monthly intervals. Draft claims with supporting documentation to be submitted to Employer's Representative for verification. Only on approval by the Employer's Representative, may the interim claim be submitted. All interim claims must be accompanied by an original tax invoice. Payment will be effected within 30 days of the date on the tax invoice.

5.1.14 EMPLOYER'S RIGHT TO RECOVER COSTS

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

5.1.15 TRADE NAMES OR PROPRIETARY PRODUCTS

Tenderers/Suppliers must note that wherever this document refers to any particular trade mark, name, patent, design, type, specific origin or producer, such reference shall be deemed to be accompanied by the words "or equivalent".

5.1.16 EMPLOYMENT OF SECURITY PERSONNEL

All security staff employed by the supplier on behalf of the CCT or at any CCT property must be registered with Private Security Industry Regulatory Authority (PSiRA). Proof of such registration must be made available to the CCT's agent upon request.

5.1.17 FORMS FOR CONTRACT ADMINISTRATION

The Supplier shall complete, sign and submit with each invoice, the following:

- a) Monthly Project Labour Report (described below)

The Monthly Project Labour Report must include details of all labour (including that of sub-contractors) that are South African citizens earning less than **R500.00** per day, as adjusted from time to time (excluding any benefits), who are employed on a temporary or contract basis on this contract in the month in question.

In addition to the Monthly Project Labour Report the Supplier shall simultaneously furnish the CCT's Agent with copies of the employment contracts entered into with such labour, together with certified copies of identification documents, proof of attendance in the form of attendance register or timesheets as well as evidence of payments to such labour in the form of copies of payslips or payroll runs. If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it and proof of such acknowledgement shall be furnished to the CCT's Agent.

5.2 General Specifications

These General Specifications are applicable to both Section A: Regional Monitoring and Section B: Impact Monitoring. Specifications that are only relevant to one of the sections are covered under 5.3 and 5.4 below.

5.2.1 PURPOSE

The monitoring network comprises sites in Wemmershoek, Purgatory, Boesmanskloof, Villiersdorp, Klipfontein, Nuweberg, Eikenhof, Steenbras and Kogelberg. Due to the current wellfield development, the monitoring activities for the impact monitoring at the Steenbras Wellfield are covered in Section B, while the regional baseline monitoring activities are covered in Section A.

It is the responsibility and scope of work of the Monitoring Contractor (also referred to as the "Professional Service Provider") to collect and collate a series of complementary datasets comprising measurements of different biophysical elements collected at different spatial and temporal scales (see **Table 1**) to allow for an assessment of groundwater – ecosystem interaction within the different areas monitored under this contract. To achieve this, the existing monitoring sites and installed equipment need to be maintained in working order at all times. These activities are described in more detail below.

Table 1 Required datasets for hydro(geo)logical and ecological monitoring sites

Location	Water Cycle	Physical and chemical	Vegetation	Aquatic Ecology
Boreholes	Water level, artesian pressure	Water temperature, Macro chemistry, Isotopes	N/a	N/a
Seeps	Water level, Soil moisture, Climate data	Soil and ambient temperature, Macro chemistry	Vegetation Community Structure *)	N/a
Rivers and channels	Discharge	Water and ambient temperature, Macro chemistry	Vegetation Community Structure*)	Macroinvertebrates
Weather Station	Rainfall	Wind speed and direction, Solar radiation, Temperature	N/a	N/a
Rainfall gauges	Rainfall		N/a	N/a

*) Vegetation community structure is not monitored for ecoseep G1_1b and ecochannel W7_4

5.2.2 TASKS

The Monitoring Contractor shall be required to undertake a number of tasks that are detailed below:

- Task 1: Maintenance of monitoring site and equipment
- Task 2: Routine data collection at ecological and hydro(geo)logical monitoring sites
- Task 3: Data processing and quality control
- Task 4: Data analysis
- Task 5: Reporting
- Task 6: Project Management

Task 1: Maintenance

It is the responsibility of the contractor to maintain all monitoring sites used for data collection under this contract (see Task 2) in working conditions. The following activities are envisaged to be carried out during the contract and or as required (allowance has been made in Schedule of Rates):

- brushcutting the transects to maintain access to the equipment and vegetation survey plots;
- re-marking the transects and vegetation plots with poles and or steel pegs;
- retrieve malfunctioning monitoring equipment; and
- replace damaged or vandalized monitoring equipment.

Housekeeping and maintenance of the ecological sites is important for access to the installed stations and to allow for the annual vegetation survey under comparable conditions. Hence, the transects shall be kept clear of overgrowing and encroaching vegetation and shall be clearly marked. The transect and plot markers shall be replaced when required due to damage, theft or fire. After a fire event, the complete site shall be re-established as described below.

Standard Site Layout

The layout of all regional ecological monitoring sites follows the same principles of using three (3) transects through the seep or channel to enable the detection of changes in water availability (Figure 1). Currently the following infrastructure is installed at most of the regional ecological monitoring sites:

- three transects across the monitoring site, clearly marked with
 - creosote poles on each site of the transect, with permanent site identifier (i.e. transect marker);
 - droppers at 1-m intervals along the transect to identify 1-m wide vegetation plots, with permanent site identifier every 5-m (i.e. plot marker);
- at least five soil moisture probes per transect within each seep monitoring site, installation depth up to 1 m, for monthly manual measurements;
- multilevel soil moisture sensors next to current soil moisture probes within each seep monitoring site, installation depth up to 1 m, for continuous measurements at hourly interval, connected to a telemetry system;
- one pole or marked spot for fixed point photography at a selected vantage point, preferably opposite the site (in some instances covering an ecoseep and ecochannel site);
- at least two piezometers with water level data loggers within each seep monitoring site, connected to a telemetry system;
- one water level data logger installed at a rated section within each channel monitoring site, connected to a telemetry system;
- micro-climate station at each ecoseep monitoring site (in some instances covering an ecoseep and ecochannel site), connected to a telemetry system;

Recently established ecological sites (ecoseeps) comprise of usually one piezometer in the wet core and in average 4 soil moisture sensors at the edges of the wet core and the intermediate zone (see

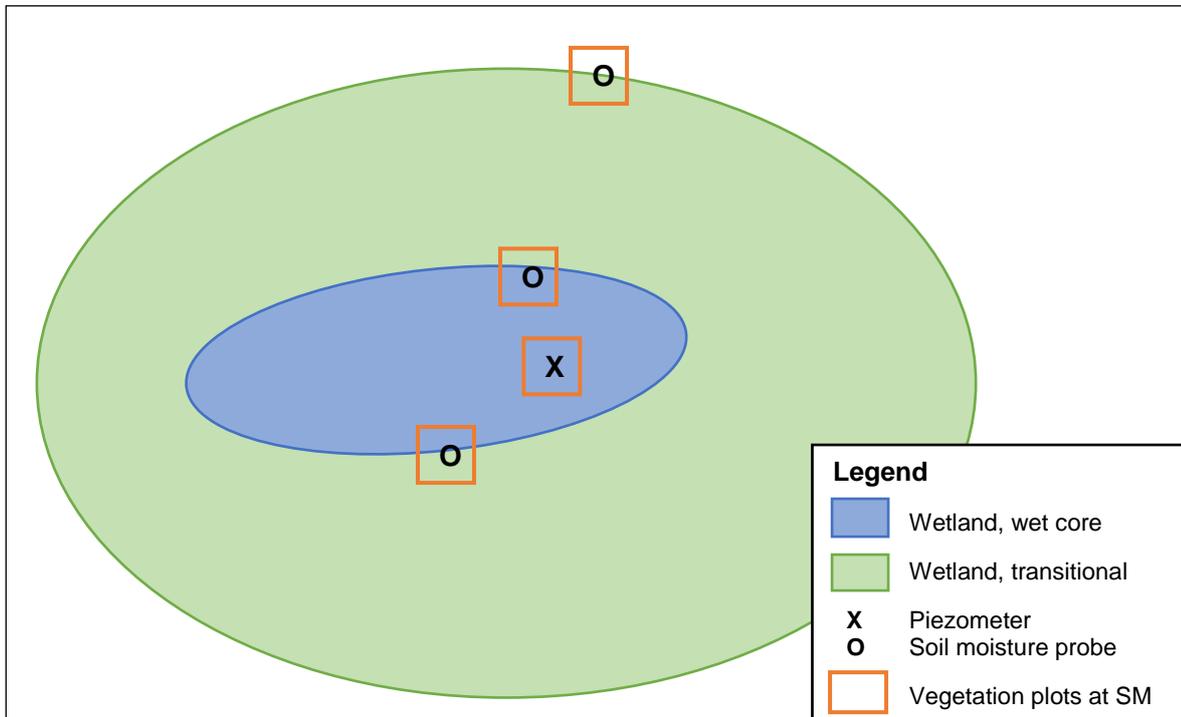


Figure 2), but they might not have a dedicated micro-climate station associated with it.

- a short foot path half way across the monitoring site from the dry edge to the centre of the wet core, clearly marked with creosote poles on one site of the transect, with permanent site identifier (i.e. transect marker);
- three to four multilevel soil moisture sensors within the wetland, installation depth up to 1 m, for continuous measurements at hourly interval, connected to a telemetry system;

- one piezometer with water level data logger within each seep monitoring site, in the wet core, connected to a telemetry system;
- vegetation plots of 2m x 2 m size on both sides of measurement points (i.e. piezometer or soil moisture sensor; 4 plots per station), with permanent site identifier (i.e. plot marker)
- one pole or marked spot for fixed point photography at a selected vantage point, preferably opposite the site (in some instances covering an ecoseep and ecochannel site);

The status of all equipment that is connected to a telemetry system shall be monitored regularly, at least on a weekly basis, to ensure that correct data is provided via the telemetry system. Regular maintenance of field installation to ensure that the equipment remains in working conditions shall be undertaken as part of the regular field downloading procedure and will not be reimbursed separately.

In case of faulty equipment, whether identified as such through regular checks of data transmission or regular field assessment, these shall be checked on site, if possible, or retrieved from site and handed over to the Employer.

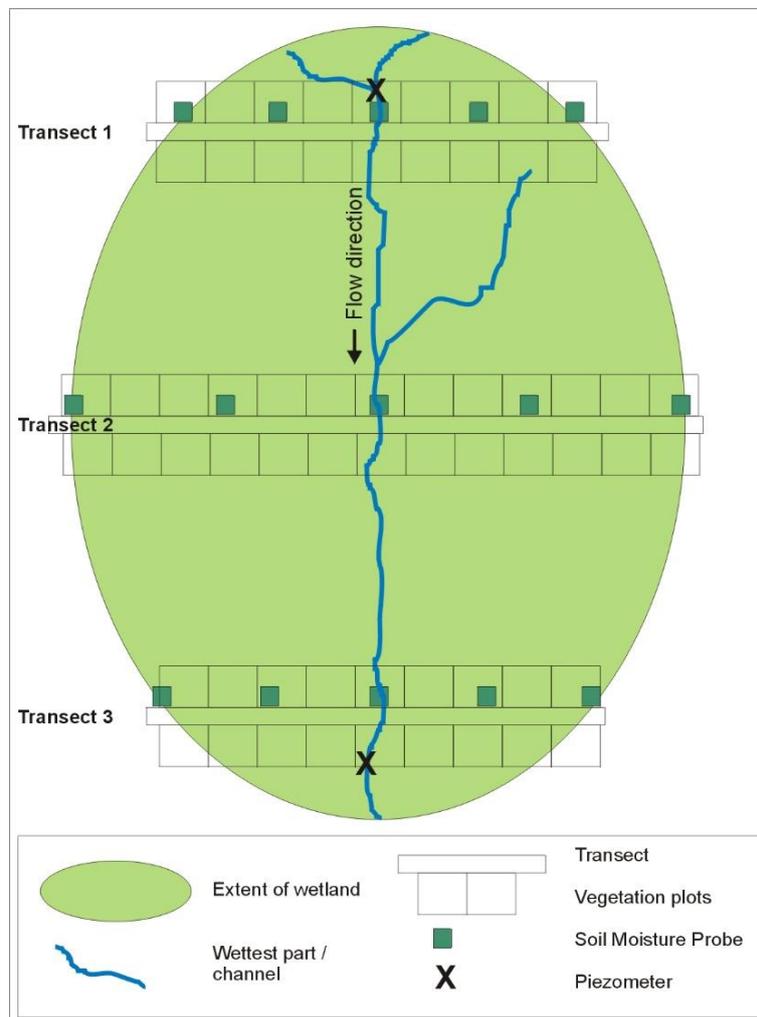


Figure 1: Principal site layout for regional ecological monitoring sites

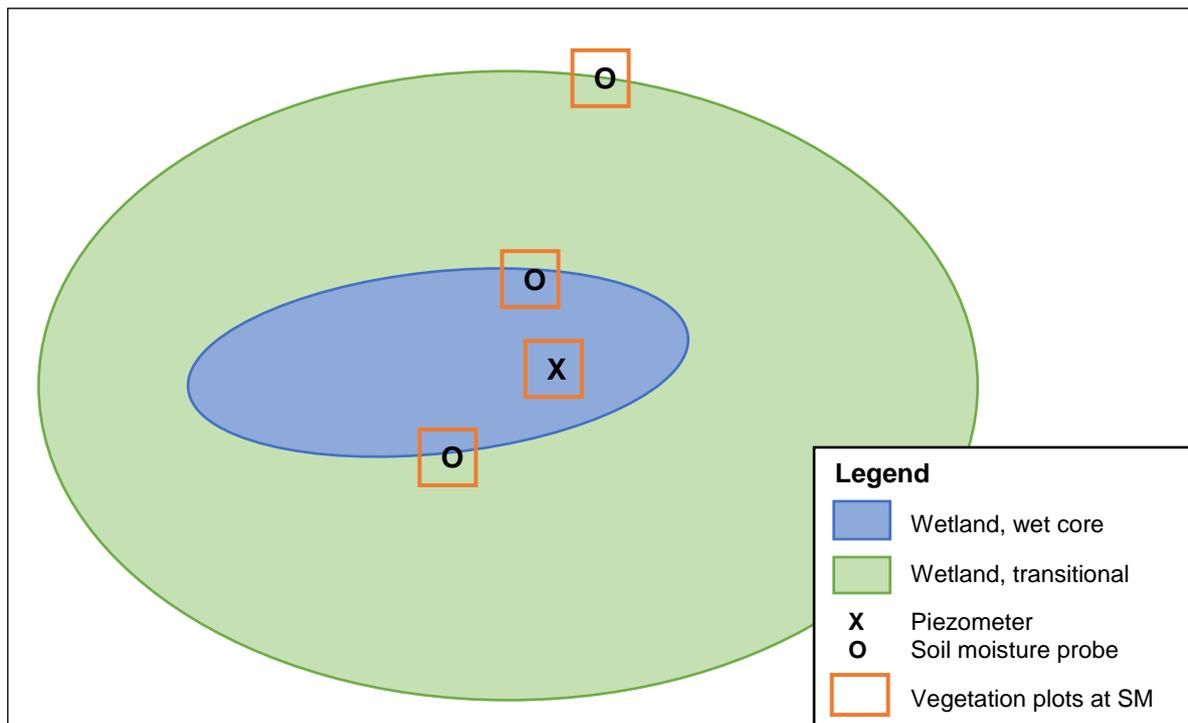


Figure 2: Layout sketch for new ecoseep installations

Details of equipment installed:

Solinst level loggers

- Solinst® M5-M10 levelloggers®
- Solinst® M30 and M100 Levelloggers® EDGE and 5-series.
- Solinst® EDGE direct read cables 30m
- Solinst® M5 direct read cables 100m
- Solinst® PC interface cable
- Solinst® EDGE Barologgers™
- Solinst® Gold Barologger™
- Solinst® Edge-L5 DRC Adapter

There are mainly two telemetry systems installed, linked with a set of monitoring equipment.

Campbell Scientific Units

The components of the weather stations include the following:

- Wind sentry anemometer and vane (wind speed & wind direction)
- Rain gauge
- Pyranometer
- Solar sensor
- Temperature and relative humidity probe
- Solar panel
- Campbell Scientific CR 300 series logger
- Cellullar dipole 0dBd whip antenna or directional antenna.

A telemetry station consisting of a CR 300 data logger from Campbell Scientific was installed at most of the ecoseep sites. In addition to the soil moisture sensors, each unit is equipped with the following sensors from Campbell Scientific for climatic monitoring:

- Texas Electronics Model# TR-525I(M) 6" rain gauge (resolution 0.2mm),
- Pyranometer with 5-meter cable - Mounting & Levelling Fixture
- Campbell Scientific Temperature and RH probe with 3-meter cable (SDI-12)
- Leaf Wetness Sensor

These units were equipped with a cell phone modem for connectivity to the cloud through which data can be downloaded.

The continuous logging soil moisture probes include two different types, namely a **Drill & Drop probe** from Sentek (Australia) with length of 30 cm, 60 cm or 90 cm, and a **TEROS 12 probe** from Meter (United States of America) for installations up to 50 cm. All sensors are connected via a connector box and six-stranded cable to the data logger and or telemetry unit.

Geotel Units

Due to the remote locations of these sites, each unit has an independent power source, including solar power and battery. Due to the ecological sensitivity of these areas, particularly the ecoseeps and stilling wells, a unit was installed as close as possible to the monitoring point to minimize disturbance to the surrounding habitat. The direct read cable (DRC) connects the **Solinst level logger** at the respective site to the telemetry unit. The typical external components varied slightly for the various sites (i.e. boreholes, ecoseeps and ecochannels),

Details about both systems and their respective installations at each site are contained in the Installation Report (TMGA Consortium, 2020).

Task 2: Routine data collection at ecological and hydro(geo)logical monitoring sites

The data that require collection at the ecological monitoring sites are listed below and the methods for each of these activities are described in **Appendix A**. The field data collection needs to be undertaken at specific periods of the annual cycle, either bi-annual at the end of winter (rain season) and the end of summer (dry season) or quarterly, as set out in the schedule. It is important to adhere to these periods.

The parameters to be actively monitored in the field as part of the contract are:

- water level in boreholes within the TMGA;
- water levels in seep monitoring sites;
- low-flow discharge in channel monitoring sites;
- soil moisture and soil temperature in seeps;
- temperature in groundwater and surface water;
- climate data at ecological sites;
- vegetation community structure, vegetation density of indicator species and vegetation health of individual plants in seeps (to be carried out every three years in October/November for existing sites, every year for new sites);
- vegetation community structure, vegetation density of indicator species and vegetation health of individual plants in channels (to be carried out every three years in October/November for existing sites, every year for new sites);
- river health (SASS) community composition and persistence of riverine macroinvertebrates in channels;
- community composition, biomass and persistence of algae in channels;
- chemical composition of groundwater in selected boreholes, piezometers and channels;
- isotope signature of groundwater in selected boreholes, piezometers and channels; and
- climatic data from selected weather stations.

Chemical analyses

The chemical analysis of water samples shall be undertaken by an accredited laboratory (SANS 17025). The samples shall be delivered to the laboratory at the day of sampling or latest the day after. Analysis of the samples shall be conducted within 2 weeks after sampling. The following parameters are required for the different samples:

Table 2: Chemical analyses schedule

	Quarterly or Biannually	Annually
Field measurements:	Temperature, pH, Electric Conductivity, Dissolved Oxygen	Temperature, pH, Electric Conductivity, Dissolved Oxygen
Groundwater samples:	Field measurements plus TDS, DOC, macro chemistry (Ca, Mg, Na, K, Cl, F, SO ₄ , Alkalinity, Bicarbonate Alkalinity, hardness), nutrients (PO ₄ , NH ₃ , NO ₂ , NO ₃), trace elements (Si, total Fe, total Mn)	Regular parameters plus: Dissolved metals, organic compounds (ContamScan)
Seep water samples:	As groundwater samples plus: Inorganic Nitrogen, COD	As groundwater samples plus: Inorganic Nitrogen, COD
River water samples:	As groundwater samples plus: Inorganic Nitrogen, COD	As groundwater samples plus: Inorganic Nitrogen, COD

To ensure compliance with the Water Quality Guidelines for aquatic ecosystems (See Appendix A), a suitably equipped laboratory that can process samples according to the required detection limits for nutrients must be used.

A suitable isotope laboratory, e.g., iThemba or UCT, shall undertake the isotope analysis of water samples for stable isotopes ¹⁸O and D.

Ecological survey

The ecosites have been set-up to facilitate regular and standardized survey of the ecological status, health and integrity of these ecosites. The parameters include water quality (see above), vegetation at both ecoseeps and ecochannels, algae and macroinvertebrates at the ecochannels, supported by high-resolution drone footage of the sites. The monitoring objectives of the ecological surveys at the ecosites are to

- Collect vegetation community data (in spring) from the ecosites to:
 - Describe the different communities at each site, based on similarity in composition and determine what links these have to physical attributes of the site – i.e. soil moisture and sediment type – to provide a baseline

against which changes in community composition can be measured in future that may be linked with abstraction from the Peninsula Aquifer.

- Track inter-annual variation in the plant assemblages at the finer scale of each individual monitoring plot (based on similarity from year to year), as a baseline to evaluating possible change.
- Provide an overview of successional changes within the site as a whole, in terms of species presence or absence and dominance of the canopy by height.
- collect data (in March/April) on the inter-annual variability in community composition and persistence of riverine macroinvertebrates from three biotopes (Stones, Veg and GSM) at each ecochannel; and
- collect data (in March/April) on the inter-annual variability in community composition, biomass and persistence of algae at each ecochannel to
 - provide an overall index of the ecological integrity of the invertebrate communities and algae communities.

Where baseline data have been established under previous monitoring contracts, these parameter will only be measured every three years or after selected events, such as prolonged drought, flood or fire. For new sites, they will be undertaken annually.

The species names of all flora and fauna of dubious identification will need to be verified during the course of the data collection. Hence:

- plants should be collected, pressed and sent to the National Botanical Institute at Kirstenbosch.
- macroinvertebrates and algae samples should be sent to appropriate organizations/individuals for identification.

Vegetation samples collected under this current contract need to be incorporated into the herbarium and field kits. Hence, each specimen needs to be curated, mounted, labelled, scanned / copied, and filed.

The ecological survey is supported by annual drone footage of each site and surrounds within a buffer of at least 50 m around each site. The footage must consist of an image of the visible bands (RGB) with a resolution of at least 0.1 m. This imagery shall be used to assist with the vegetation survey and identification to reduce the impact of trampling in the wetlands. The annual drone imagery is augmented by the annual flight data by the City of Cape Town (for Steenbras) and satellite imagery.

The following data sets are required to be produced:

- time series data of water level in selected boreholes in the TMGA;
- chemical characterisation of groundwater from selected boreholes;
- isotopic characterisation of groundwater from selected boreholes;
- time series data for rainfall in each TSA;
- time series data for low-flow discharge in channels;
- time series data for water levels in seeps;
- manual soil moisture measurements in seeps;
- time series of soil moisture and soil temperature recordings in seeps;
- time series data for water and ambient temperature in seeps and channels;
- time series data for cloud cover, sunshine hours, mist precipitation at ecosites;
- chemical characterisation of groundwater and water from selected seeps and channels;
- isotopic characterisation of groundwater and water from selected seeps and channels;
- data on vegetation community structure in seeps and channels;
- data on vegetation density of indicator species and vegetation health of individual plants in selected plots within seeps and channels;
- data on macroinvertebrates composition and river health in channels;
- data on algae composition and biomass in channels;
- high-resolution drone footage of each ecosite, providing photographic records of changes in vegetation coverage and community structure.

In addition to the data listed above, the Monitoring Contractor shall obtain the following satellite imagery for the TSAs covered under this contract:

- MODIS (Moderate Resolution Imaging Spectroradiometer), including NDVI timeseries for selected sites, and
- Sentinel-2 A and B, including NDVI, NDWI and MSI as provided on the Sentinel web platform.

The annual flight imagery by the City of Cape Town will be provided as free issue as individual bands (RGB and IR) to the Service Provider for incorporation into the data analysis.

Task 3: Data processing and storage

All data collected and/or collated during this period of monitoring will be incorporated into a central database, housed by the City of Cape Town, to allow for data quality control and data analysis (see **Appendix A**). The Monitoring Contractor will be required to provide the data in specific formats and to upload the data to the CCT Bulk Water Database (see **Figure 3**) to accommodate further analysis.

Raw data will need to be provided in digital format (e.g. scanned field sheets, lev files) separately on a different platform.

The Monitoring Contractor will be required to apply for access to the City’s network and for specific user rights on the database to undertake this task.

Data pre-processing

The Monitoring Contractor will be responsible for data pre-processing, which involves:

- transfer of manual records in hardcopy (field measurements and lab results) onto digital format, ready for uploading to the database; or
- manually capturing of data onto the database, where required, or as alternative to the upload procedure;
- uploading downloaded logger data onto the CCT Bulk Water Database, where no telemetry connection exists or telemetry was not transmitting; and
- verification of successful data transfer, including telemetry data.

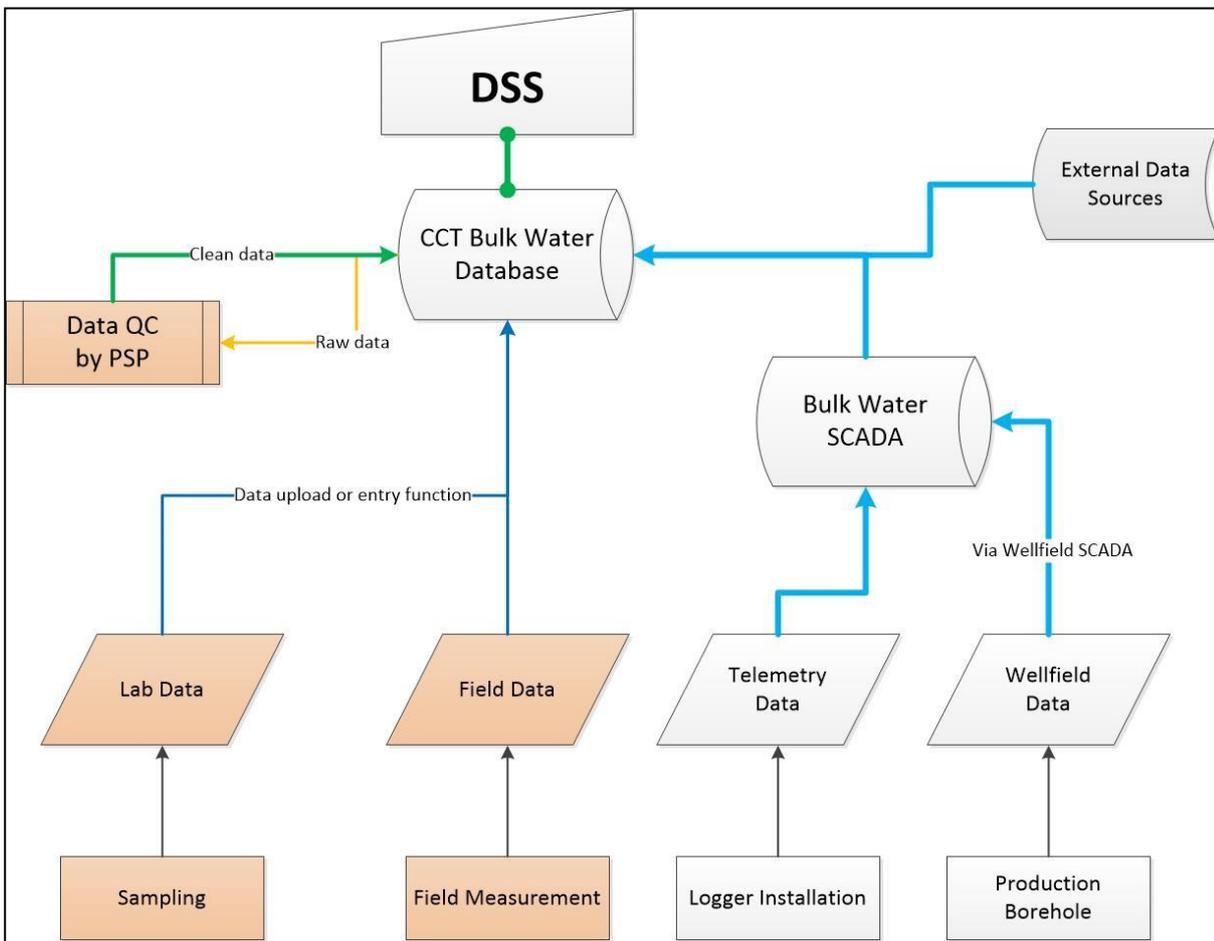


Figure 3 Data flow diagram, illustrating the requirements by the Monitoring Contractor (shaded)

Quality control

Data quality control will be the responsibility of the Monitoring Contractor’s Project Leader, possibly delegated to the relevant discipline leads, by:

- checking the compliance with data requirements and accuracy;
- checking whether the data are plausible for the time and location of measurement;
- checking measurements against other variables;

- verification of suspect data with field sheets and or monitoring personnel; and
- verification of floristic data in samples within sampling period and controlling with previous sampling period to ensure consistency in nomenclature.

Where possible, the data quality control and any corrections to the data shall be carried out directly in the database via its dedicated data capturing interface. For large datasets (e.g. telemetry data), the data will need to be downloaded, corrected outside of the database and uploaded as QC'ed data. The quality control shall result in data verification. Data that are questionable or implausible will be marked as such in the database and discarded from further data analysis.

The data quality control process shall be completed within one (1) month of data being collected or collated. The Monitoring Contractor shall advise the Monitoring Task Team once data are checked and verified, to allow for an audit of the data and data quality procedure by the Monitoring Task Team,

Details of the quality control procedures are contained in the TMGA Quality Assurance Protocol (CCT, 2020), which can be made available to the tenderer.

Task 4: Data analysis

The Monitoring Contractor shall undertake basic data analysis as detailed in **Appendix A**, such as:

- Time series data analysis to identify natural seasonal trends and compare with previous data;
- Cross-cutting analysis to look for anomalies between the different data sets.

It is noted that the City Bulk Water Database might contain additional data of relevance for the analysis that are not collected or collated by the Monitoring Contractor, e.g. additional climate data, stream flow data or dam levels of interest. These data sets shall be included in the data analysis, where feasible and relevant.

Task 5: Reporting

Monitoring Trip and Site Status Report

The Monitoring Contractor shall produce four (4) reports per year, which shall contain:

- a description of the data collection undertaken in the previous quarter (Monitoring Trip Report)
- a description of the site status of the visited sites, including contain records of site maintenance such as access or transect clearing, equipment failure, recommendations for repairs, and replacements due to damage, theft or fire, and
- details of the data, highlighting data gaps and data quality control issues.

These reports shall be submitted to the Monitoring Task Team and the Employer within 2-months after concluding the data collection. Hence, report on all data collected up to December shall be submitted in February, report on data from January to March shall be submitted in May, and so on.

Assessment reports

The Monitoring Contractor shall produce assessment reports of the collected data as described under the Section specific specification (see Section A and Section B). These are due four to six months after end of data collection cycle.

It is advised that the reports are staggered within the six month period and a detailed schedule be discussed with and approved by the Monitoring Task Team.

Reporting lines

All communication regarding monitoring activities or results shall be via the Monitoring Task Team as communication centre, to ensure that all relevant parties are informed.

Reports shall be submitted to the Monitoring Task Team, and shall be accompanied by:

- appendices containing hard copies of all raw data and results of analysis; and
- reference to the database, containing all raw monitoring data and QC'ed corrected data, as collected and collated in the project.

A copy of the report shall also be submitted to the Employer.

Task 6: Project Management

The Monitoring Contractor shall undertake regular project management and administrative functions during the whole period of the contract. These include:

- Regular project meetings with CCT to discuss progress, issues encountered, budget and other financial considerations, claims etc. It is envisaged that these will be held at least quarterly. This task includes preparation, attendance and minutes taking.
- Project meetings with CCT's Consultant Monitoring Task Team to discuss progress and recommendations for additional work or change of scope. This task includes preparation, attendance and minutes taking.
- Data analysis workshops with CCT's Consultant Monitoring Task Team to discuss monitoring results, data analysis, conceptual understanding and recommendations. It is envisaged that these will be held at least annually or bi-annually. This task includes preparation, attendance, presentations and minutes taking.
- Attendance and presentation at Stakeholder meeting, mainly the TMGA Monitoring Committee which is currently scheduled for three-times a year.
- The ongoing Project Administration shall include all regular communication with Employer and Consultant, as well as immediate reporting of site issues such as equipment failure, access problems, damage and fire, so that remediate actions can be initiated by the Employer timeously.

It is further envisaged that a site hand-over for the next contractor might be required, if there is an overlap in contract period and if different contractors are appointed.

APPENDIX A: METHOD STATEMENTS FOR DATA COLLECTION AND ANALYSIS

Method statements for the collection, collation and analysis of project data are provided for the collection of each type of data in the Monitoring Manual, applicable to both Section A and Section B. The frequency of data collection might vary between Section A and Section B. An approximation of the time required for each task, excluding travel time, is also provided.

DATA COLLECTION

RAINFALL AND CLIMATE

Sites	Method	Frequency	Data collection procedure	Equipment	Data processing procedure	Data format	Personnel	Time requirement
Microclimate station at selected ecosites	Download data from loggers or telemetry	Loggers to be downloaded every quarter	Download data to laptop using logger specific software Check data storage capacity and re-start if necessary	Installed sensors and data logger, download cable, laptop	None	Time series of relevant climate data	Climate scientist or trained technician	~5 minutes download per logger
Weather station	Download data from loggers or telemetry	Telemetry download check at least weekly	Download data to laptop using logger specific software Check data storage capacity and re-start if necessary	Installed sensors and data logger, download cable, laptop	None	Time series of relevant climate data	Climate scientist or trained technician	~1 hour data upload per logger each month

GROUNDWATER LEVEL

Sites	Method	Frequency	Data collection procedure	Equipment	Data processing procedure	Data format	Personnel	Time requirement
Piezometers in ecoseeps	Download hourly water level and water temperature data from continuous loggers	Each quarter	<ol style="list-style-type: none"> 1. Download data to laptop or Solinst Levelloader 2. Check data storage capacity and re-start if necessary 3. Check battery and replace if necessary 4. Take manual measurement of water level using EC dip meter 5. Measure collar height and length of cable (on first visit or if these change) 6. Re-instate logger at same depth, or, if different, record new cable length 	Field laptop and/or Solinst Levelloader; EC dip meter; measuring tape/stick; field datasheets and housing tube	<p>Water level data compensated for barometric pressure using nearest barologger data</p> <p>Water level measured as mbgl calculated by subtracting compensated level from depth of logger below ground level</p> <p>Data converted to mamsl using survey data for piezometer position</p>	<p>Water level (mbgl), calculated as mamsl using survey data</p> <p>Temperature in °C</p>	Hydro-geologist or trained technician	<p>~15 minutes download per logger</p> <p>~1 hour for data upload per logger</p>
TMGA production and monitoring boreholes	Download hourly water level and water temperature data from continuous loggers	Each quarter	<ol style="list-style-type: none"> 1. Download data to laptop or Solinst Levelloader 2. Check data storage capacity and re-start if necessary 3. Check battery and replace if necessary 4. Take triplicate manual measurement of water level with EC dip meter; re-calibrate logger if necessary 5. Measure collar height and length of cable (only on first visit or if these change) 6. Re-instate logger at same depth as before, or, if different, record new cable length 	Field laptop and/or Solinst Levellogger; Flotron software and connection cables; EC dip meter; measuring tape / stick; field datasheets , housing tube	<p>Water level data compensated for barometric pressure using nearest barologger data</p> <p>Water level measured as m bgl calculated by subtracting compensated level from depth of logger below ground level</p> <p>Data converted to mamsl using survey data for borehole position</p>	<p>Water level: m bgl, converted to m amsl</p> <p>Temperature in °C</p>	Hydro-geologist or trained technician	<p>~15 minutes download per logger</p> <p>~1 hour for data upload per logger</p>

HYDROLOGY

Sites	Method	Frequency	Data collection procedure	Equipment	Data processing	Data units	Personnel	Time requirement
Ecochannel gauging stations	Download levellogger and barologger data Record gauge plate readings Measure discharge Translate stage timeseries to discharge timeseries using 'QyAnalysis'	<u>Stage:</u> quarterly logger downloads. <u>Discharge:</u> quarterly at logger downloads. <u>Analyses:</u> quarterly immediately after data collection	<u>Stage:</u> 1. Remove loggers, download data and check battery status - replace loggers if faulty or if battery levels are low 2. Replace levelloggers in stilling wells, ensuring they rest on the well's bases - i.e. they are NOT suspended by the cables 3. Read, record & photograph water levels against gauge plates 4. Clean gauge plates with soft brush <u>Discharge:</u> 5. Take accurate measurements for discharge calculation, using velocity-area method &/or by volumetric measurement1 <u>Site:</u> 6. Photograph the downstream hydraulic control 7. Site H8_3A: if there is aquatic vegetation on the hydraulic control, then read, record & photograph the control BEFORE and AFTER removing the vegetation.	<ul style="list-style-type: none"> • Laptop with logger cable or datagrabber • data sheets • flowmeter • 10-m tape measure • depth stick (cm graduation) • soft brush2 • 10-litre bucket; • c. 100 mm dia. pipe3 • sand bags4 • small spade5 • stop-watch 	<ol style="list-style-type: none"> 1. Place logger data (.lev) files in data folders <u>Using QyAnalysis:</u> <ol style="list-style-type: none"> 2. Load historic stage data 3. Import logger data 4. Enter logger 6 and observed stage7 info; apply corrections 5. Compare observed and logged stages and adjust stage offset if necessary8 6. Compute daily and write stage timeseries to file 7. Compute discharge and enter rating point with date/time 8. Check rating point relative to rating function and update function if necessary; write rating function/s to file 9. Compute discharge timeseries and write to file. 	Distance/ depth in cm or m as appropriate; gauge plate in cm; discharge in m ³ /s	Scientist or trained technician	<u>Collection:</u> 1 - 1.5 hours on-site. <u>Processing:</u> 1 - 1.5 hours/site.

1 Velocity-area method: use a well-defined prismatic channel with uniform flow conditions - manually realign the bed's boulders and cobbles to create such a channel if a naturally-formed one cannot be found; take as many velocity and depth measurements across the channel to capture the variability in velocity and depth; Volumetric measurement: redirect channel's flow into a pipe with sand bags at its entrance; measure the time it takes to fill the bucket; use as an alternative (or in addition to) the velocity-area method at very low flows when the latter method is likely to be inaccurate (10-litre bucket can be used for discharges less than c. 2 l/s - i.e. at least 5 seconds required to fill the bucket); Accuracy: discharge calculations should have an accuracy of at least 90%.

2 for cleaning algae from the gauge plates

3 for directing flow into the bucket

4 for directing flow into the 100 mm dia. pipe

5 for filling sand bags

6 levellogger and barologger: serial number, period of logging (date/time) and altitude programmed into logger

7 gauge plate reading and date/time thereof

8 This should seldom be necessary

WATER CHEMISTRY AND ISOTOPES

Sites	Method	Frequency	Data collection procedure	Equipment	Data processing procedure	Data format	Personnel	Approx. time taken
TMGA production and monitoring boreholes	Collect water samples and take field measurements (pH, EC, Temperature and Eh) and send collected water samples to laboratory for chemical (macro- and trace elements) and isotopic (oxygen 18 and deuterium) analysis	Twice a year (April and October/end summer and end winter)	Collect water samples using a small diameter low flow pump or bailer (38mm generally required) If bailer: drop bailer into borehole until bailer is submerged and can be felt to contain water, then retrieve. If pump: lower pump into open borehole and pump for at least 30 minutes or until field pH and EC are constant, before taken sample.	Bailer; sampling bottles; multi-meter for field measurements; field datasheets	n/a	Water chemistry: mg/litre; isotopes: δ (relative isotope concentration in parts per thousand)	Hydro-geologist or trained technician	40 minutes per borehole Half hour for data upload to database per borehole
Piezometers in ecoseeps / Ecochannels	Collect water samples and take field measurements (pH, EC, Temperature and Eh) and send collected water samples to laboratory for chemical (macro- and trace elements) and isotopic (oxygen 18 and deuterium) analysis	Twice a year (April and October/end summer and end winter)	Fill sample bottles as per lab requirements. All water samples must be clearly labelled; isotope samples to be kept cool (not frozen) and dark until processing; chemistry and nutrient samples to be frozen. Take field measurements of pH, EC and temperature with hand-held measurement devices. The device must be calibrated daily prior to taking the measurements. Calibration record must be retained.	Balier; sampling bottles; multi-meter for field measurements; field datasheets	n/a	Water chemistry: mg/litre; isotopes: δ (relative isotope concentration in parts per thousand)	Hydro-geologist or trained technician	20 minutes per piezometer or ecochannel Half hour for data upload to database per piezometer or ecochannel

SEDIMENT COMPOSITION

Sites	Method	Frequency	Data collection procedure	Equipment	Data processing procedure	Data format	Personnel	Approx. time taken
Ecochannels	Find 100 stones to measure randomly in the river by criss-crossing the channel and selecting each stone with a stick or by toe.	Seasonally four times a year.	Select a sediment particle at random and measure its width across the B axis with a tape measure. Score the sediment particle category using the Wentworth Scale below.	Tape measure, pencil and field datasheets.	None as yet.	Frequency distribution of sediment particles sizes.	Senior ecologist.	30 mins. per ecochannel Half a day for data upload into database.

Sediment composition: (S): <<2mm = sand, mud, clay,(G): 2-64mm = gravel,(C): 64-256 mm =cobble,(B): 256 – 2000 mm = boulder, (BR) bedrock

REMOTE SENSING

Sites	Method	Frequency	Data collection procedure	Equipment	Data processing procedure	Data format	Personnel	Approx. time taken
Steenbras catchment as defined in manual	Multispectral imagery from Sentinel 2 satellite	At least quarterly	1. Download cloud-free imagery from Sentinel 2 over defined area	Computer with access to Sentinel website	Ortho-rectification Geo-referencing of each image against benchmark and against each other	Orthorectified and georeferenced images with a resolution of 10 m with following properties: - Reference Ellipsoid: WGS84 - Projection: Transverse Mercator - Central Meridian: 19 degrees East - Spatial Resolution (GSD): 10 m - Image Acquisition Angle: Nadir	aerial survey and photogrammetric map production specialist and assistants	1 month per image download (quarterly) for image processing and analysis
		Immediately after image collection	2. Photogrammatic processing of single images for orthorectification and georeferencing, using ground control points (GCP), if required	digital photogrammetric workstation software				
		Immediately after image processing	3. Image-to-image georeferencing of RGB and NIR images from same period to pixel accuracy, if required	digital photogrammetric workstation software				

VEGETATION

Sites	Method	Frequency	Data collected	Data format	Equipment	Data processing procedure	Personnel	Approx. time taken
Ecochannels	At site, locate the cross-section with samples plots demarcated from bank to bank.	In early spring.	Species composition and % cover abundance.	Full Species names.	Data sheet, 2 x wooden meter rulers, 1x 5 m tape measure, digital camera, field herbarium, hypsometer.	n/a	Botanist, assistant ecologist.	5 minutes per plot (very variable) for data capture. 3 hours per specimen for mounting and labelling material. 3 months every year for total data capture and upload to database / data check by botanist.
	Record the species present and an estimate of their cover abundance in each plot.							
	Record the height of all plant species present.		Plant height.	Height in cm, for each species.				
	Note dominant substrate (Wentworth Scale).		Dominant substrate type cover.	% cover for dominant substrate.				
	Collect, number, press till dry, identify and mount fertile material of new species not recorded previously. Scan the herbarium specimen in and add it to the <i>kitsgids</i> (with a collection label and ruler scale bar) for site (field) file.		Collect botanical specimens, collector, collection number and nomenclature details on label.	n/a	Plant press, labels, mounting material (per A5 example)			
Ecochannels	At site, locate the cross-section with samples plots demarcated from bank to bank.	In early spring.	Species composition and % cover abundance.	Full Species names.	Data sheet, 2 x wooden meter rulers, 1x 5 m tape measure, digital camera, field herbarium, hypsometer.	n/a	Botanist, assistant ecologist.	5 minutes per plot (very variable) for data capture. 3 hours per specimen for mounting and labelling material. 3 months every year for total data capture and upload to database / data check by botanist.
	Record the species present and an estimate of their cover abundance in each plot.							
	Record the height of all plant species present.		Plant height.	Height in cm, for each species.				
	Note dominant substrate (Wentworth Scale).		Dominant substrate type cover.	% cover for dominant substrate.				
	Collect, number, press till dry, identify and mount fertile material of new species not recorded previously. Scan the herbarium specimen in and add it to the <i>kitsgids</i> (with a collection label and ruler scale bar) for site (field) file.		Collect botanical specimens, collector, collection number and nomenclature details on label.	n/a	Plant press, labels, mounting material (per A5 example)			

RIVERINE MACROINVERTEBRATES

Sites	Method	Frequency	Data collection procedure	Equipment	Data processing procedure	Data format	Personnel	Approx. time taken
Ecochannels	Collect samples from two biotopes using South African Scoring System (SASS).	Once a year in March/ April.	Combined stones/ GSM biotope sampling for 30 sec, strict timing at four fixed 1 m ² areas. Vegetation in/ out of current biotope sampling for 4 * 15 sec over 1 m length of marginal vegetation, strict timing, plus 2 fixed 0.5 m ² areas sampled for 15 sec each. Place sample in flat tray for on-site identification and scoring according to SASS5 protocol (maximum of 15 minutes).	SASS net and sampling tray, forceps, ID guides, datasheets.	Calculate total SASS5 score and average score per taxon (ASPT) per biotope.	SASS datasheet; IHAS sheet; field datasheet checklist.	SASS accredited practitioner.	1 hour per site each year for data collection, excluding travel between sites. 2 days for total data entry and upload to database each year.
	Record species presence and abundance at each site.	Seasonally four times a year.	Drain each SASS sample through a sieve, place in 500 ml plastic collecting jar and preserve in 96% alcohol. Pick invertebrates from sample debris by eye under dissecting microscope; sort to family within 1 month of collection. Identify to species or morpho-species using a high magnification stereo microscope within 2 months of collection.	500 ml plastic collecting jars; 96% alcohol; sampling trays for picking; 5 ml plastic sample vials; high magnification microscope; identification keys.	n/a	Spreadsheet date/ time and species with abundances in two biotopes.	Riverine macroinvertebrate taxonomist; laboratory assistant for picking.	2 hours per sample for picking; 3 hours per sample for identification. 5 days for total data entry and upload to database each year.

ALGAE

Sites	Method	Frequency	Data collection procedure	Equipment	Data processing procedure	Data format	Personnel	Approx. time taken
Ecochannels	Collect algae from cobbles in a run	Seasonally four time a year	Collect three small to medium cobbles and scrub the algae off the stones into a plastic tray alternating between scrubs with a spray of river water to wash the algae into the tray. Wash each stone separately until the water runs clear off the stone. Transfer sample into 500 ml sample jar and store on ice in a cooler box.	Cat litter tray. Toothbrush . 500 ml sample jars. Chemical grade ethanol, filter papers.	Extract sample by filtration. Bomb calorimetry for biomass. Fluorometer for chlorophyll <i>a</i> content.	Biomass by wet/dry weight and chlorophyll <i>a</i> content.	Laboratory technician Algal taxonomist	15 minutes for sampling per site. 15 minutes for processing Chlorophyll <i>a</i> per sample.
	Preserve samples		Sub-sample 50 ml into a smaller plastic sample jar and preserve with Lugols solution. Top remainder of sample in 500 ml jar up with freshwater and freeze.	50 ml sample jars. Lugols solution. High magnification microscope.	n/a.	Counts of algal groups (diatoms, green, brown, red etc).		30 minutes for processing algal taxonomic groups per sample.

DATA ANALYSIS

The following summary statements describe the methods used for the analysis of the TMG project data, which are explained in more detail where required in Section 7 of the Monitoring Manual.

RAINFALL AND CLIMATE

Data source	Original data	Converted data	Data analyses	Graphs	Software
TMGA microclimate and weather stations	Rainfall as daily rainfall	n/a	Daily rainfall time series Monthly totals, maxima and minima	Time series (in relation to other variables such as water level in boreholes, piezometers etc.)	Excel for data analysis, if not available within database
	Hourly temperature	n/a	Hourly time series Monthly means, maxima and minima	Time series	
	Mist / fog			Time series of mist and fog density	
				Time series of precipitation due to mist	
	Cloud cover			Time series of cloud cover and sunshine hours per day	

GROUNDWATER LEVEL AND WATER TEMPERATURE

Data source	Original data	Converted data	Data analyses	Timing	Graphs	Software
TMGA monitoring boreholes	Time series data for water levels: Half hourly water level as mbgl	Converted to half hourly mamsl using survey data	Daily average water levels over the period of record vs daily rainfall	Annually / November	Water level time series	Excel, graphics and statistics packages. Hydrological analysis package such as AQUAPAK
			Compute annual maximum, minimum and amplitude			
			Compute lag time to rainfall events			
Data loggers in piezometers and boreholes	Time series data for water levels: Half hourly water temperature in °C	n/a	Daily average water levels over the period of record vs daily rainfall		Time series	
			Compute annual maximum, minimum and amplitude			
			Degree of perennality, low level duration			

HYDROLOGY

Data source	Original data	Converted data	Data analyses	Timing	Graphs	Software
Levellogger timeseries data and manual gauge plate readings from stilling wells at ecochannels	Daily stage timeseries at ecochannel wells; observed rating (stage-discharge) data	Daily discharge timeseries at ecochannels	<u>Using QyAnalysis:</u> <ol style="list-style-type: none"> 1. Compute discharge (from velocity-area and/or volumetric measurement) & enter rating point with date/time; 2. Check rating point relative to latest rating function and update function if necessary; write rating function/s to file; 3. Compute discharge timeseries and write to file 	Quarterly immediately after data collection	Timeseries	QyAnalysis (VBA/excel)

WATER CHEMISTRY AND ISOTOPES

Data source	Original data	Converted data	Data analyses	Graphs	Software
Regional boreholes; TMGA production and monitoring boreholes	Concentrations of macro-elements: calcium, magnesium, sodium, potassium, alkalinity, chloride, sulphate, phosphate, nitrate, ammonia; concentrations of trace elements: iron, manganese, silica (mg.litre ⁻¹); relative deuterium and oxygen 18 concentration; field measurements of pH and EC (mS.m ⁻¹).	n/a	Bi-annual time series Extended Durov diagrams with sets of boreholes grouped according to TSA and target aquifer	Time series Extended Durov diagrams	Excel for data storage WISH for data analysis

REMOTE SENSING

Data source	Original data	Converted data	Data analyses	Graphs	Software
Satellite imagery from Sentinel 2	Reflectance of each pixel for each image / band	NDVI change analysis coverages (10m resolution)	NDVI per ecoseep Seasonal / annual NDVI time series for ecoseeps	NDVI time series	ERDAS and / or ENVI for NDVI analysis ArcGIS or QGIS for viewing, mapping Excel for NDVI time series
		MSI value and change analysis coverages (10m resolution)		MSI map MSI time series	ERDAS and / or ENVI for MSI analysis ArcGIS or QGIS for viewing, mapping Excel for MSI time series

SEDIMENT COMPOSITION

Data source	Original data	Converted data	Data analyses	Graphs	Software
Sediment composition data from ecochannels.	Sediment size categories.	n/a	Pie charts of proportions of sediment by size categories in both the active channel and on the banks. Chi-squared tests for differences between years at each ecochannel.	Pie charts.	Excel used for data storage and analysis.

VEGETATION

Data source	Original data	Converted data	Data analyses	Timing	Graphs	Software	
Plant species presence and abundance along the riparian vegetation transects.	Changes in species presence/ absence.	n/a	A table with the full list of species recorded from all years listing presence/ absence between years.	Early spring and late summer sampling.	n/a	Excel spread sheet.	
	Changes in the height of dominant species.		Identify and tabulate height of dominant species per plot. Identify patterns over community types. Compare changes to previous records.				
	Species list and % cover of species.	Primer spreadsheet with presence/ absence per site.	Compare plant species presence/ absence over time for all years at all sites.		Cluster dendrograms for all sites and years.	Excel for data storage. PRIMER/ PERMANOVA for data analysis.	
		Primer spreadsheet with cover abundance per sample plot.	Anosim test for differences in presence and abundance of plant species at each site over time.				Spreadsheet with test statistics.
			Cluster analysis of Bray-Curtis similarity between all samples plots for each year to identify plant community groups.				Cluster dendrograms for each site.
			Simper analysis of plant groups to identify indicator plant species for each community group.				Spreadsheet with test results.

RIVERINE MACROINVERTEBRATES

Data source	Original data	Converted data	Data analyses	Graphs	Software
SASS5 spreadsheet	Total SASS5 scores; average score per taxon.	n/a	Ratio of ASPT against Total Score. Inter-annual change in the scores.	ASPT plotted against Total Score per ecochannel. Bar graphs of Total Score, ASPT, number of taxa, per biotope.	Excel for data entry, conversion and graphs.
	Total SASS5 scores and ASPTs per biotope.		Contribution of veg vs. stones biotope to Total Score and ASPT.	Comparative graphs	
Invertebrate species data	Species lists; number of taxa; abundance data in individuals per m ² .	Relative abundances split per invertebrate order/ species.	PRIMER analysis in order to establish community groupings at each site over time. Identify diagnostic species for each group, and between groups (SIMPER results tables). Community persistence (Bray-Curtis similarity coefficient, presence / absence transformation) from year to year and over full sampling period.	MDS plots / CLUSTER diagrams.	Excel for data entry, conversion and some univariate analysis. PRIMER for multivariate data analysis.

ALGAE

Data source	Original data	Converted data	Data analyses	Graphs	Software
Biomass and chlorophyll <i>a</i> content	Dry weight and chlorophyll <i>a</i> by volume.	n/a	Inter-annual changes in the biomass and chlorophyll <i>a</i> content at each site.	MDS plots / CLUSTER diagrams.	Excel for data entry, conversion and graphs.
Algal taxonomic groups	Proportional distribution of algal groups.		PRIMER analysis in order to establish community groupings at each site over time. Identify diagnostic species for each group, and between groups (SIMPER results tables). Community persistence (Bray-Curtis similarity coefficient, presence / absence transformation) from year to year and over full sampling period.		Excel for data entry, conversion and graphs.

5.3.2 TASKS

In addition to the tasks listed in Schedule 5.2, the following refers to the regional monitoring under Section A:

Task 3: Routine data collection at ecological and hydro(geo)logical monitoring sites

The current monitoring boreholes to be monitored under this contract are listed in **Table 3**, while the regional ecological sites are listed in **Table 5** (ecoseeps) and **Table 5** (ecochannels). The weather station to be monitored is listed in **Table 6**. All regional monitoring boreholes, seep piezometers and stream stilling wells are equipped with a water level logger and most are connected to a telemetry system for regular submission of water level data. The micro-climate and weather stations are also connected to a telemetry system.

Table 3: Regional TMGA monitoring boreholes

Borehole	Latitude (S)	Longitude (E)	Elevation (mamsl)	Monitoring records start	Depth (mbgl)
B1C2	-34.012703	19.219884	342	Jul 2019	170
G1A1	-34.031094	19.206990	315	Jul 2019	842
G1A2	-34.015837	19.188271	315	-	793
G1A3	-34.024006	19.192739	312	-	1093
G1A4	-34.028748	19.199276	315	-	961
G1B1	-34.048081	19.174806	397	Nov 2019	750
G1B2	-34.050179	19.163080	318	Feb 2021	716
G1B3	-34.037522	19.171074	318	Feb 2021	723
T2C1	-34.105731	19.013000	430	Dec 2020	200
T2D1	-34.111675	19.016140	384	Dec 2020	400
T2D2	-34.110604	19.017529	355	Sep 2020	194
T2E1	-34.115726	19.021685	327	Aug 2020	500
T2F1	-34.101398	19.031790	383	Dec 2020	325
T2G2	-34.092152	19.049330	487	Dec 2020	500
T4F1	-34.063141	19.070711	343	Dec 2020	525
T4B1	-34.0584	19.04301667	610	2009	427
T4C2	-34.06015	19.04525	604	2009	402
T4C3	-34.0588667	19.04948333	629	2009	176
T4D1	-34.0716667	19.04113333	626	2009	225
T4E2	-34.0661167	19.05723333	587	2009	300
W7F2	-33.814633	19.083733	324	2009	300
W7K1	-33.822933	19.046433	274	2010	425
W7D1	-33.816317	19.060783	325	2009	326
TMG456	-34.32154	18.96995	44	2006	35
TMG457	-34.32465	18.97728	45	2006	72
TMG458	-34.32626	18.96488	70	2005	47
TMG459	-33.95256	19.17444	357	2005	110
TMG460	-33.952596	19.173375	350	2005	30
TMG461	-33.95761	19.17406	346	2005	-
TMG462	-33.95758	19.17408	346	2005	-
TMG466	-34.34706	18.97697	34	2006	65
TMG485	-34.32534	18.96446	62	2006	1
TMG544	-34.32721	18.96439	80	2007	16

Table 4: Regional ecological monitoring sites (ecoseeps)

Site	Est. width (m)	Est. length (m)	Linked to...	Piezometer/waterlevel coordinates		Monitoring records Commenced	Piezometer / Stilling well	Soil moisture probes	Soil moisture sensors	Microclimate station	FPP marker
				Latitude (S)	Longitude (E)						
Seeps											
B1_1	60	80	None	-34.006050	19.2217667	2009	3	17	6	1	1
K_2b	70	140	K_2a	-34.328320	18.960860	2011	2	15	6	1	1
K_5b	100	45	K_5a	-34.291206	18.930247	2012	2	15	9	1	1
K_6	20-40	20	None	-34.328018	18.962297	2012	4	17	6	1	1
T3_Pal4	40	30	T4_Pal3	-34.072600	19.034600	2011	2	18	7	1	1
T6_1b	100	100	T6_1a	-34.004091	19.096914	2011	4	15	6	1	1
T6_4	65	60	T6-2a	-34.000000	19.103900	2008	3	17	7	1	1
TOTAL							20	114	47	7	7

Note: Waterlevel loggers in piezometers and stilling wells, soil moisture sensors and micro-climate stations are or will be connected to telemetry network

Table 5: Regional ecological monitoring sites (ecochannels)

Site	Est. width (m)	Est. length (m)	Linked to...	Piezometer/waterlevel coordinates		Monitoring records Year to year	Piezometer / Stilling well	Soil moisture probes	Soil moisture sensors	Microclimate station	FPP marker
				Latitude (S)	Longitude (E)						
Channels											
G1_1a	-	-	G1_1b	-34.050898	19.174530	2016	2 + 3 *)	15	6	1	1
K_2a, K_2c	20	80	K_2b	-34.327380	18.961330	2011	1	-	-	-	-
K_5a	-	-	K_5b	-34.292000	18.9334424	2012	2	-	-	-	-
H6H007			-	-33.94046	19.16998	2019	1 **)	-	-	-	1
T4_6_1			-	-34.06222	19.07043	2019	1 **)	-	-	-	1
T2_2_1			-	-34.09416	19.03007	2019	1 **)	-	-	-	1
T1_1_1			-	-34.12901	18.9898	2019	-	-	-	-	1
T2_3_1			-	-34.10856	19.01191	2019	1 **)	-	-	-	1
G2_1_1			-	-34.11869	19.17641	2019	-	-	-	-	1
T4_Pal1	15	80	None	-34.055750	19.040670	2008	1	-	-	1	1
T4_Pal3	10	80	T3_Pal4	-34.070770	19.039280	2008	1	-	-	-	1
T6_1a	25	80	T6_1b	-34.0041134	19.0983861	2008	1	-	-	-	-
T6_2a	20	80	T6_4	-33.9996886	19.1058396	2011	1	-	-	-	-
W7-4a	15	80	None	-33.8159865	19.0605704	2011	1	-	-	1	1
TOTAL							14	15	6	3	10

Note: Waterlevel loggers in piezometers and stilling wells, soil moisture sensors and micro-climate stations are or will be connected to telemetry network

*) in G1_1b, not connected to telemetry

***) not connected to telemetry

Table 6: Current TMGA weather stations

Station	Latitude (S)	Longitude (E)	Elevation (mamsl)	Comment
Kogelberg	-34.322233	18.966140	48	Weather station in Kogelberg

Task 4: Data analysis

In addition, it is expected that the data analysis and assessment that is currently carried out per TSA will be updated with new data collected and the addition of sites in certain areas. The expected grouping of TSA's for analysis is:

- Kogelberg: K1 and K2
- Nuweberg: T1/T2 and T3/T4
- Du Toits: T6 and T8
- Theewaterskloof: G1 and B
- Wemmershoek: W7

Task 5: ReportingAssessment reports

The Monitoring Contractor shall produce baseline assessment reports for each of the five TSA groups (see under Data Analysis above), which are due within the last six months of the contract period and shall include all previously collected and collated data sets from that TSA group.

It is advised that the reports are staggered within the six-month period and a detailed schedule be discussed with and approved by the Monitoring Task Team.

5.3.3 SCHEDULING OF TASKS

A Gantt Chart showing the schedule of activities for the data collection envisaged for the next monitoring period is provided in **Table 7**. It is important to repeat the data collection on an annual or bi-annual basis in the same periods, as stipulated in schedule below.

The subsequent tasks of data processing, quality control and reporting need to be undertaken directly after data collection, as outlined under Task 4 and 5 above.

5.3.4 TEAM STRUCTURE

The team of the Monitoring Contractor must comprise, at minimum, the key personnel listed in the Conditions of Tender. The Project Leader will be expected to take full responsibility for the successful execution of the tasks, for the quality of the resultant data, and for the quality of the data analysis and reporting.

In addition to the required key personnel, the following support staff must be provided:

- (a) A junior botanical ecologist and a junior natural scientist with a degree or similar qualifications
- (b) A soil scientist with at least 5 (five) years experience.
- (c) A field technician with a diploma or similar

Please note: There is a great deal of fieldwork required for this project, and as such it is not desirable that senior professionals do this work. Furthermore, the project offers great opportunities for capacity building of young scientists, and for further study.

Table 7: Proposed schedule of monitoring activities

SoQ Item	Task & Activity	Hydrological Year											
		O	N	D	J	F	M	A	M	J	J	A	S
	1. Site maintenance												
2.1	Clearing and re-marking of ecosites	If and when required											
2.2	Maintenance of equipment	If and when required											
	2. Routine data collection at ecological and hydro(geo)logical sites												
	Boreholes & Weather Stations												
3.1	Water levels in TMG Aquifer					X						X	
4.1	Chemical analysis from boreholes					X						X	
3.1	Water levels from piezometers					X						X	
3.2	Water level from stilling wells					X						X	
3.2	Measure flow discharge at eco channels					X						X	
4.2 & 4.3	Chemical analysis from eco sites					X						X	
3.3	Download micro climate weather station data					X						X	
3.4	Manual soil moisture measurements					X						X	
3.4	Download soil moisture sensors					X						X	
	Ecological Survey												
5.1	Vegetation survey in ecoseeps		X										
5.2	Vegetation survey in ecochannels		X										
5.3	Macroinvertebrate monitoring in ecochannels							X					
5.4	Algae monitoring in ecochannels							X					
6.3	Drone footage of ecosites	X											
6.1 & 6.2	Satellite Imagery and NDVI/MSI analysis					X							
	3. Data quality control and data processing												
7.1	Data capture			X			X		X			X	
7.2	Data check of telemetry data	X	X	X	X	X	X	X	X	X	X	X	X
7.2	Data quality control of measured and downloaded data			X			X		X			X	
7.3	Data quality control on species identification			X					X				
7.4	Curation of specimens			X					X				
	4. Data analysis, and 5. Reporting												
8.1	Site Status and Data Collection Report				X			X		X			X
8.2	Data Analysis / Baseline Assessment Report									X			
1.4	Data Workshops with TMGAA			X			X		X			X	
1.5	Presentation at Stakeholder meeting			X				X				X	

5.4 Specifications Section 2: Steenbras Wellfield Impact Monitoring

5.4.1 LOCATION

The Impact monitoring network comprises sites within the vicinity of the Steenbras dams. The positions of production boreholes are shown in **Figure 5**, while the monitoring boreholes, ecological sites, gauging stations and weather stations of the wellfield monitoring network are shown in subsequent figures below. Impact Monitoring include both impact of the construction activities, installed infrastructure and impact of abstraction from the two aquifers. Monitoring is required to evaluate and quantify the extent and severity of impacts of wellfield construction (Construction Impact) and operation (Abstraction Impact) activities on the physico-chemical and biological characteristics of sensitive ecosystems within the project area.

Details are available in the following reports:

- CoCT (2023): TMGA Wellfield Development Project - Steenbras Wellfield: Monitoring Protocol for the Operational Phase of Infrastructure Development; prepared by Zutari, Umvoto, Freshwater Consulting Group and others on behalf of the City of Cape Town
- CoCT (2023): TMGA Ecological and Hydrogeological Wellfield Monitoring: Steenbras Wellfield Wellfield Monitoring Protocol, Version 1.3. Prepared by Zutari, Umvoto, Southern Waters and others on behalf of the City of Cape Town

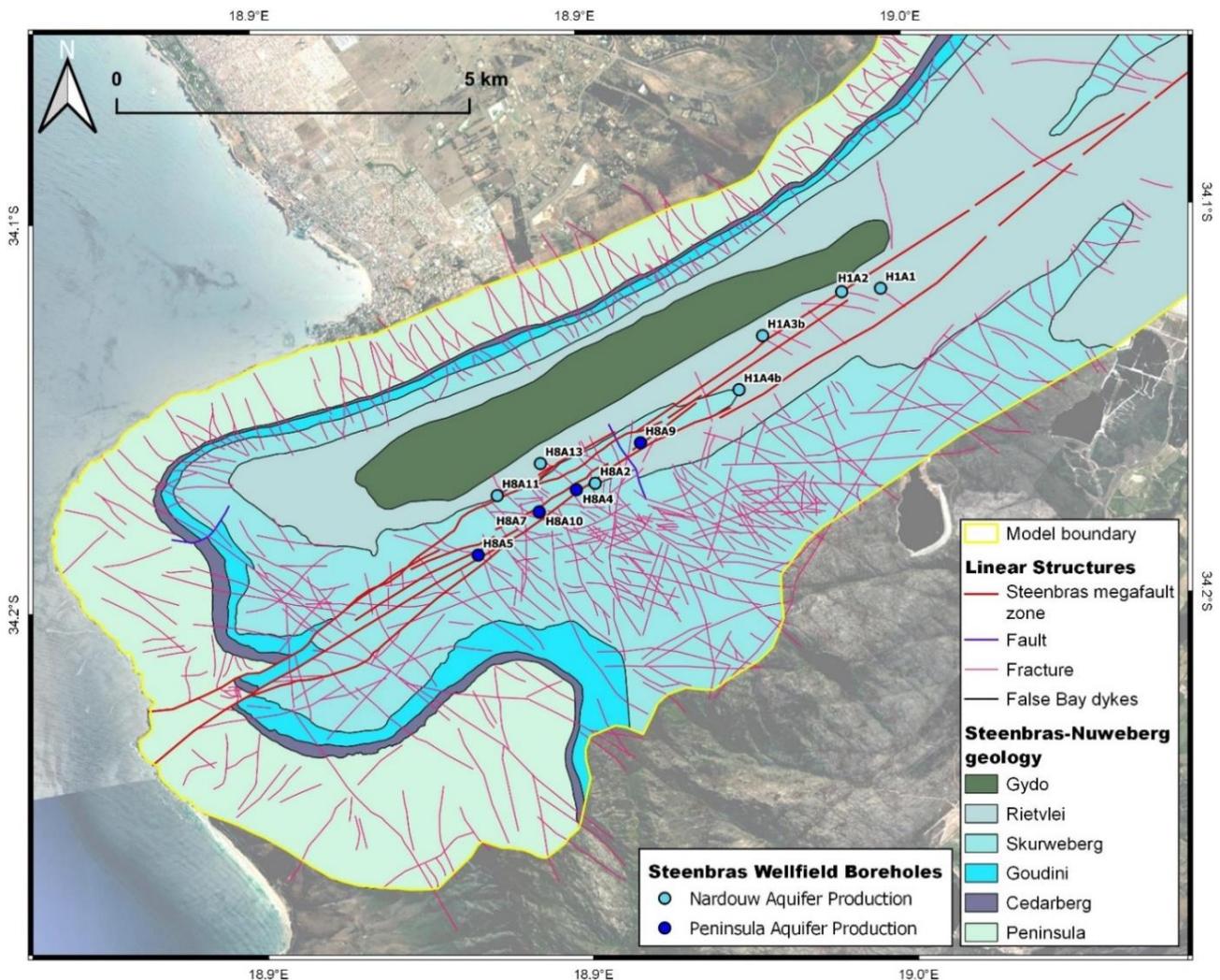


Figure 5: Wellfield layout with Nardouw Aquifer and Peninsula Aquifer production boreholes

5.4.2 TASKS

The required tasks are as per the General Specifications (5.1). Aspects specific to the Steenbras Wellfield Impact Monitoring (infrastructure and abstraction related impacts) are described below per task.

Task 2: Routine data collection at ecological and hydro(geo)logical monitoring sites

Abstraction Impact Monitoring

The current monitoring boreholes to be monitored under this contract are listed in **Table 8** (monitoring boreholes) and **Table 9** (production boreholes) [see **Figure 6**], while the ecological sites are listed in **Table 11** (ecochannels) and **Table 12** (ecoseeps) and shown in **Figure 7** and **Figure 8**. Weather stations for data collection are listed in **Table 10**.

It is noted that additional data as well as all telemetry and SACDA will be available on the City's database and need to be considered and included in the data analysis.

A total of 22 river sites and 10 wetland sites were selected as representative of potentially affected freshwater ecosystems (Impact Sites), together with paired Control Sites, presumed unimpaired by construction related activities at Steenbras. These are listed in **Table 13** and **Table 14**.

Table 8: TMGA Steenbras Wellfield monitoring boreholes

Borehole ID	Lat. N	Long. E	Elevation (mamsl)	Aquifer	Depth (mbgl)
H1A8	-34.133145	18.946840	557	Peninsula	200
H2A4	-34.185034	18.846285	361	Peninsula	800
H3A2	-34.197045	18.869197	386	Peninsula	949
H5A1	-34.207837	18.885767	580	Peninsula	100
H5A2	-34.220109	18.860566	519	Peninsula	100
H8A1	-34.185475	18.898928	419	Peninsula	975
H1A4a	-34.176661	18.927089	448	Nardouw	274
H1A9	-34.174490	18.917250	394	Nardouw	50
H1A10	-34.165200	18.946230	433	Nardouw	50
H1A11	-34.155980	18.961720	442	Nardouw	40
H1A12	-34.153440	18.936183	389	Nardouw	50
H1A13	-34.159830	18.951220	438	Nardouw	50
H1A14	-34.168140	18.932680	416	Nardouw	50
H1A15	-34.163520	18.934012	401	Nardouw	50
H2A1	-34.184801	18.846813	356	Nardouw	285
H2A2	-34.180110	18.854590	354	Nardouw	370
H3A3	-34.196980	18.869140	380	Nardouw	48
H6A1	-34.194563	18.859302	380	Nardouw	88
H8A3	-34.185200	18.896510	409	Nardouw	191
H8A8	-34.190339	18.890619	399	Nardouw	134
H8A12	-34.175221	18.906028	360	Nardouw	356
H8A15	-34.182500	18.906300	402	Nardouw	50
T1A1	-34.133584	18.979140	483	Aug 2020	868

All monitoring boreholes are equipped with a water level logger and most are connected to a telemetry system for regular submission of water level data.

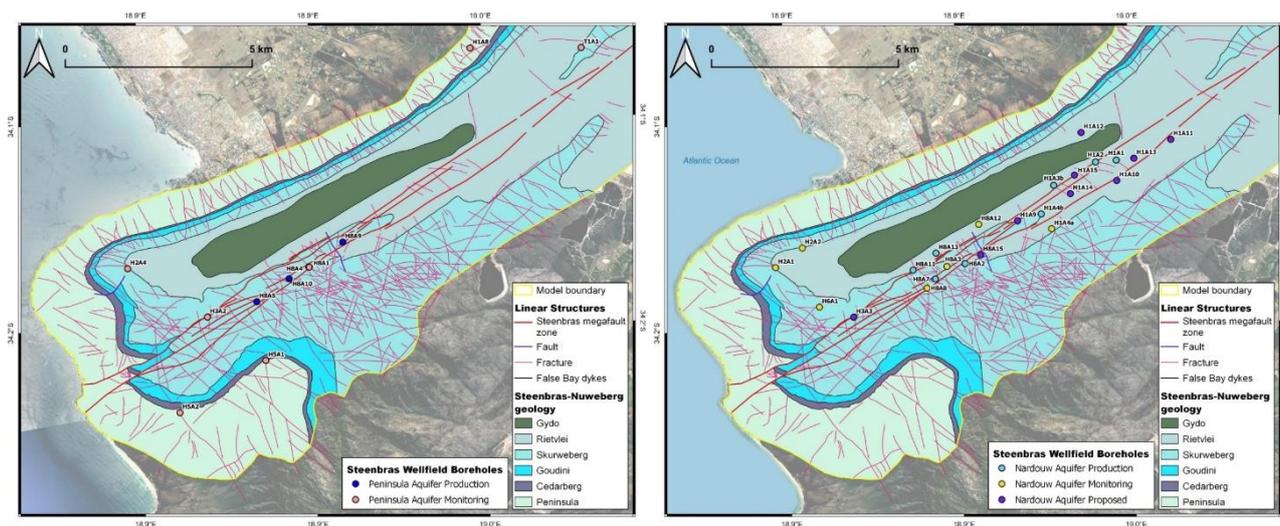


Figure 6: Peninsula and Nardouw Aquifer production and monitoring sites in Steenbras Wellfield area

Table 9: TMGA Steenbras Wellfield production boreholes

Borehole ID	Lat. N	Long. E	Elevation (mamsl)	Aquifer	Depth (mbgl)
H8A4 *)	-34.185390	18.898870	416	Peninsula	1100 (***)
H8A5 *)	-34.193540	18.883500	392	Peninsula	1100 (***)
H8A9	-34.179581	18.908887	408	Peninsula	1002
H8A10	-34.188225	18.893099	401	Peninsula	1101
H1A1	-34.160341	18.946359	430	Nardouw	350
H1A2	-34.161069	18.940649	406	Nardouw	189
H1A3b	-34.166043	18.928085	388	Nardouw	204
H1A4b	-34.172898	18.924148	408	Nardouw	300
H8A2	-34.184680	18.901760	422	Nardouw	220
H8A7	-34.188180	18.893076	396	Nardouw	200
H8A11	-34.185940	18.886600	363	Nardouw	134
H8A13	-34.181893	18.893545	375	Nardouw	221

*) Production Borehole, drilling currently underway; (***) Depth for Peninsula boreholes are drilling target

All production boreholes are equipped with a water level logger and flow meter, and connected to a telemetry and SCADA system for regular submission of water level data.

Table 10: Current TMGA climate stations within Steenbras Catchment

Site code (and owner)	Location	Latitude	Longitude	Elevation (mamsl)	Start of data record
H8_3b micro climate	At H8_3b ecosite	-34.18131	18.90644	398	2019
H1_3b micro climate	At H1_3b ecosite	-34.15422	18.96005	442	2023
H5_2b micro climate	At H5_2b ecosite	-34.22084	18.86042	520	2024
Steenbras (CCT)	At catchment office	-34.15914	18.93977	399	

Additional data from DWS, SAWS and City owned weather stations will be available on the City's database and need to be considered and included in the data analysis.

It is noted that some of the routine data download and field measurements might be undertaken by the CCT's operational staff. This will be confirmed and communicated with the Monitoring Contractor at the beginning of each budget year.

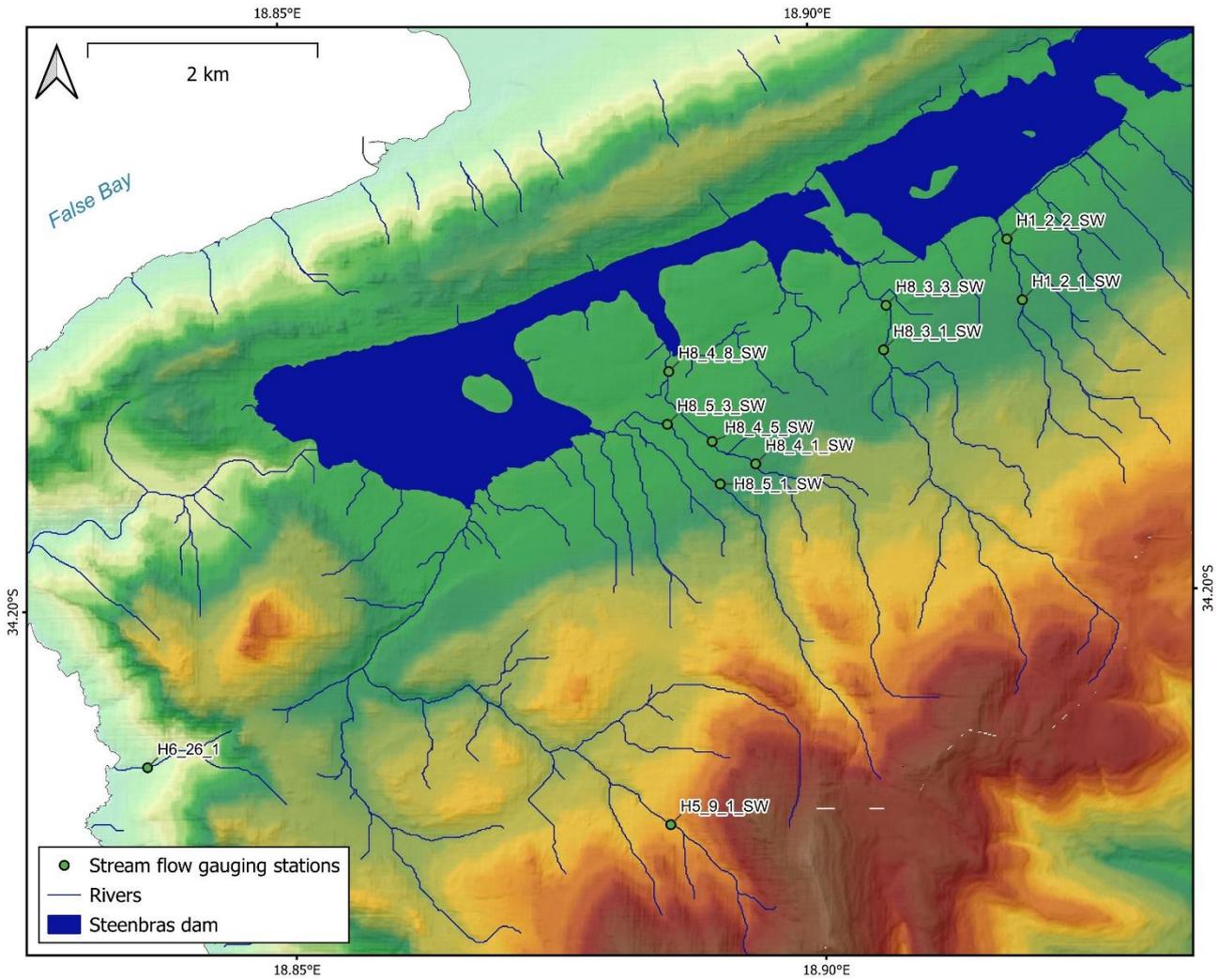


Figure 7: Surface monitoring sites in Steenbras Wellfield area

Table 11: Flow gauging stations in Steenbras Wellfield area

River	Site	Recorder version	Installation date	Location (dec deg)		Solinst levellogger		
				Latitude(S)	Longitude€	Type	serial no	firmware
2	2.0	V1 (ss)	03/03/20	34.177293	18.919961	3001	2113831	3.004
	2.1	v0 (pvc)	06/08/18	34.17208	18.91846	3001	2024637	3.003
3	3.1 ⁹	v1 (ss)	31/03/11	34.18065	18.90660	3001	2065811	3.004
	3.2	v0 (pvc)	03/08/18	34.17713	18.90692	3001	2084811	3.004
4	4.1	v0 (pvc)	02/08/18	34.18946	18.89430	3001	2086547	3.004
	4.2	v0 (pvc)	03/08/18	34.18762	18.89024	3001	2084758	3.004
	4.3	v0 (pvc)	03/08/18	34.18202	18.88628	3001	2086544	3.004
5	5.1	v0 (pvc)	02/08/18	34.19100	18.89092	3001	2086303	3.004
	5.2	v0 (pvc)	03/08/18	34.18619	18.88604	3001	2084782	3.004
9	9.1	V1 (ss)	28/02/20	34.218083	18.886240	3001	2112200	3.004
25	26.1	V1 (ss)	TBD	TBD	TBD	3001	TBD	TBD

River	Site	Recorder version	Installation date	Location (dec deg)		Solinst levellogger		
				Latitude(S)	Longitude(E)	Type	serial no	firmware
Near 4.2		Barologger	04/08/18	34.18811	18.89006	Gold	1055606	2.007

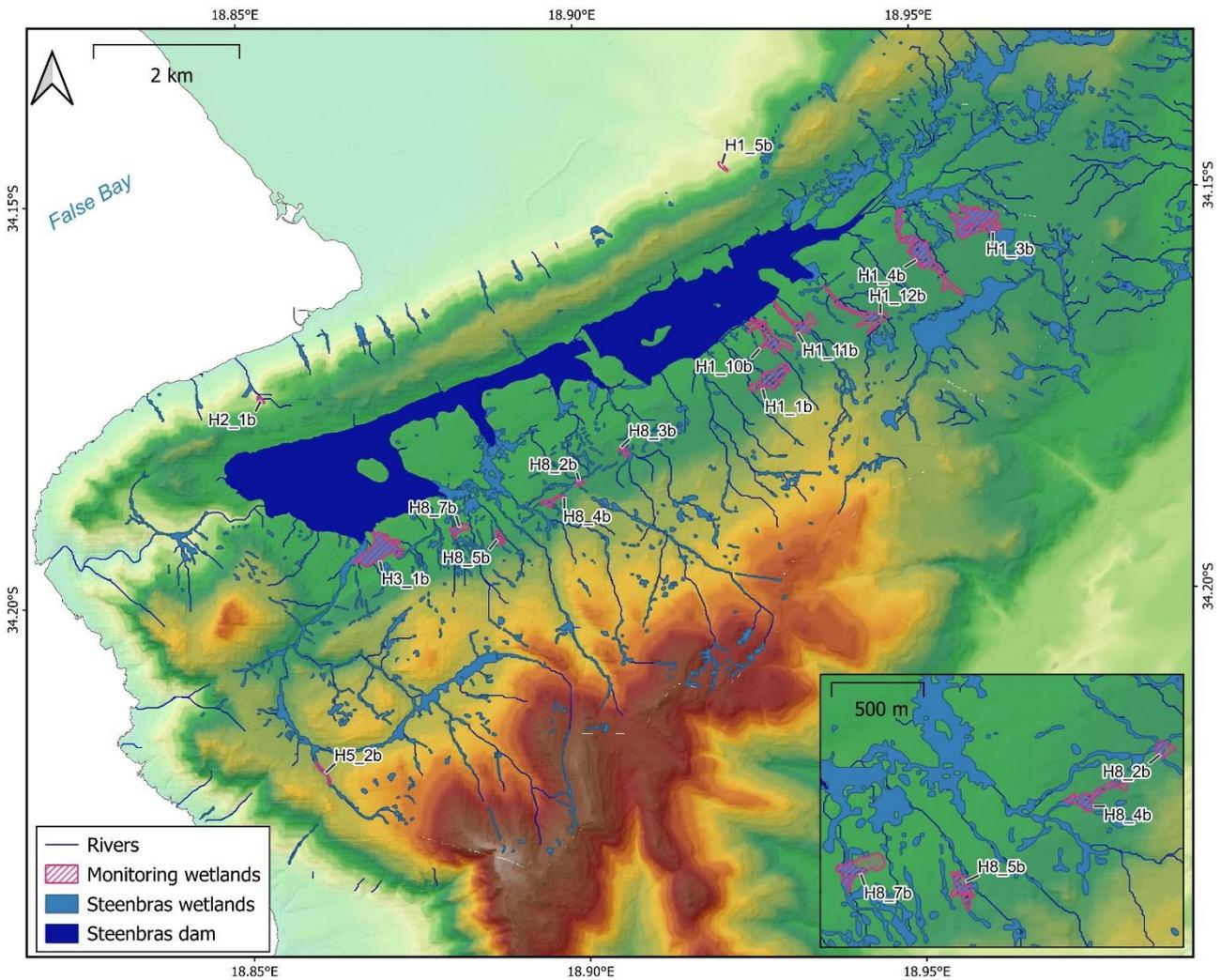


Figure 8: Wetland monitoring sites in Steenbras Wellfield area

Table 12: Wetland monitoring sites in Steenbras Wellfield area

Wetland #	Latitude	Longitude	Monitoring Borehole	Installed (X) / Proposed (O) Monitoring			
				Vegetation	Soil Moisture	Water level	Water quality
H1_1b	-34.17266	18.92920	H1A4a	X	3	1	X
H1_3b	-34.15422	18.96005	H1A11	X	3	1	X
H1_4b	-34.15897	18.95231	H1A13	X	6	2	X
H1_5b *)	-34.14669	18.92226	-	O		O	O
H1_10b	-34.16866	18.92996	H1A14	X	3	1	X
H1_11b	-34.16689	18.93305	H1A14	X	3	1	X
H1_12b	-34.16552	18.94463	H1A10	X	3	1	X
H2_1b *)	-34.17426	18.85305	-	O		O	O
H3_1b	-34.19370	18.87343	H3A2	X	6	2	X
H5_2b *)	-34.22084	18.86042	H5A2	O	O	O	O

Wetland #	Latitude	Longitude	Monitoring Borehole	Installed (X) / Proposed (O) Monitoring			
				Vegetation	Soil Moisture	Water level	Water quality
H8_2b	-34.18535	18.89980	-	X	3	1	X
H8_3b	-34.18131	18.90644	H8A15	X	6	3	X
H8_4b	-34.18795	18.89503	-	X	3	1	X
H8_5b	-34.19218	18.88797	-	X	3	1	X
H8_7b	-34.18965	18.87999	-	X	3	1	X

) Ecoseep related to Peninsula Aquifer

Infrastructure Impact Monitoring

The required activities to monitor the impacts of the installed infrastructure on the aquatic ecosystems are detailed in the monitoring protocol. The relevant monitoring sites with a short description of the settings, reasoning for monitoring and type of monitoring / parameters is provided in **Table 13** and **Table 14**. An example of the locations and layout of the monitoring network is shown in **Figure 1**.



Figure 9: Example of Infrastructure Impact site locations

Task 4: Data analysis

In addition to the standard data analysis described in the General Specifications, the following is required:

- Comparison between Impact Sites and Control Sites shall be carried out for the Construction Impact Monitoring.
- Comparison of water level measurements between ecoseeps and nearby monitoring boreholes shall be carried out to identify impact of abstraction on ecosystems.
- Comparison of all data against provisional or approved thresholds of potential concern (TPC) shall be carried out. If no TPCs have been prepared, comparison should be undertaken against historical records, where available.

It is noted that additional data sets are available on the City’s dashboard and database that need to be included in the data analysis. These include e.g. climate data from other climate stations, abstraction volume and water level in production boreholes.

Any “red flags” identified during monitoring in terms of deviation from baseline and or exceedance of TPCs shall be reported to the Monitoring Task Team and the Employer immediately.

Table 13 Ecological monitoring sites on streams potentially affected by residual construction impacts and the operation of wellfield infrastructure at Steenbras. MU= Management Unit; WQ – in situ = water quality measurements taken on site; WQ-lab = water quality samples collected for processing in the laboratory

MU	Site	Type	River/ wetland	Hydroperiod	Landscape setting	Reason for selection	WQ-in situ	WQ- lab	Periphyton	Habitat Integrity	Macroinverte brates	Fish
1	H1_13_1	Control	River 13	Seasonal	recovered pine plantation	upstream of pipeline route and pump house H1A1	Y	N	N	Y	N	N
1	H1_13_2	Impact	River 13	Seasonal	recent felled pine plantation	downstream of pipeline route and pump house	Y	N	N	Y	N	N
2	H1_14_1	Control	River 14	Seasonal	recovered pine plantation	upstream of pipeline route and pump house H1A2	Y	N	N	Y	N	N
2	H1_14_2	Impact	River 14	Seasonal	recent felled pine plantation	downstream of pipeline route	Y	N	N	Y	N	N
2	H1_14_3	Control	River 14	Seasonal	recent felled pine plantation	downstream of pipeline route and Pump house H1A2/ upstream of pipeline route	Y	N	N	Y	N	N
2	H1_14_4	Impact	River 14	Seasonal	recent felled pine plantation	downstream of pipeline route	Y	N	N	Y	N	N
3	H1_12_1	Control	River 12	Perennial	recent felled pine plantation	downstream of pipeline route	Y	N	N	Y	N	N
3	H1_12_2	Impact	River 12	Perennial	recent felled pine plantation	downstream of pipeline route	Y	N	N	Y	N	N
7	H1_11_1	Control	River 11	Seasonal	recovered pine plantation	upstream of pipeline route	Y	N	N	Y	N	N
7	H1_11_2	Impact	River 11	Seasonal	recent felled pine plantation	downstream of pipeline route	Y	N	N	Y	N	N
8	H1_10_1	Control	River 10	Seasonal	recovered pine plantation	upstream of pipeline route	Y	N	N	Y	N	N
8	H1_10_2	Impact	River 10	Seasonal	recovered pine plantation	downstream of pipeline route	Y	N	N	Y	N	N
8	H1_1_1	Control	River 1	Seasonal	natural	upstream	Y	N	Y	Y	Y	N
8	H1_1_2	Impact	River 1	Seasonal	fire break	downstream H1A4a	Y	N	Y	Y	Y	N
8	H1_1_3	Impact	River 1	Seasonal	recovered pine plantation	downstream H1A4b	Y	N	Y	Y	Y	N
8	H1_1_4	Impact	River 1	Seasonal	Blue gums	downstream H1A4b + pipeline route	Y	N	Y	Y	Y	N
8	H1_2_2	Control	River 2	Perennial	recovered pine plantation	upstream of pipeline route	Y	Y	Y	Y	Y	Y
8	H1_2_3	Impact	River 2	Perennial	recovered pine plantation	downstream of pipeline route	Y	N	Y	Y	Y	Y
10	H1_19_1	Control	River 19	Seasonal	recent felled pine plantation	upstream of pipeline route	Y	N	N	Y	N	N
10	H1_19_2	Impact	River 19	Seasonal	recent felled pine plantation	downstream of pipeline route	Y	N	N	Y	N	N
10	H8_3_3	Control	River 3	Perennial	recent felled BG plantation	immediately upstream of pipeline route	Y	Y	Y	Y	Y	Y
10	H8_3_5	Control	River 3	Perennial	recent felled pine plantation	downstream of pipeline route	Y	N	Y	Y	Y	Y

MU	Site	Type	River/ wetland	Hydroperiod	Landscape setting	Reason for selection	WQ-in situ	WQ- lab	Periphyton	Habitat Integrity	Macroinverte brates	Fish
10	H8_20_1	Control	River 20	Seasonal	recent felled BG plantation	upstream of pipeline route	Y	N	N	Y	N	N
10	H8_20_2	Impact	River 20	Seasonal	recent felled BG plantation	downstream of pipeline route	Y	N	N	Y	N	N
17	H8_18_1	Control	River 18	Seasonal	recent felled pine plantation	Upstream of pipeline and new road	Y	N	N	Y	N	N
17	H8_18_2	Impact	River 18	Seasonal	recent felled pine plantation	Downstream of pipeline and new road	Y	N	N	Y	N	N
11	H8_16_1	Control	River 16	Seasonal	natural	upstream of pipeline route	Y	N	N	Y	N	N
11	H8_16_2	Impact	River 16	Seasonal	natural	downstream of pipeline route	Y	N	N	Y	N	N
11	H8_16_3	Impact	River 16	Seasonal	recent felled pine plantation	downstream of pipeline route	Y	N	N	Y	N	N
13	H8_17_1	Control	River 17	Seasonal	natural	upstream of pipeline route	Y	N	N	N	N	N
13	H8_17_2	Impact	River 17	Seasonal	natural	downstream of pipeline route	Y	N	N	N	N	N
14	H8_17_3	Impact	River 17	Seasonal	natural	downstream of pipeline route	Y	N	N	Y	N	N
13	H8_15_1	Control	River 15	Seasonal	natural	upstream of pipeline route	Y	N	N	N	N	N
13	H8_15_2	Impact	River 15	Seasonal	natural	downstream of pipeline route	Y	N	N	N	N	N
13	H8_15_3	Impact	River 15	Seasonal	natural	downstream of pipeline route	Y	N	N	N	N	N
18	H8_4_1	Control	River 4	Perennial	natural	upstream of pipeline route	Y	Y	Y	Y	Y	Y
18	H8_4_3	Impact	River 4	Perennial	natural	downstream of pipeline route	Y	N	Y	Y	Y	Y
16	H8_5_1	Control	River 5	Perennial	natural	upstream of pipeline route	Y	Y	Y	Y	Y	Y
16	H8_5_2	Impact	River 5	Perennial	natural	downstream of pipeline route	Y	N	Y	Y	Y	Y
16	H8_6_1	Control	River 6	Seasonal	natural	upstream of pipeline route	Y	N	N	N	N	N
16	H8_6_2	Impact	River 6	Seasonal	natural	downstream of pipeline route	Y	N	N	N	N	N
19	H8_21_2	Impact	River 21	Seasonal	recent felled pine plantation	downstream of pipeline route	Y	N	N	Y	N	N

Table 14 Ecological monitoring sites on wetlands potentially affected by residual construction impacts and infrastructure associated with the operational phase at Steenbras.

Management Unit	Site	Type	Wetland	Hydroperiod	Landscape setting	Reason for selection	Water level	Habitat Integrity	Vegetation
1	H1_13b_1	Control	Wetland 3	Permanently saturated; seasonally inundated	recovered pine plantation	Upstream of pipeline route	Y	Y	Y
1	H1_13b_2	Impact	Wetland 3	Permanently saturated; seasonally inundated	recent felled pine plantation	downstream of pipeline route	Y	Y	Y
7	H1_6b_1	Control	Wetland 4	Seasonally saturated	recovered pine plantation	Upstream of pipeline route	Y	Y	Y
7	H1_6b_2	Impact	Wetland 4	Seasonally saturated	recent felled pine plantation	downstream of pipeline route	Y	Y	Y
8	H1_7b_1	Control	Wetland 5	Permanently saturated	recovered pine plantation	upstream of pipeline route	Y	Y	Y
8	H1_7b_2	Impact	Wetland 5	Permanently saturated	recent felled BG plantation	downstream of pipeline route	Y	Y	Y
10	H1_8b_1	Control	Wetland 6	Permanently saturated; seasonally inundated	recent felled pine plantation	upstream of pipeline route	Y	Y	Y
10	H1_8b_2	Impact	Wetland 6	Permanently saturated; seasonally inundated	recent felled pine plantation	downstream of pipeline route	Y	Y	Y
11	H8_11b_1	Control	Wetland 7	Seasonally saturated	natural	upstream of pipeline route	Y	Y	Y
11	H8_11b_2	Impact	Wetland 7	Seasonally saturated	natural	downstream of pipeline route	Y	Y	Y
13	H8_8b_1	Control	Wetland 8	Seasonally saturated	natural	upstream of pipeline route	Y	Y	Y
13	H8_8b_2	Impact	Wetland 8	Seasonally saturated	natural	downstream of pipeline route	Y	Y	Y
13	H8_9b_1	Control	Wetland 9	Permanently saturated; seasonally inundated	natural	upstream of pipeline route	Y	Y	Y
13	H8_9b_2	Impact	Wetland 9	Permanently saturated; seasonally inundated	natural	downstream of pipeline route	Y	Y	Y
16	H8_10b_1	Control	Wetland 10	Permanently saturated	natural	upstream of pipeline route	Y	Y	Y
16	H8_10b_2	Impact	Wetland 10	Permanently saturated	natural	downstream of pipeline route	Y	Y	Y
19	H1_3b_0	Control	Wetland 1	Permanently saturated; seasonally inundated	recovered pine plantation	upstream of pipeline route	Y	Y	Y
19	H1_3b_1	Impact	Wetland 1	Permanently saturated; seasonally inundated	recovered pine plantation	downstream of pipeline route	Y	Y	Y
19	H1_4b_0	Control	Wetland 2	Permanently saturated; seasonally inundated	recent felled pine plantation	upstream of pipeline route	Y	Y	Y
19	H1_4b_1	Impact	Wetland 2	Permanently saturated; seasonally inundated	recent felled pine plantation	downstream of pipeline route	Y	Y	Y

Task 5: Reporting

Monitoring Trip and Site Status Report

The Monitoring Contractor shall produce four (4) reports per year, which shall contain:

- a description of the data collection undertaken in the previous quarter (Monitoring Trip Report)
- a description of the site status of the visited sites, including contain records of site maintenance such as access or transect clearing, equipment failure, recommendations for repairs, and replacements due to damage, theft or fire, and
- details of the data, highlighting data gaps and data quality control issues.

Any “red flags” identified during monitoring in terms of deviation from baseline and or exceedance of TPCs shall be reported to the Monitoring Task Team and the Employer immediately.

Assessment reports

The Monitoring Contractor shall produce an annual Wellfield Impact Assessment Report, which will be due three months after end of summer data collection cycle (i.e. data from April to March the following year, report being due in June). Any “red flags” identified during monitoring shall be reported to the Monitoring Task Team and the Employer immediately.

The Monitoring Contractor shall produce an annual Infrastructure Impact Monitoring Report, to be compiled by the senior freshwater ecologist and submitted to the CCT and Monitoring Task Team within two month of data collection and collation.

The report should incorporate all monitoring data, with an evaluation of the residual physical, chemical and biological impacts to aquatic ecosystems. Any “red flags” identified should be reported with clear recommendations for either remediation action or to inform additional monitoring requirements. Furthermore the Monitoring Report should provide clear guidance on the need for continued monitoring, particularly with regards to the suite of sites included, the frequency of sampling and the physical and biological indicators being monitored.

Both assessment monitoring reports must be submitted and presented to the Monitoring Committee for review.

5.4.3 SCHEDULING OF TASKS

A Gantt Chart showing the schedule of activities for the data collection envisaged for the next monitoring period is provided in **Table 15**. It is important to repeat the data collection on an annual or bi-annual basis in the same periods, as stipulated in the schedule below.

The subsequent tasks of data processing, quality control and reporting need to be undertaken directly after data collection.

5.4.4 Team structure

The team of the Monitoring Contractor must comprise, at minimum, the key personnel listed in the Conditions of Tender. The Project Leader will be expected to take full responsibility for the successful execution of the tasks, for the quality of the resultant data, and for the quality of the data analysis and reporting.

In addition to the required key personnel, the following support staff must be provided:

- (a) A junior botanical ecologist and a junior natural scientist with a degree or similar qualifications
- (b) A soil scientist with at least 5 (five) years experience.
- (c) A field technician with a diploma or similar

Please note: There is a great deal of fieldwork required for this project, and as such it is not desirable that senior professionals do this work. Furthermore, the project offers great opportunities for capacity building of young scientists, and for further study.

Table 15: Proposed schedule of monitoring activities

SoQ Item	Task & Activity	Hydrological Year											
		O	N	D	J	F	M	A	M	J	J	A	S
	1. Site maintenance												
2.1	Clearing and re-marking of ecosites	If and when required											
2.2	Maintenance of equipment	If and when required											
	2. Routine data collection at ecological and hydro(geo)logical sites												
	Boreholes & Weather Stations												
3.1	Water levels in TMG Aquifer	X			X			X			X		
4.1	Chemical analysis from boreholes	X						X					
3.1	Water levels from piezometers	X			X			X			X		
3.2	Water level from stilling wells	X			X			X			X		
3.2	Measure flow discharge at eco channels				X						X		
4.2 & 4.3	Chemical analysis from eco sites	X						X					
3.3	Download micro climate data				X						X		
3.4	Manual soil moisture measurements				X			X					
3.4	Download soil moisture sensors				X						X		
	Ecological Survey												
5.1	Vegetation survey in ecoseeps		X										
5.2	Vegetation survey in ecochannels		X										
5.3	Macroinvertebrate monitoring in ecochannels							X					
5.4	Algae monitoring in ecochannels							X					
5.5	Fish monitoring in selected rivers		X										
6.4	Drone footage of ecosites	X											
6.1 & 6.2	Satellite Imagery and NDVI/MSI analysis					X							
	3. Data quality control and data processing												
7.1	Data capture			X			X			X			X
7.2	Data check of telemetry data	X	X	X	X	X	X	X	X	X	X	X	X
7.2	Data quality control of measured and downloaded data			X			X			X			X
7.3	Data quality control on species identification			X						X			
7.4	Curation of specimens			X						X			
	4. Data analysis, and												
	5. Reporting												
8.1	Data Collection Report			X			X			X			X
8.2	Infrastructure Impact Monitoring Report											X	
8.3	Wellfield Impact Assessment Report												X
1.4	Data Workshops with TMGAA			X			X			X		X	
1.5	Presentation at Stakeholder meeting			X				X				X	

C.6 SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract, referring to the National Treasury – Conditions of Contract (revised July 2010), are applicable to this agreement.

1. Definitions

Insert new clause 1.1A with the following:

- 1.1A “Commencement Date” means the date the Supplier confirms receipt from the Purchaser of 1 (one) complete, signed copy of the Contract, the *Schedule of Deviations* (if any).
- 1.1B “Conditions of Contract” means the general conditions of contract and special conditions of contract including all other contract data incorporated by reference.

Delete Clause 1.15 and substitute with the following

- 1.15 The word ‘Goods’ is to be replaced everywhere it occurs in the GCC with the phrase ‘Goods and / or Services’ which means all of the equipment, machinery, materials, services, products, consumables, etc. that the Supplier is required to deliver to the Purchaser under the agreement. This definition shall also be applicable, as the context requires, anywhere where the words “supplies” and “services” occurs in the GCC.

Delete Clause 1.19 and substitute with the following

- 1.19 The word ‘Order’ is to be replaced everywhere it occurs in the GCC with the words ‘Purchase Order’ which means the official purchase order authorised and released on the Purchaser’s SAP System.

Delete Clause 1.21 and substitute with the following:

- 1.21 ‘Purchaser’ means the City of Cape Town. The address of the Purchaser is 12 Hertzog Boulevard, Cape Town, 8001 (chosen domicilium citandi et executandi).

Add the following after Clause 1.25:

- 1.26 ‘Supplier’ means the provider of Goods and / or Services with whom the Contract is concluded also referred to as “contractor” in the GCC.
- 1.27 "Intellectual Property" means any and all intellectual property rights of any nature anywhere in the world whether registered, registerable or otherwise, including patents, trademarks, registered designs and domain names, applications for any of the foregoing, trade or business names, copyright and rights in the nature of copyright, design rights, rights in databases, know-how, trade secrets and any other intellectual property rights which subsist in computer software, computer programs, websites, documents, information, techniques, business methods, drawings, logos, instruction manuals, lists and procedures and particulars of customers, marketing methods and procedures and advertising literature, including the "look and feel" of any websites
- 1.28 “Working Day” means Monday to Friday excluding weekends and Public Holidays (in the Republic of Sotuh Africa).

3. General Obligations

Delete Clause 3.2 in its entirety and replace with the following clauses.

- 3.2 The Parties will be liable to each other arising out of or in connection with any breach of the obligations detailed or implied in this contract, subject to clause 28.
- 3.3 If the Supplier is a joint venture, all parties in a joint venture or consortium shall be jointly and severally liable to the Purchaser in terms of the Contract and shall carry individually the minimum levels of insurance stated in the Contract, if any.

- 3.4 The Parties shall comply with all laws, regulations and bylaws of local or other authorities having jurisdiction regarding the Delivery of the Goods and/or Services and give all notices and pay all charges required by such authorities.
- 3.4.1 The Parties agree that this Contract shall also be subject to the CCT's Supply Chain Management Policy ("SCM Policy") that was applicable on the date the bid was advertised as amended from time to time. If the Purchaser adopts a new SCM Policy which contemplates that any clause therein would apply to the Contract emanating from this tender, such clause shall also be applicable to the Contract. Please refer to this document contained on the CCT's website.
- 3.4.2 Abuse of the supply chain management system is not permitted and may result in termination of the Contract, restriction of the Supplier, and/or the exercise by the CCT of any other remedies available to it as described in the SCM Policy or in law.
- 3.5 The Supplier shall:
- 3.5.1 Arrange for the documents listed below to be provided to the Purchaser prior to the issuing of the Purchase Order by the Purchaser and no later than the periods as set out in the Contract:
- a) Proof of Insurance (Refer to Clause 11) or Insurance Broker's Warrantee,
 - b) Letter of good standing from the Compensation Commissioner, or a licensed compensation insurer (Refer to Clause 11),
 - c) Initial delivery programme, and
 - d) Other requirements as detailed in the Contract.
- 3.5.2 Only when notified of the acceptance of the bid on the Date of Commencement of Contract, the Supplier shall commence with and carry out the Delivery of the Goods and/or Services in accordance with the Contract, to the satisfaction, of the Purchaser.
- 3.5.3 Provide all of the necessary materials, labour, plant and equipment required for the delivery of the Goods and/or Services including any temporary services that may be required.
- 3.5.4 Insure his workmen and employees against death or injury arising out of the delivery of the Goods.
- 3.5.5 Be continuously represented during the Delivery of the Goods and/or Services by a competent representative duly authorised to execute instructions.
- 3.5.6 In the event of a loss resulting in a claim against the insurance policies stated in clause 11, pay the first amount (excess) as required by the insurance policy.
- 3.5.7 Comply with all written instructions from the Purchaser subject to clause 18.
- 3.5.8 Complete and Deliver the goods within the period stated in clause 10, or any extensions thereof in terms of clause 21.
- 3.5.9 Make good at his own expense, all incomplete and defective Goods during the warranty period.
- 3.5.10 Pay to the Purchaser any penalty for delay as due on demand by the Purchaser. The Supplier hereby consents to such amounts being deducted from any payment due to the Supplier.
- 3.5.11 Comply with the provisions of the OHAS Act & all relevant regulations.
- 3.5.12 Comply with all laws relating to wages and conditions generally governing the employment of labour in the Cape Town area and any applicable Bargaining Council agreements.
- 3.5.13 Deliver the Goods in accordance with the Contract and with all reasonable care, diligence and skill in accordance with generally accepted professional techniques and standards.
- 3.6 The Purchaser shall:
- 3.6.1 Issue Purchaser Orders for the Goods and/or Services required under this Contract. No liability for payment will ensue for arising out of the Delivery of the Goods and/or Services, unless a Purchase Order has been issued to the Supplier.

- 3.6.2 Make payment to the Supplier for the Goods and/or Services as set out herein.
- 3.6.3 Take possession of the Goods and /or Services upon Delivery by the Supplier.
- 3.6.4 Regularly inspect the Goods to establish that it is being delivered in compliance with the Contract.
- 3.6.5 Give any instructions and/or explanations and/or variations to the Supplier including any relevant advice to assist the Supplier to understand the Contract.
- 3.6.6 Grant or refuse any extension of time requested by the Supplier of the period stated in clause 10.
- 3.6.7 Inspect the Goods and/or Services to determine if, in the opinion of the Purchaser, it has been delivered in compliance with the Contract, alternatively in such a state that it can be properly used for the purpose for which it was intended.
- 3.6.8 Brief the Supplier and issue all documents, information, etc. in accordance with the contract.

5. Use of contract documents and information; inspection, copyright, confidentiality, etc.

Add the following after clause 5.4:

- 5.5 Copyright of all documents prepared by the Supplier in accordance with the relevant provisions of the Copyright Act (Act 98 of 1978) relating to the Contract shall be vested in the Purchaser. Where copyright is vested in the Supplier, the Purchaser shall be entitled to use the documents or copy them only for the purposes for which they are intended in regard to the agreement and need not obtain the Supplier's permission to copy it for such use. Where copyright is vested in the Purchaser, the Supplier shall not be liable in any way for the use of any of the information other than as originally intended in terms of the agreement and the Purchaser hereby indemnifies the Supplier against any claim which may be made against it by any person / entity, arising from the use of such documentation for other purposes.

The ownership of data and factual information collected by the Supplier and paid for by the Purchaser shall, after payment, vest with the Purchaser.

- 5.6 **Publicity and publication**
The Supplier shall not release public or media statements or publish material related to the services or agreement within two (2) years of Delivery of the Goods, without the written approval of the Purchaser, which approval shall not be unreasonably withheld.
- 5.7 **Confidentiality**
Both Parties shall keep all information obtained by them in the context of the agreement, confidential and shall not divulge it without the written approval of the other Party.
- 5.8 **Intellectual Property**
 - 5.8.1 The Supplier acknowledges that it shall not acquire any right, title or interest in or to the Intellectual Property of the Purchaser.
 - 5.8.2 The Supplier hereby assigns to the Purchaser, all Intellectual Property created, developed or otherwise brought into existence by it for the purposes of the agreement, unless the Parties expressly agree otherwise in writing.
 - 5.8.3 The Supplier shall, and warrants that it shall:
 - 5.8.3.1 Not be entitled to use the Purchaser's Intellectual Property for any purpose other than as contemplated in the agreement;
 - 5.8.3.2 not modify, add to, change or alter the Purchaser's Intellectual Property, or any information or data related thereto, nor may the Supplier produce any product as a result of, including and/or arising from any such information, data and Intellectual Property, and in the event that it does produce any such product, the product shall be, and be deemed in law to be, owned by the Purchaser;
 - 5.8.3.3 Not apply for or obtain registration of any domain name, trademark or design which is similar to any Intellectual Property of the Purchaser;

- 5.8.3.4 Comply with all reasonable directions or instructions given to it by the Purchaser in relation to the form and manner of use of the CCT Intellectual Property, including without limitation, any brand guidelines which the Purchaser may provide to the Supplier from time to time;
- 5.8.3.5 Ensure that its employees, directors, members and contractors comply strictly with the provisions of this Clause 5.5.8.4 above unless the Purchaser expressly agrees to the contrary, in writing and only after obtaining due internal authority for such agreement.
- 5.8.4 The Supplier represents and warrants to the Purchaser that, in providing Goods and/or Services for the duration of the agreement it will not infringe or make unauthorised use of the Intellectual Property rights of any third party and hereby indemnifies the Purchaser from any claims, liability, loss, damages, costs, and expenses arising from the infringement or unauthorised use by the Supplier of any third party's Intellectual Property rights.
- 5.8.5 Upon expiry of the contract period and in the event that the Contract is terminated, ended or is declared void, any and all of the Purchaser's Intellectual Property, and any and all information and data related thereto, shall be immediately handed over to the Purchaser by the Supplier and no copies thereof shall be retained by the Supplier unless the Purchaser expressly and in writing, after obtaining due internal authority, agrees otherwise.

Add the following after clause 5.8:

5.9 **Protection of Personal Information Act of 2013**

By submitting a tender to the Purchaser, (and by concluding any ensuing related agreement with the City of Cape Town, if applicable), the Tenderer thereby acknowledges and unconditionally agrees:

- 5.9.1 that the tenderer has been informed of the purpose of the collection and processing of its personal information as defined in the Protection of Personal Information Act of 2013 ("POPIA"), which, for the avoidance of doubt is for, and in relation to, the tender process and the negotiation, conclusion, performance and enforcement of the ensuing agreement, if applicable, as well as for the City of Cape Town's reporting purposes;
- 5.9.2 to the collection and processing of the tenderer's personal information by the City of Cape Town and agrees to make available to the City of Cape Town, all information reasonably required by the City of Cape Town for the above purposes;
- 5.9.3 that the personal information the City of Cape Town collects from the tenderer or about the tenderer may be further processed for other activities and/or purposes which are lawful, reasonable, relevant and not excessive in relation to the purposes set out above, for which it was originally collected;
- 5.9.4 that, the tenderer indemnifies the City of Cape Town and its officials, employees, and directors and undertakes to keep the City of Cape Town and its officials, employees, and directors indemnified in respect of any claim, loss, demands, liability, costs and expenses of whatsoever nature which may be made against the City of Cape Town (including the costs incurred in defending or contesting any such claim) in relation to the tenderer or the tenderer's employees', representatives' and/or sub-Suppliers' non-compliance with POPIA and/or the City of Cape Town's failure to obtain the tenderer's consent or to notify the tenderer of the reason for the processing of the tenderer's personal information;
- 5.9.5 to the disclosure of the tenderer's personal information by the City of Cape Town to any third party, where the City of Cape Town has a legal or contractual obligation to disclose such personal information to the third party (or a legitimate interest exists therein);
- 5.9.6 that, under POPIA, the tenderer may request to access, confirm, request the correction, destruction, or deletion of, or request a description of, personal information held by the City of Cape Town in relation to you, subject to applicable law; and

that under POPIA, subject to applicable law, the tenderer also has the right to be notified of a personal information breach and the right to object to, or restrict, the City of Cape Town's processing of its personal information.

5.10 **PERFORMANCE MONITORING**

- 5.10.1 As required by section 116(2)(b) of the Local Government: Municipal Financial Management Act 56 of 2003, the CCT shall monitor the performance of the Supplier on at least a monthly basis, and the Supplier agrees to provide the CCT with its full cooperation in this regard.

7. **Performance Security**

Delete clause 7.1 to 7.4 and replace with the following:

Not Applicable.

8. **Inspections, tests and analyses**

Delete Clause 8.2 and substitute with the following:

- 8.2 If it is a bid condition that Goods and/or Services to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or Supplier shall be open, at all reasonable hours, for inspection by a representative of the Purchaser or an organisation acting on behalf of the Purchaser.

10. **Delivery and documents**

Delete clauses 10.1 and 10.2 and replace with the following:

- 10.1 Delivery of the goods shall be made by the Supplier in accordance with the terms specified in the contract. The time for Delivery of the goods shall be the date as stated on the Purchase Order. In the case of agreements for Delivery of goods in terms of framework or panel agreements, Purchase Orders for the supply and delivery of goods may be raised up until the expiry of a framework or panel agreement, provided that the goods can be delivered within 30 (thirty) days of expiry of the framework or panel agreement. In this context, the "goods" does not include services and carries its ordinary meaning. All Purchase Orders other than for the supply and Delivery of goods (i.e. supply of services, professional services or constructions works), must be completed prior to the expiry of the contract period.
- 10.2 The Purchaser shall determine, in its sole discretion, whether the Goods and/or Services have been delivered in compliance with the Contract, alternatively in such a state that it can be properly used for the purpose for which it was intended. When the Purchaser determines that the Goods and/or Services have been satisfactorily delivered, the Purchaser must issue an appropriate certification, or written approval, to that effect. Invoicing may only occur, and must be dated, on or after the date of such written acceptance of the Goods.

11. **Insurance**

Add the following after clause 11.1:

- 11.2 Without limiting the obligations of the Supplier in terms of this Contract, the Supplier shall effect and maintain the following additional insurances:
- 11.2.1 Public liability insurances, in the name of the Supplier, covering the Supplier and the Purchaser against liability for the death of or injury to any person, or loss of or damage to any property, arising out of or in the course of this Contract, in an amount not less than **R20 million** for any single claim;
- 11.2.2 Motor Vehicle Liability Insurance, in respect of all vehicles owned and / or leased by the Supplier, comprising (as a minimum) "Balance of Third Party" Risks including Passenger Liability Indemnity;
- 11.2.3 Registration / insurance in terms of the Compensation for Occupational Injuries and Disease Act, Act 130 of 1993. This can either take the form of a certified copy of a valid Letter of Good Standing issued by the Compensation Commissioner, or proof of insurance with a licenced compensation insurer, from either the Supplier's broker or the insurance company itself (see the Pro Forma Insurance Broker's Warranty).
- 11.2.4 In the case of Contracts for delivery of professional services, Professional indemnity insurance providing cover in an amount of not less than **R10 million** in respect of each and every claim during the contract period.

11.2.5 In the event of under insurance or the insurer's repudiation of any claim for whatever reason, the Purchaser will retain its right of recourse against the Supplier.

11.3 The Supplier shall be obliged to furnish the Purchaser with proof of such insurance as the Purchaser may require from time to time for the duration of this Contract. Evidence that the insurances have been effected in terms of this clause, shall be either in the form of an insurance broker's warranty worded precisely as per the pro forma version contained in the Pro forma Insurance Broker's Warranty or copies of the insurance policies.

15. Warranty

Add to Clause 15.2:

15.2 The warranty for this Contract shall remain valid for six (6) months from date of Delivery of the Goods and/or Services.

16. Payment

Delete Clause 16.1 in its entirety and replace with the following:

16.1 Payment of invoices will be made:

16.1.1 Within 30 (thirty) days of receiving the relevant invoice or statement from the Supplier, unless otherwise prescribed for certain categories of expenditure or specific contractual requirements in accordance with any other applicable policies of the Purchaser.

16.1.2 Notwithstanding anything contained above, the Purchaser shall not be liable for payment of any invoice that pre-dates the date of delivery of any Goods and/or Services.

Delete Clause 16.2 in its entirety and replace with the following:

16.2 The Supplier shall furnish the purchaser's Accounts Payable Department with an original tax invoice, clearly showing the amount due in respect of each and every claim for payment.

Add the following after clause 16.4

16.5 Notwithstanding any amount stated on the Purchase Order, the Supplier shall only be entitled to payment for Goods and/or Services actually delivered in terms of the Specification and Drawings, or any variations thereof made in accordance with clause 18. Any contingency sum included shall be for the sole use, and at the discretion, of the Purchaser.

16.6 The Purchaser will not make advanced payments to the supplier..

16.6.1 Not applicable to this tender.

17. Prices

Add the following after clause 17.1

17.2 If as a result of an award of a contract beyond the original tender validity period, the contract execution will be completed beyond a period of twelve (12) months from the expiry of the original tender validity period, then the contract may be subject to contract price adjustment for that period beyond such twelve (12) months. An appropriate contract price adjustment formula will be determined by the Purchaser delegated authority if such was not included in the bid documents.

17.3 If as a result of any extension of time granted, the contract execution will be completed beyond a period of twelve (12) months from the expiry of the original tender validity period, then contract price adjustment may apply to that period beyond such twelve (12) months. An appropriate contract price adjustment formula will be determined by the Director: Supply Chain Management if such was not included in the bid documents.

17.4 The prices for the goods and/or Services delivered and services performed shall be subject to contract price adjustment in terms of Schedule F.1 Contract Price Adjustment and/or Rate of Exchange Variations.

18. Contract Amendments

Delete the heading of clause 18 and replace with the following:

18. Contract Amendments and Variations

Add the following to clause 18.1:

Variations means changes to the Goods and/or Services, extension of the contract period or increases in the value of the Contract as a result of written instructions issued by the Purchaser to the Supplier. Such changes are subject to prior approval by the Purchaser's delegated authority. Should the Supplier deliver any Goods not described in a written instruction from the Purchaser, the Purchaser's liability for payment shall no arise until such time as the change has been duly approved and such approval communicated to the Purchaser.

20. Subcontracts

Add the following after clause 20.1:

- 20.2 The Supplier shall be liable for the acts, defaults and negligence of any subcontractor, his agents or employees as fully as if they were the acts, defaults or negligence of the Supplier.
- 20.3 Any appointment of a subcontractor shall not amount to a contract between the Purchaser and the subcontractor, or a responsibility or liability on the part of the Purchaser to the subcontractor and shall not relieve the Supplier from any liability or obligation under the Contract.

21. Delays in the supplier's performance

Delete Clause 21.2 in its entirety and replace with the following:

- 21.2 If at any time during the performance of obligations contained in the Contract the Supplier or its subcontractors should encounter conditions beyond their reasonable control which impede the timely delivery of the Goods and/or Services, the Supplier shall notify the Purchaser in writing, within 7 (seven) days of first having become aware of these conditions, of the facts of the delay, its cause(s) and its probable duration. As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation, and may at his discretion extend the time for Delivery.

Where additional time is granted, the Purchaser shall also determine whether or not the Supplier is entitled to payment for additional costs in respect thereof. The principle to be applied in this regard is that where the Purchaser or any of its agents are responsible for the delay, reasonable costs shall be paid. In respect of delays that were beyond the reasonable control of both the Supplier and the Purchaser, additional time only (no costs) will be granted.

The Purchaser shall notify the Supplier in writing of his decision(s) in the above regard.

- 21.3 No provision in this Contract shall be deemed to prohibit the obtaining of Goods and/or Services from a national department, provincial department, or a local authority.

22. Penalties

Delete clause 22.1 and replace with the following:

- 22.1 Subject to GCC Clause 25, if the Supplier fails to deliver any or all of the Goods and/or Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from amounts payable, as a penalty, a sum as stated herein for each day of the delay until actual Delivery or performance.

The penalty for this contract shall be R500 per day and shall be applicable to the late delivery of deliverables, e.g. data or reports.

- 22.2 The Purchaser shall, without prejudice to its other remedies under the contract, deduct from amounts

payable, financial penalties as contained on the Preference Schedule for breaches of the conditions upon which preference points were awarded.

23. Termination for default

Delete the heading of clause 23 and replace with the following:

23. Termination

Add the following to the end of clause 23.1:

If the Supplier fails to remedy the breach in terms of such notice.

Add the following after clause 23.7:

23.8 In addition to the grounds for termination due to default by the Supplier, the Contract may also be terminated:

23.8.1 Upon the death of the Supplier who was a Sole Proprietor, or a sole member of a Close Corporation, in which case the contract will terminate forthwith.

23.8.2 If the Parties, by mutual agreement, terminate the Contract.

23.8.3 If a material irregularity vitiates the procurement process leading to the conclusion of the Contract, rendering the procurement process and the conclusion of the resulting Contract unfair, inequitable, non-transparent, uncompetitive or not cost-effective the Contract may be terminated by the Purchaser (upon conclusion of applicable processes by the City Manager as described in the Purchaser's SCM Policy).

23.8.4 Reputational risk or harm to the Purchaser

The Purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the Supplier, may terminate the contract if the implementation of the contract may result in reputational risk or harm to the Purchaser as a result of (inter alia):

- a) reports of poor governance and/or unethical behaviour;
- b) association with known notorious individuals and family of notorious individuals;
- c) poor performance issues, known to the Purchaser
- d) negative social media reports;
- e) adverse assurance (e.g. due diligence) report outcomes; or
- f) circumstances where the relevant vendor has employed, or is directed by, anyone who was previously employed in the service of the state (as defined in clause 1.53), where the person is or was negatively implicated in any SCM irregularity.

By or in relation to the Supplier, the Contract may be terminated by the Purchaser after providing notice to the Supplier.

23.9 If the Contract is terminated in terms of clause 23.8, all obligations that were due and enforceable prior to the date of the termination, must be performed by the relevant Party.

26. Termination for insolvency

Delete clause 26.1 and replace with the following:

26.1 In the event of the Supplier becoming bankrupt or otherwise insolvent the Purchaser may elect to:

26.1.1 At any time, terminate the Contract by giving written notice to the Supplier; or

26.1.2 Accept a Supplier's proposal (via the liquidator) to render delivery utilising the appropriate contractual mechanisms or takes steps to ensure its rights are protected and any negative impact on service delivery is mitigated.

26.2 In the event of the Purchaser electing to cancel the Contract in accordance with clause 26.1.1 above, the Purchaser shall make payment of all verified and signed off invoices. In the event of there being any dispute in respect of any outstanding invoices such dispute shall be dealt with in accordance with the

dispute resolution mechanism in the Contract.

27. Settlement of Disputes

Amend clause 27.1 as follows:

- 27.1 If any dispute or difference of any kind whatsoever, with the exception of termination in terms of clause 23 arises between the Purchaser and the Supplier in connection with or arising out of the Contract, the Parties shall make every effort to resolve such dispute or difference amicably, by mutual consultation.

Delete Clause 27.2 in its entirety and replace with the following:

- 27.2 Should the Parties fail to resolve any dispute by way of mutual consultation, either party shall be entitled to refer the matter for mediation before an independent and impartial person appointed by the City Manager in accordance with Regulation 50(1) of the Local Government: Municipal Finance Management Act, 56 of 2003 – Municipal Supply Chain Management Regulations (Notice 868 of 2005). Such referral shall be done by either party giving written notice to the other of its intention to commence with mediation. No mediation may be commenced unless such notice is given to the other party.

Irrespective whether the mediation resolves the dispute, the Parties shall bear their own costs concerning the mediation and share the costs of the mediator and related costs equally.

The mediator shall agree the procedures, representation and dates for the mediation process with the Parties. The mediator may meet the Parties together or individually to enable a settlement.

Where the Parties reach settlement of the dispute or any part thereof, the mediator shall record such agreement and on signing thereof by the Parties the agreement shall be final and binding.

Save for reference to any portion of any settlement or decision which has been agreed to be final and binding on the Parties, no reference shall be made by or on behalf of either party in any subsequent court proceedings, to any outcome of an amicable settlement by mutual consultation, or the fact that any particular evidence was given, or to any submission, statement or admission made in the course of amicable settlement by mutual consultation or mediation.

28. Limitation of Liability

Delete clause 28.1 (a) and (b) and replace with the following:

- (a) notwithstanding any provision to the contrary contained in this contract, neither the supplier nor any of its officers, directors, employees, agents contractors, consultants or other representatives shall be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect, incidental, special or consequential loss or damage of any kind, including without limitation the loss of use, loss of production, or loss of profits or interest costs, loss of goodwill, lost or damaged data or software, costs of substitute products/services and/or loss of business or business opportunities (whether foreseeable or unforeseeable), provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser;
- (b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the sums insured in terms of clause 11 in respect of insurable events, or where no such amounts are stated, to an amount equal to twice the Contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

Add the following after clause 28.1:

- 28.2 Without detracting from, and in addition to, any of the other indemnities in this Contract, the Supplier shall be solely liable for and hereby indemnifies and holds harmless the Purchaser against all claims, charges, damages, costs, actions, liability, demands and/or proceedings and expense in connection with:

- a) personal injury or loss of life to any individual;
b) loss of or damage to property;

arising from, out of, or in connection with the performance by the Supplier in terms of this Contract, save to the extent caused by the gross negligence or wilful misconduct of the Purchaser.

- 28.3 The Supplier and/or its employees, agents, concessionaires, suppliers, sub-contractors or customers shall not have any claim of any nature against the purchaser for any loss, damage, injury or death which any of them may directly or indirectly suffer, whether or not such loss, damages, injury or death is caused through negligence of the Purchaser or its agents or employees.
- 28.4 Notwithstanding anything to the contrary contained in this Contract, under no circumstances whatsoever, including as a result of its negligent (including grossly negligent) acts or omissions or those of its servants, agents or contractors or other persons for whom in law it may be liable, shall any party or its servants (in whose favour this constitutes a *stipulatio alteri*) be liable for any indirect, extrinsic, special, penal, punitive, exemplary or consequential loss or damage of any kind whatsoever, whether or not the loss was actually foreseen or reasonably foreseeable), sustained by the other party, its directors and/or servants, including but not limited to any loss of profits, loss of operation time, corruption or loss of information and/or loss of contracts.
- 28.5 Each party agrees to waive all claims against the other insofar as the aggregate of compensation which might otherwise be payable exceeds the aforesaid maximum amounts payable.

31. Notices

Delete clauses 31.1 and 31.2 and replace with the following:

- 31.1 Any notice, request, consent, approvals or other communications made between the Parties pursuant to the Contract shall be in writing and forwarded to the addresses specified in the Contract and may be given as set out hereunder and shall be deemed to have been received when:
- a) hand delivered – on the day delivery of delivery or the next Working Day,
 - b) sent by registered mail – five (5) Working Days after mailing,
 - c) sent by email or telefax – one (1) Working Day after transmission.

32. Taxes and Duties

Delete the final sentence of 32.3 and replace with the following:

- . In this regard, it is the responsibility of the Tenderer to submit evidence in the form of a valid Tax Compliance Status PIN issued by SARS to the CCT at the Supplier Management Unit located within the Supplier Management / Registration Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5), or included with this tender.

Add the following after clause 32.3:

- 32.4 The VAT registration number of the CCT is 4500193497.

ADDITIONAL CONDITIONS OF CONTRACT

Add the following Clause after Clause 34:

35. Reporting Obligations

35.1 The Supplier shall complete, sign and submit with each delivery note, all the documents as required in the Specifications including Monthly Project Labour Reports (Annexure B). Any failure in this regard may result in a delay in the processing of payments.

36. Procedure for the selection of sub-contractors/suppliers.

36.1 Where monetary allowances for provisional sums or prime cost items have been provided in the Bills of Quantities in the Works Project contract document, and where the work or items to which the allowances relate are to be executed/supplied by sub-contractors/suppliers, then the following selection process shall be followed in respect of the required sub-contractors/suppliers:

Where the monetary allowance is less than or equal to R300 000, the Contractor shall invite three quotations from suitably qualified sub-contractors/suppliers for the required work or items. The selection of the three sub-contractors/suppliers shall be in consultation with, and to the approval of the Employer's Agent. The evaluation of the quotations received must include a preference points system as described in Clause 2.3.10.3 of the Tender Data.

Where the monetary allowance is in excess of R300 000, an open competitive tender process shall be followed in respect of the selection of a sub-contractor/supplier for the required work or items. In such circumstances, tender documentation will be prepared by the Employer's Agent in consultation with and to the approval of the Contractor, invitations to tender will be advertised in the media by the Employer's Agent on behalf of the Contractor, and a sub-contractor/supplier will be selected from the responses received, by the Contractor and Employer's Agent in consultation. The evaluation of the offers received must include a preference points system as described in Clause 2.3.10.3 of the Tender Data. The Contractor must satisfy him/herself that the selected sub-contractor/supplier can meet the requirements of the sub-contract /supply agreement and may, on reasonable grounds, elect not to employ a particular sub-contractor/supplier.

In both instances above (less than or equal to R300 000 or in excess of R300 000), the contractual relationship between the Contractor and sub-contractor/supplier shall be as described in Clause 20 of the General Conditions of Contract and as amended in the Special Conditions of Contract.

37. Protection of personal information

37.1 The supplier acknowledges that it will be processing personal information as defined in the Protection of Personal Information Act No. 4 of 2013 relating to City customers, on behalf of the City. Accordingly, it undertakes to ensure compliance with the Act in respect of its processing activities. In particular, it undertakes to keep such information confidential and not to disclose it unless required by law or in the course of the proper performance of its duties. Furthermore, it undertakes to maintain security measures as envisaged in Sections 19 and 21 of the Act. The requirements of this apply to all agents and subcontractors acting on behalf of tenderers and must be included in all contracts between tenderers and their agents or subcontractors.

38. Use of appropriate level staff

38.1 There is a substantial amount of fieldwork required for this contract, and as such, it is not desired that senior professionals do this work. Refer to Item (5) of the Price Schedule section 5.11: "A higher category person undertaking lower category work will be reimbursed at the lower category rate". However, supervision by senior professionals may be agreed to with motivation and prior approval.

C.7 GENERAL CONDITIONS OF CONTRACT

(National Treasury - General Conditions of Contract (revised July 2010))

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1. Definitions

1. The following terms shall be interpreted as indicated:

- 1.1 'Closing time' means the date and hour specified in the bidding documents for the receipt of bids.
- 1.2 'Contract' means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the Parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- 1.3 'Contract price' means the price payable to the supplier under the contract for the full and proper performance of his or her contractual obligations.
- 1.4 'Corrupt practice' means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
- 1.5 'Countervailing duties' are imposed in cases in which an enterprise abroad is subsidised by its government and encouraged to market its products internationally.

- 1.6 'Country of origin' means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognised new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 1.7 'Day' means calendar day.
- 1.8 'Delivery' means delivery in compliance with the conditions of the contract or order.
- 1.9 'Delivery ex stock' means immediate delivery directly from stock actually on hand.
- 1.10 'Delivery into consignee's store or to his site' means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
- 1.11 'Dumping' occurs when a private enterprise abroad markets its goods on its own initiative in the RSA at lower prices than that of the country of origin, and which action has the potential to harm the local industries in the RSA.
- 1.12 'Force majeure' means an event beyond the control of the supplier, not involving the supplier's fault or negligence, and not foreseeable. Such events may include, but are not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 1.13 'Fraudulent practice' means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the bidder of the benefits of free and open competition.
- 1.14 'GCC' means the General Conditions of Contract.
- 1.15 'Goods' means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
- 1.16 'Imported content' means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.
- 1.17 'Local content' means that portion of the bidding price which is not included in the imported content, provided that local manufacture does take place.
- 1.18 'Manufacture' means the production of products in a factory using labour, materials, components and machinery, and includes other, related value-adding activities.
- 1.19 'Order' means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 'Project site', where applicable, means the place indicated in bidding documents.
- 1.21 'Purchaser' means the organisation purchasing the goods.
- 1.22 'Republic' means the Republic of South Africa.
- 1.23 'SCC' means the Special Conditions of Contract.

1.24 'Services' means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance, and other such obligations of the supplier covered under the contract.

1.25 'Written' or 'in writing' means handwritten in ink or any form of electronic or mechanical writing.

2. Application

2.1 These general conditions are applicable to all bids, contracts and orders, including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.

2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.

2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3. General

3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable, a non-refundable fee for documents may be charged.

3.2 With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za.

4. Standards

4.1 The goods supplied shall conform to the standards mentioned in the bidding documents and specifications.

5. Use of contract documents and information; inspection.

5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for the purposes of such performance.

5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1, except for purposes of performing the contract.

5.3 Any document, other than the contract itself, mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.

5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

6. Patent rights

6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from the use of the goods or any part thereof by the purchaser.

7. Performance Security

7.1 Within 30 (thirty) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in the SCC.

- 7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
- 7.3 The performance security shall be denominated in the currency of the contract or in a freely convertible currency acceptable to the purchaser, and shall be in one of the following forms:
- a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or
 - b) A cashier's or certified cheque.
- 7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than 30 (thirty) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in the SCC.

8. Inspections, tests and analyses

- 8.1 All pre-bidding testing will be for the account of the bidder.
- 8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organisation acting on behalf of the Department.
- 8.3 If there are no inspection requirements indicated in the bidding documents and no mention of such is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- 8.5 Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6 Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
- 8.7 Any contract supplies may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier, who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract. Failing such removal, the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.
- 8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of the GCC.

9. Packing

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
- 9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in the SCC, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in the SCC.

10.2 Documents to be submitted by the supplier are specified in the SCC.

11. Insurance

11.1 The goods supplied under the contract shall be fully insured, in a freely convertible currency, against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.

12. Transportation

12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.

13. Incidental Services

13.1 The supplier may be required to provide any or all of the following services, including additional services (if any) specified in the SCC:

- (a) performance or supervision of on-site assembly, and/or commissioning of the supplied goods;
- (b) furnishing of tools required for the assembly and/or maintenance of the supplied goods;
- (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
- (d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the Parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
- (e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the Parties and shall not exceed the prevailing rates charged to other Parties by the supplier for similar services.

14. Spare parts

14.1 As specified in the SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

- (a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
- (b) in the event of termination of production of the spare parts:
 - (i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
 - (ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications), or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2 This warranty shall remain valid for 12 (twelve) months after the goods, or any portion thereof, as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for 18 (eighteen) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in the SCC.

15.3 The purchaser shall notify the supplier promptly, in writing, of any claims arising under this warranty.

15.4 Upon receipt of such notice, the supplier shall, within the period specified in the SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.

15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified in the SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

16. Payment

16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified in the SCC.

16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of any other obligations stipulated in the contract.

16.3 Payments shall be made promptly by the purchaser, but in no case later than 30 (thirty) days after submission of an invoice or claim by the supplier.

16.4 Payment will be made in Rand unless otherwise stipulated in the SCC.

17. Prices

17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices tendered by the supplier in his bid, with the exception of any price adjustments authorized in the SCC or in the purchaser's request for bid validity extension, as the case may be.

18. Contract Amendments

18.1 No variation in or modification of the terms of the contract shall be made except by written amendment signed by the Parties concerned.

19. Assignment

19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

20. Subcontracts

20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.

21. Delays in the supplier's performance

21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.

21.2 If at any time during the performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his or her discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the Parties by amendment of contract.

21.3 No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.

21.4 The right is reserved to procure, outside of the contract, small quantities of supplies; or to have minor essential services executed if an emergency arises, or the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.

- 21.5 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 21.2 without the application of penalties.
- 21.6 Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and, without prejudice to his other rights, be entitled to claim damages from the supplier.

22. Penalties

- 22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services, using the current prime interest rate, calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

23. Termination for default

- 23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
- (a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
 - (b) if the supplier fails to perform any other obligation(s) under the contract; or
 - (c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than 14 (fourteen) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated 14 (fourteen) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.
- 23.5 Any restriction imposed on any person by the Accounting Officer/Authority will, at the discretion of the Accounting Officer/Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person is or was, in the opinion of the Accounting Officer/Authority, actively associated.
- 23.6 If a restriction is imposed, the purchaser must, within 5 (five) working days of such imposition, furnish the National Treasury with the following information:
- (i) the name and address of the supplier and/or person restricted by the purchaser;
 - (ii) the date of commencement of the restriction;
 - (iii) the period of restriction; and
 - (iv) the reasons for the restriction.

These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.

23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, Act 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period of not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction, and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

24. Anti-dumping and countervailing duties and rights

24.1 When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidised import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall, on demand, be paid forthwith by the contractor to the State, or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he or she delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him or her.

25. Force majeure

25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if, and to the extent that, his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.

25.2 If a force majeure situation arises, the supplier shall notify the purchaser promptly, in writing, of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

26. Termination for insolvency

26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

27. Settlement of Disputes

27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the Parties shall make every effort to resolve such dispute or difference amicably, by mutual consultation.

27.2 If, after 30 (thirty) days, the Parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.

27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.

27.4 Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.

27.5 Notwithstanding any reference to mediation and/or court proceedings herein,

- (a) the Parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
- (b) the purchaser shall pay the supplier any monies due to the supplier.

28. Limitation of Liability

28.1 Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6:

- (a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
- (b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing language

29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the Parties shall also be written in English.

30. Applicable Law

30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified in the SCC.

31. Notices

31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail, and any other notice to him shall be posted by ordinary mail, to the address furnished in his bid or to the address notified later by him in writing; and such posting shall be deemed to be proper service of such notice.

31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

32. Taxes and Duties

32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, licence fees, and other such levies imposed outside the purchaser's country.

32.2 A local supplier shall be entirely responsible for all taxes, duties, licence fees, etc., incurred until delivery of the contracted goods to the purchaser.

32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.

33. National Industrial Participation (NIP) Programme

33.1 The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.

34 Prohibition of Restrictive practices

34.1 In terms of section 4 (1) (b) (iii) of the Competition Act, Act 89 of 1998, as amended, an agreement between or concerted practice by firms, or a decision by an association of firms, is prohibited if it is between Parties in a horizontal relationship and if a bidder(s) is/are or a contractor(s) was/were involved in collusive bidding (or bid rigging).

34.2 If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has/have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act, Act 89 of 1998.

34.3 If a bidder(s) or contractor(s) has/have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and/or terminate the contract in whole or part,

TENDER NO: 238S/2023/24

and/or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding 10 (ten) years and/or claim damages from the bidder(s) or contractor(s) concerned.

C.8 ANNEXURES

Annexure A – Pro Forma Insurance Broker’s Warranty



Letterhead of supplier’s Insurance Broker

Date _____

CCT
City Manager
Civic Centre
12 Hertzog Boulevard
Cape Town
8000

Dear Sir

TENDER NO.: **238S/2023/24**

TENDER DESCRIPTION: **TABLE MOUNTAIN GROUP (TMG) AQUIFER SECTION 1: REGIONAL MONITORING AND SECTION 2: STEENBRAS WELLFIELD IMPACT MONITORING, CITY OF CAPE TOWN**

NAME OF SUPPLIER: _____

I, the undersigned, do hereby confirm and warrant that all the insurances required in terms of the abovementioned contract have been issued and/or in the case of blanket/umbrella policies, have been endorsed to reflect the interests of the CCT with regard to the abovementioned contract, and that all the insurances and endorsements, etc., are all in accordance with the requirements of the contract.

I furthermore confirm that all premiums in the above regard have been paid.

Yours faithfully

Signed: _____

For: _____ (Supplier’s Insurance Broker)

MONTHLY PROJECT LABOUR REPORT



BENEFICIARY DETAILS AND WORK INFORMATION

CONTRACT OR WORKS PROJECT NUMBER:	
-----------------------------------	--

Year	Month

Sheet		
1	of	

	(8)	(8)	(8)	(9)			(10)		(11)	(12)	(13)	(14)
No.	First name	Surname	ID number	New Beneficiary (Y/N)	Gender (M/F)	Disabled (Y/N)	Job seeker database (Y/N)	Contract start date (DDMMYY)	Contract end date (DDMMYY)	No. days worked this month (excl. training)	Training days	Rate of pay per day (R - c)
1												
2												
3												
4												
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Declared by Contractor or Vendor to be true and correct:	Name		Signature	
	Date			

Received by Employer's Agent / Representative:	Name		Signature	
	Date			

Annexure C - Pro Forma Performance Security/ Guarantee

Not applicable to this contract

Annexure D - Pro Forma Advance Payment Guarantee

Not applicable to this Contract

Annexure F - Tender Returnable Documents

Schedule F.1: Contract Price Adjustment and/or Rate of Exchange Variation

1. TENDER CONDITIONS

- 1.1 The Contract Price Adjustment (CPA) mechanism and/or provisions relating to Rate of Exchange (RoE) Variation, contained in this schedule is compulsory and binding on all Tenderers/Suppliers and this schedule (the parts relevant to the particular tender) must be completed by all Tenderers / Suppliers.
- 1.2 Tenderers/Suppliers are not permitted to amend, vary, alter or delete this schedule or any part thereof unless otherwise stated in this schedule.
- 1.3 Tenderers are not permitted to offer fixed and firm prices except as provided for in the Price Schedule.

2. CPA PROVISIONS SELECTION

- 2.1 The prices stipulated on the Price Schedule are subject to adjustment as set out below.
- 2.2 Tenderer to indicate the specific CPA and/or RoE provisions applicable to their bid by marking the relevant checkboxes below. Tenderers to note that the CPA and/or RoE provisions are not exclusive and multiple CPA Types can exist if the bid contains both local and foreign exchange based pricing. In such cases the CPA and/or ROE provision applies only to that particular portion of the tendered price.
- 2.3 The CPA and/or RoE provisions applicable to this tender and resulting contract are to be indicated below by checking the relevant boxes (with multiple selections only where indicated permissible):

	<u>Indicate option</u>	<u>CPA Type</u>	<u>Period</u>	<u>Refer to Section</u>
A	<input type="checkbox"/> N/A	FIRM PRICES as per Pricing Schedule	Annual	<i>Pricing Schedule C.4 and Schedule F.1 (A)</i>
<u>LOCAL (RSA) TENDER CONTENT:</u>				
EITHER				
B	<input type="checkbox"/> N/A	SEIFSA Index based CPA	Monthly / Quarterly	<i>Schedule F.1 (B)</i>
OR				
C	<input type="checkbox"/> N/A	Pricelist / Quotation Based CPA	Ad-Hoc	<i>Schedule F.1 (C)</i>
OR				
D	<input checked="" type="checkbox"/> X	STATS SA CPI Index Based CPA	Annually	<i>Schedule F.1 (D)</i>
OR/AND				
E	<input type="checkbox"/> N/A	Sectorial Determination 1:Contract Cleaning Sector	Annually	<i>Schedule F.1 (E)</i>
OR				
E	<input type="checkbox"/> N/A	Sectorial Determination 6: Private Security Sector	Annually	<i>Schedule F.1 (E)</i>
<u>IMPORTED GOODS AND / OR COMPONENTS (IF APPLICABLE)</u>				
F	<input type="checkbox"/> N/A	ROE based CPA	Ad-Hoc	<i>Schedule F.1 (F)</i>
AND (IF REQUIRED), EITHER				
G	<input type="checkbox"/> N/A	Pricelist / Quotation based CPA	Ad-Hoc / Periodic	<i>Schedule F.1 (G)</i>

OR

H

N/A

Overseas CPI / PPI index based CPA

Ad-Hoc /
Periodic*Schedule F.1 (H)*

- 2.4 CPA and/or RoE provisions marked as **not applicable** is not relevant and will not apply to this tender and resulting contract.

3. CONTRACT CPA APPLICATIONS AND ADMINISTRATION

- 3.1 Any claim for variation in the contract price (either CPA or RoE adjustments) must be submitted in writing:

- i. By letter to: Director ((**Mr. Michael Killick**), City of Cape Town,
P O Box 655, Cape Town, 8000 or

at least 14 days prior to the month upon which the adjustment would become effective in the case of prices being set in advance, and as soon as relevant indices are available and no later than 60 days after the date of delivery of goods or the completion of the project (i.e. date of issue of the Taking-Over Certificate, if applicable) in the case of adjustments being claimed retrospectively for Goods or Services. The latter case is only applicable where specifically provided for in the CPA provisions.

- 3.2 When submitting a request for CPA and/or RoE adjustment the Supplier shall indicate the Rand Value claimed for each item listed on C.4 - Price Schedule, clearly indicating the item number as per C.4 - Price Schedule. Percentage increases will not be considered. A mere notification of a request for CPA without stating the new price claimed for each item shall, for the purpose of this clause, not be regarded as a valid request.
- 3.3 The CCT reserves the right to request the Supplier to submit auditor's certificates or such other documentary proof as it may require in order to verify a claim for CPA or RoE adjustments. Price adjustments will not be processed until such time as the Supplier submits such auditor's certificates or other documentary proof to the CCT. Should the Supplier fail to submit the auditor's certificates or other documentary proof to the CCT within 30 days from the written request, it shall be presumed that the Supplier has abandoned his request.
- 3.4 The CCT reserves the right to withhold payment of any claim for adjustment while only provisional figures are available and until such time as the final (revised) figures are issued by the relevant authority.
- 3.5 The CCT will confirm in writing once processing of the CPA or RoE adjustments have been completed including the effective date of the adjustments.
- 3.6 Where pricelist-based and other non-index based CPA requests are investigated and found to be not reasonable and market related, the CCT reserves the right to reject such requests. Where disputes arise with respect to such rejected requests the CCT reserves the right to procure the Goods from other available Suppliers until such time as the dispute is resolved.
- 3.7 Unless indicated otherwise in the relevant schedule below, all Purchase Orders issued on or after the effective date of the adjustment shall be issued at, and the Goods or Services supplied, invoiced and paid for at the adjusted prices. The relevant adjustment will not be applied to Purchase Orders issued prior to the effective date.

F.1 (A) – FIRM PRICES

NOT APPLICABLE

F.1 (B) LOCAL SOUTH AFRICAN CONTENT – SEIFSA INDICES

NOT APPLICABLE

F.1 (C) LOCAL SOUTH AFRICAN CONTENT - SUPPLIER/ MANUFACTURER PRICE LIST/QUOTATIONS

NOT APPLICABLE

F.1 (D) LOCAL SOUTH AFRICAN CONTENT - STATS SA CONSUMER PRICE INDEX

1. Applicable where the Tenderer/Suppliers has indicated their tendered prices are subject to adjustment based on changes in the Statistics South Africa (STATS SA) Consumer Price Indices.
2. A minimum of 10% of the tender price as per C.4 Pricing Schedule shall be fixed and free of variation for the duration of the contract.
3. A total of 90% of the tender price as per C.4 Pricing Schedule shall be adjusted annually in accordance with clause 5 below.
4. The Contract Price(s) will thereafter be subject to adjustment annually based on the average percentage of change over 12 months as published by STATS SA: Consumer Price Index (P0141–Table B2 – CPI headline year-on-year rates) as follows:
 - 4.1 CPA applicable from the start of the commencement to the end of the 12th month calculated as follows:
 - a) The base month for the price adjustment shall be thirteen (13) calendar months prior to project commencement.
 - b) The end month shall be one (1) calendar month prior to the commencement.
 - 4.2 CPA applicable from the start of the 13th month to the end of the 24th month calculated as follows:
 - a) The base month for the price adjustment being one (1) calendar month prior to Commencement Date of Contract; and
 - b) The end month shall be one (1) calendar month prior to the 12th month.
 - 4.3 CPA applicable from the start of the 25th month to end of the 36th month calculated as follows:
 - a) The base month for the price adjustment shall be one (1) calendar month prior to the 13th month; and
 - b) The end month shall be one (1) calendar months prior to 24th month.
 - 4.4 The average CPI percentage will be calculated using the base month to the end month (both included) divided by the number of months. (12 months totalled/12 to achieve the average CPI)
5. 6 Subject to prior approval by the CCT delegated authority, in the event of any extension of the contract period, the CPA applicable beyond month 36th of the contract will follow the same principle in determining the base month (i.e. 3 calendar months prior to 25th month) and end date (3 calendar months prior to 36th month) as outlined above.

F.1. (E) LOCAL SOUTH AFRICAN CONTENT – SECTORIAL DETERMINATION

NOT APPLICABLE

**F.1. (F) GOODS AND/OR COMPONENTS IMPORTED FROM OUTSIDE OF SOUTH AFRICA
RATE OF EXCHANGE PRICE VARIATIONS**

NOT APPLICABLE

**F.1. (G) GOODS AND/OR COMPONENTS IMPORTED FROM OUTSIDE OF SOUTH AFRICA -
MANUFACTURER/SUPPLIER PRICE/QUOTATION LIST**

NOT APPLICABLE

**F.1. (H) GOODS AND/OR COMPONENTS IMPORTED FROM OUTSIDE OF SOUTH AFRICA - BASED
ON FOREIGN INDICES**

NOT APPLICABLE

Schedule F.2: Certificate of Authority for Partnerships/ Joint Ventures/ Consortia

This schedule is to be completed if the tender is submitted by a partnership/joint venture/ consortium.

1. We, the undersigned, are submitting this tender offer as a partnership/ joint venture/ consortium and hereby authorize Mr/Ms _____, of the authorised entity _____, acting in the capacity of Lead Partner, to sign all documents in connection with the tender offer and any contract resulting from it on the partnership/joint venture/ consortium’s behalf.

2. By signing this schedule the partners to the partnership/joint venture/ consortium:
 - 2.1 warrant that the tender submitted is in accordance with the main business and objectives of the partnership/joint venture/ consortium;
 - 2.2 agree that the CCT shall make all payments in terms of this Contract into the following bank account of the Lead Partner:
 Account Holder: _____
 Financial Institution: _____
 Branch Code: _____
 Account No.: _____
 - 2.3 agree that in the event that there is a change in the partnership/ joint venture/ consortium and/or should a dispute arise between the partnership/joint venture/ consortium partners, that the CCT shall continue to make any/all payments due and payable in terms of the Contract into the aforesaid bank account until such time as the CCT is presented with a Court Order or an original agreement (signed by each and every partner of the partnership/joint venture/ consortium) notifying the CCT of the details of the new bank account into which it is required to make payment.
 - 2.4 agree that they shall be jointly and severally liable to the CCT for the due and proper fulfilment by the successful tenderer/supplier of its obligations in terms of the Contract as well as any damages suffered by the CCT as a result of breach by the successful tenderer/supplier. The partnership/joint venture/ consortium partners hereby renounce the benefits of excussion and division.

SIGNED BY THE PARTNERS OF THE PARTNERSHIP/ JOINT VENTURE/ CONSORTIUM		
NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		Signature..... Name..... Designation.....
		Signature..... Name..... Designation.....
		Signature..... Name..... Designation.....
		Signature..... Name..... Designation.....

Note: A copy of the Joint Venture Agreement shall be appended to *List of Other Documents Attached by Tenderer Schedule*.

Schedule F.3: Declaration for Procurement above R10 million

If the value of the transaction is expected to exceed R10 million (VAT included) the tenderer shall complete the following questionnaire, attach the necessary documents and sign this schedule:

1. Are you by law required to prepare annual financial statements for auditing? **(Please mark with X)**

YES		NO	
-----	--	----	--

If YES, submit audited annual financial statements:

- (i) For the past three years, or
(ii) Since the date of establishment of the tenderer (if established during the past three years)

By attaching such audited financial statements to **List of Other Documents Attached by Tenderer Schedule**.

2. Do you have any outstanding undisputed commitments for municipal services towards the CCT or other municipality in respect of which payment is overdue for more than 30 (thirty) days? **(Please mark with X)**

YES		NO	
-----	--	----	--

- 2.1 If NO, this serves to certify that the tenderer has no undisputed commitments for municipal services towards any municipality for more than three (3) (three) months in respect of which payment is overdue for more than 30 (thirty) days.

- 2.2 If YES, provide particulars:

3. Has any contract been awarded to you by an organ of state during the past five (5) years? **(Please mark with X)**

YES		NO	
-----	--	----	--

If YES, insert particulars in the table below including particulars of any material non-compliance or dispute concerning the execution of such contract. Alternatively attach the particulars to **List of Other Documents Attached by Tenderer** schedule in the same format as the table below:

Organ of State	Contract Description	Contract Period	Non-compliance/dispute (if any)

4. Will any portion of the goods or services be sourced from outside the Republic, and if so, what portion and whether any portion of payment from the CCT is expected to be transferred out of the Republic? **(Please mark with X)**

YES		NO	
-----	--	----	--

If YES, furnish particulars below

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, restriction of the tenderer or the exercise by the CCT of any other remedies available to it.

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule F.4: Preference Points Claim Form In Terms Of the 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

The applicable preference point system for this tender is the 80/20 preference point system.

- 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	80
SPECIFIC GOALS	20
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

The following definitions shall apply to this schedule:

- (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

POINTS AWARDED FOR PRICE

THE 80/20 PREFERENCE POINT SYSTEMS

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

80/20

Or

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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

Not applicable to this tender.

5. POINTS AWARDED FOR SPECIFIC GOALS

5.1 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:

5.2 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	To be Completed by the Organ of State	To be Completed by the Tenderer
	Number of points Allocated (80/20 system)	Number of points claimed (80/20 system)
Gender	5	
Race	5	
Disability	3	
Promotion of Micro and Small Enterprises	7	

DECLARATION WITH REGARD TO COMPANY/FIRM

5.3 Name of company/firm.....

5.4 Company registration number:

5.5 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]

5.6 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 4.1 and 4.2, the Supplier 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 Supplier, 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.

<i>Signature of Tenderer</i>	<i>Date</i>	<i>Name and Surname</i>	<i>Address</i>

For official use.		
SIGNATURE OF CCT OFFICIALS AT TENDER OPENING		
1.	2.	3.

Schedule F.5: Declaration of Interest – State Employees (MBD 4 amended)

1. No bid will be accepted from:
 - 1.1 persons in the service of the state¹, or
 - 1.2 if the person is not a natural person, of which any director, manager or principal shareholder or stakeholder is in the service of the state, or
 - 1.3 from persons, or entities of which any director, manager or principal shareholder or stakeholder, has been in the service of the City of Cape Town (CCT) during the previous twelve (12) months, or
 - 1.4 from an entity who has employed a former CCT employee who was at a level of T14 or higher at the time of leaving the CCT's employ and involved in any of the CCT's bid committees for the bid submitted, if:
 - 1.4.1 the CCT employee left the CCT's employment voluntarily, during the previous twelve (12) months;
 - 1.5 a person who was a CCT employee, or an entity that employs a CCT employee, if
 - 1.5.1 the CCT employee left the CCT's employment whilst under investigation for alleged misconduct, or
 - 1.5.2 was facing disciplinary action or potential disciplinary action by the CCT, or
 - 1.5.3 was involved in a dispute against the CCT during the previous thirty six (36) months.

2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the tenderer or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.
 - 3.1 Full Name of tenderer or his or her representative: _____
 - 3.2 Identity Number: _____
 - 3.3 Position occupied in the Company (director, trustee, shareholder²): _____
 - 3.4 Company or Close Corporation Registration Number: _____
 - 3.5 Tax Reference Number: _____
 - 3.6 VAT Registration Number: _____
 - 3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.
 - 3.8 Are you presently in the service of the state? **YES / NO**
 - 3.8.1 If yes, furnish particulars: _____
 - 3.9 Have you been in the service of the state for the past twelve months? **YES / NO**
 - 3.9.1 If yes, furnish particulars: _____
 - 3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**
 - 3.10.1 If yes, furnish particulars: _____
 - 3.11 Are you, aware of any relationship (family, friend, other) between any other tenderer and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**
 - 3.11.1 If yes, furnish particulars: _____
 - 3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**
 - 3.12.1 If yes, furnish particulars: _____

- 3.13 Are any spouse, child or parent of the company’s directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**
 3.13.1 If yes, furnish particulars: _____
- 3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract? **YES / NO**
 3.14.1 If yes, furnish particulars: _____
- 3.15 Have you, or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company been in the service of the CCT in the past twelve months? **YES / NO**
 3.15.1 If yes, furnish particulars: _____
- 3.16 Do you have any employees who was in the service of the CCT at a level of T14 or higher at the time they left the employ of the CCT, and who was involved in any of the CCT’s bid committees for this bid? **YES / NO**
 3.16.1 If yes, furnish particulars: _____

4. Full details of directors / trustees / members / shareholders

Full Name	Identity Number	State Employee Number

If the above table does not sufficient to provide the details of all directors / trustees / shareholders, please append full details to the tender submission.

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, restriction of the tenderer or the exercise by the CCT of any other remedies available to it.

 Signature
 Print name: _____ Date
 On behalf of the tenderer (duly authorised)

1MSCM Regulations: “in the service of the state” means to be –

- (a) a member of –***
 - (i) any municipal council;***
 - (ii) any provincial legislature; or***
 - (iii) the national Assembly or the national Council of provinces;***
- (b) a member of the board of directors of any municipal entity;***
- (c) an official of any municipality or municipal entity;***
- (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);***
- (e) an executive member of the accounting authority of any national or provincial public entity; or***
- (f) an employee of Parliament or a provincial legislature.***

2 Shareholder” means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

Schedule F.6: Conflict of Interest Declaration

1. The tenderer shall declare whether it has any conflict of interest in the transaction for which the tender is submitted. **(Please mark with X)**

YES		NO	
-----	--	----	--

1.1 If yes, the tenderer is required to set out the particulars in the table below:

2. The tenderer shall declare whether it has directly or through a representative or intermediary promised, offered or granted:

2.1 Any inducement or reward to the CCT for or in connection with the award of this contract; or

2.2 Any reward, gift, favour or hospitality to any official or any other role player involved in the implementation of the supply chain management policy. **(Please mark with X)**

YES		NO	
-----	--	----	--

If yes, the tenderer is required to set out the particulars in the table below:

Should the tenderer be aware of any corrupt or fraudulent transactions relating to the procurement process of the CCT, please contact the following:

The CCT's anti-corruption hotline at 0800 32 31 30 (toll free)

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, restriction of the tenderer or the exercise by the CCT of any other remedies available to it.

 Signature
 Print name:
 On behalf of the tenderer (duly authorised)

 Date

Schedule F.7: Declaration of Tenderer's Past Supply Chain Management Practices (MBD 8)

Where the entity tendering is a partnership/joint venture/consortium, each party to the partnership/joint venture/consortium must sign a declaration in terms of the Municipal Finance Management Act, Act 56 Of 2003, and attach it to this schedule.

1 The tender offer of any tenderer may be rejected if that tenderer or any of its directors/members have:

- a) abused the municipality's / municipal entity's supply chain management system or committed any fraudulent conduct in relation to such system;
- b) been convicted for fraud or corruption during the past five years;
- c) willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
- d) been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or Database of Restricted Suppliers.

2 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

Item	Question	Yes	No
2.1	<p>Is the tenderer or any of its directors/members listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.1.1	If so, furnish particulars:		
2.2	<p>Is the tenderer or any of its directors/members listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or Database of Restricted Suppliers?</p> <p>The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.2.1	If so, furnish particulars:		
2.3	<p>Was the tenderer or any of its directors/members convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.3.1	If so, furnish particulars:		
Item	Question	Yes	No

2.4	Does the tenderer or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.4.1	If so, furnish particulars:		
2.5	Was any contract between the tenderer and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.5.1	If so, furnish particulars:		

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract,, restriction of the tenderer or the exercise by the CCT of any other remedies available to it.

 Signature
 Print name:
 On behalf of the tenderer (duly authorised)

 Date

Schedule F.8: Authorisation for the Deduction of Outstanding Amounts Owed to the CCT

To: THE CITY MANAGER, City of Cape Town

From: _____
(Name of tenderer)

RE: AUTHORISATION FOR THE DEDUCTION OF OUTSTANDING AMOUNTS OWED TO THE CCT

The tenderer:

- a) hereby acknowledges that according to SCM Regulation 38(1)(d)(i) the City Manager may reject the tender of the tenderer if any municipal rates and taxes or municipal service charges owed by the tenderer (or any of its directors/members/partners) to the CCT, or to any other municipality or municipal entity, are in arrears for more than 3 (three) months; and
- b) therefore hereby agrees and authorises the CCT to deduct the full amount outstanding by the Tenderer or any of its directors/members/partners from any payment due to the tenderer; and
- c) confirms the information as set out in the tables below for the purpose of giving effect to b) above;

Physical Business address(es) of the tenderer	Municipal Account number(s)	Inside the CCT municipal boundary (Yes/No)

If there is not enough space for all the names, please attach the information to **List of other documents attached by tenderer** schedule in the same format:

Name of Director / Member / Partner	Identity Number	Physical residential address of Director / Member / Partner	Municipal Account number(s)	Inside the CCT municipal boundary (Yes/No)

The tenderer hereby certifies that the information set out in this schedule and/or attached hereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in steps being taken against the tenderer, the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract, restriction of the tenderer or the exercise by the CCT of any other remedies available to it.

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule F.9: Certificate of Independent Tender Determination
--

I, the undersigned, in submitting this tender number **238S/2023/24 - TABLE MOUNTAIN GROUP (TMG) AQUIFER SECTION 1: REGIONAL MONITORING AND SECTION 2: STEENBRAS WELLFIELD IMPACT MONITORING, CITY OF CAPE TOWN** in response to the tender invitation made by **THE CCT**, do hereby make the following statements, which I certify to be true and complete in every respect:

I certify, on behalf of: _____ (Name of tenderer) that:

1. I have read and I understand the contents of this Certificate;
2. I understand that this tender will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorised by the tenderer to sign this Certificate, and to submit this tender, on behalf of the tenderer;
4. Each person whose signature appears on this tender has been authorised by the tenderer to determine the terms of, and to sign, the tender on behalf of the tenderer;
5. For the purposes of this Certificate and this tender, I understand that the word 'competitor' shall include any individual or organisation other than the tenderer, whether or not affiliated with the tenderer, who:
 - (a) has been requested to submit a tender in response to this tender invitation;
 - (b) could potentially submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the tenderer and/or is in the same line of business as the tenderer.
6. The tenderer has arrived at this tender independently from and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium¹ will not be construed as collusive price quoting.
7. In particular, without limiting the generality of paragraphs 5 and 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation);
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit a tender;
 - (e) the submission of a tender which does not meet the specifications and conditions of the tender; or
 - (f) tendering with the intention not to win the contract.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this tender invitation relates.
9. The terms of this tender have not been and will not be disclosed by the tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to tenders and contracts, tenders 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, Act 89 of 1998, and/o/r 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 10 (ten) years in terms of the Prevention and Combating of Corrupt Activities Act, Act 12 of 2004, or any other applicable legislation.

Signature

Print name:

On behalf of the tenderer (duly authorised)

Date

(¹ Consortium: 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

Schedule F.11: List of Other Documents Attached By Tenderer

The tenderer has attached to this schedule, the following additional documentation:

	Date of Document	Title of Document or Description (refer to clauses / schedules of this tender document where applicable)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		

Attach additional pages if more space is required.

 Signature
 Print name:
 On behalf of the tenderer (duly authorised)

 Date

Schedule F.12: Record of Addenda to Tender Documents

We confirm that the following communications received from the CCT before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:

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

Attach additional pages if more space is required.

 Signature
 Print name:
 On behalf of the tenderer (duly authorised)

 Date

Schedule F.13: Information to Be Provided With the Tender

The following information shall be provided with the Tender:

- a. Schedule F13A: Key Personnel
- b. Schedule F13B: Tendering Entity track record
- c. Schedule F13C: Professional Indemnity Insurance
- d. Schedule F13D: Schedule of Sub-contractors

Signature
Print name:
On behalf of the tenderer (duly authorised)

Date

Schedule F.13A: Key Personnel

The tenderer is referred to the Specification and Tender Conditions and shall insert in the spaces provided below (if space is not sufficient this page may be copied):

- a) details of the key personnel required to be in the employment of the tenderer or joint-venture, in order for the tenderer to be responsive; and
- b) the Curriculum Vitae of each individual must be attached to this schedule. The CV shall be a maximum of 3 pages long and contain the information relevant to the proposed role for this tender. The CV shall include number of years of specified experience in months and years.
- c) proof of professional registration certificates to be attached to this schedule.

Different individuals must be identified for each of the key personnel listed, except that the project leader can also fulfil one of the other key personnel roles where meeting the requirements (e.g. senior freshwater ecologist). The same key personnel cannot be used for Sections 1 and 2 where a tenderer tenders for both sections.

SECTION 1: REGIONAL HYDRO(GEO)LOGICAL AND ECOLOGICAL MONITORING

A. PROJECT LEADER				
NAME	JOB TITLE	QUALIFICATIONS	PROFESSIONAL REGISTRATION NO.	NO. OF YEARS SPECIFIED EXPERIENCE
B. FRESHWATER ECOLOGIST				
NAME	JOB TITLE	QUALIFICATIONS	PROFESSIONAL REGISTRATION NO.	NO. OF YEARS SPECIFIED EXPERIENCE
C. BOTANICAL ECOLOGIST				
NAME	JOB TITLE	QUALIFICATIONS	PROFESSIONAL REGISTRATION NO.	NO. OF YEARS SPECIFIED EXPERIENCE
D. HYDROLOGIST				
NAME	JOB TITLE	QUALIFICATIONS	PROFESSIONAL REGISTRATION NO.	NO. OF YEARS SPECIFIED EXPERIENCE
E. HYDROGEOLOGIST				
NAME	JOB TITLE	QUALIFICATIONS	PROFESSIONAL REGISTRATION NO.	NO. OF YEARS SPECIFIED EXPERIENCE

Number of sheets appended by the tenderer to this Schedule(If nil, enter NIL).

SIGNED ON BEHALF OF TENDERER:

SECTION 2: STEENBRAS WELLFIELD HYDROLOGICAL AND ECOLOGICAL MONITORING

A. PROJECT LEADER				
NAME	JOB TITLE	QUALIFICATIONS	PROFESSIONAL REGISTRATION NO.	NO. OF YEARS SPECIFIED EXPERIENCE
B. FRESHWATER ECOLOGIST				
NAME	JOB TITLE	QUALIFICATIONS	PROFESSIONAL REGISTRATION NO.	NO. OF YEARS SPECIFIED EXPERIENCE
C. BOTANICAL ECOLOGIST				
NAME	JOB TITLE	QUALIFICATIONS	PROFESSIONAL REGISTRATION NO.	NO. OF YEARS SPECIFIED EXPERIENCE
D. HYDROLOGIST				
NAME	JOB TITLE	QUALIFICATIONS	PROFESSIONAL REGISTRATION NO.	NO. OF YEARS SPECIFIED EXPERIENCE
E. HYDROGEOLOGIST				
NAME	JOB TITLE	QUALIFICATIONS	PROFESSIONAL REGISTRATION NO.	NO. OF YEARS SPECIFIED EXPERIENCE

Number of sheets appended by the tenderer to this Schedule(If nil, enter NIL).

 Signature
 Print name:
 On behalf of the tenderer (duly authorised)

 Date

Schedule F.13B: Tendering Entity Track Record

The tenderer is referred to the appropriate clause(s) of the Tender Conditions and shall provide details on the schedule below. A pro-forma letter is provided below as example. Failure to submit a reference letter(s) will lead to the conclusion that the tenderer was not involved in the project and will be considered non-responsive.

The following shall be noted with respect to “projects”:

- In order to be considered a “project”, a minimum of 10 person days per requirement had to be spent on the project;
- Projects that cover more than one of the requirements can be listed under all requirements that are covered provided that the minimum person days had been spent per requirement; and
- The same projects can be considered for Section A (Regional Monitoring) and Section B (Impact Monitoring).

The experience of the tenderer and joint venture partners will be considered when evaluating the track record of the tenderer. The experience of sub-contractors will not be considered. Where the entity tendering is a joint venture, the track record of each party to the joint venture must be submitted as part of this schedule (additional pages may be added if necessary).

Section 1: Track record with regional monitoring

Botanical assessment and or monitoring within natural fynbos biome or similar				
TYPE OF RELEVANT WORK PREVIOUSLY PERFORMED	CLIENT'S DETAILS <i>(Location where work was performed, company name, contact name & phone number)</i>	DATE AND DURATION OF CONTRACT	VALUE OF CONTRACT	REFERENCE LETTER INCLUDED (Y/N)

Wetland assessment and or monitoring within natural fynbos biome or similar				
TYPE OF RELEVANT WORK PREVIOUSLY PERFORMED	CLIENT'S DETAILS <i>(Location where work was performed, company name, contact name & phone number)</i>	DATE AND DURATION OF CONTRACT	VALUE OF CONTRACT	REFERENCE LETTER INCLUDED (Y/N)

Integrated water resource assessment and or monitoring, including surface water				
TYPE OF RELEVANT WORK PREVIOUSLY PERFORMED	CLIENT'S DETAILS (Location where work was performed, company name, contact name & phone number)	DATE AND DURATION OF CONTRACT	VALUE OF CONTRACT	REFERENCE LETTER INCLUDED (Y/N)

Section 2: Track record with impact monitoring

Botanical assessment and or monitoring within natural fynbos biome or similar				
TYPE OF RELEVANT WORK PREVIOUSLY PERFORMED	CLIENT'S DETAILS (Location where work was performed, company name, contact name & phone number)	DATE AND DURATION OF CONTRACT	VALUE OF CONTRACT	REFERENCE LETTER INCLUDED (Y/N)

Wetland assessment and or monitoring within natural fynbos biome or similar				
TYPE OF RELEVANT WORK PREVIOUSLY PERFORMED	CLIENT'S DETAILS (Location where work was performed, company name, contact name & phone number)	DATE AND DURATION OF CONTRACT	VALUE OF CONTRACT	REFERENCE LETTER INCLUDED (Y/N)

Water resource assessment and or monitoring, including surface water – groundwater interaction				
TYPE OF RELEVANT WORK PREVIOUSLY PERFORMED	CLIENT'S DETAILS <i>(Location where work was performed, company name, contact name & phone number)</i>	DATE AND DURATION OF CONTRACT	VALUE OF CONTRACT	REFERENCE LETTER INCLUDED (Y/N)

Impact assessment and or monitoring of infrastructure development in or next to watercourses				
TYPE OF RELEVANT WORK PREVIOUSLY PERFORMED	CLIENT'S DETAILS <i>(Location where work was performed, company name, contact name & phone number)</i>	DATE AND DURATION OF CONTRACT	VALUE OF CONTRACT	REFERENCE LETTER INCLUDED (Y/N)
Impact assessment and or monitoring of infrastructure development in or next to watercourses				

 Signature
 Print name:
 On behalf of the tenderer (duly authorised)

 Date

PRO-FORMA LETTER (EXAMPLE)

LETTERHEAD OF EMPLOYER OR CONSULTING ENGINEER

Date _____

CITY OF CAPE TOWN
 Director: Bulk Services
 Water and Sanitation Head Office
 8 Voortrekker Road (corner of Mike Pienaar Boulevard)
 Cape Town
 Bellville
 7535

Dear Sir

TENDER NO.: 238S/2023/24

TENDER TITLE: TABLE MOUNTAIN GROUP (TMG) AQUIFER SECTION 1: REGIONAL MONITORING AND SECTION 2: STEENBRAS WELLFIELD IMPACT MONITORING, CITY OF CAPE TOWN

NAME OF TENDERING ENTITY: _____

The table below summarises the scope of work performed by the abovementioned tendering entity on the contract described below.

Contract name and number	
Contract value (inclusive of VAT)	
Scope of works	
Botanical assessment / monitoring within natural fynbos biome or similar (Y/N) [If "Yes" provide project details, date & duration, and role alongside]	
Wetland assessment / monitoring within natural fynbos biome or similar (Y/N) [If "Yes" provide project details, date & duration, and role alongside]	
Integrated Water resource monitoring and assessment (Y/N) [If "Yes" provide project details, date & duration, and role alongside]	
Construction impact assessment / monitoring on wetlands within fynbos biome or similar (Y/N) [If "Yes" provide project details, date & duration, and role alongside]	
Project area	
Completion date	
Provide further details of scope for items marked as "Yes" above (e.g. type of work, duration, person months, etc.)	

Yours faithfully

Name: _____

Signed: _____

Designation: _____

For: _____

E-mail: _____

Tel No.: _____

Schedule F.13C: Professional Indemnity Insurance

The tenderer is referred to Clause 11.2 of the Special Conditions of Contract and shall state below details of the professional indemnity insurance held by the tenderer. Where the tenderer is a joint venture, each party to the joint venture must submit details of their professional indemnity insurance. Proof of insurance must be appended to this schedule.

PROFESSIONAL INDEMNITY INSURANCE		
NAME OF INSURED	NAME OF INSURER	LIMIT OF INDEMNITY IRO EACH CLAIM

 Signature
 Print name:
 On behalf of the tenderer (duly authorised)

 Date

Schedule F.13D: Schedule of Sub-Contractors

We notify you that it is our intention to employ the following sub-contractors/consultants for work (excluding work covered by provisional sums and contingencies) in this contract.

Acceptance of this tender shall not be construed as approval of all or any of the listed sub-contractors/consultants. Should any of the sub-contractors/subconsultants not be approved subsequent to acceptance of the tender, this shall in no way invalidate the contract, and the tendered unit rates for the various items making up the work activities shall remain final and binding.

SUB-CONTRACTORS	
Sub-contractor's name	Work activities to be undertaken by the Sub-contractor

Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL).

 Signature
 Print name:
 On behalf of the tenderer (duly authorised)

 Date

Schedule F.14: Appeal Application

annexure 'B'

OFFICIAL RECEIPT
(Valid only if printed
by official cash
receiving machine)

IRISITI ESESIKWENI
(Isemthethweni kuphela
xa ishicilelwe
ngumatshini wokukhupa
irisiti osesikweni.)

AMPTELIKE KWITANSIE
(Geldig alleenlik indien deur
amptelike kontantvangs
masjien gedruk.)

**GL DATA CAPTURE RECEIPT
(CASHIERTO RETAIN A COPY)**

RECEIPT NO: _____

DATE: _____

SAP GL:

8	1	0	1	0	0
---	---	---	---	---	---

PROFIT CENTRE:

1	3	0	5	0	0	0	1
---	---	---	---	---	---	---	---

NAME/COMPANY NAME:

AMOUNT:

						R	3	0	0	-	0	0
--	--	--	--	--	--	---	---	---	---	---	---	---

SERVICE DEPARTMENT DETAILS-

DEPARTMENT: LEGAL SERVICES: APPEALS UNIT

CONTACT PERSON: CHARLENE CEBEKHULU / MELANIE CLOETE

PHONE NO: 021 400 2503 / 021 400 3788

OFFICIAL RECEIPT
(Valid only if printed
by official cash
receiving machine)

IRISITI ESESIKWENI
(Isemthethweni kuphela
xa ishicilelwe
ngumatshini wokukhupa
irisiti osesikweni.)

AMPTELIKE KWITANSIE
(Geldig alleenlik indien deur
amptelike kontantvangs
masjien gedruk.)

**GL DATA CAPTURE RECEIPT
(CASHIERTO RETAIN A COPY)**

RECEIPT NO: _____

DATE: _____

SAP GL:

8	1	0	1	0	0
---	---	---	---	---	---

PROFIT CENTRE:

1	3	0	5	0	0	0	1
---	---	---	---	---	---	---	---

NAME/COMPANY NAME:

AMOUNT:

						R	3	0	0	-	0	0
--	--	--	--	--	--	---	---	---	---	---	---	---

SERVICE DEPARTMENT DETAILS-

DEPARTMENT: LEGAL SERVICES: APPEALS UNIT

CONTACT PERSON: CHARLENE CEBEKHULU / MELANIE CLOETE

PHONE NO: 021 400 2503 / 021 400 3788

CIVIC CENTRE IZIKO LOLUNTU BURGERSENTRUM
12 HERTZOG BOULEVARD CAPE TOWN 8001 P O BOX 298 CAPE TOWN 8000
www.capetown.gov.za



Making progress possible. Together.

Schedule F.15: Declaration of Tendered Rates Submitted

I, the undersigned, in submitting this tender for contract 238S/2023/24 in response to the invitation for the tender made by the City of Cape Town, do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____

that:

(Name of Tenderer)

1. I have read and I understand the contents of this Certificate;
2. I understand that as per clause 22.4 of the Municipal Supply Chain Management Regulations 2005, *“Where bids are requested in electronic format, such bids must be supplemented by sealed hard copies.”*
3. I understand that I am required to submit one (1) electronic copy (on a USB Flash drive), and one (1) hardcopy(printed) of the Schedule of Rates, and that both copies submitted are to be in the same format as those issued by the Employer.
4. I confirm that both the hardcopy and electronic copy of rates submitted with this tender are a replica of each other.
5. I accept that if/when a Notice to Tenderer (NTT) is issued by the Employer for changes relevant to the Schedule of Rates, I will be required to attach the respective addenda separately to that which has been issued with the original document.

Signature

Date

Name

Position/Designation