


TENDER DOCUMENT GOODS AND SERVICES		 CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD
SUPPLY CHAIN MANAGEMENT		
SCM - 542	Approved by Branch Manager: 03/04/2020	Version: 8 Page 1 of 210

<p>TENDER NO: 340S/2021/22</p> <p>TENDER DESCRIPTION: TABLE MOUNTAIN GROUP (TMG) AQUIFER REGIONAL (SECTION A) AND STEENBRAS WELLFIELD IMPACT (SECTION B) MONITORING, CITY OF CAPE TOWN</p> <p>CONTRACT PERIOD: FROM COMMENCEMENT DATE TO 30 JUNE 2025</p>
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VOLUME 1: TENDERING PROCEDURES

CLOSING DATE: 21 June 2022

CLOSING TIME: 10:00 a.m.

TENDER BOX NUMBER: 129

TENDER FEE: R200 Non-refundable tender fee payable to 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	
TRADING AS (if different from above)	

NATURE OF TENDER OFFER (please indicate below)	
Main Offer (see clause 2.2.11.1)	Rates based
Alternative Offer (see clause 2.2.11.1)	Not applicable

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

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**VOLUME 1: THE TENDER
(1) GENERAL TENDER INFORMATION**

- TENDER ADVERTISED** : **20 May 2022**
- SITE VISIT/CLARIFICATION MEETING** : 10h00 on 31 May 2022
(Not compulsory, but strongly recommended)
- VENUE FOR SITE VISIT/CLARIFICATION MEETING** : Meeting will be held virtually via Skype (no in-person meeting). Please send an e-mail to Candice.LasherScheepers@capetown.gov.za for the link to the virtual meeting prior to the meeting time and date.
- TENDER BOX & ADDRESS** : **Tender Box as per front cover at the Tender & Quotation Boxes Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town.**
- : The Tender Document (which includes the Form of Offer and Acceptance) completed 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. 340S/2021/22: TABLE MOUNTAIN GROUP (TMG) AQUIFER REGIONAL (SECTION A) AND STEENBRAS WELLFIELD IMPACT (SECTION B) MONITORING, CITY OF CAPE TOWN** the tender box No. 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: Candice Lasher-Scheepers
Tel. No.: (021) 400 6634
Email: Candice.LasherScheepers@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’

(2) CONDITIONS OF TENDER

2.1 General

2.1.1 Actions

2.1.1.1 The City of Cape Town (CCT) and each tenderer submitting a tender offer shall comply with these Conditions of Tender. In their dealings with each other, they shall discharge their duties and obligations as set out in these Conditions of Tender, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations.

The parties agree that this tender, its evaluation and acceptance and any resulting contract shall also be subject to the Employer's Supply Chain Management Policy ('SCM Policy') that was applicable on the date the bid was advertised, save that if the Employer 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 that contract. Please refer to this document contained on the Employer's website.

Abuse of the supply chain management system is not permitted and may result in the tender being rejected, cancellation of the contract, restriction of the supplier, and/or the exercise by the City of any other remedies available to it as described in the SCM Policy.

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 the returnable documents are part of these Conditions of Tender.

2.1.2.2 These Conditions of Tender and returnable schedules which are required for tender evaluation purposes, shall form part of the contract arising from the 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 by its Director: Supply Chain Management or his nominee.

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 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 tender conditions, a contract will be concluded with the tenderer(s) who scores the highest number of tender adjudication points for the respective section of monitoring. Tenderers 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 two tenderers (the highest ranked tenderer (“the winner”) and in addition a “standby tenderer”) for each of Section A and Section B 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.

Suppliers, once appointed and subject to operational requirements, will be invited to deliver the goods or services on a “winner-takes-all” basis, whereby the order will always be offered and, if accepted, allocated to the highest ranked tenderer (“the winner”), and only if he refuses will the work be offered to the standby tenderers.

The contract period shall be from the commencement date of the contract until 30 June 2025.

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 Alternative Bidder

Alternative Bidder means a bidder, identified 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 alternative bidder in terms of the procedures included in its SCM Policy.

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 City of Cape Town 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 City, 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 City appeal authority must consider the 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, Corporate Services Directorate

Via hand delivery at: 20th Floor, Tower Block, 12 Hertzog Boulevard, Cape Town 8001

Via post at: Private Bag X918, Cape Town, 8000

Via fax at: 021 400 5963 or 021 400 5830

Via email at: MSA.Appeals@capetown.gov.za

2.1.6.5 All requests referring to clause 2.1.6.3 ns must be submitted in writing to:

The City Manager - C/o the Manager: Access to Information Unit, Corporate Services Directorate

Via hand delivery at: 20th Floor, Tower Block, 12 Hertzog Boulevard, Cape Town 8001

Via post at: Private Bag X918, Cape Town, 8000

Via fax at: 086 202 9982

Via email at: Access2info.Act@capetown.gov.za

2.1.7 City of Cape Town 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 City of Cape Town'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 City of Cape Town'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. Only those tenders that comply in all aspects with the tender conditions, specifications, pricing instructions and contract conditions will be declared to be responsive.

2.2.1.1.1 Submit a tender offer

Only those tender submissions from which it can be established 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 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 to be completed);
- c) A copy of the partnership / joint venture / consortium agreement to be provided.
- 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 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 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 to be completed);
- g) The tenderer (including any of its 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, involved with the bid specification committee;
- k) A completed **Authorisation for the Deduction of Outstanding Amounts Owed to the City of Cape Town** to be provided and which does not indicate any details that renders the tender non-responsive based on the conditions contained thereon (applicable schedules to be completed);
- l) The tenderer (including any of its 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 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 tables below for Section A and Section B, respectively. 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 A: 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
Description of functionality criteria	Project description	Points per project (A)	Maximum number of projects (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	4	3	12
	Wetland assessment and or monitoring within natural fynbos biome	4	3	12
	Water resource assessment and or monitoring, including surface water – groundwater interaction	4	4	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 B: Steenbras Wellfield Impact 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
Description of functionality criteria	Project description	Points per project (A)	Maximum number of projects (B)	Maximum possible score (A x B)
Demonstrated experience of the	Botanical assessment and or monitoring within natural fynbos biome	3	3	9

tendering entity with respect to comparable projects.	Wetland assessment and or monitoring within natural fynbos biome	3	3	9
	Water resource assessment and or monitoring, including surface water – groundwater interaction	4	3	12
	Impact assessment and or monitoring of infrastructure development in or next to water courses	5	2	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 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 tender 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 A: 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"> • >10 years = 8 points • >7 – 10 years = 6 points • 4 – 7 years = 4 points • < 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"> • >5 years = 6 points • 3 – 5 years = 4 points • < 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"> • >5 years = 6 points • 3 – 5 years = 4 points • < 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"> • >5 years = 5 points • 3 – 5 years = 3 points • < 3 years = 0 points

Position	Criteria	
	Natural Science Qualification relevant to proposed position (A)	Years' experience (B)
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"> >5 years = 5 points 3 – 5 years = 3 points < 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 A and B where a tenderer tenders for both sections.**

Details of the key personnel and their CV's shall be appended to **Schedule 15A: 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	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	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 or monitoring, including surface water – groundwater interaction	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 A (Regional Monitoring) and Section B (Impact Monitoring).

Tenderers shall ensure that all relevant information is submitted in **Schedule 15B: 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 15B**. Failure to provide all the required information may result in the tenderer being declared non-responsive.

SECTION B: 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"> • >10 years = 8 points • >7 – 10 years = 6 points • 4 – 7 years = 4 points • < 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"> • >5 years = 6 points • 3 – 5 years = 4 points • < 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"> • >5 years = 6 points • 3 – 5 years = 4 points • < 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"> • >5 years = 5 points • 3 – 5 years = 3 points • < 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"> • >5 years = 5 points • 3 – 5 years = 3 points • < 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 A and B where a tenderer tenders for both sections.**

Details of the key personnel and their CV's shall be appended to **Schedule 15A: 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	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	3 points for every project	0 projects = 0 points 1 project = 3 points 2 projects = 6 points 3 projects or more = 9 points
Water resource assessment and or monitoring, including surface water – groundwater interaction	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 A (Regional Monitoring) and Section B (Impact Monitoring).

Tenderers shall ensure that all relevant information is submitted in **Schedule 15B: 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 15B**. Failure to provide all the required information may result in the tenderer being declared non-responsive.

2.2.1.1.5 Local production and content

The City promotes the procurement of goods manufactured by local suppliers. The Department of Trade and Industry and National Treasury has identified specific designated sectors which require local content compliance. The current designated sectors are listed below:

Designated sector	Stipulated Minimum Threshold
Steel Products and Components for Construction	100%
Plastic pipes	100%
Cement	100%
Solar PV Components <ul style="list-style-type: none"> • Laminated PV Modules • Module Frame • Mounting Structure • Inverter 	15% 65% 90% 40%
Electrical and telecom cables	90%

Tenderers are required to ensure that they comply with these designated Sector requirements by ensuring that the products provided to the City are locally manufactured. Failure to meet the minimum stipulated threshold for local production and content will result in a bid being declared non-responsive.

Further details of designated sectors are available on http://www.thedti.gov.za/industrial_development/ip.jsp and http://ocpo.treasury.gov.za/Buyers_Area/Legislation/Pages/Practice-Notes.aspx

In addition to the above:

The supplier shall study the terms and conditions as stated in the **Local Content Declaration / Annexure C** returnable schedule.

Only tenders with locally produced or locally manufactured raw material or input will be considered. If the raw material or input to be used for a specific item is not available locally, suppliers should obtain written authorisation from the Department of Trade and Industry (DTI) (Chief Director: Industrial Procurement, tel. 012 394 3927 and fax 012 394 4927) should there be a need to import such raw material or input. A copy of the authorisation letter must be submitted together with the bid document at the closing date and time of the bid.

The CCT is obliged and must ensure that contracts for the **designated sectors** are awarded at prices that are market related taking into account, among others, benchmark prices designated by the DTI for the sector, value for money and economies of scale. Where appropriate, prices may be negotiated with preferred bidders in accordance with provisions for Negotiation with Preferred Bidders as set out in the CCT SCM Policy.

A bid will be declared non-responsive / disqualified if the Declaration Certificate for Local Production and Content and Annex C as well as the authorisation letter referred to above (if applicable) are not submitted as part of the bid documentation at the closing date and time of the bid.

For further information relating to the local production and content legislation, suppliers may refer to website http://www.thedti.gov.za/industrial_development/ip.jsp, or may contact the Chief Director: Industrial Procurement at the DTI at telephone number (012) 394 3927 and fax (012) 394 4927, the Director: Fleet Procurement, Ms Cathrine Matidza, at telephone number (012) 394 3927 and e-mail CMatidza@thedti.gov.za, or the DTI Contact Centre no 0861 843384.

2.2.1.1.6 Pre-qualification criteria for preferential procurement

Not used.

2.2.1.1.7 Provision of samples

Not applicable to this tender.

2.2.1.1.8 Professional registration of Project Leader and Freshwater Ecologist

In order to be declared responsive for Sections A and B of this tender, the Project Leader shall be Pr. Sci Nat or Pr Eng registered, and the Freshwater Ecologist shall be Pr. Sci Nat registered.

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

Treat as 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

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 documents by reference.

2.2.6 Acknowledge and comply with notices

Acknowledge receipt of notices to the tender documents, which the CCT may issue, fully comply with all instructions issued in the 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 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.

2.2.7 Clarification meeting

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.

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

2.2.8 Seek clarification

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, where possible.

2.2.9 Pricing the tender offer

2.2.9.1 Comply with all pricing instructions as stated on the Price Schedule.

2.2.10 Alterations to documents

Do 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 tender conditions 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 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 of 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.

2.2.11.2 Accept that an alternative tender offer may be based only on the criteria stated in the tender conditions or criteria otherwise acceptable to the CCT.

2.2.12 Submitting a tender offer

2.2.12.1 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 contract conditions and described in the specifications. Only those tenders submitted on the tender documents as issued by the CCT together with all Returnable Schedules duly completed and signed will be declared responsive.

2.2.12.2 Return the entire 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 Submit the parts of the tender offer communicated on paper as an original with an English translation for any part of the tender submission not made in English.

1 (One) copy(ies) of the following elements of the bid submission must be submitted separately bound in the same envelope where possible:

Part	Heading
5	Pricing Schedules
6	Supporting Schedules
	All other attachments submitted by bidder

2.2.12.4 Sign the original tender offer where required in terms of the tender conditions. The tender shall be signed by a person duly authorised to do so. Tenders submitted by joint ventures of two or more firms shall be accompanied by the document of formation 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.

2.2.12.5 Where a two-envelope system is required in terms of the tender conditions, place and seal the returnable documents listed in the tender conditions 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, as well as the tenderer’s name and contact address.

2.2.12.6 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.

2.2.12.7 Accept that 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.

2.2.12.8 Accept that tender offers submitted by facsimile or e-mail will be rejected by the CCT, unless stated otherwise in the tender conditions.

2.2.12.9 By signing the offer part of the Form of Offer (**Section 2, Part A**) the tenderer warrants that all information provided in the tender submission is true and correct.

2.2.12.10 Tenders must be properly received and deposited 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.

2.2.12.12 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

Accept that 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 Ensure that the CCT receives the tender offer at the address specified in the General Tender Information prior to the closing time stated on the front page of the tender document.

2.2.14.2 Accept that, 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 Accept that, 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 Warrants 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 above, bids shall remain valid for acceptance for a period of twelve (12) months after the expiry of the original validity period, unless the City 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 and administrative processes and upon approval by the City Manager.

2.2.15.3 A tenderer may request in writing, after the closing date, that the 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.

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

Provide clarification of a 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 Provide, on 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 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 party to a Consortium/Joint Venture shall submit separate certificates/statements in the above regard.

2.2.17.3 Tenderers 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

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender conditions or specifications.

If the **Specification** 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 Broad-Based Black Economic Empowerment Status Level Documentation

In order to qualify for preference points, it is the responsibility of the tenderer to submit documentary proof, either as certificates, sworn affidavits or any other requirement prescribed in terms of the B-BBEE Act, of its B-BBEE status level of contribution in accordance with the applicable Codes of good practise as issued by the Department of Trade and Industry, 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 the tender submission.

Consortiums/Joint Ventures will qualify for preference points, provided that the **entity** submits the relevant certificate/scorecard in accordance with the applicable codes of good practise. Note that, in the case of unincorporated entities, a verified consolidated B-BBEE scorecard must be submitted in the form of a certificate with the tender.

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

The applicable code for this tender is the **Amended Codes of Good Practise (Generic Scorecard)** unless in possession of a valid sector certificate.

The tenderer shall indicate in Section 4 of the **Preference Schedule** the Level of Contribution in respect of the enterprise status or structure of the tendering entity (the supplier).

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 Clearance Certificate 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 also provide 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 Clearance Certificate.

Before making an award the City 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 City, 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 City via CSD or e-Filing. The City 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

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 Tender Conditions, 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 representative for the purpose of this tender is stated on the General Tender Information page.

2.3.2 Issue Notices

If necessary, 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 Employer 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, open tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender conditions.

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 and the preferences 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 tender conditions that a two-envelope system is to be followed, 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 tender conditions and announce the name of each tenderer whose technical proposal is opened.

2.3.4.2 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. Open only the financial proposals of tenderers, who have submitted responsive technical proposals in accordance with the requirements as stated in the tender conditions, and announce the total price and any preferences claimed. Return unopened financial proposals to tenderers whose technical proposals were non responsive.

2.3.5 Non-disclosure

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

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) detrimentally 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 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 tender conditions.

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 tender sum / amount as set out in the **Price Schedule (Part 5)**.

- based on the sum of the prices/rates in relation to the estimated quantities (typical basket project).

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:

Either the 80/20 or 90/10 preference point system will apply to this tender and the lowest acceptable tender will be used to determine the applicable preference point system

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:

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

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 scored as follows:

Points will be awarded to tenderers who are eligible for preferences in respect of the B-BBEE level of contributor attained in terms of **Preference Schedule**.

A maximum of 20 tender adjudication points will be awarded for preference to tenderers with responsive tenders who are eligible for such preference, in accordance with the criteria listed below.

Up to **20** adjudication points (N_P) will be awarded for the level of B-BBEE contribution, in accordance with the tables below:

B-BBEE Status Level of Contributor	Number of Points for Preference
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor*	0

*A non-compliant contributor is one who does not meet the minimum score for a level 8 contributor.

or, in respect of Exempted Micro Enterprises (EMEs):

Black Ownership of EME	Deemed Status Contributor	B-BBEE Level of	Number of Points for Preference
less than 51%	4		12
at least 51% but less than 100%	2		18
100%	1		20

or, in respect of Qualifying Small Enterprises (QSEs):

Black Ownership of QSE	Deemed Status Contributor	B-BBEE Level of	Number of Points for Preference
at least 51% but less than 100%	2		18
100%	1		20

The total number of adjudication points (N_T) shall be calculated as follows:

$$N_T = P_S + N_P$$

Where: P_S is the number of points scored for price;
N_P is the number of points scored for preference.

OR

The 90/10 price/preference points system will be applied to the evaluation of responsive tenders over 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:

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

Where: P_S is the number of points scored for price;
P_t is the price of the tender under consideration;
P_{min} is the price of the lowest responsive tender.

Preference points shall be scored as follows:

Points will be awarded to tenderers who are eligible for preferences in respect of the B-BBEE level of contributor attained in terms of **Preference Schedule**.

A maximum of 10 tender adjudication points will be awarded for preference to tenderers with responsive tenders who are eligible for such preference, in accordance with the criteria listed below.

Up to **10** adjudication points (N_P) will be awarded for the level of B-BBEE contribution, in accordance with the tables below:

B-BBEE Status Level of Contributor	Number of Points for Preference
1	10
2	9
3	6
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor	0

*A non-compliant contributor is one who does not meet the minimum score for a level 8 contributor.

or, in respect of Exempted Micro Enterprises (EMEs):

Black Ownership of EME	Deemed Status Contributor	B-BBEE Level of	Number of Points for Preference
less than 51%	4		5
at least 51% but less than 100%	2		9
100%	1		10

or, in respect of Qualifying Small Enterprises (QSEs):

Black Ownership of QSE	Deemed Status Contributor	B-BBEE Level of	Number of Points for Preference
at least 51% but less than 100%	2		9
100%	1		10

The total number of adjudication points (N_T) shall be calculated as follows:

$$N_T = P_S + N_P$$

Where: P_s is the number of points scored for price;
N_p is the number of points scored for preference.

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

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 PPPFA Regulations, 2017, 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 employer'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 employer, to perform the contract free of conflicts of interest.

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

2.3.12.4 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 City as a result of (inter alia):

- a) reports of poor governance and/or unethical behaviour;
- b) association with known family of notorious individuals;
- c) poor performance issues, known to the City;
- d) negative social media reports; and
- e) adverse assurance (e.g. due diligence) report outcomes.

2.3.12.5 The CCT reserves the right to nominate an alternative 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 alternative 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		
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TENDER NO: 340S/2021/22

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

CONTRACT PERIOD: FROM COMMENCEMENT DATE TO 30 JUNE 2025

VOLUME 2: RETURNABLE DOCUMENTS

TENDERER	
NAME of Company/Close Corporation or Partnership / Joint Venture/ Consortium or Sole Proprietor /Individual	
TRADING AS (if different from above)	

NATURE OF TENDER OFFER (please indicate below)	
Main Offer (see clause 2.2.11.1)	Rates based
Alternative Offer (see clause 2.2.11.1)	Not applicable

VOLUME 2: RETURNABLE DOCUMENTS (3) DETAILS OF TENDERER

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 _____ <div style="text-align: center;">(Name & Surname)</div> Telephone:(____) _____ Fax:(____) _____ Cellular Telephone: _____ E-mail address: _____
Income tax number	
VAT registration number	
SARS Tax Compliance Status PIN	
City of Cape Town Supplier Database Registration Number (See Conditions of Tender)	
National Treasury Central Supplier Database registration number (See Conditions of Tender)	

<p>Is tenderer the accredited representative in South Africa for the Goods / Services / Works offered?</p>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No</p> <p>If yes, enclose proof</p>
<p>Is tenderer a foreign based supplier for the Goods / Services / Works offered?</p>	<p><input type="checkbox"/>Yes <input type="checkbox"/>No</p> <p>If yes, answer the Questionnaire to Bidding Foreign Suppliers (below)</p>
<p>Questionnaire to Bidding Foreign Suppliers</p>	<p>a) Is the tenderer a resident of the Republic of South Africa or an entity registered in South Africa?</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No</p>
	<p>b) Does the tenderer have a permanent establishment in the Republic of South Africa?</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No</p>
	<p>c) Does the tenderer have any source of income in the Republic of South Africa?</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No</p>
	<p>d) Is the tenderer liable in the Republic of South Africa for any form of taxation?</p> <p><input type="checkbox"/>Yes <input type="checkbox"/>No</p>
<p>Other Required registration numbers</p>	<p>Not required</p>

(4) FORM OF OFFER AND ACCEPTANCE

TENDER 340S/2021/22: TABLE MOUNTAIN GROUP (TMG) AQUIFER REGIONAL (SECTION A) AND STEENBRAS WELLFIELD IMPACT (SECTION B) MONITORING, CITY OF CAPE TOWN

OFFER: (TO BE FILLED IN BY TENDERER):

Required Details (Please provide applicable details in full):

Name of Tendering Entity* ("the tenderer")	
Trading as (if different from above)	

AND WHO IS represented herein by: (full names of signatory)

duly authorised to act on behalf of the tenderer in his capacity as: (title/ designation)

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.

Signature(s)

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

Date

INITIALS OF CITY OFFICIALS		
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FORM OF OFFER AND ACCEPTANCE (continued)

TENDER 340S/2021/22: TABLE MOUNTAIN GROUP (TMG) AQUIFER REGIONAL (SECTION A) AND STEENBRAS WELLFIELD IMPACT (SECTION B) MONITORING, CITY OF CAPE TOWN]

ACCEPTANCE (TO BE FILLED IN BY THE CITY OF CAPE TOWN)

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the supplier the amount due in accordance with the conditions of contract. Acceptance of the tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract are contained in:

- (7) & (8): Special and General Conditions of Tender
- (5) Price schedule
- 13: Specifications

and drawings and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the returnable schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer 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 this schedule.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documents to be provided in terms of the conditions of contract identified in the special contract conditions. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the parties have signed the table below and confirms receipt from the employer of one fully completed original copy of this agreement, including the schedule of deviations (if any). The tenderer (now supplier) shall within five working days of the agreement coming into effect notify the employer in writing of any reason why he cannot accept the contents of this agreement as a complete and accurate memorandum thereof, failing which the agreement presented to the contractor shall constitute the binding contract between the parties.

The Parties	Employer	Supplier
Business Name		
Business Registration		
Tax number (VAT)		
Physical Address		

The Parties	Employer	Supplier
Accepted contract sum including tax	Not applicable	Not applicable
Accepted contract duration		
Signed – who by signature hereto warrants authority		
Name of signatory		
Signed: Date		
Signed: Location		
Signed: Witness		
Name of Witness		

ONLY TO BE COMPLETED AT ACCEPTANCE STAGE

FORM OF OFFER AND ACCEPTANCE (continued)

(TO BE FILLED IN BY THE CITY OF CAPE TOWN)

Schedule of Deviations

Notes:

1. The extent of deviations from the tender documents issued by the CCT before the tender closing date is limited to those permitted in terms of the conditions of tender.
2. A tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, become the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.
3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.
4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1 Subject

Details

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.....
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2 Subject

Details

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3 Subject

Details

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4 Subject

Details

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.....

By the duly authorised representatives signing this agreement, the CCT and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to this tender document and addenda thereto as listed in the returnable schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the CCT during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

(5) 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:

- 5.1 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.
- 5.2 State the rates and prices in Rand unless instructed otherwise in the tender conditions.
- 5.3 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.
- 5.4 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.
- 5.5 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.
- 5.6 All prices shall be tendered in accordance with the units specified in this schedule.
- 5.7 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.
- 5.8 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 Employer may also perform a risk analysis with regard to the reasonableness of such rates.**
- 5.9 The tenderer may not group a number of items together and tender one lump sum for such group of items.
- 5.10 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). Failure to comply with this requirement may result in the tenderer being considered non-responsive.
- 5.11 A higher category person undertaking lower category work will be reimbursed at the lower category rate.
- 5.12 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.

- 5.13 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.
- 5.14 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).
- 5.15 **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):

Options	Description	Tendered for
1	Only submit a bid for Section A: Regional Hydro(geo)logical and Ecological Monitoring	
2	Only submit a bid for Section B: Steenbras Wellfield Hydrological and Ecological Monitoring	
3	Submit a bid for Sections A and B	

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Section A: Regional Monitoring

Item	Description	Unit	Unit price / rate (Excl. VAT)
A1 Site Set-up and Replacement			
A1.1 Site Survey			
A1.1.1	Survey ecological sites (excluding supply of equipment)	Site	R
A1.1.2	Marking of all transects and vegetation survey plots along the transects, per eco seep (excluding materials)	Site	R
A1.1.3	Marking of all transects and vegetation survey plots along the transects, per eco channel (excluding materials)	Site	R
A1.1.4	Biotope and biohabitat mapping of ecosite	Site	R
A1.2 Installation of new equipment or reinstallation of repaired equipment on site (excl. material costs, travel to site to be reimbursed under Item A13)			
A1.2.1	Piezometer for seep water level	Each	R
A1.2.2	Housing for channel water level	Each	R
A1.2.3 Water level data logger			
A1.2.3a	Water level data logger, borehole	Each	R
A1.2.3b	Water level data logger, piezometer	Each	R
A1.2.3c	Water level data logger, stilling well	Each	R
A1.2.4	Baro-logger	Each	R
A1.2.5	Multilevel soil moisture and soil temperature sensor	Each	R
A1.2.6	Air temperature sensor	Each	R
A1.2.7	Leaf wetness sensor	Each	R
A1.2.8	Rain gauge	Each	R
A1.2.9	Solar radiation sensor	Each	R
A1.2.10	FPP benchmark	Each	R
A1.2.11	Plant water measurement device (xylem, sap flow or equivalent)	Each	R
A1.2.12	10W Solar PV panel for data logger or GSM units	Each	R
A1.2.13	Solar Charger for GSM telemetry station	Each	R
A1.2.14	12V 9Ah lithium battery for GSM telemetry station	Each	R
A1.3 Installation of telemetry system at new sites			
A1.3.1	GSM unit for remote monitoring boreholes	Each	R
A1.3.2	GSM unit for piezometers at ecosites, including all material to connect logger to unit	Each	R
A1.3.3	GSM unit for stilling wells at river reaches, including all material to connect logger to unit	Each	R
A1.3.4	GSM unit for soil moisture and microclimate at eco seeps, per site	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A2 Maintenance			
A2.1 Site Maintenance			
A2.1.1	Checking of site status during regular field visits	Site	R
A2.1.2 Re-marking of transects and vegetation survey plots along the transects (excluding materials)			
A2.1.2a	Re-marking per eco seep with 3 transects and vegetation plots every metre along whole transects	Site	R
A2.1.2b	Re-marking per eco seep with 2 half transects and 16 vegetation plots per transect (in average)	Site	R
A2.1.2c	Re-marking per eco channel, 1 transect with vegetation plots every metre	Site	R
A2.1.3	Clearing of transects and access tracks via brush cutting to ensure access to monitoring stations (per site)	Site	R
A2.2 Maintenance of Equipment and Installation			
A2.2.1	Regular check of data transmission and equipment health on telemetry/GSM system	Month	R
A2.2.2	Biannual check of equipment in the field, including small repairs and calibration	Each	R
A2.2.3 Retrieve and re-install faulty equipment			
A2.2.3a	Retrieve faulty equipment from the field and assess fault in workshop (travel to site to be reimbursed under Item A14)	Each	R
A2.2.3b	Extra-over to Item A2.2.3 to re-install equipment after repair (repair and travel to site to be reimbursed seperately)	Each	R
A2.2.4	Annual data transmission fee	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A3 Groundwater Monitoring			
A3.1 Field download of borehole or piezometer data loggers incl. manual measurement, as backup to telemetry			
A3.1.1	Monitoring borehole data loggers	Each	R
A3.1.2	Ecoseep piezometer data loggers	Each	R
A3.1.3	Uploading /capturing of manual data to database	Each	R
A3.1.4	Uploading of downloaded data set to database, if telemetry data incorrect or missing (per monitoring round)	Each	R
A3.2	Collation of borehole water level data from DWS, including upload to CCT database	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A3.3 Sampling and chemical analysis of groundwater, incl. field measurements			
A3.3.1	Taking water samples from boreholes	Each	R
A3.3.2	Chemical analysis of samples from boreholes	Each	R
A3.3.3	Isotope analysis of samples from boreholes	Each	R
A3.3.4	Uploading / capturing of field measurements and lab results to database (per monitoring round)	Each	R
A3.4 Sampling and chemical analysis of shallow soil water, incl. field measurements			
A3.4.1	Taking water samples from piezometers	Each	R
A3.4.2	Chemical analysis of samples from piezometers	Each	R
A3.4.3	Isotope analysis of samples from piezometers	Each	R
A3.4.4	Uploading / capturing of field measurements and lab results to database (per monitoring round)	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A4 Hydrological Monitoring			
A4.1	Collation of flow gauge data from DWS, including upload to CCT database	Each	R
A4.2 Water level and flow measurements at ecochannels			
A4.2.1	Field download of channel data loggers, incl manual measurement and reading of stage plate level, as backup to telemetry	Each	R
A4.2.2	Flow measurements at rated sections	Each	R
A4.2.3	Uploading /capturing of manual data to database (per monitoring round)	Each	R
A4.2.4	Uploading of downloaded data set to database, if telemetry data incorrect or missing (per monitoring round)	Each	R
A4.3 Sampling and chemical analysis of surface water, incl. field measurements			
A4.3.1	Taking water samples from stream	Each	R
A4.3.2	Chemical analysis of samples from stream	Each	R
A4.3.3	Isotope analysis of samples from stream	Each	R
A4.3.4	Uploading / capturing of field measurements and lab results to database (per monitoring round)	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A5 Climate Monitoring			
A5.1	Collation of data from SAWS, DWS and ARC stations (annually), including upload to CCT database	Each	R
A5.2	Field download of weather station data, as backup to telemetry	Each	R
A5.3	Collation of data from rainfall gauges of DWS, including upload to CCT database	Each	R
A5.4	Field download microclimate station data, as backup to telemetry	Each	R
A5.5	Uploading of downloaded data set to database, if telemetry data incorrect or missing (per monitoring round)	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A6 Soil Moisture Monitoring			
A6.1 Field soil moisture measurements			
A6.1.1	Measurement of soil moisture at 10 cm intervals, per soil moisture probe	Probe	R
A6.1.2	Uploading /capturing of manual data to database	Each	R
A6.2 Soil moisture sensor measurements			
A6.2.1	Field download soil moisture loggers, as backup to telemetry, per data logger (per site)	Site	R
A6.2.2	Uploading of downloaded data set to database, if telemetry data incorrect or missing (per monitoring round)	Each	R
A6.3	Soil sampling, analysis and soil type characterization (>3 per probe)	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A7 Ecological Monitoring			
A7.1 Vegetation Monitoring in ecoseeps			
A7.1.1	Vegetation community structure along transects, per plot	Plot	R
A7.1.2	Vegetation density/count of up to 4 indicator species, per plot	Plot	R
A7.1.3	Vegetation health of up to 2 individual marked plants, per plot	Plot	R
A7.1.4	Downloading data from xylem / sap flow (or equivalent) measuring device	Each	R
A7.1.5	Uploading /capturing of manual data to database (per monitoring round)	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A7.1.6	Uploading of logger data to database (per monitoring round)	Each	R
A7.2 Vegetation Monitoring in ecochannels (note – plot sizes defined and illustrated (Figure 1 & 2) in Scope of Works)			
A7.2.1	Vegetation community structure along transects, per plot	Plot	R
A7.2.2	Vegetation density/count of up to 4 indicator species, per plot	Plot	R
A7.2.3	Vegetation health of up to 2 individual marked plants, per plot	Plot	R
A7.2.4	Uploading /capturing of manual data to database (per monitoring round)	Each	R
A7.3 Macro Invertebrate Monitoring in all eco-channels, including sediment composition			
A7.3.1	Field measurement and collection for SASS score determination	Site	R
A7.3.2	Extra over to Item A7.3.1 for sample collection and species identification	Site	R
A7.3.3	Uploading /capturing of manual data to database (per monitoring round)	Each	R
A7.4 Algae Monitoring in all eco-channels			
A7.4.1	Sample collection and biomass determination	Site	R
A7.4.2	Extra over to Item A7.4.1 for sample collection and species identification	Site	R
A7.4.3	Uploading /capturing of manual data to database (per monitoring round)	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A8 Photographic records			
A8.1 Fixed point photography			
A8.1.1	Taking standard photographs from FPP benchmark	Site	R
A8.1.2	Marking key features on photographs taken	Site	R
A8.2 Vegetation photographs			
A8.2.1	Taking photographs of transects (3 per site)	Site	R
A8.2.2	Taking photographs of vegetation plot (1m x 1m) during vegetation survey	Site	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A9 Aerial Photography & Remote Sensing			
A9.1	Obtain satellite imagery from MODIS and Sentinel 2 (per TSA)	TSA	R
A9.2	Image processing and NDVI / MSI computing	TSA	R
A9.3	Obtain drone footage of ecosites	Site	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A10 Data quality control			
A10.1	Data quality check of telemetry data	Monthly	R
A10.2	Data quality control of field measurements, including calibration / correction of telemetry data	Quarterly	R
A10.3	Data quality control of data from external sources	Biannually	R
A10.4 Data quality control on species identification			
A10.4.1	Macroinvertebrates	Site	R
A10.4.2	Algae	Site	R
A10.4.3	Vegetation	Site	R
A10.5 Curation of specimens collected during contract period			
A10.5.1	Macroinvertebrates	Site	R
A10.5.2	Algae	Site	R
A10.5.3	Vegetation	Site	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A11 Data Analysis and Reporting			
A11.1	Equipment Installation Report	Each	R
A11.2	Annual Site & Equipment Maintenance Report	Each	R
A11.3	Data Collection Reports	Each	R
A11.4 Annual Assessment Reports			
A11.4.1	Assessment Report for all data up to December of Year 1, per TSA (K1/K2, T2/T4, T6/T8, G1/B1, W7)	Each	R
A11.4.2	Assessment Report for all data up to December of Year 2, per TSA (K1/K2, T2/T4, T6/T8, G1/B1, W7)	Each	R
A11.5	Summary Report of all Activities	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A12 Project Management			
A12.1	Project Administration	Month	R
A12.2	Project meetings with CCT	Each	R
A12.3	Project meetings with CCT's Consultant Monitoring Task Team	Each	R
A12.4	Data analysis workshops with CCT Consultant Monitoring Task Team (days)	Day	R
A12.5	Attendance and presentation at Stakeholder meeting	Each	R
A12.6	Field trip with new contractor for site hand-over (days)	Day	R
A12.7	Additional costs associated with undertaking the contract (e.g. overheads, supervision, operating and maintaining offices, etc.) not covered elsewhere	Month	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A13 Supply of equipment or material for repair/replacement			
A13.1 Supply of material			
A13.1.1 Piezometer for seep water level			
A13.1.1a	uPVC PN6 pipe, slotted, with end cap, ID 50mm	m	R
A13.1.1b	Steel casing, 4.5mm wall thickness, squared, with lockable cap, 75mm width, 600mm length	Each	R
A13.1.1c	Steel casing, 4.5 mm wall thickness, squared, with lockable cap, 100mm width, 600mm length	Each	R
A13.1.2	Stainless steel housing for channel water level	Each	R
A13.1.3	FPP benchmark, wooden pole, treated	Each	R
A13.1.4	Transect marker at ecosite, galvanised steel pole	Each	R
A13.1.5	Steel peg, 300mm long, as plot marker	Each	R
A13.1.6	Soil moisture tube, uPVC solid pipe, PN6, ID 50mm, 1m length	Each	R
A13.1.7	Cement for concrete fixing piezometer steel casing, poles	50kg Bag	R
A13.1.8	19mm stone aggregate for concrete fixing of piezometer steel casing, poles	50kg Bag	R
A13.1.9	Clean building sand for concrete	50kg Bag	R
A13.2 Supply of monitoring equipment for fixed installation			
A13.2.1 Water level sensor and data logger, incl. Kevlar cable			
A13.2.1a	For borehole: measurement range 0 - 30 m, cable length 50 - 100 m	Each	R
A13.2.1b	For piezometer: measurement range 0 - 5 m, cable length 5 - 10 m	Each	R
A13.2.1c	For stilling well: measurement range 0 - 10 m, cable length 10 - 20 m	Each	R
A13.2.2	Baro-logger, including Kevlar cable	Each	R

Item	Description	Unit	Unit price / rate (Excl .VAT)
A13.2.3 Multilevel soil moisture and soil temperature sensor			
A13.2.3a	Drill & Drop 90cm probe, or equivalent	Each	R
A13.2.3b	Drill & Drop 60cm probe, or equivalent	Each	R
A13.2.3c	Drill & Drop 30cm probe, or equivalent	Each	R
A13.2.3d	Teros probe, or equivalent	Each	R
A13.2.4	Air temperature sensor	Each	R
A13.2.5	Leaf wetness sensor	Each	R
A13.2.6	Rain gauge	Each	R
A13.2.7	Wind anemometer	Each	R
A13.2.8	Solar radiation sensor	Each	R
A13.2.9	Plant water measurement device (xylem, sap flow or equivalent)	Each	R
A13.2.10	Data logger unit for climate station or soil moisture sensors	Each	R
A13.3 Supply of monitoring equipment for telemetry installation			
A13.3.1 Telemetry/GSM unit for monitoring borehole			
A13.3.1a	External data logger unit with GSM transmission capability including weather proof outstation box	Each	R
A13.3.1b	Read-out cable to connect water level logger with GSM unit	Each	R
A13.3.2 Telemetry unit for piezometer or stilling well at ecosites			
A13.3.2a	External data logger unit with GSM transmission capability, including weather proof outstation box	Each	R
A13.3.2b	Read-out cable to connect water level logger with GSM unit	Each	R
A13.3.3	GSM telemetry unit for weather station, including connection to datalogger in Item A13.2.10	Each	R
A13.3.4 Poles for setup of telemetry outstation			
A13.3.4a	Steel pole for safe set-up of outstation, 4 – 6m length	Each	R
A13.3.4b	Wooden poles for safe set-up of outstation, 1 – 2m length, 2 per installation	Each	R
A13.3.4c	Cement for concrete fixing of poles	50kg Bag	R
A13.3.4d	19mm stone aggregate for concrete fixing of poles	50kg Bag	R
A13.3.4e	Clean building sand for concrete	50kg Bag	R

A13.3.5 Telemetry unit for soil moisture and microclimate at eco seeps			
A13.3.5a	Supply of data logger and GSM unit, per site	Each	R
A13.3.5b	Supply of material to connect sensor to unit, per sensor	Each	R
A13.3.6 PV Power Supply System Complete			
A13.3.6a	10W Solar PV panel for power supply	Each	R
A13.3.6b	Inverter/charger	Each	R
A13.3.6c	12V 9Ah Lithium battery backup	Each	R
A13.3.6d	Electrical cabling	Each	R
A13.3.6e	Enclosure, mountings and all accessories for a complete system	Each	R
A13.3.6f	Interlock solar power protection system (SPX) for 10W Solar PV panel or equivalent	Each	R
A13.3.6g	Concrete slab or pole mounted Interlock Field Telemetry Cabinet (FTC3) including Interlock opening key or equivalent	Each	R
A13.3.6h	Concrete slab or pole mounted Interlock Field Telemetry Cabinet (FTC4) including Interlock opening key or equivalent	Each	R
A13.3.6i	Interlock mounting frame or equivalent between SPX and FTC	Each	R
A13.3.6j	Standpipe with foundation cage, 1.6m tall, nominal 270mm diameter	Each	R
A13.3.6k	Cement for concrete	50kg Bag	R
A13.3.6l	19mm stone aggregate for concrete	50kg Bag	R
A13.3.6m	Clean building sand for concrete	50kg Bag	R
A13.3.6n	High-tensile steel bars (Y10 to Y25)	kg	R
A13.4 Supply of additional monitoring equipment			
A13.4.1	Portable flow meter	Each	R
A13.4.2	Laptop for fieldwork	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
A14 Miscellaneous Tasks			
A14.1 Additional duties upon instruction of CCT or Monitoring Task Team:			
A14.1.1	Project Leader	Hour	R
A14.1.2	Senior freshwater ecologist	Hour	R
A14.1.3	Senior botanical ecologist	Hour	R
A14.1.4	Senior hydrologist	Hour	R
A14.1.5	Senior hydrogeologist	Hour	R
A14.1.6	Soil scientist	Hour	R
A14.1.7	Surveyor	Hour	R
A14.1.8	Telemetry technician	Hour	R
A14.1.9	Field technician	Hour	R
A14.2 Additional staff as required upon instruction of CCT or Monitoring Task Team:			
A14.2.1 Natural Scientist: botanical, zoological or ecological science			
A14.2.1a	Category A (Pr Sci Nat, SACNASP)	Hour	R
A14.2.1b	Category B (Pr Sci Nat, SACNASP)	Hour	R
A14.2.1c	Category C (Pr Sci Nat, SACNASP)	Hour	R
A14.2.1d	Category D (Cand Sci Nat, SACNASP)	Hour	R
A14.2.2 Natural Scientist: earth or water resource science			
A14.2.2a	Category A (Pr Sci Nat, SACNASP)	Hour	R
A14.2.2b	Category B (Pr Sci Nat, SACNASP)	Hour	R
A14.2.2c	Category C (Pr Sci Nat, SACNASP)	Hour	R
A14.2.2d	Category D (Cand Sci Nat, SACNASP)	Hour	R
A14.2.3 Other Scientist (e.g. statistics, computer science, database management, soil science, etc. not covered under Items A14.2.1 and A14.2.2)			
A14.2.3a	Category A or equivalent as per relevant SACNASP discipline	Hour	R
A14.2.3b	Category B or equivalent as per relevant SACNASP discipline	Hour	R
A14.2.3c	Category C or equivalent as per relevant SACNASP discipline	Hour	R
A14.2.3d	Category D or equivalent as per relevant SACNASP discipline	Hour	R
A14.2.4 Geomatics / GIS Practitioner			
A14.2.4a	Remote Sensing Expert (Professional)	Hour	R
A14.2.4b	Geospatial / Data Analyst (Professional)	Hour	R
A14.2.4c	GISc Professional (SAGC registered)	Hour	R
A14.2.4d	GISc Technologist (SAGC registered)	Hour	R
A14.2.4e	GISc Technician (SAGC registered)	Hour	R

A14.3 Printing costs for reports (refer to Pricing Instructions):			
A14.3.1	A1 (plain)	Each	R
A14.3.2	A1 (colour)	Each	R
A14.3.3	A3 (plain)	Each	R
A14.3.4	A3 (colour)	Each	R
A14.3.5	A4 (plain)	Each	R
A14.3.6	A4 (colour)	Each	R
A14.4 Recoverable expenses in respect of travelling (See Item 5.14 in Pricing Instructions)			
A14.4.1	Mileage, standard car	km	As published by SARS
A14.4.2	Mileage, 4x4 - offroad	km	As published by DPWI

INITIALS OF CITY OFFICIALS		
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Section B: Steenbras Wellfield Impact Monitoring

Item	Description	Unit	Unit price / rate (Excl. VAT)
B1 Site Set-up and Replacement			
B1.1 Site Survey			
B1.1.1	Survey ecological or construction monitoring site (excluding supply of equipment)	Site	R
B1.1.2	Marking of two transects and 32 vegetation survey plots along the transects, per eco seep (excluding materials)	Site	R
B1.1.3	Marking of one transect and up to 16 vegetation survey plots along the transect, per eco channel (excluding materials)	Site	R
B1.1.4	Marking of one transect and up to 8 vegetation survey plots along the transect, per construction monitoring site (excluding materials)	Site	R
B1.1.5	Biotope and biohabitat mapping of ecosite	Site	R
B1.2 Installation of new equipment on site (excl. material costs, travel to site to be reimbursed under Item B14)			
B1.2.1	Piezometer for seep water level	Each	R
B1.2.2	Housing for channel water level	Each	R
B1.2.3 Water level data logger			
B1.2.3a	Water level data logger, borehole	Each	R
B1.2.3b	Water level data logger, piezometer	Each	R
B1.2.3c	Water level data logger, stilling well	Each	R
B1.2.4	Baro-logger	Each	R
B1.2.5	Multilevel soil moisture and soil temperature sensor	Each	R
B1.2.6	Air temperature sensor	Each	R
B1.2.7	Leaf wetness sensor	Each	R
B1.2.8	Rain gauge	Each	R
B1.2.9	Solar radiation sensor	Each	R
B1.2.10	FPP benchmark	Each	R
B1.2.11	Plant water measurement device (xylem, sap flow or equivalent)	Each	R
B1.2.12	10W Solar PV panel for data logger or telemetry units	Each	R
B1.2.13	Solar charger for data logger or telemetry stations	Each	R
B1.2.14	12V 9Ah Lithium battery for data logger or telemetry stations	Each	R
B1.3 Installation of telemetry system at new sites			
B1.3.1	GSM unit for monitoring boreholes	Each	R
B1.3.2	GSM unit for piezometers at ecosites, including all material to connect logger to unit	Each	R
B1.3.3	GSM unit for stilling wells at river reaches, including all material to connect logger to unit	Each	R

B1.3.4	GSM unit for soil moisture and microclimate at eco seeps, per site	Each	
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Item	Description	Unit	Unit price / rate (Excl. VAT)
B2 Maintenance			
B2.1 Site Maintenance			
B2.1.1	Checking of site status during regular field visits	Site	R
B2.1.2 Re-marking of transects and vegetation survey plots along the transects (excluding materials)			
B2.1.2a	Re-marking per eco seep with 3 transects and vegetation plots every metre along whole transects	Site	R
B2.1.2b	Re-marking per eco seep with 2 half transects and 16 vegetation plots per transect (in average)	Site	R
B2.1.2c	Re-marking per construction impact monitoring wetland, 1 transect with up to 8 vegetation plots per transect (in average)	Site	R
B2.1.2d	Re-marking per eco channel, 1 transect with vegetation plots every metre	Site	R
B2.1.3	Clearing of transects and access tracks via brush cutting to ensure access to monitoring stations (per site)	Site	R
B2.2 Maintenance of Equipment and Installation			
B2.2.1	Regular check of data transmission and equipment health on telemetry system	Month	R
B2.2.2	Quarterly check of equipment in the field, including small repairs and calibration	Each	R
B2.2.3 Retrieve and re-install faulty equipment			
B2.2.3a	Retrieve faulty equipment from the field and assess fault in workshop (travel to site to be reimbursed under Item B14)	Each	R
B2.2.3b	Extra-over to Item B2.2.3 to re-install equipment after repair (repair and travel to site to be reimbursed seperately)	Each	R
B2.2.4	Annual data transmission fee	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B3 Groundwater Monitoring			
B3.1 Field download of borehole or piezometer data loggers incl. manual measurement, as backup to telemetry			
B3.1.1	Monitoring borehole data loggers	Each	R
B3.1.2	Ecoseep piezometer data loggers	Each	R
B3.1.3	Uploading /capturing of manual data to database (per monitoring round)	Each	R
B3.1.4	Uploading of downloaded data set to database, if telemetry data incorrect or missing (per monitoring round)	Each	R
B3.2 Manual measurement of water level at sites without logger installation			
B3.2.1	Monitoring borehole	Each	R
B3.2.2	Ecoseep piezometer	Each	R
B3.2.3	Uploading /capturing of manual data to database (per monitoring round)	Each	R
B3.3 Sampling and chemical analysis of groundwater, incl. field measurements			
B3.3.1	Taking water samples from boreholes	Each	R
B3.3.2	Chemical analysis of samples from boreholes	Each	R
B3.3.3	Isotope analysis of samples from boreholes	Each	R
B3.3.4	Uploading / capturing of field measurements and lab results to database (per monitoring round)	Each	R
B3.4 Sampling and chemical analysis of shallow soil water, incl. field measurements			
B3.4.1	Taking water samples from piezometers	Each	R
B3.4.2	Chemical analysis of samples from piezometers	Each	R
B3.4.3	Isotope analysis of samples from piezometers	Each	R
B3.4.4	Uploading / capturing of field measurements and lab results to database (per monitoring round)	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B4 Hydrological Monitoring			
B4.1 Water level and flow measurements at ecochannels			
B4.1.1	Field download of channel data loggers, incl. manual measurement and reading of stage plate level, as backup to telemetry	Each	R
B4.1.2	Flow measurements at rated sections	Each	R
B4.1.3	Uploading /capturing of manual data to database (per monitoring round)	Each	R
B4.1.4	Uploading of downloaded data set to database, if telemetry data incorrect or missing (per monitoring round)	Each	R
B4.2 Sampling and chemical analysis of surface water, incl. field measurements			
B4.2.1	Taking water samples from stream	Each	R
B4.2.2	Chemical analysis of samples from stream	Each	R
B4.2.3	Isotope analysis of samples from stream	Each	R
B4.2.4	Uploading / capturing of field measurements and lab results to database (per monitoring round)	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B5 Climate Monitoring			
B5.1	Collation of data from SAWS stations (annually), including upload to CCT database	Each	R
B5.2	Collation of data from rainfall gauges of DWS, including upload to CCT database	Each	R
B5.3	Field download microclimate station data, as backup to telemetry	Each	R
B5.4	Uploading of downloaded data set to database, if telemetry data incorrect or missing (per monitoring round)	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B6 Soil Moisture Monitoring			
B6.1 Field soil moisture measurements			
B6.1.1	Measurement of soil moisture at 10 cm intervals, per soil moisture probe	Probe	R
B6.1.2	Uploading /capturing of manual data to database (per monitoring round)	Each	R
B6.2 Soil moisture sensor measurements			
B6.2.1	Field download soil moisture loggers, as backup to telemetry, per data logger (per site)	Site	R

B6.2.2	Uploading of downloaded data set to database, if telemetry data incorrect or missing (per monitoring round)	Each	R
B6.3	Soil sampling, analysis and soil type characterization (>3 per probe)	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B7 Ecological Monitoring			
B7.1 Vegetation Monitoring in ecoseeps / wetlands <i>(note – plot sizes defined in Scope of Works)</i>			
B7.1.1	Vegetation community structure along transects, per plot	Plot	R
B7.1.2	Vegetation density/count of up to 4 indicator species, per plot	Plot	R
B7.1.3	Vegetation health of up to 2 individual marked plants, per plot	Plot	R
B7.1.4	Downloading data from xylem/sap flow (or equivalent) measuring device	Each	R
B7.1.5	Uploading /capturing of manual data to database (per monitoring round)	Each	R
B7.1.6	Uploading of logger data to database (per monitoring round)	Each	R
B7.2 Vegetation Monitoring in ecochannels / river reaches <i>(note – plot sizes defined in Scope of Works)</i>			
B7.2.1	Vegetation community structure along transects, per plot	Plot	R
B7.2.2	Vegetation density/count of up to 4 indicator species, per plot	Plot	R
B7.2.3	Vegetation health of up to 2 individual marked plants, per plot	Plot	R
A7.2.4	Uploading /capturing of manual data to database (per monitoring round)	Each	R
B7.3 Macro Invertebrate Monitoring in all eco-channels / river reaches, including sediment composition			
B7.3.1	Field measurement and collection for SASS score determination	Site	R
B7.3.2	Extra over to Item B7.3.1 for sample collection and species identification	Site	R
B7.3.3	Uploading /capturing of manual data to database (per monitoring round)	Each	R
B7.4 Algae Monitoring in all eco-channels / river reaches			
B7.4.1	Sample collection and biomass determination	Site	R
B7.4.2	Extra over to Item B7.4.1 for sample collection and species identification	Site	R
B7.4.3	Uploading /capturing of manual data to database (per monitoring round)	Each	R
B7.5 Fish Monitoring in selected channels / river reaches			
B7.5.1	Field sample collection, species identification in the field and release of individuals back into stream	Site	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B7.5.2	Uploading /capturing of manual data to database (per monitoring round)	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B8 Photographic records			
B8.1 Fixed point photography			
B8.1.1	Taking standard photographs from FPP benchmark	Site	R
B8.1.2	Marking key features on photographs taken	Site	R
B8.2 Vegetation photographs			
B8.2.1	Taking photographs of transects (2 or 3 per site)	Site	R
B8.2.2	Taking photographs of vegetation plot (2m x 2m) during vegetation survey	Plot	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B9 Aerial Photography & Remote Sensing			
B9.1	Obtain satellite imagery from MODIS and Sentinel 2 for Wellfield and near-field area	Sum	R
B9.2	Image processing and NDVI / MSI computing	Sum	R
B9.3	Obtain drone footage of ecosites	Site	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B10 Data quality control			
B10.1	Data quality check of telemetry data	Month	R
B10.2	Data quality control of field measurements, including calibration / correction of telemetry data	Quarter	R
B10.3	Data quality control of data from external sources	Biannual	R
B10.4 Data quality control on species identification			
B10.4.1	Macroinvertebrates	Site	R
B10.4.2	Algae	Site	R
B10.4.3	Vegetation	Site	R
B10.4.4	Fish	Site	R
B10.5 Curation of specimens collected during contract period			
B10.5.1	Macroinvertebrates	Site	R
B10.5.2	Algae	Site	R
B10.5.3	Vegetation	Site	R
B10.5.4	Fish	Site	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B11 Data Analysis and Reporting			
B11.1	Equipment Installation Report	Each	R
B11.2	Annual Site & Equipment Maintenance Report	Each	R
B11.3	Quarterly Data Collection Reports	Each	R
B11.4	Construction Impact Assessment Reports	Each	R
B11.5	Abstraction Impact Assessment Reports	Each	R
B11.6	Summary Report of all Activities	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B12 Project Management			
B12.1	Project Administration	Month	R
B12.2	Project meetings with CCT	Each	R
B12.3	Project meetings with CCT's Consultant Monitoring Task Team	Each	R
B12.4	Data analysis workshops with CCT's Consultant Monitoring Task Team	Day	R
B12.5	Attendance and presentation at Stakeholder meeting	Each	R
B12.6	Field trip with new contractor for site hand-over (days)	Day	R

B12.7	Additional costs associated with undertaking the contract (e.g. overheads, supervision, operating and maintaining offices, etc.) not covered elsewhere	Month	R
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Item	Description	Unit	Unit price / rate (Excl. VAT)
B13 Supply of equipment or material for repair/replacement			
B13.1 Supply of material			
B13.1.1 Piezometer for seep water level			
B13.1.1a	uPVC PN6 pipe, slotted, with end cap, ID 50mm	m	R
B13.1.1b	Steel casing, 4.5 mm wall thickness, squared, with lockable cap, 75mm width, 600mm length	Each	R
B13.1.1c	Steel casing, 4.5 mm wall thickness, squared, with lockable cap, 100mm width, 600mm length	Each	R
B13.1.2	Housing for channel water level , stainless steel tube	Each	R
B13.1.3	FPP benchmark, wooden pole, treated	Each	R
B13.1.4	Transect marker at ecosite, galvanised steel	Each	R
B13.1.5	Steel peg, 300mm length, as plot marker	Each	R
B13.1.6	Soil moisture tube, uPVC pipe solid, PN6, ID 50mm, 1m length	Each	R
B13.1.7	Cement for concrete fixing piezometer steel casing, poles etc.	50kg Bag	R
B13.1.8	19mm stone aggregate for concrete fixing piezometer steel casing, poles	50kg Bag	R
B13.1.9	Clean building sand for concrete	50kg Bag	R
B13.2 Supply of monitoring equipment for fixed installation			
B13.2.1	Water level sensor and data logger, incl. Kevlar cable	Each	R
B13.2.1a	For borehole: measurement range 0 - 30 m, cable length 50 - 100 m	Each	R
B13.2.1b	For piezometer: measurement range 0 - 5 m, cable length 5 - 10 m	Each	R
B13.2.1c	For stilling well: measurement range 0 - 10 m, cable length 10 - 20 m	Each	R
B13.2.2	Baro-logger, incl. Kevlar cable	Each	R
B13.2.3 Multilevel soil moisture and soil temperature sensor			
B13.2.3a	Drill & Drop 90cm probe, or equivalent	Each	R
B13.2.3b	Drill & Drop 60cm probe, or equivalent	Each	R
B13.2.3c	Drill & Drop 30cm probe, or equivalent	Each	R
B13.2.3d	Teros probe, or equivalent	Each	R
B13.2.4	Air temperature sensor	Each	R
B13.2.5	Leaf wetness sensor	Each	R
B13.2.6	Rain gauge	Each	R
B13.2.7	Wind anemometer	Each	R
B13.2.8	Solar radiation sensor	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B13.2.9	Plant water measurement device (xylem, sap flow or equivalent)	Each	R
B13.2.10	Data logger unit for climate station or soil moisture sensors	Each	R
B13.3 Supply of monitoring equipment for telemetry installation			
B13.3.1 Telemetry unit for monitoring borehole			
B13.3.1a	External data logger unit with GSM transmission capability including weather proof outstation box	Each	R
B13.3.1b	Read-out cable to connect water level logger with GSM unit	Each	R
B13.3.2 Telemetry unit for piezometer at ecosites			
B13.3.2a	External data logger unit with GSM transmission capability, including weather proof outstation box	Each	R
B13.3.2b	Read-out cable to connect water level logger with GSM unit	Each	R
B13.3.3	GSM unit for weather station, including connection to datalogger in Item B13.2.10	Each	R
B13.3.4 Poles for setup of telemetry outstation			
B13.3.4a	Steel pole for safe set-up of outstation, 4 – 6m length	Each	R
B13.3.4b	Wooden poles for safe set-up of outstation, 1 – 2m length, 2 per installation	Each	R
B13.3.4c	Cement for concrete fixing of poles	50kg Bag	R
B13.3.4d	19mm stone aggregate for concrete fixing of poles	50kg Bag	R
B13.3.4e	Clean building sand for concrete	50kg Bag	R
B13.3.5 Telemetry unit for soil moisture and microclimate at eco seeps			
B13.3.5a	Supply of data logger and GSM unit, per site	Each	R
B13.3.5b	Supply of material to connect sensor to unit, per sensor	Each	R
B13.3.6 PV Power Supply System Complete			
B13.3.6a	10W Solar PV panel for power supply	Each	R
B13.3.6b	Inverter/charger	Each	R
B13.3.6c	12V 9Ah Lithium battery backup	Each	R
B13.3.6d	Electrical cabling	Each	R
B13.3.6e	Enclosure, mountings and all accessories for a complete system	Each	R
B13.3.6f	Interlock solar power protection system (SPX) for 10W Solar PV panel or equivalent	Each	R
B13.3.6g	Concrete slab or pole mounted Interlock Field Telemetry Cabinet (FTC3) including Interlock opening key or equivalent	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B13.3.6h	Concrete slab or pole mounted Interlock Field Telemetry Cabinet (FTC4) including Interlock opening key or equivalent	Each	R
B13.3.6i	Interlock mounting frame (or equivalent) between SPX and FTC	Each	R
B13.3.6j	Standpipe with foundation cage, 1.6m tall, nominal 270mm diameter	Each	R
B13.3.6k	Cement for concrete	50kg Bag	R
B13.3.6l	19mm stone aggregate for concrete	50kg Bag	R
B13.3.6m	Clean building sand for concrete	50kg Bag	R
B13.3.6n	High-tensile steel bars (Y10 to Y25)	kg	R
B13.4 Supply of additional monitoring equipment			
B13.4.1	Portable flow meter	Each	R
B13.4.2	Laptop for fieldwork	Each	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B14 Miscellaneous Tasks			
B14.1 Additional duties upon instruction of CCT or Monitoring Task Team:			
B14.1.1	Project Leader	Hour	R
B14.1.2	Senior freshwater ecologist	Hour	R
B14.1.3	Senior botanical ecologist	Hour	R
B14.1.4	Senior hydrologist	Hour	R
B14.1.5	Senior hydrogeologist	Hour	R
B14.1.6	Soil scientist	Hour	R
B14.1.7	Surveyor	Hour	R
B14.1.8	Telemetry technician	Hour	R
B14.1.9	Field technician	Hour	R
B14.2 Additional staff as required upon instruction of CCT or Monitoring Task Team:			
B14.2.1 Natural Scientist: botanical, zoological or ecological science			
B14.2.1a	Category A (Pr Sci Nat, SACNASP)	Hour	R
B14.2.1b	Category B (Pr Sci Nat, SACNASP)	Hour	R
B14.2.1c	Category C (Pr Sci Nat, SACNASP)	Hour	R
B14.2.1d	Category D (Cand Sci Nat, SACNASP)	Hour	R
B14.2.2 Natural Scientist: earth or water resource science			
B14.2.2a	Category A (Pr Sci Nat, SACNASP)	Hour	R

Item	Description	Unit	Unit price / rate (Excl. VAT)
B14.2.2b	Category B (Pr Sci Nat, SACNASP)	Hour	R
B14.2.2c	Category C (Pr Sci Nat, SACNASP)	Hour	R
B14.2.2d	Category D (Cand Sci Nat, SACNASP)	Hour	R
B14.2.3 Other Scientist (e.g. statistics, computer science, database management, soil science, etc. not covered under Items B14.2.1 and B14.2.2)			
B14.2.3a	Category A or equivalent as per relevant SACNASP discipline	Hour	R
B14.2.3b	Category B or equivalent as per relevant SACNASP discipline	Hour	R
B14.2.3c	Category C or equivalent as per relevant SACNASP discipline	Hour	R
B14.2.3d	Category D or equivalent as per relevant SACNASP discipline	Hour	R
B14.2.4 Geomatics / GIS Practitioner			
B14.2.4a	Remote Sensing Expert (Professional)	Hour	R
B14.2.4b	Geospatial / Data Analyst (Professional)	Hour	R
B14.2.4c	GISc Professional (SAGC registered)	Hour	R
B14.2.4d	GISc Technologist (SAGC registered)	Hour	R
B14.2.4e	GISc Technician (SAGC registered)	Hour	R
B14.3 Printing costs for reports (refer to Pricing Instructions):			
B14.3.1	A1 (plain)	Each	R
B14.3.2	A1 (colour)	Each	R
B14.3.3	A3 (plain)	Each	R
B14.3.4	A3 (colour)	Each	R
B14.3.5	A4 (plain)	Each	R
B14.3.6	A4 (colour)	Each	R
B14.4 Recoverable expenses in respect of travelling (See Item 5.14 in Pricing Instructions)			
B14.4.1	Mileage, standard car	km	As published by SARS
B14.4.2	Mileage, 4x4 - offroad	km	As published by DPWI

INITIALS OF CITY OFFICIALS		
1	2	3

(6) SUPPORTING SCHEDULES

Schedule 1: Certificate of Authority for Partnerships/ Joint Ventures/ Consortiums

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 2: 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	
-----	--	----	--

1.1 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	
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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	
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3.1 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	
-----	--	----	--

4.1 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 employer of any other remedies available to it.

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

 Date

Schedule 3: Preference Schedule

1 Definitions

The following definitions shall apply to this schedule:

All applicable taxes: Includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

Applicable Code: Shall be either the Amended Codes of Good Practise (published on 11 October 2013) or Sector Specific Codes as indicated in the tender conditions

B-BBEE: Broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act.

B-BBEE status level of contributor: The B-BBEE status of an entity in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act

Bid (Tender): A written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals.

Black Designated Groups: The meaning assigned to it in the codes of good practice issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act, 2003, (Act 53 of 2003).

Black People: The meaning assigned to it in section 1 of the Broad-Based Black Economic Empowerment Act.

Broad-Based Black Economic Empowerment Act: The Broad-Based Black Economic Empowerment Act, Act 53 of 2003.

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

Contract The agreement that results from the acceptance of a bid by an organ of state.

Co-operative: A co-operative registered in terms of section 7 of the Co-operatives Act, 2005 (Act no. 14 of 2005).

Designated Group: Black designated groups, black people, women, people with disabilities or small enterprises as defined in section 1 of the National Small Enterprises Act, 1996 (act no. 102 of 1996)

Designated Sector: A sector, sub-sector or industry or product that has been designated in terms of any relevant regulation of the Preferential Procurement Regulations, 2017.

Exempted Micro Enterprise (EME): An exempted micro enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act

Firm Price: The price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract.

Functionality: The ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.

Military Veteran: The meaning assigned to it in section 1 of the Military Veterans Act, 2011 (Act No. 18 of 2011).

National Treasury: The meaning assigned to it in section 1 of the Public Finance Management Act, 1999 (Act No. 18 of 1999).

Non-firm prices: All prices other than "firm" prices.

Person: Includes a juristic person.

People with disabilities: The meaning assigned to it in section 1 of the Employment Equity Act, 1998 (Act No. 55 of 1998).

Price: Includes all applicable taxes less unconditional discounts.

Proof of B-BBEE status level of contributor: The B-BBEE status level certificate issued by an authorised body or person, a sworn affidavit as prescribed by the B-BBEE Codes of good Practice or any other requirement prescribed in terms of the Broad-Based Black Economic Empowerment Act.

Qualifying Small Enterprise (QSE): A qualifying small enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act.

Rand Value: means the total estimated value of a contract in Rand, calculated at the time of bid invitations.

Rural Area: A sparsely populated area in which people farm or depend on natural resources, including villages and small towns that are dispersed through the area or an area including a large settlement which depends on migratory labour and remittances and government social grants for survival, and may have a traditional land tenure system.

Stipulated Minimum Threshold: The minimum threshold stipulated in terms of any relevant regulation of the Preferential Procurement Regulations, 2017.

Sub-contract: The primary contractor's assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract.

The Act: The Preferential Procurement Policy Framework Act, 2000 (Act No 5 of 2000).

Total Revenue: Bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the *Government Gazette* on 9 February 2007.

Township: An urban living area that at any time from the late 19th century until 27 April 1994, was reserved for black people, including areas developed for historically disadvantaged individuals post 27 April 1994.

Treasury: The meaning assigned to it in section 1 of the Public Finance Management Act, 1999 (Act No. 18 of 1999).

Trust: The arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person.

Trustee: Any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

Youth: The meaning assigned to it in section 1 of the National Youth Development Agency Act, 2008 (Act No. 54 of 2008).

2 Conditions associated with the granting of preferences

A supplier that is granted a preference undertakes to:

- 1) accept that the number of preference points allocated will be based on the B-BBEE status level of contributor of the supplier as at the closing date for submission of tender offers;
- 2) not sub-contract more than 25% of the value of the contract to sub-contractors that do not have an equal or higher B-BBEE status level of contributor than the supplier, unless the intended sub-contractors are exempted micro enterprises that have the capability and ability to execute the sub-contract works or unless otherwise declared in terms of Section 5 below;
- 3) accept that a contract may not be awarded if the price offered is not market related;
- 4) accept the sanctions set out in Section 3 below should Condition 2(2) be breached, or should the tenderer have submitted any false information regarding its B-BBEE status level of contributor, local production and content, or any other matter required in terms of this bid that will affect, or has affected the bid evaluation;
- 5) accept that, in order to qualify for preference points, it is the responsibility of the supplier to submit documentary proof of its BBEE level of contribution in accordance with the Codes of Good Practise, 2013, to the CCT at the Supplier Management Unit located within the Tender Distribution Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5);
- 6) accept that, further to 5) above, Consortiums/Joint Ventures will qualify for preference points, provided that the entity submits the relevant certificate/scorecard in terms of the Preferential Procurement Regulations, 2017. Note that, in the case of unincorporated entities, a verified scorecard in the name of the consortium/Joint Venture must be submitted with the quotation (attached to this schedule);
- 7) accept that if it is found that, in the performance of the contract, the participation of the various partners in a Consortium/ Joint Venture differs substantially from that upon which the consolidated scorecard submitted in terms of 5) above was based, and the impact of which is that the Joint Venture would not have been awarded the contract in terms of the actual B-BBEE level of contribution achieved by the Joint Venture, then a financial penalty shall be applied (in addition to any other remedies that the CCT may have) in accordance with Section 3 below;
- 8) accept that the CCT will verify the B-BBEE level of contributor of the supplier as at the closing date for submission of tender offers, to determine the number of preference points to be awarded to the supplier.

In the case of Consortiums/Joint Ventures which tender as unincorporated entities, a verified scorecard submitted with the tender and valid as at the closing date will be used to determine the number of preference points to be awarded to the supplier;

- 9) accept that, notwithstanding 8) above, a supplier will **not** be awarded points for B-BBEE status level of contributor if he indicates in his tender that he intends sub-contracting more than 25% of the value of the contract to sub-contractors that do not qualify for at least the points that the supplier qualifies for unless the intended sub-contractors are exempted micro enterprises that have the capability and ability to execute the sub-contract works;
- 10) accept that any subcontracting arrangements after the award of the tender may only be entered into upon the prior approval of the City of Cape Town; and
- 11) immediately inform the City of Cape Town of any change that may affect the tenderer's B-BBEE level of contribution upon which preference points will be or have been allocated.

3 Sanctions relating to breaches of preference conditions

The sanctions for breaching the conditions associated with the granting of preferences are:

- 1) disqualify the supplier from the tender process;
- 2) recover costs, losses or damages the CCT has incurred or suffered as a result of the supplier's or contractor's conduct;
- 3) cancel the contract in whole or in part and claim any damages which the CCT has suffered as a result of having to make less favourable arrangements due to such cancellation;
- 4) restrict the supplier, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, from obtaining business from the CCT for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied and inform the National Treasury accordingly;
- 5) forward the matter for criminal prosecution; and/or
- 6) financial penalties payable to the CCT, as set out below.

Financial penalty for breach of Condition 2 in Section 2 above:

The penalty to be applied for sub-contracting more than 25% of the value of the contract to sub-contractors that do not qualify for at least the preference points that the supplier qualified for (unless so declared or proven to be beyond the control of the supplier, or the sub-contractors are EMEs that have the capability and ability to execute the sub-contract works) shall be as provided for in the following formula:

$$\text{Penalty} = 0.5 \times E(\%) \times P^*$$

where:

E = The value of work (excluding VAT) executed by sub-contractors that do not qualify for at least the preference points that the supplier qualified for, expressed as a percentage of P*, less 25%

P* = Value of the contract

Financial penalty for breach in terms of condition 6 in Section 2 above:

The penalty to be applied where, in the performance of the contract, the participation of the various partners in a Consortium/ Joint Venture differs substantially from that upon which the consolidated scorecard submitted in terms of 5) in Section 2 above was based, and the impact of which is that the Joint Venture would not have been awarded that contract in terms of the actual B-BBEE level of contribution achieved by the Joint Venture, shall be as provided for in the following formula:

$$\text{Penalty} = 5/100 \times (\text{B-BBEE}^a - \text{B-BBEE}^t) \times P^*$$

where:

B-BBEE^a = The B-BBEE level of contribution that is achieved, determined in accordance with the actual participation of the Joint Venture partners in the performance of the contract

B-BBEE^t = The B-BBEE level of contribution that was used to determine the number of preference points granted to the Joint Venture at the time of tender evaluation

P* = Value of the contract

Financial penalty for breach in terms of condition 10 in Section 2 above:

The penalty to be applied where the supplier fails to disclose subcontracting arrangement after the award of the tender is up to a maximum of 10% of the value of the contract.

4 Level of Contribution in respect of enterprise status or structure of the tendering entity (the supplier)

In the interest of transparency, suppliers are required to complete Table 1: Level of Contribution below.

Table 1: Level of Contribution

Type of B-BBEE Contributor	Status (tick box(es) below as applicable)
Exempted Micro Enterprise (EME), 100% black-owned	<input type="checkbox"/>
Exempted Micro Enterprise (EME), at least 51% but less than 100% black-owned	<input type="checkbox"/>
Exempted Micro Enterprise (EME), less than 51% black-owned	<input type="checkbox"/>
Qualifying Small Enterprise (QSE), 100% black-owned	<input type="checkbox"/>
Qualifying Small Enterprise (QSE), at least 51% but less than 100% black-owned	<input type="checkbox"/>
Qualifying Small Enterprise (QSE), less than 51% black-owned	<input type="checkbox"/>
Verified B-BBEE contributor B-BBEE Status Level of Contributor ¹ <input type="checkbox"/>	<input type="checkbox"/>
Non-compliant contributor	<input type="checkbox"/>

¹ If it is indicated that the company/firm/entity is a verified B-BBEE contributor, then the verified status level of contributor must be inserted in the box provided (insert a number from 1 to 8 as applicable)

5 Declarations

1) With reference to Condition 8 in Section 2 above, the supplier declares that:

I/we hereby forfeit my preference points because I /we DO intend sub-contracting more than 25% of the value of the contract to sub-contractors that do not qualify for at least the points that I/we as supplier qualify for or are not exempted micro enterprises that have the capability and ability to execute the sub-contract works

Note:

Suppliers who do not tick this box will be allocated preference points but the sanctions relating to breaches of preference conditions in Section 3 will be applicable if the supplier contravenes the conditions in Section 2.

2) The undersigned, who warrants that he/she is duly authorised to do so on behalf of the supplier, hereby certifies that the preference claimed based on the B-BBEE status level of contribution indicated in Table 1, qualifies the supplier, subject to condition 8 in Section 2 above, for such preference claimed, and acknowledges that:

- (i) the information furnished is true and correct;
- (ii) the preference claimed is in accordance with the conditions of this schedule;
- (iii) the supplier may be required to furnish documentary proof to the satisfaction of the CCT that the BBBEE level of contributor as at the closing date is correct; and
- iv) he/she understands the conditions under which preferences are granted, and confirms that the supplier will satisfy the conditions pertaining to the granting of preferences.

Signature

Date

Name (PRINT)
(For and on behalf of the Supplier (duly authorised))

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

Schedule 4: 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 during the twelve months after the City employee has left the employ of the City, or
 - 1.4 from an entity who has employed a former City employee who was at a level of T14 of higher at the time of leaving the City's employ and involved in any of the City's bid committees for the bid submitted, if:
 - 1.4.1 the City employee left the City's employment voluntarily, during a period of 12 months after the City employee has left the employ of the City;
 - 1.4.2 the City employee left the City's employment whilst facing disciplinary action by the City, during a period of 24 months after the City employee has left the employ of the City, or any other period prescribed by applicable legislative provisions, after having left the City's employ.

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 City of Cape Town 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 City of Cape Town at a level of T14 or higher at the time they left the employ of the City, and who was involved in any of the City'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 employer of any other remedies available to it.

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

 Date

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 5: 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 City of Cape Town, please contact the following:

the City'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 employer of any other remedies available to it.

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

 Date

Schedule 6: 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"/>
2.7.1	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 employer of any other remedies available to it.

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

 Date

Schedule 7: Authorisation for the Deduction of Outstanding Amounts Owed to the City of Cape Town

To: THE CITY MANAGER, CITY OF CAPE TOWN

From: _____

(Name of tenderer)

RE: AUTHORISATION FOR THE DEDUCTION OF OUTSTANDING AMOUNTS OWED TO THE CITY OF CAPE TOWN

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;
- d) 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 employer of any other remedies available to it.

Physical Business address(es) of the tenderer	Municipal Account number(s)

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)

Signature

Print name:

On behalf of the tenderer (duly authorised)

Date

Schedule 8: Contract Price Adjustment and/or Rate of Exchange Variation

Rate of Exchange (ROE) variation shall be handled in accordance with Clause 17.5 of the Special Conditions of Contract, read in conjunction with Schedule 11: Price Basis for Imported Resources.

All other rates shall be adjusted by the City of Cape Town annually on the anniversary of the month in which the tender closed. The adjustment to the rates shall be equal to:

$$(CPI_n - CPI_s) / CPI_s$$

Where CPI_s = the indices specified in the Contract during the month in which the tender closed

CPI_n = the latest indices specified in Contract during the month in which the anniversary of the tender closing date falls

The indices are those contained in Table A of the P0141 Consumer Price Index for the **CPI for services** published by Statistics South Africa.

Schedule 9: Certificate of Independent Tender Determination

I, the undersigned, in submitting this tender [340S/2021/22 **TABLE MOUNTAIN GROUP (TMG) AQUIFER REGIONAL (SECTION A) AND STEENBRAS WELLFIELD IMPACT (SECTION B) MONITORING, CITY OF CAPE TOWN**] in response to the tender invitation made by THE CITY OF CAPE TOWN, 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/or may be reported to the National Prosecuting Authority (NPA) for criminal investigation, and/or may be restricted from conducting business with the public sector for a period not exceeding 10 (ten) years in terms of the Prevention and Combating of Corrupt Activities Act, Act 12 of 2004, or any other applicable legislation.

Signature

Date

Name (PRINT)

(For and on behalf of the Tenderer (duly authorised))

(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 execution of a contract.)

Schedule 10: Local Content Declaration / Annexure C

The following declaration certificate for local production and content for designated sectors shall be provided with the Tender:

- a. Schedule 10A: Steel Products and Components for Construction
- b. Schedule 10B: Plastic Pipes
- c. Schedule 10C: Cement
- d. Schedule 10D: Solar PV Components – Laminated PV Modules
- e. Schedule 10E: Solar PV Components – Module Frame
- f. Schedule 10F: Solar PV Components – Mounting Structure
- g. Schedule 10G: Solar PV Components – Inverter
- h. Schedule 10H: Electrical and Telecom Cables

Schedule 10A: Steel Products and Components for Construction

SCHEDULE 10A : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : STEEL PRODUCTS AND COMPONENTS FOR CONSTRUCTION

This declaration is based on and replaces Municipal Bid Document 6.2 (MBD 6.2).

The amendments made to the MBD 6.2 document have been necessary to clarify this standard document as it relates to local production and content in the designated sector.

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

Documents listed herein are downloadable from the dti's official website, <http://www.thedti.gov.za>.

This schedule must be completed by tenderers and returned with their tender at the closing date and time for this tender.

1. General Conditions

- 1.1 Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2 Regulation 8(2) prescribes that in the case of designated sectors, organs of state must advertise such bids with the specific bidding condition that only locally produced goods with a stipulated minimum threshold for local production and content will be considered.
- 1.3 Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4 A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5 The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

- x is the imported content in Rand
- y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by Nedbank at close of business on the date of advertisement of the bid as required in paragraph 3.1 below.

NOTE: The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp at no cost.

- 1.6 A bid may be disqualified/declared non-responsive if this Declaration Certificate and Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation.

SCHEDULE 10A : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : STEEL PRODUCTS AND COMPONENTS FOR CONSTRUCTION (Cont'd)

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Steel Products and Components for Construction	100%

3. Does any portion of the services, works or goods offered for Items as detailed in Annexure C have any imported content?

(Tick applicable box)

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

3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the above General Conditions must be the rate(s) published by Nedbank at close of business on the date of advertisement of the bid.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Suppliers must submit proof of the Nedbank rate(s) of exchange used.

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the CCT provide directives in this regard.

SCHEDULE 10A : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : STEEL PRODUCTS AND COMPONENTS FOR CONSTRUCTION (Cont'd)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity):
.....

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph 1 below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as

I.....(name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (i) the goods to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011;
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 2 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____ DATE: _____

WITNESS No. 1 _____ DATE: _____

WITNESS No. 2 _____ DATE: _____

Annex C- Steel Products and Components for Construction

Local Content Declaration - Summary Schedule

(C1)	Tender No.	340S/2021/22				
(C2)	Tender description:	Table Mountain Group (TMG) Aquifer Regional (Section A) And Steenbras Wellfield Impact (Section B) Monitoring, City Of Cape Town				
(C3)	Designated product(s)	Steel Products and Components for Construction				
(C4)	Tender Authority:	City of Cape Town				
(C5)	Tendering Entity name:					
(C6)	Tender Exchange Rate:	USD		EU		GBP
(C7)	Specified local content %	100				

Note: VAT to be excluded from all calculations

		Calculation of local content					
Tender item no's	List of items	Tender price per UoM (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
A13.1.1b	Steel casing, 4.5mm wall thickness, squared, with lockable cap, 75mm width, 600mm length						
A13.1.1c	Steel casing, 4.5 mm wall thickness, squared, with lockable cap, 100mm width, 600mm length						
A13.1.4	Transect marker at ecosite, galvanised steel pole						

Tender summary			
Anticipated Annual Tender Qty (m)	Total tender value	Total exempted imported content	Total Imported content
(C16)	(C17)	(C18)	(C19)

Schedule 10B: Plastic Pipes

SCHEDULE 10B : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : PLASTIC PIPES

This declaration is based on and replaces Municipal Bid Document 6.2 (MBD 6.2).

The amendments made to the MBD 6.2 document have been necessary to clarify this standard document as it relates to local production and content in the designated sector.

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

Documents listed herein are downloadable from the dti's official website, <http://www.thedti.gov.za>.

This schedule must be completed by tenderers and returned with their tender at the closing date and time for this tender.

1. General Conditions

- 1.1 Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2 Regulation 8(2) prescribes that in the case of designated sectors, organs of state must advertise such bids with the specific bidding condition that only locally produced goods with a stipulated minimum threshold for local production and content will be considered.
- 1.3 Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4 A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5 The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

x is the imported content in Rand

y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by Nedbank at close of business on the date of advertisement of the bid as required in paragraph 3.1 below.

NOTE: The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp at no cost.

- 1.6 A bid may be disqualified/declared non-responsive if this Declaration Certificate and Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation.

SCHEDULE 10B : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : PLASTIC PIPES (Cont'd)

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Plastic Pipes	100%

3. Does any portion of the services, works or goods offered for Items as detailed in Annexure C have any imported content?
(Tick applicable box)

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

3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the above General Conditions must be the rate(s) published by Nedbank at close of business on the date of advertisement of the bid.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Suppliers must submit proof of the Nedbank rate(s) of exchange used.

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the CCT provide directives in this regard.

SCHEDULE 10B : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : PLASTIC PIPES (Cont'd)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity):
.....

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph 1 below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as

I.....(name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (ii) the goods to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011;
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 2 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____ DATE: _____

WITNESS No. 1 _____ DATE: _____

WITNESS No. 2 _____ DATE: _____

TENDER NO: 340S/2021/22

		Calculation of local content						Tender summary			
Tender item no's	List of items	Tender price per UoM (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Anticipated Annual Tender Qty (m)	Total tender value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)

Signature of tenderer from Annex B

Date: _____

(C20) Total tender value	R	
(C21) Total Exempt imported content	R	
(C22) Total Tender value net of exempt imported content	R	
(C23) Total Imported content	R	
(C24) Total local content	R	
(C25) Average local content % of tender		

Schedule 10C: Cement

SCHEDULE 10C : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : CEMENT

This declaration is based on and replaces Municipal Bid Document 6.2 (MBD 6.2).

The amendments made to the MBD 6.2 document have been necessary to clarify this standard document as it relates to local production and content in the designated sector.

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

Documents listed herein are downloadable from the dti's official website, <http://www.thedti.gov.za>.

This schedule must be completed by tenderers and returned with their tender at the closing date and time for this tender.

1. General Conditions

- 1.1 Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2 Regulation 8(2) prescribes that in the case of designated sectors, organs of state must advertise such bids with the specific bidding condition that only locally produced goods with a stipulated minimum threshold for local production and content will be considered.
- 1.3 Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4 A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5 The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

- x is the imported content in Rand
- y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by Nedbank at close of business on the date of advertisement of the bid as required in paragraph 3.1 below.

NOTE: The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp at no cost.

- 1.6 A bid may be disqualified/declared non-responsive if this Declaration Certificate and Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation.

SCHEDULE 10C : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : CEMENT (Cont'd)

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Cement	100%

3. Does any portion of the services, works or goods offered for Items as detailed in Annexure C have any imported content?
(Tick applicable box)

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

- 3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the above General Conditions must be the rate(s) published by Nedbank at close of business on the date of advertisement of the bid.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Suppliers must submit proof of the Nedbank rate(s) of exchange used.

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the CCT provide directives in this regard.

SCHEDULE 10C : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : CEMENT (Cont'd)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity):

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph 1 below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as

I.....(name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (iii) the goods to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011;
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 2 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____ DATE: _____

WITNESS No. 1 _____ DATE: _____

WITNESS No. 2 _____ DATE: _____

Annex C- Cement

Local Content Declaration - Summary Schedule

(C1)	Tender No.	340S/2021/22					
(C2)	Tender description:	Table Mountain Group (TMG) Aquifer Regional (Section A) And Steenbras Wellfield Impact (Section B) Monitoring, City Of Cape Town					
(C3)	Designated product(s)	Cement					
(C4)	Tender Authority:	City of Cape Town					
(C5)	Tendering Entity name:						
(C6)	Tender Exchange Rate:	USD		EU		GBP	
(C7)	Specified local content %	100					

Note: VAT to be excluded from all calculations

		Calculation of local content					
Tender item no's	List of items	Tender price per UoM (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
A13.1.7	Cement for concrete fixing piezometer steel casing, poles						
A13.3.4c	Cement for concrete fixing of poles						
A13.3.6k	Cement for concrete						
B13.1.7	Cement for concrete fixing piezometer steel casing, poles						
B13.3.4c	Cement for concrete fixing of poles						

Tender summary			
Anticipated Annual Tender Qty (m)	Total tender value	Total exempted imported content	Total Imported content
(C16)	(C17)	(C18)	(C19)

TENDER NO: 340S/2021/22

Calculation of local content							
Tender item no's	List of items	Tender price per UoM (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)
B13.3.6k	Cement for concrete						

Tender summary			
Anticipated Annual Tender Qty (m)	Total tender value	Total exempted imported content	Total Imported content
(C16)	(C17)	(C18)	(C19)

Signature of tenderer from Annex B

Date: _____

(C20) Total tender value	R	
(C21) Total Exempt imported content	R	
(C22) Total Tender value net of exempt imported content	R	
(C23) Total Imported content		R
(C24) Total local content		R
(C25) Average local content % of tender		

Schedule 10D: Solar PV Components - Laminated PV Modules

SCHEDULE 10D : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : SOLAR PV COMPONENTS – LAMINATED PV MODULES

This declaration is based on and replaces Municipal Bid Document 6.2 (MBD 6.2).

The amendments made to the MBD 6.2 document have been necessary to clarify this standard document as it relates to local production and content in the designated sector.

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

Documents listed herein are downloadable from the dti's official website, <http://www.thedti.gov.za>.

This schedule must be completed by tenderers and returned with their tender at the closing date and time for this tender.

1. General Conditions

- 1.1 Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2 Regulation 8(2) prescribes that in the case of designated sectors, organs of state must advertise such bids with the specific bidding condition that only locally produced goods with a stipulated minimum threshold for local production and content will be considered.
- 1.3 Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4 A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5 The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

- x is the imported content in Rand
- y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by Nedbank at close of business on the date of advertisement of the bid as required in paragraph 3.1 below.

NOTE: The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp at no cost.

- 1.6 A bid may be disqualified/declared non-responsive if this Declaration Certificate and Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation.

SCHEDULE 10D : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : SOLAR PV COMPONENTS – LAMINATED PV MODULES (Cont'd)

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Solar PV Components	
• Laminated PV Modules	15%

3. Does any portion of the services, works or goods offered for Items as detailed in Annexure C have any imported content?
(Tick applicable box)

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

3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the above General Conditions must be the rate(s) published by Nedbank at close of business on the date of advertisement of the bid.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Suppliers must submit proof of the Nedbank rate(s) of exchange used.

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the CCT provide directives in this regard.

SCHEDULE 10D : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : SOLAR PV COMPONENTS – LAMINATED PV MODULES (Cont'd)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity):
.....

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph 1 below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as

I.....(name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (iv) the goods to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011;
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 2 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____ DATE: _____

WITNESS No. 1 _____ DATE: _____

WITNESS No. 2 _____ DATE: _____

TENDER NO: 340S/2021/22

		Calculation of local content						Tender summary			
Tender item no's	List of items	Tender price per UoM (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Anticipated Annual Tender Qty (m)	Total tender value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)

(C20) Total tender value	R	
(C21) Total Exempt imported content	R	
(C22) Total Tender value net of exempt imported content	R	
(C23) Total Imported content	R	
(C24) Total local content	R	
(C25) Average local content % of tender		

Signature of tenderer from Annex B

Date: _____

Schedule 10E: Solar PV Components – Module Frame

SCHEDULE 10E : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : SOLAR PV COMPONENTS – MODULE FRAME

This declaration is based on and replaces Municipal Bid Document 6.2 (MBD 6.2).

The amendments made to the MBD 6.2 document have been necessary to clarify this standard document as it relates to local production and content in the designated sector.

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

Documents listed herein are downloadable from the dti's official website, <http://www.thedti.gov.za>.

This schedule must be completed by tenderers and returned with their tender at the closing date and time for this tender.

1. General Conditions

- 1.1 Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2 Regulation 8(2) prescribes that in the case of designated sectors, organs of state must advertise such bids with the specific bidding condition that only locally produced goods with a stipulated minimum threshold for local production and content will be considered.
- 1.3 Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4 A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5 The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

- x is the imported content in Rand
- y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by Nedbacnl at close of business on the date of advertisement of the bid as required in paragraph 3.1 below.

NOTE: The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp at no cost.

- 1.6 A bid may be disqualified/declared non-responsive if this Declaration Certificate and Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation.

SCHEDULE 10E : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : SOLAR PV COMPONENTS – MODULE FRAME (Cont'd)

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Solar PV Components	
• Module Frame	65%

3. Does any portion of the services, works or goods offered for Items as detailed in Annexure C have any imported content?
(Tick applicable box)

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

3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the above General Conditions must be the rate(s) published by Nedbank at close of business on the date of advertisement of the bid.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Suppliers must submit proof of the Nedbank rate(s) of exchange used.

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the CCT provide directives in this regard.

SCHEDULE 10E : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : SOLAR PV COMPONENTS – MODULE FRAME (Cont'd)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity):

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph 1 below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as

I.....(name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (v) the goods to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011;
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 2 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____ DATE: _____

WITNESS No. 1 _____ DATE: _____

WITNESS No. 2 _____ DATE: _____

TENDER NO: 340S/2021/22

		Calculation of local content						Tender summary			
Tender item no's	List of items	Tender price per UoM (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Anticipated Annual Tender Qty (m)	Total tender value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)

(C20) Total tender value	R	
(C21) Total Exempt imported content	R	
(C22) Total Tender value net of exempt imported content	R	
(C23) Total Imported content	R	
(C24) Total local content	R	
(C25) Average local content % of tender		

Signature of tenderer from Annex B

Date: _____

Schedule 10F: Solar PV Components – Mounting Structure

SCHEDULE 10F : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : SOLAR PV COMPONENTS – MOUNTING STRUCTURE

This declaration is based on and replaces Municipal Bid Document 6.2 (MBD 6.2).

Tghe amendments made to the MBD 6.2 document have been necessary to clarify this standard document as it relates to local production and content in the designated sector.

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

Documents listed herein are downloadable from the dti's official website, <http://www.thedti.gov.za>.

This schedule must be completed by tenderers and returned with their tender at the closing date and time for this tender.

1. General Conditions

- 1.1 Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2 Regulation 8(2) prescribes that in the case of designated sectors, organs of state must advertise such bids with the specific bidding condition that only locally produced goods with a stipulated minimum threshold for local production and content will be considered.
- 1.3 Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4 A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5 The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

- x is the imported content in Rand
- y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by Nedbacnl at close of business on the date of advertisement of the bid as required in paragraph 3.1 below.

NOTE: The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp at no cost.

- 1.6 A bid may be disqualified/declared non-responsive if this Declaration Certificate and Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation.

SCHEDULE 10F : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : SOLAR PV COMPONENTS – MOUNTING STRUCTURE (Cont'd)

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Solar PV Components	
• Mounting Structure	90%

3. Does any portion of the services, works or goods offered for Items as detailed in Annexure C have any imported content?
(Tick applicable box)

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

- 3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the above General Conditions must be the rate(s) published by Nedbank at close of business on the date of advertisement of the bid.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Suppliers must submit proof of the Nedbank rate(s) of exchange used.

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the CCT provide directives in this regard.

SCHEDULE 10F : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : SOLAR PV COMPONENTS – MOUNTING STRUCTURE (Cont'd)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity):
.....

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph 1 below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as

I.....(name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (vi) the goods to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011;
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 2 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____ DATE: _____

WITNESS No. 1 _____ DATE: _____

WITNESS No. 2 _____ DATE: _____

TENDER NO: 340S/2021/22

		Calculation of local content						Tender summary			
Tender item no's	List of items	Tender price per UoM (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Anticipated Annual Tender Qty (m)	Total tender value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)

Signature of tenderer from Annex B

Date: _____

(C20) Total tender value	R	
(C21) Total Exempt imported content	R	
(C22) Total Tender value net of exempt imported content	R	
(C23) Total Imported content	R	
(C24) Total local content	R	
(C25) Average local content % of tender		

Schedule 10G: Solar PV Components - Inverter

SCHEDULE 10G : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : SOLAR PV COMPONENTS – INVERTER

This declaration is based on and replaces Municipal Bid Document 6.2 (MBD 6.2).

The amendments made to the MBD 6.2 document have been necessary to clarify this standard document as it relates to local production and content in the designated sector.

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

Documents listed herein are downloadable from the dti's official website, <http://www.thedti.gov.za>.

This schedule must be completed by tenderers and returned with their tender at the closing date and time for this tender.

1. General Conditions

- 1.1 Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2 Regulation 8(2) prescribes that in the case of designated sectors, organs of state must advertise such bids with the specific bidding condition that only locally produced goods with a stipulated minimum threshold for local production and content will be considered.
- 1.3 Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4 A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5 The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

- x is the imported content in Rand
- y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by Nedbank at close of business on the date of advertisement of the bid as required in paragraph 3.1 below.

NOTE: The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp at no cost.

- 1.6 A bid may be disqualified/declared non-responsive if this Declaration Certificate and Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation.

SCHEDULE 10G : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : SOLAR PV COMPONENTS – INVERTER (Cont'd)

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Solar PV Components	
• Inverter	40%

3. Does any portion of the services, works or goods offered for Items as detailed in Annexure C have any imported content?
(Tick applicable box)

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

3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the above General Conditions must be the rate(s) published by Nedbank at close of business on the date of advertisement of the bid.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Suppliers must submit proof of the Nedbank rate(s) of exchange used.

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the CCT provide directives in this regard.

SCHEDULE 10G : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : SOLAR PV COMPONENTS – INVERTER (Cont'd)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity):
.....

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph 1 below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as

I.....(name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (vii) the goods to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011;
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 2 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____ DATE: _____

WITNESS No. 1 _____ DATE: _____

WITNESS No. 2 _____ DATE: _____

TENDER NO: 340S/2021/22

		Calculation of local content						Tender summary			
Tender item no's	List of items	Tender price per UoM (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Anticipated Annual Tender Qty (m)	Total tender value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)

Signature of tenderer from Annex B

Date: _____

(C20) Total tender value	R	
(C21) Total Exempt imported content	R	
(C22) Total Tender value net of exempt imported content	R	
(C23) Total Imported content	R	
(C24) Total local content	R	
(C25) Average local content % of tender		

Schedule 10H: Electrical and Telecom Cables

SCHEDULE 10H : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : ELECTRICAL AND TELECOM CABLES

This declaration is based on and replaces Municipal Bid Document 6.2 (MBD 6.2).

The amendments made to the MBD 6.2 document have been necessary to clarify this standard document as it relates to local production and content in the designated sector.

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

Documents listed herein are downloadable from the dti's official website, <http://www.thedti.gov.za>.

This schedule must be completed by tenderers and returned with their tender at the closing date and time for this tender.

1. General Conditions

- 1.1 Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2 Regulation 8(2) prescribes that in the case of designated sectors, organs of state must advertise such bids with the specific bidding condition that only locally produced goods with a stipulated minimum threshold for local production and content will be considered.
- 1.3 Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4 A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5 The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

- x is the imported content in Rand
- y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by Nedbacnl at close of business on the date of advertisement of the bid as required in paragraph 3.1 below.

NOTE: The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp at no cost.

- 1.6 A bid may be disqualified/declared non-responsive if this Declaration Certificate and Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation.

SCHEDULE 10H : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : ELECTRICAL AND TELECOM CABLES (Cont'd)

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Electrical and Telecom Cables	90%

3. Does any portion of the services, works or goods offered for Items as detailed in Annexure C have any imported content?

(Tick applicable box)

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

3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the above General Conditions must be the rate(s) published by Nedbank at close of business on the date of advertisement of the bid.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Suppliers must submit proof of the Nedbank rate(s) of exchange used.

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the CCT provide directives in this regard.

SCHEDULE 10H : DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS : ELECTRICAL AND TELECOM CABLES (Cont'd)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity):

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph 1 below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as

I.....(name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (viii) the goods to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011;
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 2 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____ DATE: _____

WITNESS No. 1 _____ DATE: _____

WITNESS No. 2 _____ DATE: _____

TENDER NO: 340S/2021/22

Calculation of local content								Tender summary			
Tender item no's	List of items	Tender price per UoM (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Anticipated Annual Tender Qty (m)	Total tender value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)

Signature of tenderer from Annex B

Date: _____

(C20) Total tender value	R	
(C21) Total Exempt imported content	R	
(C22) Total Tender value net of exempt imported content	R	
(C23) Total Imported content	R	
(C24) Total local content	R	
(C25) Average local content % of tender		

Schedule 12: Schedule of Pre-Qualification Criteria Sub-Contractors

Not applicable to this tender.

SIGNED ON BEHALF OF TENDERER:

Schedule 13: 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 14: Record of Addenda to Tender Documents

We confirm that the following communications received from the Employer 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.

SIGNED ON BEHALF OF TENDERER:

Schedule 15: Information to be provided with the tender

The following information shall be provided with the Tender:

- i. Schedule 15A: Key Personnel
- j. Schedule 15B: Tendering Entity track record
- k. Schedule 15C: Professional Indemnity Insurance
- l. Schedule 15D: Schedule of Sub-contractors
- m. Schedule 15E: Proposed Deviations and Qualifications by Tenderer

Schedule 15A: 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 A and B where a tenderer tenders for both sections.

SECTION A: 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 B: 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).

SIGNED ON BEHALF OF TENDERER:

Schedule 15B: 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 A: Track record with regional monitoring

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)
Botanical assessment and or monitoring within natural fynbos biome				
Wetland assessment and or monitoring within natural fynbos biome				
Water resource assessment and or monitoring, including surface water – groundwater interaction				

Section B: Track record with impact monitoring

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)
Botanical assessment and or monitoring within natural fynbos biome				
Wetland assessment and or monitoring within natural fynbos biome				
Water resource assessment and or monitoring, including surface water – groundwater interaction				
Impact assessment and or monitoring of infrastructure development in or next to water courses				

SIGNED ON BEHALF OF TENDERER:

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.: 340S/2021/22

TENDER TITLE: TABLE MOUNTAIN GROUP (TMG) AQUIFER REGIONAL (SECTION A) AND STEENBRAS WELLFIELD IMPACT (SECTION B) 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	
Scope of works	
Botanical assessment / monitoring within natural fynbos biome (Y/N) [If "Yes" provide details below]	
Wetland assessment / monitoring within natural fynbos biome (Y/N) [If "Yes" provide details below]	
Water resource monitoring, including surface water – groundwater interaction (Y/N) [If "Yes" provide details below]	
Construction impact assessment / monitoring on wetlands within fynbos biome (Y/N) [If "Yes" provide details below]	
Project area	
Completion date	
Contract value (inclusive of VAT)	
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 15C: 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

SIGNED ON BEHALF OF TENDERER:

Schedule 15D: 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	BBBEE Level Contributor

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

SIGNED ON BEHALF OF TENDERER:

Schedule 15E: Proposed Deviatons and Qualifications by Tenderer

The Tenderer should record any **proposed** deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such proposed deviations and qualifications in a covering letter attached to his tender and reference such letter in this schedule. Any proposed deviations or qualifications contained in a covering letter which is not referenced in this schedule will not be considered.

The Tenderer’s attention is drawn to clause 2.3.12 of the Conditions of Tender referenced in the Tender Data regarding the Employer’s handling of material deviations and qualifications.

If no deviations or modifications are desired, the schedule hereunder is to be marked NIL and signed by the Tenderer.

PAGE	CLAUSE OR ITEM	PROPOSAL

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

SIGNED ON BEHALF OF TENDERER:

TENDER DOCUMENT GOODS AND SERVICES		 CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD
SUPPLY CHAIN MANAGEMENT		
SCM - 542	Approved by Branch Manager: 03/04/2020	Version: 8 Page 129 of 210

<p>TENDER NO: 340S/2021/22</p> <p>TENDER DESCRIPTION: TABLE MOUNTAIN GROUP (TMG) AQUIFER REGIONAL (SECTION A) AND STEENBRAS WELLFIELD IMPACT (SECTION B) MONITORING, CITY OF CAPE TOWN</p> <p>CONTRACT PERIOD: FROM COMMENCEMENT DATE TO 30 JUNE 2025</p>
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VOLUME 3: DRAFT CONTRACT

TENDERER	
NAME of Company/Close Corporation or Partnership / Joint Venture/ Consortium or Sole Proprietor /Individual	
TRADING AS (if different from above)	

NATURE OF TENDER OFFER (please indicate below)	
Main Offer (see clause 2.2.11.1)	Rates based
Alternative Offer (see clause 2.2.11.1)	Not applicable

VOLUME 3: DRAFT CONTRACT (7) 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 Contract:

1. Definitions

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 contract. 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**.

Add the following after Clause 1.25:

- 1.26 'Supplier' means any provider of goods and / or services with whom the contract is concluded
- 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

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 All parties in a joint venture or consortium shall be jointly and severally liable to the purchaser in terms of this 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 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, **save that if the Employer 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 that 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 cancellation of the

contract, restriction of the supplier, and/or the exercise by the City of any other remedies available to it as described in the SCM Policy.

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 order:

- 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
- d) Other requirements as detailed in the tender documents

3.5.2 Only when notified of the acceptance of the bid by the issuing of the order, the supplier shall commence with and carry out the delivery of the goods 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 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 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 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 orders for the goods required under this Contract. No liability for payment will ensue for any work done if an official purchase order has not been issued to the supplier.

3.6.2 Make payment to the **supplier** for the goods as set out herein.

3.6.3 Take possession of the goods 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 documents.

3.6.6 Grant or refuse any extension of time requested by the supplier to the period stated in clause 10.

- 3.6.7 Inspect the goods 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 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 contract and need not obtain the supplier's permission to copy 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 for the contract and the purchaser hereby indemnifies the supplier against any claim which may be made against him by any party 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 contract within two (2) years of completion of the services 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 contract 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 Employer.
- 5.8.2 The supplier hereby assigns to the Employer, all Intellectual Property created, developed or otherwise brought into existence by it for the purposes of the contract, 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 Employer's Intellectual Property for any purpose other than as contemplated in this contract;
- 5.8.3.2 not modify, add to, change or alter the Employer'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 Employer;
- 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 Employer;
- 5.8.3.4 comply with all reasonable directions or instructions given to it by the Employer in relation to the form and manner of use of the Employer Intellectual Property, including without limitation, any brand guidelines which the Employer may provide to the supplier from time to time;
- 5.8.3.5 procure that its employees, directors, members and contractors comply strictly with the provisions of clauses 5.8.3.1 to 5.8.3.3 above;
- unless the Employer expressly agrees thereto in writing after obtaining due internal authority.
- 5.8.4 The supplier represents and warrants to the Employer that, in providing goods, services or both, as the case may be, for the duration of the contract, it will not infringe or make unauthorised use of the

Intellectual Property rights of any third party and hereby indemnifies the Employer 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 In the event that the contract is cancelled, terminated, ended or is declared void, any and all of the Employer's Intellectual Property, and any and all information and data related thereto, shall be immediately handed over to the Employer by the supplier and no copies thereof shall be retained by the supplier unless the Employer expressly and in writing, after obtaining due internal authority, agrees otherwise.

7. Performance Security

Delete clause 7.1 to 7.4 and replace with the following:

'Not Applicable. Tenderers must disregard **Form of Guarantee / Performance Security** and are not required to complete same.

8. Inspections, tests and analyses

Delete Clause 8.2 and substitute with the following:

- 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 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 order. Orders for the supply and delivery of goods may be raised up until the expiry of a framework agreement bid, provided that the goods can be delivered within 30 days of expiry of the framework contract. All orders, other than for the supply and delivery of goods, must be completed prior to the expiry of the contract period.
- 10.2 The purchaser shall determine, in its sole discretion, whether the goods 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 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 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:
- a) 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;
 - b) 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;
 - c) 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 bidder's broker or the insurance company itself (see **Proof of Insurance / Insurance Broker's Warranty** section in document for a pro forma version).
 - d) 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.

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

- 11.3 The supplier shall be obliged to furnish the CCT with proof of such insurance as the CCT 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 **Proof of Insurance / Insurance Broker's Warranty** section of the document or copies of the insurance policies.

15. Warranty

Add to Clause 15.2:

- 15.2 This warranty for this contract shall remain valid for **twelve (12) months** after the goods have been delivered.

16. Payment

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

- 16.1 A monthly payment cycle will be the norm. All invoices which are dated on or before the 20th of a particular month will typically be paid between the 23rd and 26th of the following month. The supplier may submit a fully motivated application regarding more frequent payment to the Employer's Director: Expenditure for consideration. Requests for more frequent payments will be considered at the sole discretion of the Employer and is not a right in terms of this contract.

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 order, the supplier shall only be entitled to payment for goods actually delivered in terms of the Project Specification and Drawings, or any variations in accordance with clause 18. Any contingency sum included shall be for the sole use, and at the discretion, of the purchaser.

The CCT is not liable for payment of any invoice that pre-dates the date of delivery of the goods.

- 16.6 The purchaser will only make advanced payments to the supplier in strict compliance with the terms and details as contained on **Proforma Advanced Payment Guarantee** and only once the authenticity of such guarantee has been verified by the City's Treasury Department.

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.

- 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

- 17.4 The prices for the goods delivered and services performed shall be subject to contract price adjustment as detailed in Schedule 8: Contract Price Adjustment and/or Rate of Exchange Variation.

17.5 If price adjustment for variations in the cost of plant and materials imported from outside of South Africa is provided for in the contract, such adjustment shall be based on the information contained on the schedule titled "**Price Basis for Imported Resources**" and as below. For the purposes of this clause the Rand value of imported Plant and Materials inserted on the schedule titled "**Price Basis for Imported Resources**" (column (F)) shall be the value in foreign currency (column (A)) converted to South African Rand (column (C)) by using the closing spot selling rate quoted by **CCT's** main banker, NEDBANK, on the Base Date (seven calendar days before tender closing date) rounded to the second decimal place (column(B)), to which shall be added any Customs Surcharge and Customs Duty applicable at that date (columns (D) and (E)).

17.5.1 Adjustment for variations in rates of exchange:

(a) The value in foreign currency inserted in column (A) shall be subject to clause (h) below when recalculating the Rand value.

(b) The rate of exchange inserted in column (B) shall be the closing spot selling rate quoted by Council's main banker, NEDBANK, on the Base Date, rounded to the second decimal place, subject to sub-paragraph (c) below.

(c) If the rate of exchange inserted by the Tenderer differs from the NEDBANK rate referred to above, then the NEDBANK rate shall apply and the Rand value in columns (C) and (F) shall be recalculated accordingly, without altering the price in the Price Schedule for the relevant items.

(d) If a tender from a supplier or sub-contractor provides for variations in rates of exchange, the Supplier may **only** claim for variations in rates of exchange if he binds the supplier or sub-contractor to the same provision to take out forward cover as described in sub-paragraph (e) below.

(e) The Supplier (or sub-contractor) shall within five working days from the date of placing a firm order on an overseas supplier, cover or recover forward by way of a contract with a bank which is an authorised foreign exchange dealer, the foreign exchange component of the cost of any imported Plant and Materials inserted by the Tenderer on the scheduled titled "**Price Basis for Imported Resources**".

(f) When the Supplier (or sub-contractor) so obtains forward cover, the Supplier shall immediately notify the CCT of the rate obtained and furnish the CCT with a copy of the foreign exchange contract note.

(g) Based on the evidence provided in sub-paragraph (f) above, the value in Rand inserted in column (C) of on the schedule titled "**Price Basis for Imported Resources**" shall be recalculated using the forward cover rate obtained, and any increase or decrease in the Rand value defined in this clause shall be adjusted accordingly, subject to sub-paragraph (h) below.

(h) The adjustments shall be calculated upon the value in foreign currency in the Supplier's (or sub-contractor's) **forward cover contract**, provided that, should this value exceed the value in foreign currency inserted in column (A) of on the schedule titled "**Price Basis for Imported Resources**", then the value in column (A) shall be used.

17.53.2 Adjustment for variations in customs surcharge and customs duty

(a) Any increase or decrease in the Rand value between the amounts of Customs Surcharge and Customs Duty inserted in on the schedule titled "**Price Basis for Imported Resources**" and those amounts actually paid to the Customs and Excise Authorities, which are due to changes in the percentage rates applicable or to the foreign exchange rate used by the authorities, shall be adjusted accordingly.

(b) The Tenderer shall state the Customs Duty Tariff Reference applicable to each item and the Supplier shall advise the CCT's Agent of any changes which occur.

17.5.3 Adjustment for variation in labour and material Costs

If the prices for imported Plant and Materials are not fixed, the Supplier shall in his Tender specify the formula for calculating Contract Price Adjustments normally used in the country of manufacture and the indices and relative proportions of labour and material on which his Tender prices are based. Evidence of the indices applicable shall be provided with each claim. The indices applicable 42 days before contractual dispatch date from the factory will be used for the purposes of Contract Price Adjustment.

Failure to specify a formula in the Tender shall mean that the prices are fixed or shall be deemed to be fixed.

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, extension of the duration or expansion of the value of the contract that the purchaser issues to the supplier as instructions in writing, 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, such work will not become due and payable until amended order has been issued by 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 CCT and the subcontractor, or a responsibility or liability on the part of the CCT 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 the contract the supplier or its sub-contractors should encounter conditions beyond their reasonable control which impede the timely delivery of the goods, the supplier shall notify the purchaser in writing, within 7 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 a contract shall be deemed to prohibit the obtaining of goods 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 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 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. The maximum penalty amount shall be 2.5% of the Works Order Sum.

- 22.2 The purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, financial penalties as contained on the **Preference Schedule** relating to 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 The parties by mutual agreement terminate the contract.

23.8.3 If an Order has been issued incorrectly, or to the incorrect recipient, the resulting contract may be terminated by the purchaser by written notice

23.8.4 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, provided the City Manager follows the processes as described in the purchasers SCM Policy.

23.8.5 After providing notice to the supplier, if the implementation of the contract may result in reputational risk or harm to the City as a result of (inter alia):

- 23.8.5.1 reports of poor governance and/or unethical behaviour;
- 23.8.5.2 association with known family of notorious individuals;
- 23.8.5.3 poor performance issues, known to the Employer;
- 23.8.5.4 negative social media reports; or
- 23.8.5.5 adverse assurance (e.g. due diligence) report outcomes..

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 The purchaser may make either of the following elections to ensure its rights are protected and any negative impact on service delivery is mitigated:

26.1.1 accept a supplier proposal (via the liquidator) to render delivery utilising the appropriate contractual mechanisms; or

26.1.2 terminate the contract, as the liquidator proposed supplier is deemed unacceptable to the purchaser, at any time by giving written notice to the supplier (via the liquidator).

26.2 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

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 23.1(c), 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 (b) and replace with the following:

- (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 working day of delivery
 - 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 supplier to submit documentary evidence in the form of a valid Tax Clearance Certificate 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).

Add the following after clause 32.3:

32.4 The **VAT registration** number of the City of Cape Town is **4500193497**.

ADDITIONAL CONDITIONS OF CONTRACT

Add the following Clause after Clause 34:

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

- 35.1 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.

36. Protection of personal information

- 36.1 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.

37. Use of appropriate level staff

- 37.1 There is a great deal of fieldwork required for this project, 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.

(8) 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 so 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.
- 7.2 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, 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.

(9) FORM OF GUARANTEE / PERFORMANCE SECURITY**FORM OF GUARANTEE / PERFORMANCE SECURITY****GUARANTOR DETAILS AND DEFINITIONS**

"Guarantor" means:

Physical address of Guarantor:

"Supplier" means:

"Contract Sum" means: The accepted tender amount (INCLUSIVE OF VAT) of R

Amount in words:

"Guaranteed Sum" means: The maximum amount of R

Amount in words:

"Contract" means: The agreement made in terms of the Form of Offer and Acceptance for tender no _____: _____ and such amendments or additions to the contract as may be agreed in writing between the parties.

PERFORMANCE GUARANTEE

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
2. The Guarantor's period of liability shall be from and including the date of issue of this Guarantee/Performance Security up to and including the termination of the Contract or the date of payment in full of the Guaranteed Sum, whichever occurs first.
3. The Guarantor hereby acknowledges that:
 - 3.1 any reference in this Guarantee/Performance to "Contract" is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
 - 3.2 its obligation under this Guarantee/Performance Security is restricted to the payment of money.
4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the City of Cape Town the sum due and payable upon receipt of the documents identified in 4.1 to 4.2:
 - 4.1 A copy of a first written demand issued by the City of Cape Town to the Supplier stating that payment of a sum which is due and payable has not been made by the Supplier in terms of the Contract and failing such payment within seven (7) calendar days, the City of Cape Town intends to call upon the Guarantor to make payment in terms of 4.2;
 - 4.2 A first written demand issued by the City of Cape Town to the Guarantor at the Guarantor's physical address with a copy to the Supplier stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum has still not been paid.
5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the City of Cape Town the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the City of Cape Town to the Guarantor at the Guarantor's physical address calling up this Guarantee / Performance Security, such demand stating that:
 - 5.1 the Contract has been terminated due to the Supplier's default and that this Guarantee/Performance Security is called up in terms of 5; or

5.2 a provisional or final sequestration or liquidation court order has been granted against the Supplier and that the Guarantee/Performance Guarantee is called up in terms of 5; and

5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.

- 6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
- 7. Where the Guarantor has made payment in terms of 5, the City of Cape Town shall upon the termination date of the Contract, submit an expense account to the Guarantor showing how all monies received in terms of this Guarantee/Performance Security have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Guarantee/Performance Security shall bear interest at the prime overdraft rate of the City of Cape Town's bank compounded monthly and calculated from the date payment was made by the Guarantor to the City of Cape Town until the date of refund.
- 8. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 9. The City of Cape Town shall have the absolute right to arrange its affairs with the Supplier in any manner which the City of Cape Town may deem fit and the Guarantor shall not have the right to claim his release from this Guarantee /Performance Security on account of any conduct alleged to be prejudicial to the Guarantor.
- 10. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 11. This Guarantee/Performance Security is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee / Performance Security shall be returned to the Guarantor after it has expired.
- 12. This Guarantee/Performance Security, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 13. Where this Guarantee/Performance Security is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)

ANNEXURE

LIST OF APPROVED FINANCIAL INSTITUTIONS

Not applicable to this tender.

(10) FORM OF ADVANCE PAYMENT GUARANTEE

ADVANCE PAYMENT GUARANTEE

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:

Physical address of guarantor:

"Supplier" means:

"Contract Sum" means: The accepted tender amount (INCLUSIVE of VAT) of R

Amount in words:

"Contract" means: The agreement made in terms of the Form of Offer and Acceptance and such amendments or additions to the Contract as may be agreed in writing between the parties.

"Plant and materials" means: The Plant and materials in respect of which an advance payment prior to manufacture is required, which the City of Cape Town has agreed may be subject to advance payment, such Plant and materials being listed in the Schedule of Plant and materials.

"Schedule of Plant and materials" means: A list of Plant and materials which shows the value thereof to be included in the Guaranteed Advance Payment Sum.

"Guaranteed Advance Payment Sum" means: The maximum amount of R

Amount in words:

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Advance Payment Sum.
2. The Guarantor's period of liability shall be from and including the date of issue of this Advance Payment Guarantee and up to and including the termination of the Contract or the date of payment in full of the Guaranteed Advance Payment Sum, whichever occurs first.
3. The Guarantor hereby acknowledges that:
 - 3.1 any reference in this Advance Payment Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
 - 3.2 its obligation under this Advance Payment Guarantee is restricted to the payment of money.
4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the City of Cape Town the sum advanced to the Supplier upon receipt of the documents identified in 4.1 to 4.2:
 - 4.1 A copy of a first written demand issued by the City of Cape Town to the Supplier stating that payment of a sum advanced by the City of Cape Town has not been repaid by the Supplier in terms of the Contract ("default") and failing such payment within seven (7) calendar days, the City of Cape Town intends to call upon the Guarantor to make payment in terms of 4.2;
 - 4.2 A first written demand issued by the City of Cape Town to the Guarantor at the Guarantor's physical address with a copy to the Supplier stating that a period of seven (7) calendar days has elapsed since the first written demand in terms of 4.1 and the sum advanced has still not been repaid by the Supplier.
5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the City of Cape Town the Guaranteed Advance Payment Sum or the full outstanding balance not repaid upon receipt of a first written demand from the City of Cape Town to the Guarantor at the Guarantor's physical address calling up this Advance Payment Guarantee, such demand stating that:
 - 5.1 the Contract has been terminated due to the Supplier's default and that this Advance Payment Guarantee is called up in terms of 5; or

- 5.2 a provisional or final sequestration or liquidation court order has been granted against the Supplier and that the Advance Payment Guarantee is called up in terms of 5; and
- 5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
- 6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
- 7. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 9. The City of Cape Town shall have the absolute right to arrange its affairs with the Supplier in any manner which the City of Cape Town may deem fit and the Guarantor shall not have the right to claim his release from this Advance Payment Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
- 10. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 11. This Advance Payment Guarantee is neither negotiable nor transferable and shall expire in terms of 2, whereafter no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- 12. This Advance Payment Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 13. Where this Guarantee/Performance Security is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)

(10.1) ADVANCE PAYMENT SCHEDULE

Not applicable to this tender.

(11) OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

AGREEMENT MADE AND ENTERED INTO BETWEEN THE CITY OF CAPE TOWN (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, 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 (OHSA) 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 OHSA and the Regulations and to charge him/them with the duty of ensuring that the provisions of OHSA 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

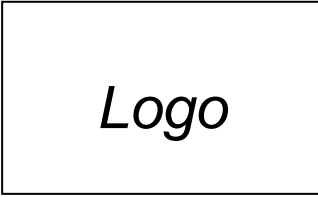
Mandatory

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

Witness

for and on behalf of
City of Cape Town

(12) INSURANCE BROKER'S WARRANTY (PRO FORMA)



Letterhead of supplier's Insurance Broker

Date _____

CITY OF CAPE TOWN
City Manager
Civic Centre
12 Hertzog Boulevard
Cape Town
8000

Dear Sir

TENDER NO.: 340S/2021/22

TENDER DESCRIPTION: TABLE MOUNTAIN GROUP (TMG) AQUIFER REGIONAL (SECTION A) AND STEENBRAS WELLFIELD IMPACT (SECTION B) 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 CITY OF CAPE TOWN 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)

(13) SPECIFICATION(S)

13.1 General

13.1.1 INTRODUCTION

The scope of work for the continuation of the regional baseline data collection for the Table Mountain Group Aquifer and the ecological monitoring of potential impacts of groundwater abstraction from the Steenbras Wellfield are detailed in the general specifications (13.2) and section specific conditions (13.3 and 13.4). These specifications, together with the appendices, forms 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.

13.1.2 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). Due to the recent drought, the City initiated TMGA wellfield development in several areas investigated in the TMGA Project, including targeting the Nardouw and Peninsula aquifers in the Steenbras Catchment.

The TMGA Project and subsequent TMGA Wellfield Development is currently undertaken by Zutari (Pty) Ltd and specialist subconsultants, comprising Umvoto Africa 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 Project and wellfield development are:

Inception Phase:	Negotiations took place with the City to finalise the Terms of Reference and the budget.
Preliminary Phase:	The study focussed 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 included the exploration of ten boreholes. Monitoring and testing were initiated with the aim of verifying the predicted aquifer characteristics, refining the location of the target well-fields and evaluating the risks associated with developing these.

Pilot Testing Phase was planned to drill a number of boreholes to develop at least one wellfield with a target yield of 3 to 5 million m³/a. This phase was replaced by the Extended Exploratory Phase.

Extended Exploratory Phase:	This phase allowed for the additional investigation of a new Target Zone/TSA (G – Groenlandberg) and the test pumping of wider diameter boreholes in other TSAs
Wellfield development Phase:	In 2017, the CCT fast tracked the TMGA groundwater development in several areas due to the prolonged drought and associated water crisis
Wellfield Commissioning Phase:	The CCT commissioned the Nardouw Aquifer portion of the Steenbras wellfield in August 2020. The current maximum capacity is between 15 – 18 Ml/d.

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 impact 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 approved by the Monitoring Task Team. Any changes that have financial and budget implications must, in addition, be approved by the City of Cape Town.

13.1.3 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 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 third monitoring period was carried out by FCG and GEOSS between January 2018 – June 2021. This tender intends to provide for the continuation of the regional monitoring and the commencement of the wellfield impact monitoring.

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 complimented 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.

13.1.4 DESCRIPTION OF THE SERVICES REQUIRED

The Service Provider is required to provide the services described in (13) Specifications.

13.1.5 EXTENT OF THE SERVICES

The services to be provided in terms of this Contract are inextricably linked to the Employer's three year capital and operational 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.

13.1.6 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.

13.1.7 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.

13.1.8 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.

13.1.9 APPROVALS

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

- (a) Approval of the priorities for monitoring, and the implementation programme from the Employer,
- (b) Approval of the monitoring database format,
- (c) Approval to deviate from scheduled monitoring activities and timing thereof,
- (d) Approval of reports,
- (e) Approval from relevant landowners for access to perform monitoring activities,
- (f) Approval from Cape Nature for taking samples in Nature Reserves and Conservancies.
- (g) In respect of time based services, approval of the allocation of staff from the Employer.
- (h) Approval for the employment of specialist sub-consultants from the Employer.

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.

13.1.10 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.

13.1.11 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.

13.1.12 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 5).

13.1.13 CLAIMS FOR PAYMENT

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

13.1.14 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.

13.1.15 TRADE NAMES OR PROPRIETARY PRODUCTS

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'

13.1.16 FORMS FOR CONTRACT ADMINISTRATION

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

- a) Monthly Project Labour Report (**Annex 1**).
- b) B-BBEE Sub-Contract Expenditure Report (**Annex 2**).
- c) Joint Venture Expenditure Report (**Annex 3**).

The Monthly Project Labour Report must include details of all labour (including that of sub-contractors) that are South African citizens earning less than R350.00 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.

TENDER NO: 340S/2021/22

The Monthly Project Labour Reports shall be completed and submitted in accordance with the instructions therein.

The **B-BBEE Sub-Contract Expenditure Report** is required for monitoring the supplier's compliance with the sub-contracting conditions of the **Preference Schedule**.

The Joint Venture Expenditure Report is required for monitoring the joint venture's/consortium/partnership compliance with the percentage contributions of the partners as tendered, where the joint venture/consortium/partnership has been awarded preference points in respect of its consolidated B-BBEE scorecard.

13.2 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 13.3 and 13.4 below.

13.2.1 PURPOSE

The regional 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 are covered in Section B, while the regional 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** and **Table 2**) 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. Additional monitoring sites might be required and would need to be set-up by the Monitoring Contractor. These activities are described in more detail below.

Table 1 Required datasets for ecological monitoring sites

Location	Water Cycle	Physical and chemical	Vegetation	Aquatic Ecology
Seeps	Water level, Soil moisture, Climate data	Soil and ambient temperature Macro chemistry	Vegetation Community Structure)	N/a
Rivers and channels	Discharge	Water temperature Macro chemistry	Vegetation Community Structure*)	Macroinvertebrates

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

Table 2 Required datasets for regional 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
Rivers and channels	Discharge	Water temperature, Ambient temperature	N/a	N/a
Weather Station	Rainfall, Evaporation	Wind speed and direction, Solar radiation, Temperature	N/a	N/a
Rainfall gauges	Rainfall	Macro chemistry, Isotopes	N/a	N/a

13.2.2 TASKS

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

- Task 1: Site set-up and installation of monitoring equipment
- Task 2: Maintenance of monitoring site and equipment
- Task 3: Routine data collection at ecological and hydro(geo)logical monitoring sites
- Task 4: Routine data collation from external sources
- Task 5: Data processing and storage
- Task 6: Data analysis
- Task 7: Reporting

Task 1: Installation of monitoring equipment

It is envisaged to set-up additional ecological monitoring sites in the wellfields currently under development; viz. Nuweberg/Eikenhof and Klipfontein, and or in other areas of the TMG Aquifer Project, as directed by the Employer. The layout of these new ecological monitoring sites follows the same principles as for the regional ecological sites (see description under Task 2), but with less transects and equipment installation:

- two short transects half way across the monitoring site from the dry edge to the centre of the wet core, clearly marked with
 - creosote poles on each site of the transect, with permanent site identifier (i.e. transect marker);
 - droppers at 2-m intervals on both sides of measurement points (i.e. piezometer or soil moisture sensor) and on both sides of the transect to identify 2-m wide vegetation plots (i.e. 4 plots per station), with permanent site identifier (i.e. plot marker);
- three multilevel soil moisture sensors along each transect, installation depth up to 1 m, for continuous measurements at hourly interval, connected to a telemetry system;
- two piezometers with water level data loggers within each seep monitoring site, in the wet core at the end of each transect, 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);

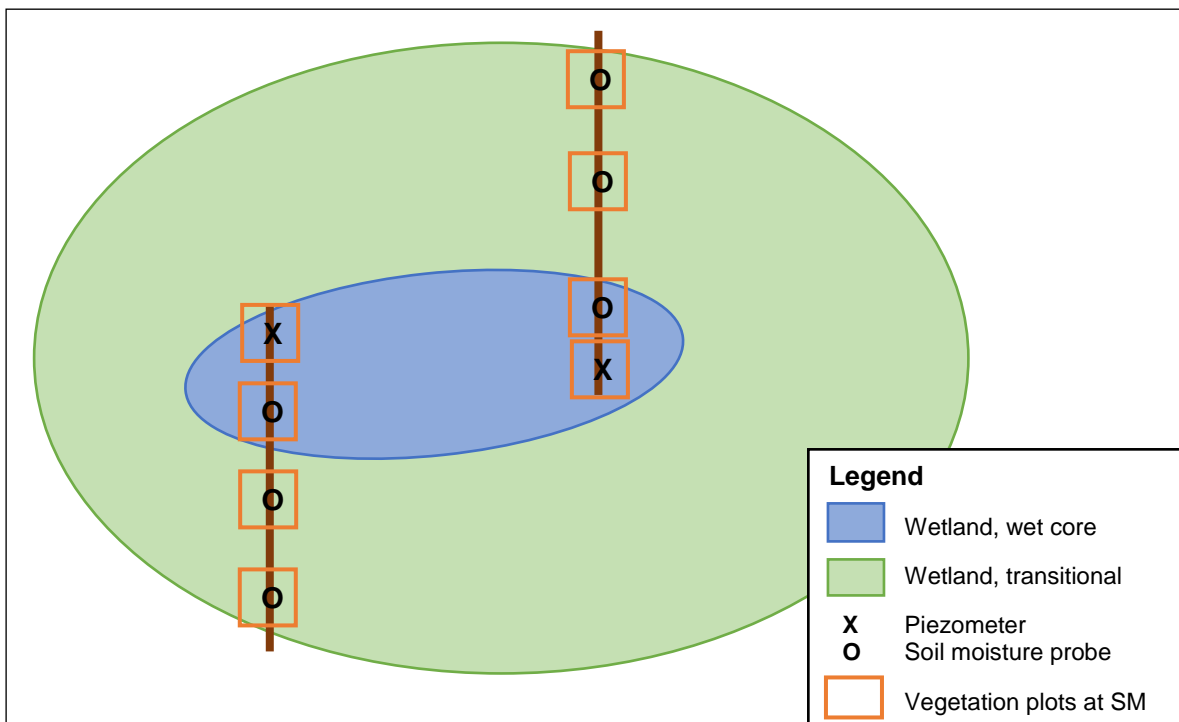


Figure 1: Layout sketch for new ecoseep installations

In addition to the site set-up described above, the vegetation communities and biotope habitats across the whole seep or channel section shall be described and mapped.

The methods for each of these activities are described in **Appendix C**:

- install/reposition water level recorders;
- install soil moisture sensors;
- install/reposition piezometers;
- install air temperature sensors;
- demarcate fixed point photography positions.

Soil analyses

The analysis of soil samples for grain size, carbon contents, Nitrate and Phosphate shall be undertaken by an accredited laboratory (SANS 17025). The samples shall be delivered to the laboratory within 1 week of sampling. Analysis of the samples shall be conducted within 1 month after sampling.

Allowance has been made for site set-up of two (2) ecoseeps and two (2) ecochannels, as well as the installation of monitoring equipment and establishment of telemetry connection for four (4) boreholes

Task 2: Maintenance

It is the responsibility of the contractor to maintain all monitoring sites used for data collection under this contract (see Task 3) 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;
- repair malfunctioning monitoring equipment;
- replace batteries; 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 as described under Task 1. 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 under Task 1.

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 addition, a biannual check of all equipment, including repairs on site, change of batteries, when required, and re-calibration of equipment shall be carried out by a suitably qualified technician.

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 checked in the workshop of the Contractor or the supplier. The work required shall include retrieving the data from the data logger, where needed and possible, and repairs or replacement to equipment components. If repair of the equipment is not feasible or viable, the equipment shall be salvaged after approval by the Employer.

Faulty or damaged equipment shall be repaired or replaced within 1 month of identifying the fault or damage. To ensure that this is achievable, the Monitoring contractor shall keep spare items of the key equipment in their workshop, or have an arrangement to this effect with the supplier.

Details of equipment installed:

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

Campbell Scientific Units

The components of the two 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

- Cellular dipole 0dBd whip antenna or directional antenna.

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

A telemetry station consisting of a CR 300 data logger from Campbell Scientific was installed at each of the ten 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-5251(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 GSM modem for connectivity to the cloud through which data can be downloaded.

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 (Campbell and Geotel units) and their respective installations at each site are contained in the Installation Report (TMGA Consortium, 2020).

Task 3: 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;
- air temperature at ecological sites;
- cloud cover and hours of sunshine at ecological sites;
- mist and fog 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.

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 2**). 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;

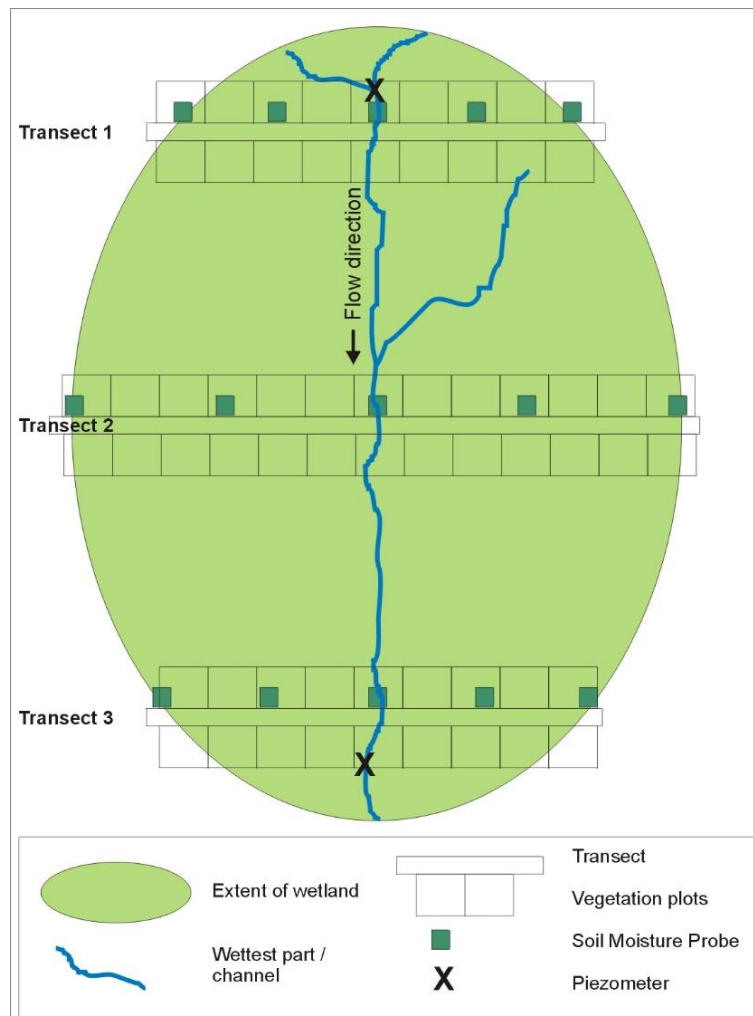


Figure 2: Principle site layout for regional ecological monitoring sites

Recently established ecological sites (ecoseeps) will comprise of only two transects halfway through the site, two piezometers, six soil moisture sensors and limited vegetation plots (see **Figure 1**), but they might not have a dedicated micro-climate station associated with it.

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 3: Chemical analyses schedule

	Biannual	Annual
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 baseline vegetation community data annually (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 baseline data (annually 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 baseline data (annually 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 plants and animals 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 need to be curated, mounted, labelled, scanned / copied, and filed.

The ecological survey is supported by bi-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 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;
- annual data on vegetation community structure in seeps and channels;
- annual data on vegetation density of indicator species and vegetation health of individual plants in selected plots within seeps and channels;
- annual data on macroinvertebrates composition and river health in channels;
- annual data on algae composition and biomass in channels;
- photographic records of the seeps and channels;
- photographic records of the transects;
- high-resolution footage of each ecosite, providing photographic records of changes in vegetation coverage and community structure.

Task 4: Routine data collation from external sources

This task comprises the data collation from external sources for selected boreholes and rainfall gauges, as well as the sourcing and collation of data from existing sources, such as DWS gauging weirs, DWS monitoring boreholes and weather stations. The data collation should be undertaken at the same time as the different data collection activities, to allow for data quality control and data analysis.

The methods for each of the activities below are provided in **Appendix A**:

- sourcing and collation of time series data from DWS monitoring boreholes;
- sourcing and collation of time series data from DWS gauging weirs;
- sourcing and collation of data from selected weather stations.

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), and
- Sentinel-2 A and B,

Task 5: 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.

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 onto digital format, ready for uploading to the database;
- saving collated data into files of specified format, ready for uploading to the database;
- manual capturing of data onto the database, where required, or as alternative to the upload procedure;
- uploading all collected and collated data onto the CCT Bulk Water Database; and
- verification of successful data transfer, including telemetry data.

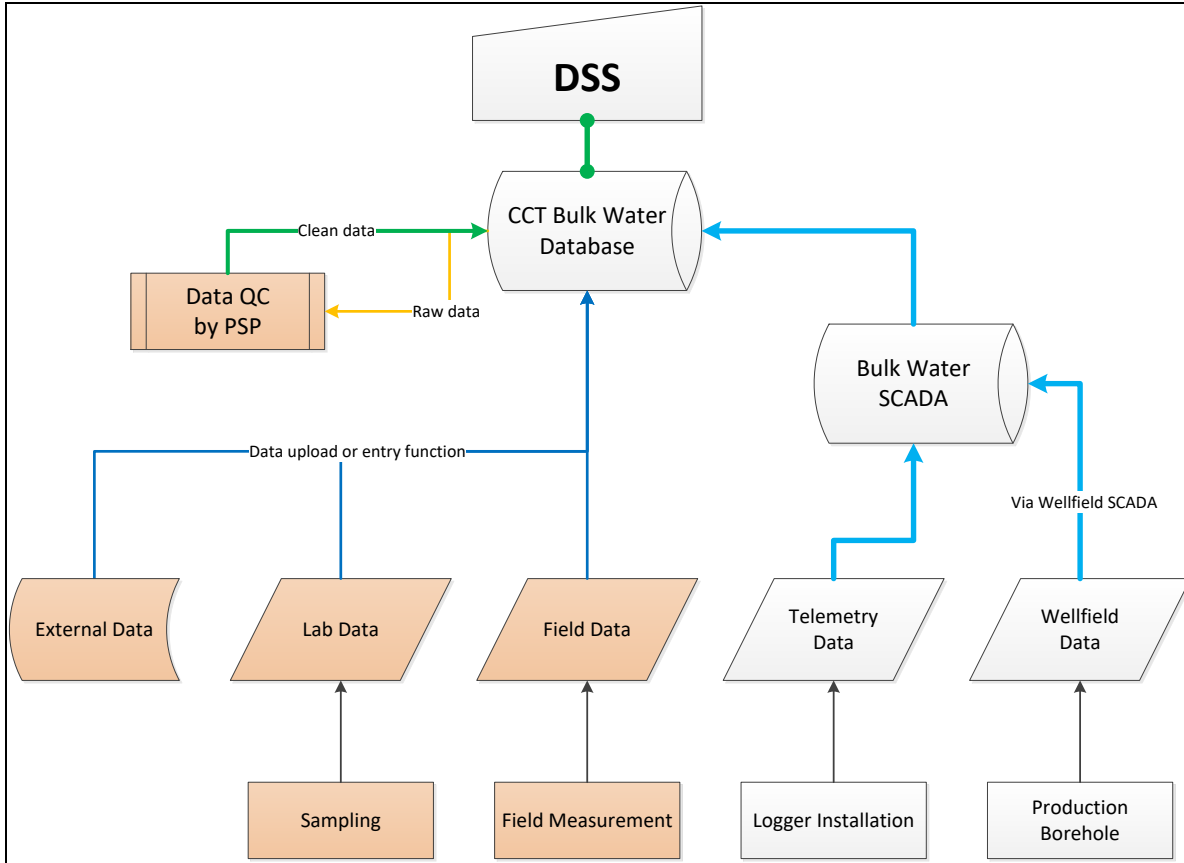


Figure 3 Data flow diagram, illustrating the requirements by the Monitoring Contractor (shaded)

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, 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 6: 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 7: Reporting

Equipment installation report

The set-up of new ecological sites shall be reported on in an equipment installation report containing all details of the set-up and installations and accurate maps of the sites indicating the location of the transects, piezometers and all other installations, as well as an initial vegetation community or habitat map.

Site and equipment maintenance reports

All maintenance undertaken for the different sites shall be reported on annually in a maintenance report, which shall contain records of all regular maintenance, any repairs and replacements due to damage, theft or fire, and an updated asset register.

Data collection reports

The Monitoring Contractor shall produce four (4) data reports per year, which contain a description of the data collection undertaken 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 3 months after concluding the data collection. Hence, report on all data collected up to December shall be submitted in March, report on data from January to March shall be submitted in June, 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.

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. 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
DWS cumulative rainfall gauges (CRGs)	Source and collate hourly and total daily rainfall data from DWS cumulative rainfall collectors	Bi-annually	Request data from DWS, Bellville	n/a	Data converted from cumulative rainfall, to hourly, and then to total daily and monthly rainfall. Data uploaded to database.	mm/day or month	Climate scientist or trained technician	~1 hour per CRG for upload every three months
SAWS weather stations	Request and collate daily climatic data	Annually	Request data from SAWS (data must be paid for); Contact: Gail Linnow: salesct@weathersa.co.za)	n/a	None – data are provided as daily data	Various – see below	Climate scientist or trained technician	~1 hour data upload per weather station
DWS weather stations	Download daily climatic data	Bi-annually	Data is freely available to download on the DWS website. Download precipitation, temperature and evaporation data, if available.	n/a	None – data are provided as daily data	mm/day	Climate scientist or trained technician	~1 hour data upload per weather station
Air temperature logger at selected ecosites	Download data from loggers or telemetry	Loggers to be downloaded every quarter Telemetry download at least weekly	Download data to laptop using Cold Chain software Check data storage capacity and re-start if necessary	Field laptop; Cold Chain download dongle; field datasheets	None	Hourly °C	Climate scientist or trained technician	~5 minutes download per logger ~1 hour data upload per logger each month
Leaf wetness and rainfall sensors at selected ecological sites	Download data from loggers or telemetry		Download data to laptop using logger specific software Check data storage capacity and re-start if necessary	Installed sensor, download cable, laptop	None	Time series of mist and fog density Time series of precipitation due to mist	Climate scientist or trained technician	
Sensor for cloud cover and hours of sunshine at selected ecological sites	Download data from loggers or telemetry		Download data to laptop using logger specific software Check data storage capacity and re-start if necessary	Installed sensor, download cable, laptop	None	Time series of cloud cover and sunshine hours per day	Climate scientist or trained technician	

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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 Leveloader 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 Leveloader; 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 each month</p> <p>~1 hour for data upload per logger per month</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 Leveloader or using Flotron software for Flotron logger (W7K1) 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 Leveloader; 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>10 minutes download per logger (same for Solinst, Diver, Flotron or loggernet) every 3 months</p> <p>1 hour for data upload per logger every 3 months</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> 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 bucket using 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

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WATER CHEMISTRY AND ISOTOPES

Sites	Method	Frequency	Data collection procedure	Equipment	Data processing procedure	Data format	Personnel	Approx. time taken
DWS CRGs	Collate data from DWS	Twice a year (April and October), if data collected by DWS	Request data from DWS, Bellville		n/a	Various units for chemical variables; isotopes: δ (relative isotope concentration in parts per thousand)		Half hour for data upload to database per CRG twice a year
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)	<p>Collect water samples using a small diameter low flow pump or baler (38mm generally required)</p> <p>If baler: drop baler into borehole until baler is submerged and can be felt to contain water, then retrieve.</p> <p>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.</p> <p>The following samples to be collected:</p> <ul style="list-style-type: none"> • 1 x 50 ml water sample for isotope analysis; • 1 x 250 ml for chemical analysis; • 3 x 40 ml for nutrient analysis <p>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.</p> <p>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.</p>	Baler; sampling bottles; multi-meter for field measurements; field datasheets	n/a	<p>Water chemistry: mg/litre;</p> <p>isotopes: δ (relative isotope concentration in parts per thousand)</p>	Hydro-geologist or trained technician	40 minutes per borehole twice a year Half hour for data upload to database per borehole twice a year
Piezometers in ecoseeps	Collect water samples and take field measurements (pH,	Twice a year (April and	Collect water samples using a baler (38mm generally required) – drop	Baler; sampling bottles; multi-	n/a	Water chemistry: mg/litre; isotopes: δ	Hydro-geologist or	20 minutes per piezometer

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Sites	Method	Frequency	Data collection procedure	Equipment	Data processing procedure	Data format	Personnel	Approx. time taken
	EC, Temperature and Eh) and send collected water samples to laboratory for chemical (macro- and trace elements) and isotopic (oxygen 18 and deuterium) analysis	October/end summer and end winter)	<p>baler into borehole until baler is submerged and can be felt to contain water, then retrieve. The following samples to be collected:</p> <ul style="list-style-type: none"> • 1 x 50 ml water sample for isotope analysis; • 1 x 250 ml for chemical analysis; • 3 x 40 ml for nutrient analysis <p>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.</p> <p>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.</p>	meter for field measurements; field datasheets		(relative isotope concentration in parts per thousand)	trained technician	twice a year Half hour for data upload to database per borehole twice a year

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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				

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 quarterly. 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								

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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.	Bi-annually, in early spring and late summer.	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.		Plant height.	Height in cm, for each species.				
	Record the height of all plant species present.		Dominant substrate type cover.	% cover for dominant substrate.				
	Note dominant substrate (Wentworth Scale).		Collect botanical specimens, collector, collection number and nomenclature details on label.	n/a	Plant press, labels, mounting material (per A5 example)			
	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.							
Ecochannels	At site, locate the cross-section with samples plots demarcated from bank to bank.	Bi-annually, in early spring and late summer.	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.		Plant height.	Height in cm, for each species.				
	Record the height of all plant species present.		Dominant substrate type cover.	% cover for dominant substrate.				
	Note dominant substrate (Wentworth Scale).		Collect botanical specimens, collector, collection number and nomenclature details on label.	n/a	Plant press, labels, mounting material (per A5 example)			
	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.							

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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.

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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
CRGs	Hourly cumulative rainfall	Converted to hourly and daily rainfall	Daily rainfall time series Monthly totals, minima and maxima	Time series (in relation to other variables such as water level in boreholes, piezometers etc.)	Excel for data storage and analysis
TMGA, DWS, SAWS and ARC weather stations	Rainfall9 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 storage and analysis
Air temperature loggers	Hourly temperature	n/a	Hourly time series Monthly means, maxima and minima	Time series	Excel for data storage and analysis
Mist / fog sensors				Time series of mist and fog density	Excel for data storage and analysis
				Time series of precipitation due to mist	Excel for data storage and analysis
Cloud cover sensors				Time series of cloud cover and sunshine hours per day	Excel for data storage and analysis

9 A number of climatic variables are recorded at the weather stations, however only rainfall data are analysed. All other variable are collated and stored on the database.

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GROUNDWATER LEVEL AND WATER TEMPERATURE

Data source	Original data	Converted data	Data analyses	Timing	Graphs	Software
DWS 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	Annually / November	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> 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)

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WATER CHEMISTRY AND ISOTOPES

Data source	Original data	Converted data	Data analyses	Graphs	Software
DWS CRGs	Concentrations of chloride; relative deuterium and oxygen 18 concentration; field measurements of pH and EC	n/a	Bi-annual time series Graphical comparison with groundwater data for isotopes	Time series	Excel for data storage and data analysis
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.

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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.

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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.

13.3 Specifications Section A: Regional Monitoring

13.3.1 LOCATION

The regional monitoring network comprises sites in Wemmershoek, Purgatory, Boesmanskloof, Villiersdorp, Klipfontein, Nuweberg, Eikenhof and Kogelberg. The positions of boreholes, ecological sites, gauging stations and weather stations of the regional monitoring network are shown in **Figure 4**.

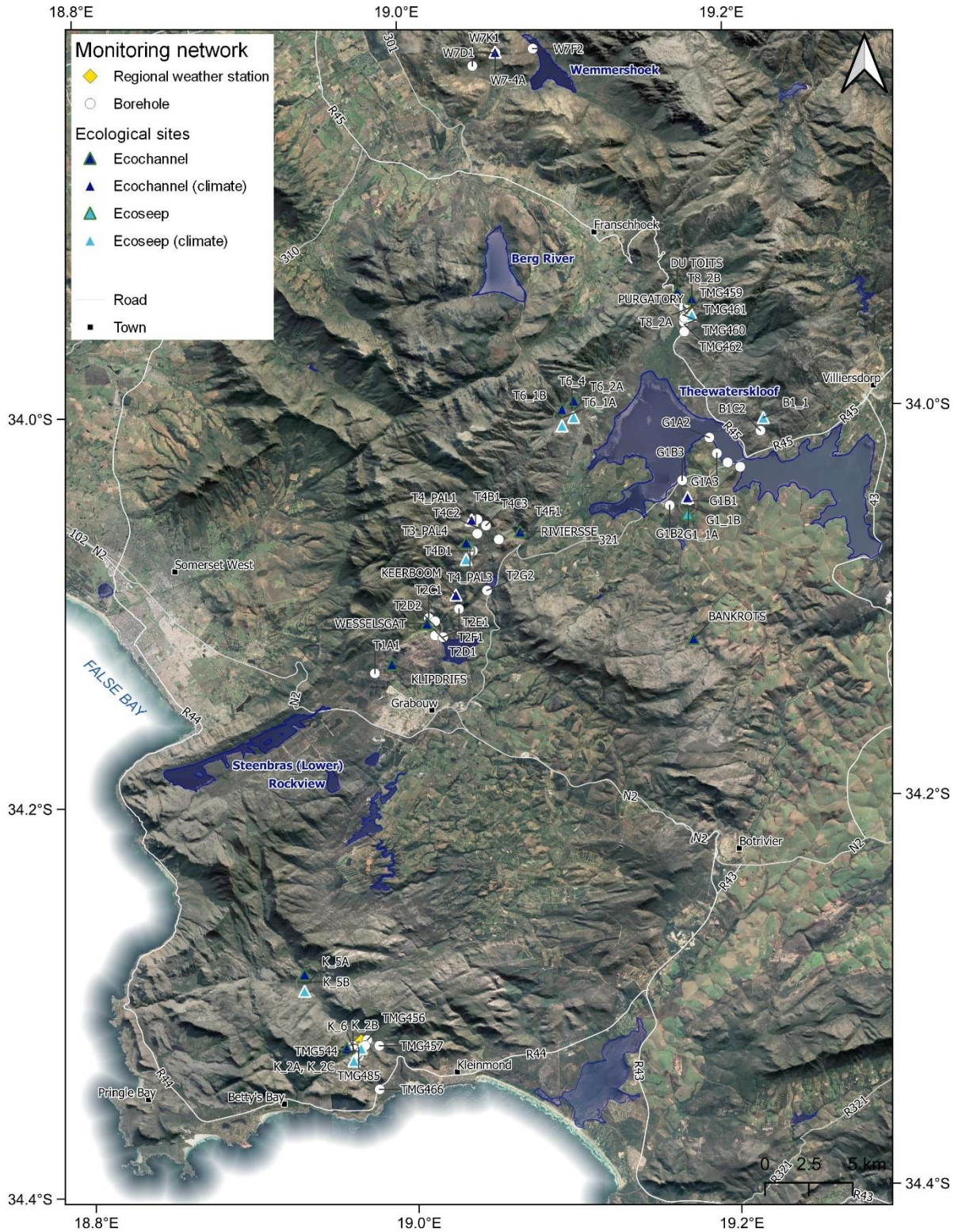


Figure 4: Regional monitoring network

13.3.2 TASKS

In addition to the tasks listed in Schedule 13.2, 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 4**, while the regional ecological sites are listed in

Table 5 (ecoseeps) and **Table 6** (ecochannels). Weather stations to be monitored are listed in **Table 7**.

All regional monitoring boreholes are equipped with a water level logger and connected to a telemetry system for regular submission of water level data. The two weather stations are also connected to a telemetry system.

Table 4: Regional TMGA monitoring boreholes

Borehole	Latitude (S)	Longitude (E)	Elevation (mamsl)	Monitoring records start	Depth (mbgl) [*) Target]
B1C2	-34.012703	19.219884	342	Jul 2019	170
G1A1	-34.031094	19.206990	315	Jul 2019	842
G1A2	-34.015837	19.188271	315	-	950 *)
G1A3	-34.024006	19.192739	312	-	950 *)
G1A4	-34.028748	19.199276	315	-	950 *)
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
T1A1	-34.133584	18.979140	483	Aug 2020	868
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

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TMG544	-34.32721	18.96439	80	2007	16
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Table 5: 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
G1_1b	46	130	G1_1a	-34.050135	19.173649	2016	3 *)	Moved to G1_1a		-	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
T1_1b	To be established					To commence	2	-	6	-	1
T1_2b	To be established					To commence	2	-	6	1	1
T2_1b	To be established					To commence	2	-	6	-	1
T2_2b	To be established					To commence	2	-	6	1	1
T2_3b	To be established					To commence	2	-	6	-	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
T8_2b	25	60	T8_2a	-33.948300	19.178800	2008	2	14	3	1	1
TBC							2	-	6	-	1
TBC							2	-	6	1	1
TOTAL							39	128	92	11	16

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

*) not connected to telemetry

Table 6: 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	15	6	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	-	-	-	-
Du Toits			-	-33.94046	19.16998	2019	1	-	-	-	1
RiviersSE			-	-34.06222	19.07043	2019	1	-	-	-	1
Keerboom			-	-34.09416	19.03007	2019	1	-	-	1	1
Klipdrifs			-	-34.12901	18.9898	2019	-	-	-	-	1
Wesselsgat			-	-34.10856	19.01191	2019	1	-	-	-	1
Bankrots			-	-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	-	-	-	-
T8_2a	20	80	T8_2b	-33.948580	19.178820	2011	1	-	-	-	-
W7-4a	15	80	None	-33.8159865	19.0605704	2011	1	-	-	1	1
TBC							1	-	-	-	1
TBC							1	-	-	-	1
TOTAL							17	15	6	4	10

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

Table 7: Current TMGA weather stations

Station	Latitude (S)	Longitude (E)	Elevation (mamsl)	Comment
Kogelberg	-34.322233	18.966140	48	Weather station in Kogelberg
Purgatory	-33.949722	19.175556	385	Weather station in Purgatory

Task 4: Routine data collation from external sources

The parameters to be obtained from other sources are:

- DWS gauging weir data (see **Table 8**);
- DWS, ARC and SAWS weather stations data (see **Table 9**);
- DWS cumulative rainfall collector (CRG) data (see **Table 10**);
- DWS boreholes water level and chemistry data (see **Table 11**).

Table 8: DWS Gauging Stations for data collation

STATION	COMMENT
G1H011A01	Watervals River @ Watervalsberge
G1H014A01	Zachariashoek River @ Zachariashoek
G1H016A01	Kasteelskloof River @ Zachariashoek
G1H018A01	Bakkerskloofspruit @ Zachariashoek
G1H076A01	Berg River @ Berg River Dam (Upstream)

Table 9: Weather Stations for data collation

STATION	LATITUDE (S)	LONGITUDE (E)	ELEVATION	COMMENT
30453	-33.881510	19.071350	201	ARC - LA MOTTE
0022148 3	-33.967000	19.082000	411	SAWS - FRANSCHHOEK ROBERTSVLEI
0042236 9	-33.430000	19.130000	610	SAWS - WOLSELEY WATERVALBERG
0005612 2	-34.200001	18.850000	375	SAWS - STEENBRAS II
0005760 3	-34.170000	18.930000	387	SAWS - GRABOUW STEENBRAS IV
0005771 2	-34.350000	18.930000	30	SAWS - HEROLD PORTER
0006065 1	-34.080002	19.049999	535	SAWS - NUWEBERG
0005829 9	-34.320000	18.970000	55	SAWS - OUDEBOSCH
20079	-34.040750	19.141780	309	ARC - CHILTERN DAMWALL
0006332 9	-34.030000	19.200000	325	SAWS - RUSTFONTEIN
20139	-33.920270	19.287430	611	ARC - HIGH NOON
G2E013	-33.96389	18.92861	251	DWS – JONKERSHOEK

Table 10: DWS Cumulative rain gauges (CRG) for data collation

Site code	TSA	Location	Latitude	Longitude	Elevation (mamsl)	Start of data record
CRG1	Nuweberg	Next to Nuweberg Dam	-34.08519	19.05085	509	4 February 2009
CRG2	Nuweberg	Next to reserve road	-34.05335	19.04009	642	5 February 2009
CRG3	Nuweberg	Landroskop	-34.04914	19.00945	1058	4 February 2009
CRG4	Nuweberg	Top of mountain	-34.08282	19.06157	731	29 February 2012
CRG5 *)	Wemmershoek	Zacchariashoek top	-33.80487	19.03008	797	5 February 2009
CRG6	Wemmershoek	Wemmershoek Dam	-33.80824	19.08422	290	18 August 2008
CRG7 *)	Wemmershoek	Zacchariashoek Road intersection	-33.82780	19.02495	496	5 February 2009
CRG8	Steenbras	Next to Steenbras Dam	-34.17670	18.85823	389	2 March 2011
CRG9	Steenbras	Above Koëlbaai	-34.21088	18.84801	501	4 February 2011
CRG10	Steenbras	Top	-34.20423	18.92121	853	2 March 2011
CRG11	Kogelberg	Oudebosch, off path near start of trail	-34.33028	18.95618	120	29 February 2012
CRG12	Boesmanskloof	At weir	-34.00309	19.10066	360	28 February 2012
CRG13	Purgatory	Close to old T8_1b	-33.94653	19.17669	431	28 February 2012
CRG14	Villiersdorp	Close to B1_1	-34.00565	19.22198	360	28 February 2012

CRG 5 and CRG 7 were destroyed by fire in 2013, and hence only supplied data until 17/01/2013 and 11/07/2013 respectively. These two stations were not replaced and are no longer active. Data from some of the other CRG's might be erratic or not available.

Similarly, data from the DWS boreholes are sometimes erratic, not complete or not available for certain stations. No data have been available for W7-3 (BG00093) since April 2013 and it is assumed that no data will be available in future.

Table 11: DWS Monitoring Boreholes for data collation

Name	Latitude (WGS84)	Longitude (WGS84)	Depth (metres)	Geological setting
W7-1 (BG00091)	33.76861 S	19.01814 E	55	Granite
W7-3 (BG00093)	33.80406 S	19.01606 E	127	Peninsula
W7-4 (BG00094)	33.82892 S	19.00971 E	128	Peninsula
W7-5 (BG00095)	33.84659 S	19.04929 E	126	Cedarberg, Pakhuis, Peninsula
W7-6 (BG00096)	33.88498 S	19.10237 E	200	Cedarberg, Pakhuis, Peninsula
W7-7 (BG00097)	33.90569 S	19.15745 E	205	Peninsula
W7-9 (BG00099)	33.80999 S	19.07950 E	103	Peninsula
W7-10 (BG00100)	33.88475 S	19.11049 E	103	Peninsula
T4-1 (BE00040)	34.07378 S	19.06163 E	132	Goudini, Cedarberg, Pakhuis
T4-2 (BE00045)	34.06622 S	19.07631 E	80	Skurweberg, Goudini
T4-3 (BE00044)	34.08709 S	19.02620 E	72	Peninsula
T4-5 (BE00041)	34.11995 S	19.06415 E	126	Goudini, Cedarberg, Pakhuis, Peninsula
T4-6 (BE00043)	34.12948 S	19.08036 E	127	Cedarberg, Pakhuis, Peninsula
T4-7 (BE00047)	33.99144 S	19.12266 E	84	Pakhuis, Peninsula
T4-8 (BE00046)	34.08368 S	19.15440 E	108	Rietvlei
T4-9 (BE00048)	34.06660 S	19.07721 E	24	Skurweberg, Goudini
T4-10 (BE00049)	34.08771 S	19.02757 E	135	Peninsula
T4-11 (BE00050)	33.99123 S	19.12257 E	24	Pakhuis, Peninsula

Task 6: 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 7: ReportingAssessment reports

The Monitoring Contractor shall produce an annual assessment report for each of the five TSA groups (see under Data Analysis above), which are due six months after end of data collection cycle (i.e. hydrological cycle from October to September following year).

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.

13.3.3 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 12**. 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 5 ff. above.

Table 12: 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 setup												
1.a - 1.c	Site set-up, including equipment [once-off, when required]				■	■							
1.d - 1.e	Telemetry installation [once-off, when required]						■						
	2. Site maintenance												
2.1	Checking of site status	■			■			■			■		
2.2.1	Checking of data transmission	■	■	■	■	■	■	■	■	■	■	■	■
2.2.2	Checking of equipment on site				■						■		
	3. Routine data collection at ecological and hydro(geo)logical sites												
	Boreholes & Weather Stations												
3.1	Water levels in TMG Aquifer	■			■			■			■		
3.4	Sampling and chemical analysis from boreholes	■						■					
5.2	Data collection from weather stations	■			■			■			■		
	Ecosites												
4.2	Water level from stilling wells		■		■		■				■		
4.3	Measure flow discharge at eco channels		■		■		■				■		
3.2	Water levels from piezometers		■		■		■				■		
3.5 & 4.4	Sampling and chemical analysis from eco sites		■										
5.4	Download micro climate data	■			■		■				■		
6.1	Manual soil moisture measurements	■			■		■				■		
6.2	Download soil moisture sensors	■			■		■				■		
8.1	FPP photographic records	■			■		■				■		
	Ecological Survey												
7.1	Vegetation survey in ecoseeps	■	■										
7.2	Vegetation survey in ecochannels	■	■										
7.3	Macroinvertebrate monitoring in ecochannels		■				■						
7.4	Algae monitoring in ecochannels		■				■						
8.2	Veg plot photographic records	■	■										
9.3	Drone footage of ecosites	■					■						
	4. Routine data collation for regional monitoring												
4.1	Data collation from DWS gauging weirs			■						■			
3.3	Data collation from DWS boreholes			■						■			
5.3	Data collation from DWS rain gauges			■						■			
5.1	Data collation from weather stations			■						■			

SoQ Item	Task & Activity	Hydrological Year											
		O	N	D	J	F	M	A	M	J	J	A	S
9.1 & 9.2	Satellite Imagery and NDVI/MSI analysis												
	5. Data quality control and data processing												
10.1	Data quality control of telemetry data												
10.2	Data quality control of measured and downloaded data												
10.3	Data quality control of collated data												
10.4	Data quality control on species identification												
10.5	Curation of specimens												
	6. Data analysis, and 7. Reporting												
11.1	Site Setup & Installation Report [once-off, when required]												
11.2	Maintenance Report												
11.3	Data Collection Report												
11.4	Data Analysis / Assessment Report												
12.4	Data Workshops with TMGAA												
12.5	Presentation at Stakeholder meeting												
11.5	Final Summary Report [once-off]												

13.3.4 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 technician with at least 5 (five) years experience in monitoring infrastructure and telemetry.
- (d) A field technician with a diploma or similar
- (e) An experienced surveyor, preferably registered as a Pr L (SA) or similar.

13.4 Specifications Section B: Steenbras Wellfield Impact Monitoring

13.4.1 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. The Impact Monitoring include both impact of the construction activities 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 (2021): TMGA Wellfield Development Project - Construction Phase Ecological Monitoring Protocol; prepared by Zutari on behalf of the City of Cape Town
- CoCT (2021): TMGA Ecological and Hydrogeological Wellfield Monitoring: Steenbras Wellfield Wellfield Monitoring Protocol, Version 1.2. Prepared by Zutari, Umvoto Africa, Southern Waters and others on behalf of the City of Cape Town

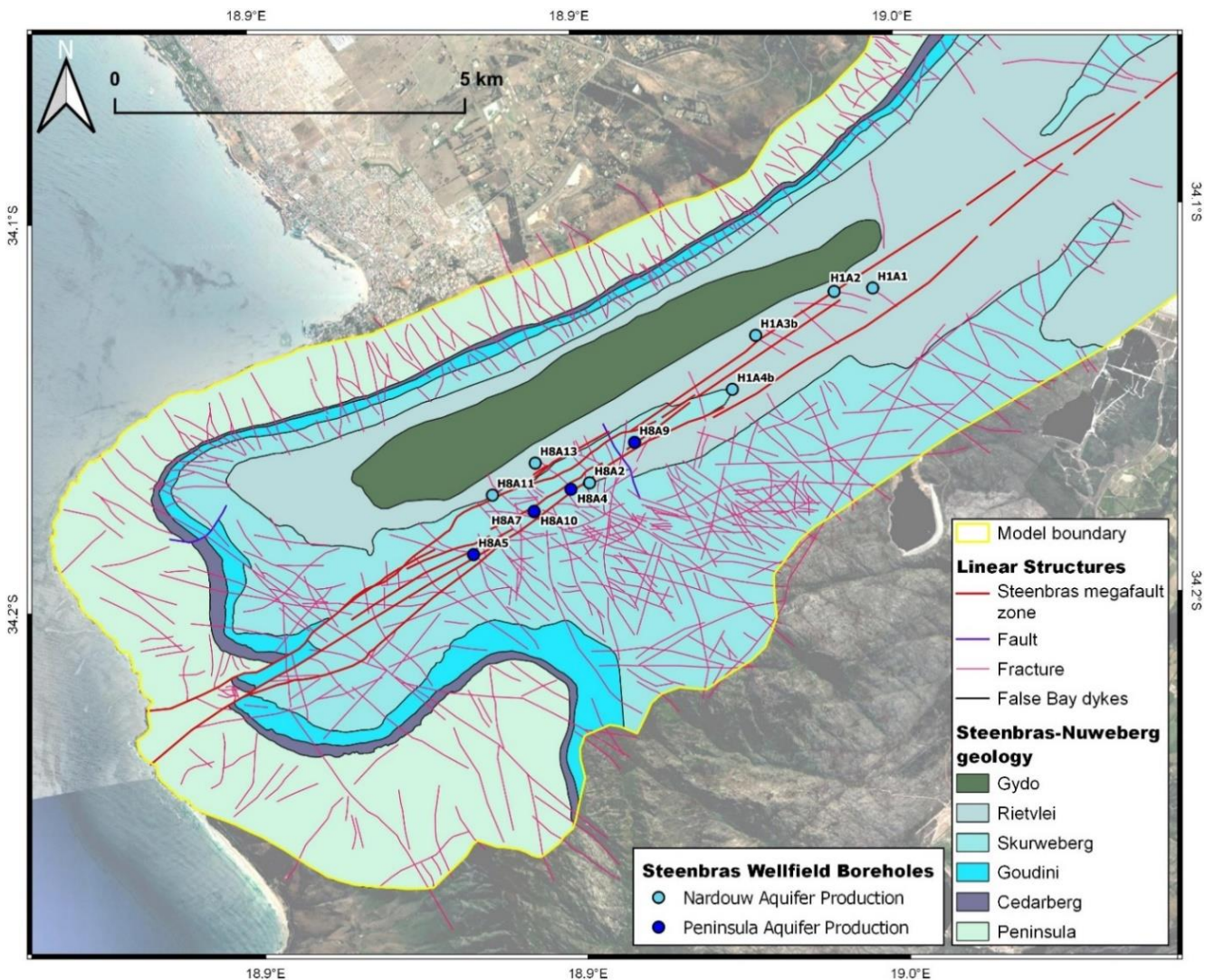


Figure 5: Wellfield layout with Nardouw Aquifer and Peninsula Aquifer boreholes

13.4.2 TASKS

The required tasks are as per the General Specifications (13.1). Aspects specific to the Impact Monitoring are described below per task.

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 13**, while the ecological sites are listed in **Table 14** (ecochannels) and **Table 15** (ecoseeps) and shown in **Figure 6** and **Figure 7**. Weather stations for data collation or data collection are listed in **Table 16**. It is noted that most of these climate station data will be available on the City's database, but are included in the data collection requirements to ensure that the data sets are available for 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 17**.

Table 13: 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

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

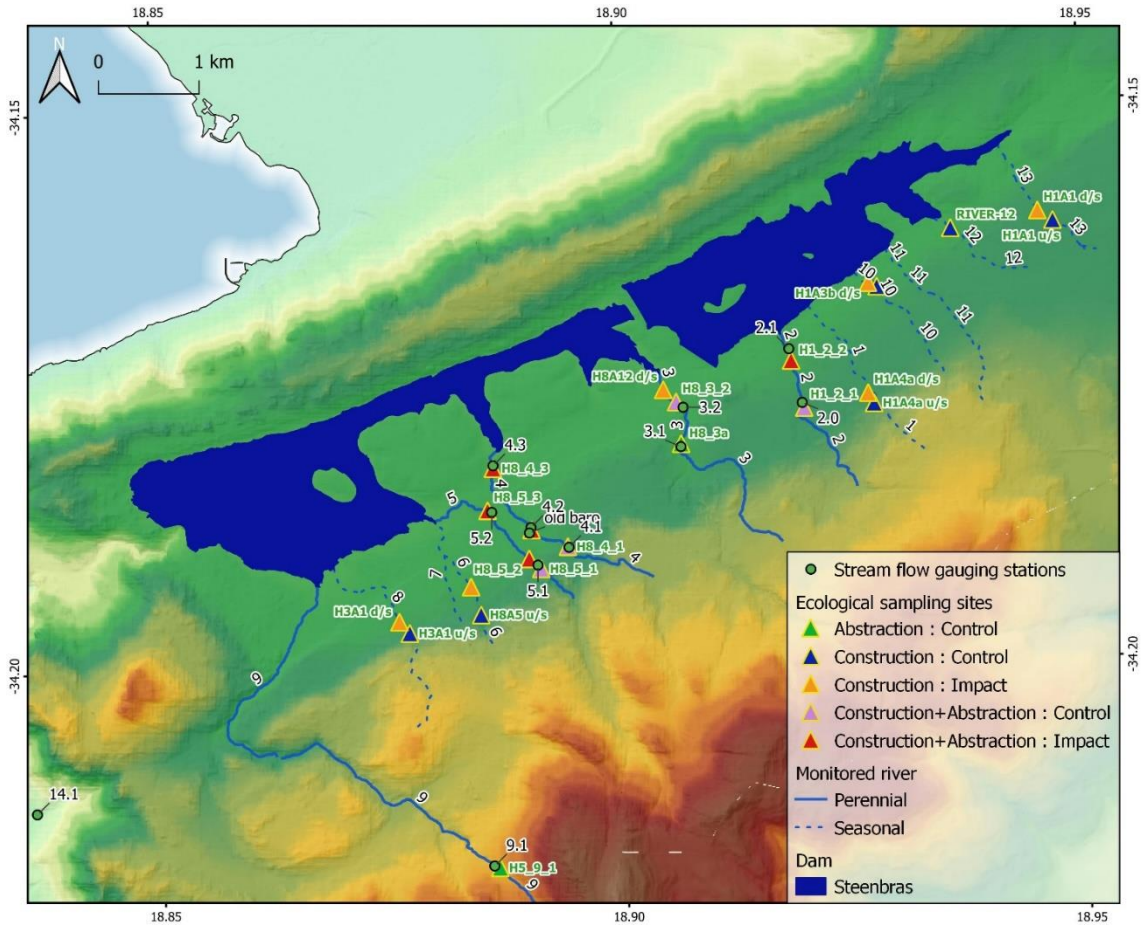


Figure 6: Surface monitoring sites in Steenbras Wellfield area

Table 14: 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 ¹ 10	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
14	14.1	V1 (ss)	TBD	TBD	TBD	3001	TBD	TBD
	Near 4.2	Barologger	04/08/18	34.18811	18.89006	Gold	1055606	2.007

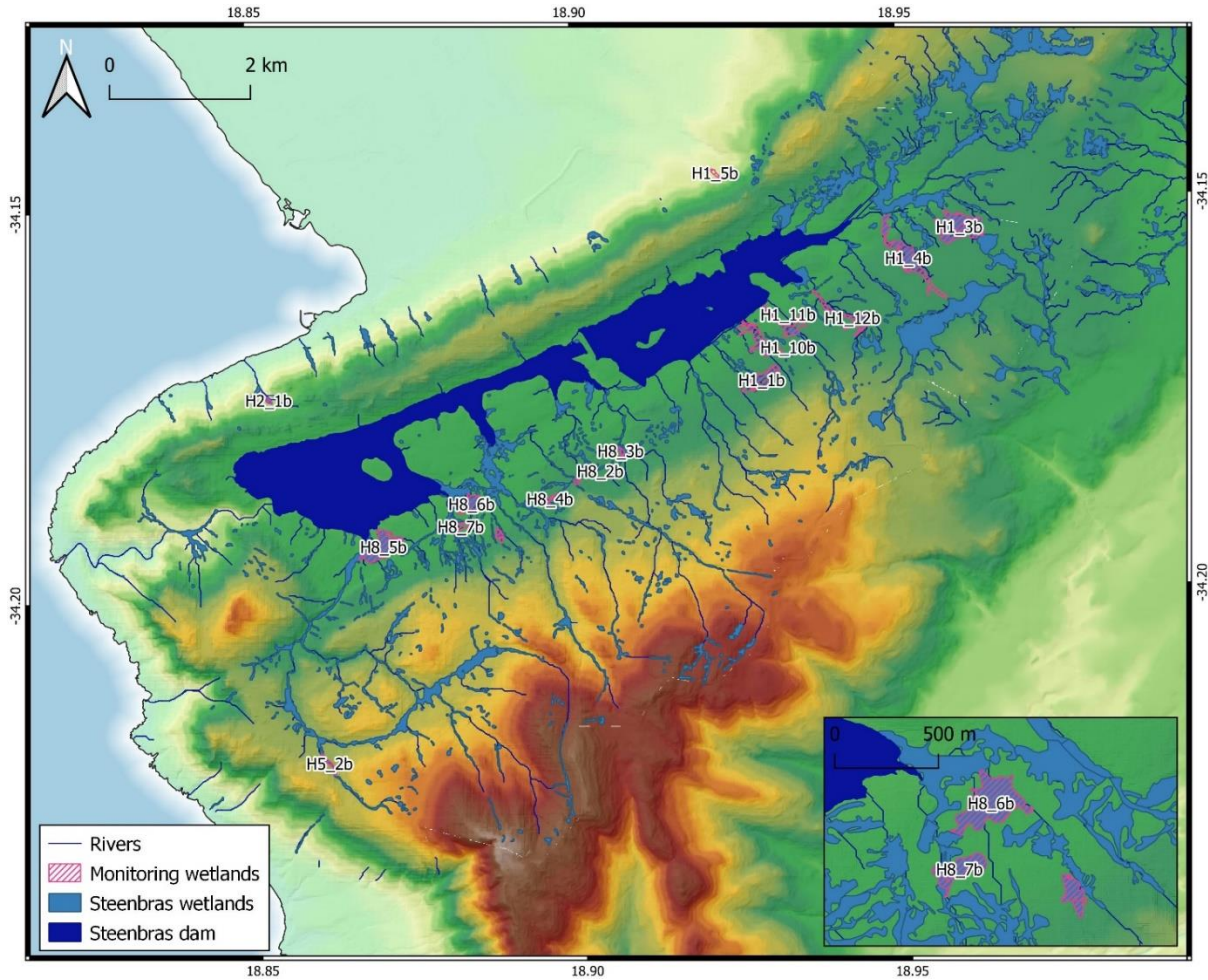


Figure 7: Wetland monitoring sites in Steenbras Wellfield area

Table 15: Proposed wetland monitoring sites in Steenbras Wellfield area

Wetland #	Wetland type	Latitude	Longitude	Monitoring Borehole	Proposed Monitoring			
					Vegetation	Soil Moisture	Water level	Water quality
H1_1b	VB	-34.17266	18.92920	H1A4a	X	X	X	X
H1_3b	CVB	-34.15422	18.96005	H1A11	X	X	X	X
H1_4b	CVB	-34.15897	18.95231	H1A13	X	X	X	X
H1_5b ¹⁾	HS	-34.14669	18.92226	-	X		X	X
H1_10b	VB	-34.16866	18.92996	H1A14	X	X	X	X
H1_11b	VB	-34.16689	18.93305	H1A14	X	X	X	X
H1_12b	CVB	-34.16552	18.94463	H1A10	X	X	X	X
H2_1b ¹⁾	HS	-34.17426	18.85305	-	X		X	X
H3_1b	VB	-34.19370	18.87343	H3A2	X	X	X	X
H5_1b ¹⁾	CVB	-34.22084	18.86042	H5A2	X	X	X	X
H8_2b	HS	-34.18535	18.89980	-	X	X	X	X
H8_3b	VB	-34.18131	18.90644	H8A15	X	X	X	X
H8_4b	HS	-34.18795	18.89503	-	X	X	X	X
H8_5b	HS	-34.19218	18.88797	-	X	X	X	X
H8_6b	VB	-34.18809	18.88368	-	X	X	X	X
H8_7b	VB	-34.18965	18.87999	-	X	X	X	X

¹⁾ Ecoseep related to Peninsula Aquifer

Table 16: Current TMGA climate stations within Steenbras Catchment

Site code (and owner)	Location	Latitude	Longitude	Elevation (mamsl)	Start of data record
CRG8 (DWS)	Next to Steenbras Dam	-34.17670	18.85823	389	2 March 2011
CRG9 (DWS)	Above Koëlbaai	-34.21088	18.84801	501	4 February 2011
CRG10 (DWS)	Top of Kogelberg	-34.20423	18.92121	853	2 March 2011
Grabouw Steenbras IV 0005760 3 (SAWS)	At Upper Steenbras Dam	-34.170000	18.930000	392	1 May 2010
Steenbras II 0005612 2 (SAWS)	At Lower Steenbras Dam	-34.192001	19.850000	375	1 May 2010
Steenbras Dam G4E001 (DWS)	At Steenbras Dam / WTW	-34.17972	18.85139	385	1 September 1957
H8_3b micro climate	At H8_3b ecosite	-34.18131	18.90644	398	3 December 2019
Steenbras (CCT)	At catchment office	-34.15914	18.93977	399	

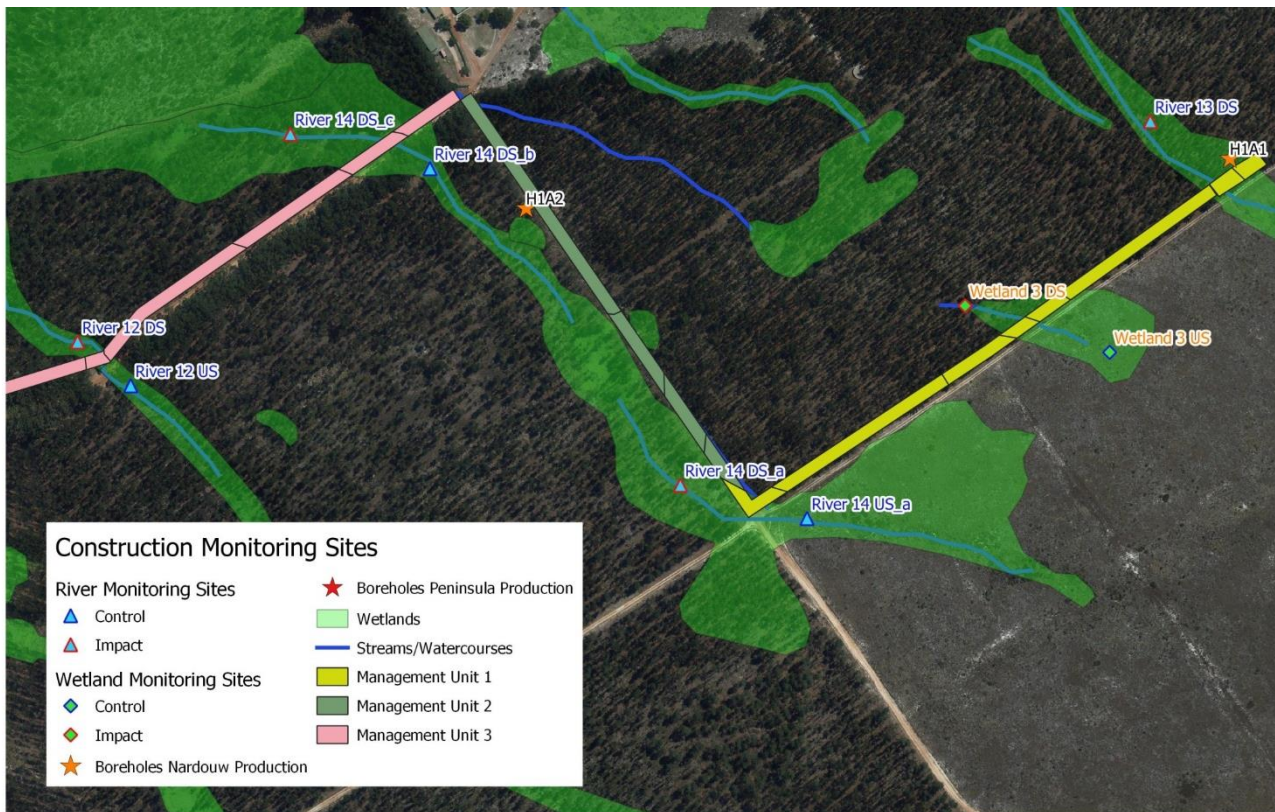


Figure 8: Example of Construction Impact site locations

Table 17: List of Construction Impact Monitoring Sites

MU	River/ wetland	Paired	Hydroperiod	Water level	WQ	Periphyton	Habitat Integrity	Vegetation	Macroinvertebrates	Fish	Commenced
1	River 13	2	Seasonal	N	Y	N	Y	N	N	N	
1	Wetland 3	2	Permanently saturated; seasonally inundated	Y	N	N	Y	Y	N	N	
1	River 14	2	Seasonal	N	Y	N	Y	N	N	N	
2	River 14	2	Seasonal	N	Y	N	Y	N	N	N	
3	River 12	2	Perennial	N	Y	Y	Y	N	Y	N	
7	Wetland 4	2	Seasonally saturated	Y	N	N	Y	Y	N	N	
7	River 11	2	Seasonal	N	Y	N	Y	N	N	N	
8	River 10	2	Seasonal	N	Y	N	Y	N	N	N	
8	River 1	2	Seasonal	N	Y	Y	Y	N	Y	N	
8	River 1	1	Seasonal	N	Y	Y	Y	N	Y	N	
8	River 1	1	Seasonal	N	Y	Y	Y	N	Y	N	
8	Wetland 5	2	Permanently saturated	Y	N	N	Y	Y	N	N	
8	River 2	2	Perennial	N	Y	Y	Y	N	Y	Y	
10	Wetland 6	2	Permanently saturated; seasonally inundated	Y	N	N	Y	Y	N	N	
10	River 19	2	Seasonal	N	Y	N	Y	N	N	N	
10	River 3	3	Perennial	N	Y	Y	Y	N	Y	Y	
10	River 20	2	Seasonal	N	Y	N	Y	N	N	N	
17	River 18	2	Seasonal	N	N	N	Y	N	N	N	
11	River 16	3	Seasonal	N	Y	N	Y	N	N	N	
11	Wetland 7	2	Seasonally saturated	Y	N	N	Y	Y	N	N	
13	Wetland 8	2	Seasonally saturated	Y	N	N	Y	Y	N	N	
13	River 17	2	Seasonal	N	Y	N	N	N	N	N	
13	River 15	3	Seasonal	N	Y	N	N	N	N	N	
13	Wetland 9	2	Permanently saturated; seasonally inundated	Y	N	N	Y	Y	N	N	
14	River 17	1	Seasonal	N	Y	N	Y	N	N	N	
18	River 4	2	Perennial	N	Y	Y	Y	N	Y	N	
16	River 4	2	Perennial	N	Y	Y	Y	N	Y	Y	
16	River 5	2	Perennial	N	Y	Y	Y	N	Y	Y	
16	Wetland 10	2	Permanently saturated	Y	N	N	Y	Y	N	N	
16	River 6	2	Seasonal	N	Y	Y	Y	N	Y	N	
16	River 7	2	Seasonal	N	Y	Y	Y	N	Y	N	
19	Wetland 1	2	Permanently saturated; seasonally inundated	Y	N	N	Y	Y	N	N	
19	Wetland 2	2	Permanently saturated; seasonally inundated	Y	N	N	Y	Y	N	N	
19	River 21	2	Seasonal	N	Y	N	Y	N	N	N	

Task 4: Routine data collation from external sources

The parameters to be obtained from other sources are:

- DWS, ARC and SAWS weather stations data (see **Table 5**);
- DWS cumulative rainfall collector (CRG) data (see **Table 5**);

It is noted that these climate station data will be available on the City's database through other contracts, but are included in the data collation requirements to ensure that the data sets are available for analysis.

Task 6: 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.

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.

Task 7: Reporting

Data collection reports

The Monitoring Contractor shall produce four (4) data collection reports per year, which contain a description of the data collection undertaken 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.

These reports shall be submitted to the Monitoring Task Team and the Employer within 2 months after concluding the data collection. Hence, report on data from January to March (including April field trip) shall be submitted in June, and so on.

Assessment reports

The Monitoring Contractor shall produce an bi-annual Wellfield Impact Assessment Report, which will be due three months after end of data collection cycle (i.e. half hydrological cycle from April to September and from October to March following year). Any "red flags" identified during monitoring shall be reported to the Monitoring Task Team and the Employer immediately.

A Construction Impact Monitoring Report shall be compiled by the senior freshwater ecologist and submitted to the Contract ECO and Monitoring Task Team monthly, within one week of data collection and collation. Any "red flags" identified should be reported with clear recommendations for either remediation action or to inform additional monitoring requirements. This report must then be submitted to the City of Cape Town (CCT) for review followed by submission to the Regional Head of DWS.

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

13.4.3 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 18**. 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.

Table 18: 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 setup												
1.a - 1.c	Site set-up, including equipment [once-off, when required]												
1.d - 1.e	Telemetry installation [once-off, when required]												
	2. Site maintenance												
2.1	Checking of site status												
2.2.1	Checking of data transmission												
2.2.2	Checking of equipment on site												
	3. Routine data collection at ecological and hydro(geo)logical sites												
	Boreholes & Weather Stations												
3.1	Water levels in TMG Aquifer												
3.2	GNSS and seismic data												
3.4	Sampling and chemical analysis from boreholes												
	Ecosites												
4.2	Water level from stilling wells												
4.3	Measure flow discharge at eco channels												
3.1	Water levels from piezometers												
3.5 & 4.4	Sampling and chemical analysis from eco sites												
5.4	Download micro climate data												
6.1	Manual soil moisture measurements												
6.2	Download soil moisture sensors												
8.1	FPP photographic records												
	Ecological Survey												
7.1	Vegetation survey in ecoseeps												
7.2	Vegetation survey in ecochannels												
7.3	Macroinvertebrate monitoring in ecochannels												
7.4	Algae monitoring in ecochannels												
8.2	Veg plot photographic records												
9.3	Drone footage of ecosites												
	4. Routine data collation for regional monitoring												
4.1	Data collation from DWS gauging weirs												
3.3	Data collation from DWS boreholes												
5.3	Data collation from DWS rain gauges												
5.1	Data collation from weather stations												
9.1 & 9.2	Satellite Imagery and NDVI/MSI analysis												
	5. Data quality control and data processing												
10.1	Data quality control of telemetry data												
10.2	Data quality control of measured and downloaded data												
10.3	Data quality control of collated data												
10.4	Data quality control on species identification												

SoQ Item	Task & Activity	Hydrological Year											
		O	N	D	J	F	M	A	M	J	J	A	S
10.5	Curation of specimens												
	6. Data analysis, and 7. Reporting												
11.1	Site Setup & Installation Report [once-off, when required]												
11.2	Maintenance Report												
11.3	Data Collection Report												
11.4	Construction Impact Monitorign Report												
11.5	Data Analysis / Assessment Report												
12.4	Data Workshops with TMGAA												
12.5	Presentation at Stakeholder meeting												
11.5	Final Summary Report [once-off]												

7.8 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 technician with at least 5 (five) years experience in monitoring infrastructure and telemetry.
- (d) A field technician with a diploma or similar
- (e) An experienced surveyor, preferably registered as a Pr L (SA) or similar.

MONTHLY PROJECT LABOUR REPORT



BENEFICIARY DETAILS AND WORK INFORMATION

CONTRACT OR WORKS PROJECT NUMBER:

Year	Month

Sheet		
1	of	

No.	(8) First name	(8) Surname	(8) ID number	(9) New Beneficiary (Y/N)	Gender (M/F)	Disabled (Y/N)	(10) Job seeker database (Y/N)	Contract start date (DDMMYY)	(11) Contract end date (DDMMYY)	(12) No. days worked this month (excl. training)	(13) Training days	(14) Rate of pay per day (R - c)
1												
2												
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20												

0 0 R -

Declared by Contractor or Vendor to be true and correct:	Name	Signature
	Date	

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

(ANNEX 2) BBEE SUB-CONTRACT EXPENDITURE REPORT (PRO FORMA)

TENDER NO. AND DESCRIPTION:

SUPPLIER:

B-BBEE SUB-CONTRACT EXPENDITURE REPORT

Rand Value of the contract (as defined in Schedule 4: Preference Schedule) (P*) R

B-BBEE Status Level of Prime Supplier

Name of Sub-contractor (list all)	B-BBEE Status Level of supplier ¹	Total value of Sub-contract (excl. VAT) ¹	Value of Sub-contract work to date (excl. VAT) ¹	Value of Sub-contract work to Sub-contractors with a lower B-BBEE Status Level than supplier
Sub-contractor A		R	R	R
Sub-contractor B		R	R	R
Sub-contractor C		R	R	R

¹Documentary evidence to be provided

Total: R
Expressed as a percentage of P* %

Signatures

Declared by supplier to be true and correct:

Date:

Verified by CCT Project Manager:

Date:

(ANNEX 3) PARTNERSHIP/ JOINT VENTURE (JV) / CONSORTIUM/ EXPENDITURE REPORT (PRO FORMA)

TENDER NO. AND DESCRIPTION:

SUPPLIER:

PARTNERSHIP/ JOINT VENTURE (JV)/ CONSORTIUM EXPENDITURE REPORT

Rand value of the contract (as defined in Schedule 4: Preference Schedule) (P*)	R
---	---

B-BBEE Status Level of Partnership/ Joint Venture (JV)/ Consortium	
--	--

Name of partners to the Partnership/ JV / Consortium (list all)	B-BBEE Status Level of each partner at contract award	Percentage contribution of each partner as per the Partnership/ JV/ Consortium Agreement ¹ A	Total value of partner's contribution (excl. VAT) ¹ B = A% x P*	Value of partner's contribution to date (excl. VAT) ¹ C	Value of partner's contribution as a percentage of the work executed to date D = C/P*x100
Partner A		%	R	R	%
Partner B		%	R	R	%
Partner C		%	R	R	%

¹Documentary evidence to be provided

Signatures

Declared by supplier to be true and correct: _____

Date:

Verified by CCT Project Manager:

Date: