

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 187

TENDER NO: 296S/2021/22

**TENDER DESCRIPTION: CHEMICAL AND MECHANICAL CLEANING SERVICES OF BOREHOLES:
REGION 1 – CAPE FLATS AQUIFER MANAGEMENT SCHEME; REGION 2 – ATLANTIS WATER
RESOURCE MANAGEMENT SCHEME, CITY OF CAPE TOWN**

CONTRACT PERIOD: FROM DATE OF COMMENCEMENT TO 30 JUNE 2025

VOLUME 1: TENDERING PROCEDURES

CLOSING DATE: 19 May 2022

CLOSING TIME: 10:00 a.m.

**TENDER BOX
NUMBER:** [174]

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)	
Alternative Offer (see clause 2.2.11.1)	

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	:	14 April 2022
SITE VISIT/CLARIFICATION MEETING	:	11h00 on 28 April 2022 (Not compulsory, but strongly recommended virtual meeting)
VENUE FOR SITE VISIT/CLARIFICATION MEETING	:	Meeting will be held virtually via Skype (no in-person meeting).

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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. 296S/2021/22: CHEMICAL AND MECHANICAL CLEANING SERVICES OF BOREHOLES: REGION 1 – CAPE FLATS AQUIFER MANAGEMENT SCHEME; REGION 2 – ATLANTIS WATER RESOURCE MANAGEMENT SCHEME, 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.

Bids must be compliant with the Preferential Procurement Regulations, 2017 including but not limited to local content, functionality, price and preference, eligibility criteria and relevant statutory criteria. The details of this are contained in the tender document.

CCT TENDER REPRESENTATIVE

[Name: Marcel Woodman

Tel. No.: (021) 400 6633

Email: Marcel.Woodman@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 who scores the highest number of tender adjudication points.

The CCT intends to appoint two tenderers per Region (the highest ranked tenderer (“the winner”) and in addition a “standby”) for the allocation of work. Tenderers can only be the “winner” of one Region but can be the “standby tenderer” of another Region. 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 next highest ranked tenderer from the standby tenderers).

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

Add the following:

For the purposes of this tender, work are to be carried out within two regions of the City of Cape Town municipal area and are outlined in the table below.

Region		Wellfields
1:	Cape Flats Aquifer	Strandfontein West (Philippi south), Mitchells Plain and surrounds
2:	Atlantis Aquifer	Witzands, Silwerstroom and surrounds

2.1.5.2 Proposal procedure using the two stage-system

A two-stage system will not be followed.

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

*Delete the heading **Eligibility Criteria** and Replace with **Responsiveness Criteria***

2.2.1.1 *Delete the clause and replace the following.*

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 table below. The score achieved for functionality will be the sum of the scores achieved, in the evaluation process, for the individual criteria.

Evaluation Criteria	Returnable schedules to be completed	Max Points
Relevant experience of key personnel in relation to the scope of works, including managerial ability and project management A – Borehole Maintenance Manager – max 15 points B – Testing/Rehabilitation Rig Operator – max 15 points	Schedule 15 A	30 (A + B)
Demonstrated experience (company) (past performance) in comparable projects with respect to maintenance and rehabilitation of boreholes in the relevant geological formations (Cape Flats and Atlantis Aquifers – primary aquifers Sandveld Group A – Contract values above R 4 million – max 10 points B - Testing experience – max 15 points C – Rehabilitation experience – max 15 points	Schedule 15 B	40 (A + B + C)
Adequacy of available equipment appropriate to the size and nature of the work A – Test pumping rigs – max 10 points B – Rehabilitation rigs – max 10 points C – Downhole camera – max 10 points	Schedule 15 C	30 (A + B + C)
Total		100

The minimum qualifying score for functionality is **70** out of a maximum of **100**.

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.

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.

	Personnel: Maintenance activities	Relevant experience	
		Years	Points
A	Borehole Maintenance Manager	7 years or more	15
		5 years or more but less than 7 years	10
		3 years or more but less than 5 years	6
		Less than 3 years	0
B	Testing/ Rehabilitation Rig Operator	5 years or more	15
		3 years or more but less than 5 years	10
		1 years or more but less than 3 years	6
		Less than 1 years	0

	Demonstrated experience (company) with borehole maintenance and rehabilitation in the Cape Flats and Atlantis Aquifer terrain or comparable primary aquifers	Points per project	Maximum Points
A	Hydraulic testing and borehole rehabilitation contracts with value of R 4 million (excluding VAT) or higher	2	10
B	Test pumped boreholes at yields of 15 - 30 l/s at a depth of 30 - 40 m, including four (4) one hour steps	3	15
C	Rehabilitation of boreholes using chemical and mechanical techniques	3	15

	Adequacy of available equipment for rehabilitation/cleaning	Points per resource	Maximum Points
A	Test pumping rigs with a positive displacement pump (0.5-60 l/s at a depth of 60 m)	5 (1 rig = 5 points; 2 rigs = 10 points)	10
B	Rehabilitation rigs with the capability to perform reverse circulation/ venturi style airlifting and brushing suited for a borehole diameter of 12" (304.8 mm)	5 (1 rig = 5 points; 2 rigs = 10 points)	10
C	Downhole cameras that can view downwards and sideways to a depth of 60 m within a 12" (304.8 mm) borehole	10 (1 camera = 10 points)	10

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

Expertise of designated Borehole Maintenance Manager

Previous projects similar to this specific Tender project (or project grouping) that have been successfully managed by the specific person(s) which will undertake this work must be detailed in Schedule 15A of Part 6 : Supporting Schedules. A CV for each of the key personnel must be included with the relevant project details. Tenderers shall highlight any particular fields of specialization and experience that is relevant to this particular project.

Expertise of key Testing/Rehabilitation Rig Operator

Previous projects similar to this specific Tender project (or project grouping) that have been successfully operated by the specific person(s) who will undertake this work shall be detailed in Schedule 15A of Part 6 : Supporting Schedules. A CV for each of the key personnel shall be included with the relevant project details. Tenderers must highlight any particular fields of specialization and experience that is relevant to this particular project.

Demonstrated experience in the Cape Flats and Atlantis Aquifer terrain or comparable primary aquifers, similar projects in nature and size

A detailed summary list shall be provided in Schedule 15B of Part 6 : Supporting Schedules, providing details for contracts undertaken in the past 20 years related to the testing and rehabilitation/cleaning of boreholes, including a detailed description of the work included (yields, chemicals, brushes, sizes) and number of boreholes, etc. Sufficient details shall be provided in order to score tenderers based on the points criteria provided in the tables above

Adequacy of available equipment – Hydraulic Testing and Rehabilitation

The critical equipment comprises pumping rigs with positive displacement pumps of capacities between 0.5 l/s and 60 l/s, and or pumping rigs with submersible pumps of the same capacities, rehabilitation rigs, as well as all ancillary equipment necessary to undertake the work. A list and detailed description of all available equipment in the possession or under control of the Tenderer including working conditions, possible installation depth per pump, diameter and depth of rehabilitation tools and other relevant information, shall be provided in Schedule 15C of Part 6 : Supporting Schedules.

2.2.1.1.5 Local production and content

Not applicable

2.2.1.1.6 Pre-qualification criteria for preferential procurement

Not applicable

2.2.1.1.7 Provision of samples

Not applicable

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 price per item / rates as set out in the **Price Schedule (Part 5)**:

- based on the sum of the prices/rates in relation to the estimated quantities.

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:

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

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

Preference points shall be 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 Contributor	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: 296S/2021/22

**TENDER DESCRIPTION: CHEMICAL AND MECHANICAL CLEANING SERVICES OF BOREHOLES:
REGION 1 – CAPE FLATS AQUIFER MANAGEMENT SCHEME; REGION 2 – ATLANTIS WATER
RESOURCE MANAGEMENT SCHEME, CITY OF CAPE TOWN**

CONTRACT PERIOD: FROM DATE OF COMMENCEMENT 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)	
Alternative Offer (see clause 2.2.11.1)	

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 _____ (Name & Surname) 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)	

Is tenderer the accredited representative in South Africa for the Goods / Services / Works offered?	☐ Yes ☐ No If yes, enclose proof
Is tenderer a foreign based supplier for the Goods / Services / Works offered?	☐ Yes ☐ No If yes, answer the Questionnaire to Bidding Foreign Suppliers (below)
Questionnaire to Bidding Foreign Suppliers	a) Is the tenderer a resident of the Republic of South Africa or an entity registered in South Africa? ☐ Yes ☐ No
	b) Does the tenderer have a permanent establishment in the Republic of South Africa? ☐ Yes ☐ No
	c) Does the tenderer have any source of income in the Republic of South Africa? ☐ Yes ☐ No
	d) Is the tenderer liable in the Republic of South Africa for any form of taxation? ☐ Yes ☐ No

(4) FORM OF OFFER AND ACCEPTANCE

TENDER 296S/2021/22 CHEMICAL AND MECHANICAL CLEANING SERVICES OF BOREHOLES: REGION 1 – CAPE FLATS AQUIFER MANAGEMENT SCHEME; REGION 2 – ATLANTIS WATER RESOURCE MANAGEMENT SCHEME, 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		
1	2	3

FORM OF OFFER AND ACCEPTANCE (continued)

TENDER 296S/2021/22 CHEMICAL AND MECHANICAL CLEANING SERVICES OF BOREHOLES: REGION 1 – CAPE FLATS AQUIFER MANAGEMENT SCHEME; REGION 2 – ATLANTIS WATER RESOURCE MANAGEMENT SCHEME, 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		
Accepted contract sum including tax		
Accepted contract duration		
Signed – who by signature hereto warrants authority		
Name of signatory		
Signed: Date		
Signed: Location		
Signed: Witness		
Name of Witness		

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'

REGION 1 – CAPE FLATS AQUIFER MANAGEMENT SCHEME			
Item No	Description	Unit of measure	Price per unit (excl VAT)
1	Contract management for duration of contract	Monthly	R
2	Routine – Abstraction borehole inspection and yield testing	Each	R
3	Routine – Abstraction borehole mechanical cleaning	Each	R
4	Routine – Abstraction borehole chemical cleaning	Each	R
5	Routine – Monitoring borehole inspection	Each	R
6	Intervention – Borehole inspection and yield testing	Each	R
7	Intervention – Mechanical cleaning of boreholes	Each	R
8	Intervention – Chemical cleaning of boreholes	Each	R
9	Intervention – Borehole inspection	Each	R

REGION 2 – ATLANTIS WATER RESOURCE MANAGEMENT SCHEME			
Item No	Description	Unit of measure	Price per unit (excl VAT)
1	Contract management for duration of contract	Monthly	R
2	Routine – Abstraction borehole inspection and yield testing	Each	R
3	Routine – Abstraction borehole mechanical cleaning	Each	R
4	Routine – Abstraction borehole chemical cleaning	Each	R
5	Routine – Monitoring borehole inspection	Each	R
6	Intervention – Borehole inspection and yield testing	Each	R
7	Intervention – Mechanical cleaning of boreholes	Each	R
8	Intervention – Chemical cleaning of boreholes	Each	R
9	Intervention – Borehole inspection	Each	R

Pricing Instructions:

- 5.1 State the rates and prices in Rand unless instructed otherwise in the tender conditions.
- 5.2 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the General Tender Information.
- 5.3 All prices tendered must include all expenses, disbursements and costs (e.g. transport, accommodation etc.) that may be required for the execution of the tenderer's obligations in terms of the Contract, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the Contract as well as overhead charges and profit (in the event that the tender is successful). All prices tendered will be final and binding.
- 5.4 All prices shall be tendered in accordance with the units specified in this schedule.
- 5.5 Where a value is given in the Quantity column, a Rate and Price (the product of the Quantity and Rate) is required to be inserted in the relevant columns.

- 5.6 The successful tenderer is required to perform all tasks listed against each item. The tenderer must therefore tender prices/rates on all items as per the section in the Price Schedule. **An item against which no rate is/are entered, or if anything other than a rate or a nil rate (for example, a zero, a dash or the word “included” or abbreviations thereof) is entered against an item, it will also be regarded as a nil rate having been entered against that item, i.e. that there is no charge for that item. The Tenderer may be requested to clarify nil rates, or items regarded as having nil rates; and the Employer may also perform a risk analysis with regard to the reasonableness of such rates.**
- 5.7 Provide fixed rates and prices for the duration of the contract that are not subject to adjustment except as otherwise provided for in clause 17 of the Conditions of Contract and as amplified in the Special Conditions of Contract.
- 5.8 **TENDERERS ARE TO PRICE FOR ALL ITEMS IN THE SELECTED REGION(S) TO BE DEEMED RESPONSIVE TO THIS TENDER.**

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 exclusion 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	
-----	--	----	--

- 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	
-----	--	----	--

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 Practice (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:

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

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	☐
Exempted Micro Enterprise (EME), at least 51% but less than 100% black-owned	☐
Exempted Micro Enterprise (EME), less than 51% black-owned	☐
Qualifying Small Enterprise (QSE), 100% black-owned	☐
Qualifying Small Enterprise (QSE), at least 51% but less than 100% black-owned	☐
Qualifying Small Enterprise (QSE), less than 51% black-owned	☐
Verified B-BBEE contributor ☐ B-BBEE Status Level of Contributor ¹	☐
Non-compliant contributor	☐

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 or 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	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? (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). 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.	Yes ☐	No ☐
2.1.1	If so, furnish particulars:		
2.2	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? 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.	Yes ☐	No ☐
2.2.1	If so, furnish particulars:		
2.3	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?	Yes ☐	No ☐

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 ☐	No ☐
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 ☐	No ☐
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

8.1 PRICING INSTRUCTIONS

8.1.1 Price Adjustment Mechanism:

8.1.1.1 The Contract Price as per GCC shall remain **Firm** for the first 12 months from date of commencement of the contract and no claims for contract price adjustment will be considered for the first 12 months' subject to the provisions in the price schedule.

8.1.1.2 Subject to 8.1.1.1. Above, Contract Price Adjustment will be applicable as from commencement of the 13 month. Contractors shall be entitled to claim contract price adjustment as follows:

8.1.1.3 **10%** of the **tendered** rate will remain fixed for the duration of the contract.

8.1.1.4 **90%** of the year on year rate will be subject to adjustment **annually** based on the average percentage of 12 months as published by STATSSA: Consumer Price Index (P0141–Table B2 – CPI headline year-on-year rates) as follows:

From start of 13th month to the end of the 24th month: Subject to contract price adjustment in accordance with the **Consumer Price Index (P0141–Table B2 – CPI headline year-on-year rates)**. **Base month** for the price adjustment shall be three (3) calendar months prior to the date of commencement. The **end month** shall be three (3) calendar months prior to the 12th month.

From start of 25th month to end of the 36th month: Subject to the contract price adjustment in accordance with the **Consumer Price Index (P0141–Table B2 – CPI headline year-on-year rates)**. **Base month** for the price adjustment shall be three (3) calendar months prior to the 13th month. The **end month** shall be three (3) calendar months prior to 24th month.

From start of 37th month to end 48 month: Subject to the contract price adjustment in accordance with the **Consumer Price Index (P0141–Table B2 – CPI headline year-on-year rates)**. **Base month** for the price adjustment shall be three (3) calendar months prior to the 25th month. The **end month** shall be three (3) calendar months prior to 36th month.

From start of 49th month to end 60 month: Subject to the contract price adjustment in accordance with the **Consumer Price Index (P0141–Table B2 – CPI headline year-on-year rates)**. **Base month** for the price adjustment shall be three (3) calendar months prior to the 37th month. The **end month** shall be three (3) calendar months prior to 48th month.

The **average CPI** will be calculated, the base month to the end month (both included) divided by the number of months.

Example:

The claim will be based on the **average** between the “base month” and the “end month” **e.g.: 7+6+9+6 = 28 (28/4) = 7** therefore the claim will be 7%.

8.1.2 Contract Price Adjustment – General

8.1.2.1 All requests for variation in the contract price shall be submitted in writing as follows:

- By letter to: Director Supply Chain Management, City of Cape Town, P O Box 655, Cape Town, 8000, or
- by email to: CPA.Request@capetown.gov.za

prior to the date upon which the price adjustment would become effective.

Schedule 9: Certificate of Independent Tender Determination

I, the undersigned, in submitting this tender 296S/2021/22 CHEMICAL AND MECHANICAL CLEANING SERVICES OF BOREHOLES: REGION 1 – CAPE FLATS AQUIFER MANAGEMENT SCHEME; REGION 2 – ATLANTIS WATER RESOURCE MANAGEMENT SCHEME, 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

Not applicable.

SIGNED ON BEHALF OF TENDERER:

Schedule 11: Price Basis for Imported Resources
--

Not applicable.

SIGNED ON BEHALF OF TENDERER:

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

Not applicable.

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 to meet the Functionality requirements. **IF SCHEDULE 15 A, B and C ARE NOT PROVIDED, THEN THE TENDER WILL BE DECLARED NON-RESPONSIVE.**

- a. Schedule 15 A: Adequacy and Competency of Key Personnel (Section 2.2.1.1.4).
- b. Schedule 15 B: Demonstrated Experience of Tendering Entity (Section 2.2.1.1.4).
- c. Schedule 15 C: Adequacy of Available Equipment (Section 2.2.1.1.4).
- d. Schedule 15 D: Schedule of Sub-contractors.

SIGNED ON BEHALF OF TENDERER:
...

Schedule 15A: Adequacy and Competency of Key Personnel

Tenderers shall set out in the Schedule hereunder details of the listed staff's (Borehole Maintenance Manager and Testing/Rehabilitation Rig Operator) experience in work of a similar nature to that for which their Tender is submitted. Experience should be described in a manner to meet the functionality criteria as stated in Section 2.2.1.1.4. The duration of work listed by the start and end date will be aggregated to determine the length of work experience. CV's of Key Personnel confirming the functionality criteria to be included in the tender submission.

BOREHOLE MAINTENANCE MANAGER	NAME:				
	CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK	START DATE DD/MM/YY END DATE DD/MM/YY

TESTING/ REHABILITATION RIG OPERATOR	NAME:				
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK	START DATE DD/MM/YY	END DATE DD/MM/YY

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

SIGNED ON BEHALF OF THE TENDERER:

Schedule 15B: Demonstrated Experience of Tendering Entity

(a) Successfully completed similar, hydraulic testing and borehole rehabilitation/cleaning contracts with a construction value of R 4 million or higher

The tenderer must submit proof, in the form of reference letters to be obtained from the respective Employer or Consulting Engineer, of completing similar, hydraulic testing and borehole rehabilitation/cleaning contracts awarded to it with a value of at least R 4 million each. The nature of the work should aim to meet the functionality criteria as stated in Section 2.2.1.1.4. 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.

In addition to the reference letters to be obtained as noted above, the tenderer shall summarise these projects in the table provided below, as well as any other similar contracts completed in the past 20 years.

A) SUCCESSFULLY COMPLETED SIMILAR, HYDRAULIC TESTING AND BOREHOLE REHABILITATION/CLEANING CONTRACTS WITH A CONSTRUCTION VALUE OF R 4 MILLION OR HIGHER						
PROJECT NAME	NATURE OF WORK	EMPLOYER (NAME, TEL No. AND FAX No.)	CONSULTING ENGINEER (NAME, TEL No. AND FAX No.)	CONSTRUCTION VALUE OF WORK R(million)	COMPLETION DATE	REFERENCE LETTER INCLUDED (YES/NO)

PRO-FORMA LETTER (EXAMPLE) – Borehole Rehabilitation/Cleaning*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.: 296S/2021/22

TENDER TITLE: CHEMICAL AND MECHANICAL CLEANING SERVICES OF BOREHOLES:
 REGION 1 - CAPE FLATS AQUIFER MANAGEMENT SCHEME; REGION 2
 - ATLANTIS WATER RESOURCE MANAGEMENT SCHEME, 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			
Project area and geology (if known)			
Completion date			
Contract value (inclusive of VAT)			
Number of boreholes hydraulically tested (No) and at what yield	<u>Number:</u>	<u>Yield (l/s):</u>	
Number of boreholes rehabilitated, diameter and using which technique	<u>Number:</u>	<u>Technique:</u>	<u>Diameter (mm):</u>
Number of boreholes camera surveyed			

Yours faithfully

Name: _____

Signed: _____

Designation: _____

For: _____

E-mail: _____

Tel No.: _____

Note: A reference letter per contract is required

b) Hydraulic testing experience to illustrate that the contractor has completed test-pumping of 5 boreholes with yields of 15 - 30 l/s at a depth of 30 - 40 m.

The tenderer must submit proof, in the form of reference letters to be obtained from the respective Employer or Consulting Engineer, of completing test-pumping of 5 boreholes with yields of 15 - 30 l/s at a depth of 30 - 40 m. The nature of the work should aim to meet the functionality criteria as stated in Section 2.2.1.1.4. 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.

In addition to the reference letters to be obtained as noted above, the tenderer shall summarise these projects in the table provided below, as well as any other similar contracts completed in the past 20 years.

B) HYDRAULIC TESTING EXPERIENCE TO ILLUSTRATE THAT THE CONTRACTOR HAS COMPLETED TEST-PUMPING OF 5 BOREHOLES WITH YIELDS OF 15 - 30 L/S AT A DEPTH OF 30 - 40 M.						
PROJECT NAME	EMPLOYER (NAME, TEL No. AND FAX No.)	CONSULTING ENGINEER (NAME, TEL No. AND FAX No.)	NATURE OF WORK	YIELD (L/S)	DEPTH OF PUMPING (M)	REFERENCE LETTER INCLUDED (YES/NO)

C) Rehabilitation (borehole cleaning) experience to illustrate that the contractor has completed chemical and mechanical rehabilitation/cleaning of at least 5 boreholes with a diameter of at least 12" (304.8 mm).

The tenderer must submit proof, in the form of reference letters to be obtained from the respective Employer or Consulting Engineer, of completing chemical and mechanical rehabilitation/cleaning of at least 5 boreholes with a diameter of at least 12" (304.8 mm). The nature of the work should aim to meet the functionality criteria as stated in Section 2.2.1.1.4. 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.

In addition to the reference letters to be obtained as noted above, the tenderer shall summarise these projects in the table provided below, as well as any other similar contracts completed in the past 20 years.

C) REHABILITATION (BOREHOLE CLEANING) EXPERIENCE TO ILLUSTRATE THAT THE CONTRACTOR HAS COMPLETED CHEMICAL AND MECHANICAL REHABILITATION/CLEANING OF AT LEAST 5 BOREHOLES WITH A DIAMETER OF AT LEAST 12" (304.8 MM).						
PROJECT NAME	EMPLOYER (NAME, TEL No. AND FAX No.)	CONSULTING ENGINEER (NAME, TEL No. AND FAX No.)	NATURE OF WORK	REHABILITATION / CLEANING TYPE	BOREHOLE DIAMETER (mm)	REFERENCE LETTER INCLUDED (YES/NO)

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

SIGNED ON BEHALF OF TENDERER:

Schedule 15C: Adequacy of Available Equipment

The tenderer shall state below what testing, rehabilitation/cleaning and ancillary equipment it owns that will be available for this Contract. The equipment should aim to meet the functionality criteria as stated in Section 2.2.1.1.4. Proof of vehicle registration to be submitted with the tender submission.

EQUIPMENT AVAILABLE

DESCRIPTION	SERIAL NUMBER	MODEL	REGISTRATION NUMBER	CAPACITY NUMBER		
				DEPTH	DIAMETER	YIELD
A – TEST-PUMPING RIG & POSITIVE DISPLACEMENT PUMP						
B - REHABILITATION RIG						
C – DOWNHOLE CAMERA						

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

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.

If the tenderer plans to utilise sub-contractors, a letter of intent of sub-contracting and agreement to such by the sub-contractor shall be submitted for each listed sub-contractor.

Resourcing from sub-contractors will not count for functionality scoring.

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:

•

TENDER DOCUMENT GOODS AND SERVICES		 CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD	
SUPPLY CHAIN MANAGEMENT			
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TENDER NO: 296S/2021/22

**TENDER DESCRIPTION: CHEMICAL AND MECHANICAL CLEANING SERVICES OF BOREHOLES:
REGION 1 – CAPE FLATS AQUIFER MANAGEMENT SCHEME; REGION 2 – ATLANTIS WATER
RESOURCE MANAGEMENT SCHEME, CITY OF CAPE TOWN**

CONTRACT PERIOD: FROM DATE OF COMMENCEMENT TO 30 JUNE 2025

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)	
Alternative Offer (see clause 2.2.11.1)	

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 and replace with the following:

7.1 Within 14 (fourteen) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified herein.

The Guarantee Sum shall be equal to R 1 400 000 [One million four hundred thousand rand] for Region 1 Cape Flats Aquifer Management Scheme and equal to R 1 400 000 [One million four hundred thousand rand] for Region 2 Atlantis Water Resource Management Scheme.

Delete clause 7.3 and replace with the following:

7.3 The performance security shall be furnished strictly in accordance with the terms and conditions set out in **Form of Guarantee / Performance Security** and can only be issued by any one of the Financial Institutions listed in **Annexure A** (attached to this form).

Delete clause 7.4 and replace with the following:

7.4 The performance security will be discharged by the purchaser and returned to the supplier strictly in accordance with the terms and conditions set out in the **Form of Guarantee / Performance Security**

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).

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 **three (3) months** after the services 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. An appropriate contract price adjustment formula will be determined by the Director: Supply Chain Management if such was not included in the bid documents.
- 17.3 If as a result of any extension of time granted the contract execution will be completed beyond a period of twelve (12) months from the expiry of the original tender validity period, then contract price adjustment may apply to that period beyond such twelve (12) months. An appropriate contract price adjustment formula will be determined by the Director: Supply Chain Management if such was not included in the bid documents.
- 17.4 The prices for the goods delivered and services performed shall be subject to contract price adjustment and the following conditions will be applicable:

SEE SCHEDULE 8

- 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 the 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.

In the event that the actual delivery for services ordered in terms of this tender exceeds the contracted delivery period, a penalty of 0.5% per week of the value of the overdue services will be imposed. No such penalties shall exceed 10% of the value of the overdue goods concerned.

- 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. Reporting Obligations.

35.1 The supplier shall complete, sign and submit with each delivery note, all the documents as required in the Specifications. Any failure in this regard may result in a delay in the processing of any payments.

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

(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 3 (three) months after the services, 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**NOT APPLICABLE****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

The following financial institutions are currently (as at 12 October 2021) approved for issue of contract guarantees to the City:

National Banks:

ABSA Bank Ltd.
FirstRand Bank Ltd.
Investec Bank Ltd.
Nedbank Ltd.
Standard Bank of SA Ltd.

International Banks (with branches in SA):

Barclays Bank plc.
Citibank n.a.
Credit Agricole Corporate and Investment Bank
HSBC Bank plc.
JP Morgan Chase Bank
Societe Generale
Standard Chartered Bank

Insurance companies:

American International Group Inc (AIG)
Bryte Insurance Company Limited
Coface s.a.
Compass Insurance Company Limited
Credit Guarantee Insurance Company Limited
Hollard Insurance Company Ltd.
Limited Guardrisk Insurance Company Limited
Infiniti Insurance Limited
Lombard Insurance Company Limited
New National Assurance Company Limited
PSG Konsult Ltd (previously ABSA Insurance)
Regent Insurance Co.
Renasa Insurance Company Ltd.
Santam Limited

(10) FORM OF ADVANCE PAYMENT GUARANTEE

Not Applicable

(10.1) ADVANCE PAYMENT SCHEDULE
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Not Applicable

(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.: 296S/2021/22

TENDER DESCRIPTION: Chemical and mechanical cleaning services of boreholes: Region 1 – Cape Flats Aquifer Management Scheme; Region 2 – Atlantis Water Resource Management Scheme, 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 SCOPE OF WORKS

13.1.1 Background

The wellfields abstracting from the Cape Flats Aquifer (CFA) and Atlantis Aquifer form a strategic component to the City of Cape Town's water supply. City of Cape Town intends to appoint two contractors to be responsible for the rehabilitation/cleaning and maintenance of boreholes in Region 1 - Cape Flats Aquifer Management Scheme and Region 2 – Atlantis Water Resource Management Scheme. A high standard of design, materials, workmanship, testing and performance is required in this Contract.

This Contract deals with the routine and intervention maintenance/cleaning (mechanical and chemical) of boreholes, including abstraction boreholes within the CFA (Strandfontein West and Mitchells Plain Wellfields) and Atlantis (Witzands and Silwerstroom Wellfields). This Contract also includes intervention maintenance/cleaning of the Managed Aquifer Recharge (MAR) injection boreholes, monitoring boreholes and abstraction boreholes within other wellfields as instructed by the Client/Engineer. Intervention maintenance will only be done when required.

The makeup of the wellfields is amplified in the table in Clause 13.1.4

13.1.2 Overview of Regions

13.1.2.1 Region 1 - Cape Flats Aquifer

The City of Cape Town has developed abstraction wellfields within the CFA that aim to augment the City's water supply. The proposed implementation would prioritise two abstraction wellfields, namely Strandfontein West and Mitchells Plain. However, there are several other wellfields in the Cape Flat Aquifer that are not prioritised at this stage and not equipped for abstraction, but will be included in the scope should intervention maintenance/cleaning be required.

The wellfields are depicted in **Annexure A** (Cape Flats Aquifer Management Scheme Layout Master Plan). The monitoring boreholes span across various wellfields and can be seen on the Master Plan.

The individual abstraction wellfield layout drawings relevant to this Contract are included in **Annexure B**.

The individual abstraction, injection and monitoring borehole locations and construction details are included in **Annexure C**.

The purpose of this document is to specify the requirements for maintenance/cleaning, data collection and reporting over the contract period from the commencement date to 30 June 2025.

13.1.2.2 Region 2 - Atlantis Aquifer

The City of Cape Town has developed two abstraction wellfields within the Atlantis Aquifer that aim to augment the City's water supply. The proposed implementation includes two abstraction wellfields, namely Witzands and Silwerstroom.

The wellfields are depicted in **Annexure D** (Atlantis Water Resource Management). The monitoring boreholes span across various wellfields.

The individual abstraction wellfield layout drawings relevant to this Contract are included in **Annexure E**.

The individual abstraction and monitoring borehole locations and construction details are included in **Annexure F**.

The purpose of this document is to specify the requirements for maintenance/cleaning, data collection and reporting over the contract period from the commencement date to 30 June 2025.

13.1.3 Description of The Bulk Works

Cleaning and maintenance of Abstraction, Injection and Monitoring Boreholes.

13.1.3.1 Region 1 - Cape Flats Aquifer

Strandfontein West Wellfield

Boreholes related to this wellfield include:

- 9 abstraction boreholes within chambers and cages, with downhole infrastructure and monitoring equipment
- 2 planned abstraction boreholes
- 7 near-field monitoring boreholes within manholes and cages, with downhole level loggers

Mitchells Plain Barrier Wellfield

The groundwater from this wellfield is abstracted and discharged into the inlet works of the adjacent wastewater treatment works for the removal of nutrients in the water and a partial stream is discharged at the sludge dewatering belt presses to be used as wash water on the belts:

- 6 abstraction boreholes within chambers and cages, with downhole infrastructure and monitoring equipment
- 4 standby abstraction boreholes within chambers and cages, with monitoring equipment
- 5 near-field monitoring boreholes within manholes and cages, with downhole level loggers

Monitoring Boreholes

Monitoring includes near-field boreholes which are located within the various wellfields and far-field which are located further away, scattered across the Cape Flats Aquifer (see **Appendix C** for locations). Monitoring boreholes are sampled for water quality analysis and record water levels to monitor seasonal fluctuations in groundwater level and impacts from abstraction by the City wellfields. Currently there are 119 monitoring sites (excluding seven (7) near-field in Strandfontein West and five (5) in Mitchells Plain Barrier Wellfields) that may require intervention maintenance/cleaning should the need arise. It is likely that over the contract period, additional monitoring sites will be added. The maintenance/cleaning of the monitoring borehole would only be required if instructed by the Client/Engineer and would fall under intervention maintenance/cleaning.

Standby Abstraction Wellfields

Standby wellfields for future abstraction include Strandfontein North, Strandfontein East, Hanover Park, Philippi and Swartklip. These abstraction boreholes are currently monitored for water levels and water quality to build up a baseline of data and for compliance. Currently there are 53 abstraction boreholes drilled, excluding those listed above for Strandfontein West and Mitchells Plain. It is likely that over the contract period, additional abstraction sites will be added. The maintenance/cleaning of the borehole itself would only be required if instructed by the Client/Engineer and would fall under intervention maintenance/cleaning.

MAR (injection) Boreholes

MAR wellfields include injection boreholes, piezometers and monitoring boreholes across five areas, namely Seawater Intrusion Barrier, Mitchells Plain WWTW Barrier, Strandfontein West/Vlei, Philippi Central and Philippi North. Infrastructure associated with these boreholes includes pressure gauges, reducing valves, flow meters and water level loggers to record and control the volume of water that is injected into the aquifer based on the water level within the aquifer. Currently there are 25 injection boreholes, 23 MAR piezometers and 17 MAR monitoring boreholes that may require intervention maintenance/cleaning. It is likely that over the contract period, additional MAR associated sites will be added. The maintenance/cleaning of the borehole itself would only be required if instructed by the Client/Engineer and would fall under intervention maintenance/cleaning.

13.1.3.2 Region 2 - Atlantis Aquifer

Witzands Wellfield

- 34 abstraction boreholes within cages with downhole infrastructure and monitoring equipment
- 43 select monitoring boreholes within manholes and cages, with downhole level loggers
- 17 planned abstraction boreholes for drilling

Silwerstroom Wellfield

- 14 abstraction boreholes within cages with downhole infrastructure and monitoring equipment
- 7 near field monitoring boreholes within manholes and cages, with downhole level loggers

Monitoring Boreholes

Monitoring includes near-field boreholes which are located within the various wellfields and far-field which are located further away, scattered across the Atlantis Aquifer (see **Appendix F** for locations). Monitoring boreholes record water levels to monitor seasonal fluctuations in groundwater level and impacts from abstraction by the City wellfields. The maintenance/cleaning of the borehole would only be required if instructed by the Client/Engineer and would fall under intervention maintenance/cleaning.

13.1.4 Planned Implementation

The following Maintenance/Cleaning Schedule is estimated as follows:

No	Description	Routine Maintenance	Intervention Maintenance	START OF MAINTENANCE ACTIVITY	PERIOD OF MAINTENANCE ACTIVITY
Region 1 – Cape Flats Aquifer					
1	Strandfontein West Wellfield (Abstraction & Near-field Monitoring)	Biannual - Annual	Ad hoc	Commencement date	To 30 June 2025
2	Mitchells Plan Barrier Wellfield (Abstraction & Near-field Monitoring)	Biannual - Annual	Ad hoc	Commencement date	To 30 June 2025
3	MAR Injection Boreholes		Ad hoc	When required	To 30 June 2025
4	MAR Piezo & Monitoring Boreholes		Ad hoc	When required	To 30 June 2025
5	Additional Abstraction Boreholes		Ad hoc	When required	To 30 June 2025
6	Monitoring Boreholes		Ad hoc	When required	To 30 June 2025
Region 2 – Atlantis Aquifer					
1	Witzands Wellfield (Abstraction & Select Monitoring)	Biannual - Annual	Ad hoc	Commencement date	To 30 June 2025
2	Silwerstroom Wellfield (Abstraction & Near-field Monitoring)	Biannual - Annual	Ad hoc	Commencement date	To 30 June 2025
3	Monitoring Boreholes		Ad hoc	Commencement date	To 30 June 2025

13.1.5 Work to be performed by Contractor

The Contractor shall perform his work in terms of the following procedure as described in more detail in Clauses 13.2 to 13.4:

- Contract Management:** Contract management for the duration of the contract which includes communication with the Client or Engineer, storage of equipment, fulfilling health and safety and environmental requirements, preparing and submission of data, reports and invoices.
- Routine Maintenance/Cleaning:** Maintenance/cleaning of boreholes as described in the schedule and specifications below.
- Intervention Maintenance/Cleaning:** An instruction from the Employer to perform a specific task or tasks within an agreed timeframe, but generally not considered urgent in nature.

Contract Management

The Contract shall be responsible for managing the contract from award to 30 June 2025. This includes expenses related to an office, storage of equipment, security requirements, fulfilling health and safety and environmental requirements, communication with the Client and Engineer, preparing and submission of data, reports and invoices.

Routine maintenance

The Contractor shall be responsible for the maintenance of the boreholes and the locks on the cages, manholes and chambers according to the schedule and within the following wellfields - CFA (Strandfontein West and Mitchells Plain Wellfields) and Atlantis (Witzands and Silwerstroom Wellfields). The infrastructure requiring maintenance will typically include the following:

- a) Abstraction boreholes (biofouling, clogging, blockages)
- b) Abstraction borehole chamber lids and locks
- c) Near-field monitoring borehole manhole lids and locks
- d) Security cage locks

Intervention Maintenance

Intervention maintenance includes the rehabilitation/cleaning of boreholes that are not routinely maintained or require additional rehabilitation/cleaning more frequently than scheduled. Intervention maintenance is only undertaken by instruction from the Client/Engineer and has no scheduled frequency or number of sites. Intervention maintenance includes all boreholes that currently make up the broader Cape Flats Aquifer Management Scheme (Region 1) and Atlantis Water Resource Management Scheme (Region 2) as listed below. It must be noted that due to the schemes still being developed, the number of boreholes will change over the duration of the Contract but intervention maintenance will be claimed per individual site.

Region 1 – Cape Flats Aquifer

- 25 MAR injection boreholes
- 23 MAR piezometer boreholes
- 17 MAR monitoring boreholes
- 119 Exploration/Monitoring boreholes (excluding near-field monitoring boreholes within Strandfontein West and Mitchells Plain Barrier)
- 53 Abstraction boreholes (excluding Strandfontein West and Mitchells Plain)

Region 2 – Atlantis Aquifer

- All boreholes included within Witzands and Silwerstroom

It is not a requirement for the Contractor to have a person fulltime on site, however prompt response as per the Specification is important.

13.1.6 The Employer's responsibilities

The Employer's responsibilities are as follow:

- a) Operation and management of the Strandfontein West, Mitchells Plain Barrier, Silwerstroom and Witzands wellfields, as well as the MAR schemes.
- b) Monitoring, collection and interpretation of operation and monitoring related data, including groundwater levels, groundwater quality and abstraction volumes.

- c) Instruct the Contractor to perform maintenance tasks on a routine basis and intervention maintenance when required based on the monitoring data.
- d) Manage and coordinate all bulk electrical maintenance with the supply authority.
- e) Maintain building related works and site maintenance in and around water treatment plants and injection pump stations, including security and access.
- f) Maintenance to access roads leading to boreholes, pump stations and roads along pipeline routes.
- g) Maintain building or civil related work on pipeline structures.
- h) Monitor the pipeline for pipe bursts.
- i) Shut down the scheme to prevent water damage to third party property.

13.1.7 Alterations, Additions, Extensions and Modifications to Existing Works

No alterations, additions, extension and modifications to the existing Works will be required under this Contract, unless specifically instructed so by the City of Cape Town.

No design will be required under this contract. The works will be serviced, repaired, maintained and refurbished based on the existing design.

Deviation from original equipment and parts may only be done on written approval of the Employer and proof of compliance to design and quality requirements may be requested.

13.1.8 Uniformity

All items of the same type of equipment shall where possible be of the same make and type throughout the installation to ensure performance, quality, interchangeability and uniformity. Parts and pieces of equipment belonging logically together shall be from the same supplier.

All work shall be performed to the same standards and quality as the installed equipment.

13.1.9 Status

Should any requirement or provision in the parts of the Specification conflict with any requirement of the Standard or Special Conditions of Contract, the order of precedence, unless otherwise specified is:

- Special Conditions of Contract
- Standard Conditions of Contract
- Specifications

13.2 Contract management

13.2.1 Description

This subsection addresses the contract management requirements for the duration of the contract which includes but is not limited to:

- Contractor office
- Storage of equipment
- Security on site
- Communication with Client, Engineer and Stakeholders
- Preparation and submission of data, reports and invoices
- Fulfilling health and safety and environmental requirements

13.2.2 Measurement and Payment

The contract management fee will be a monthly fee for the duration of the contract. It is assumed that the tendered price shall include all material and personnel required to undertake the work.

13.3 Routine borehole maintenance

Routine borehole maintenance includes the inspection and maintenance of abstraction boreholes within defined wellfields (Region 1 – CFA - Strandfontein West and Mitchells Plain Barrier; Region 2 – Atlantis - Witzands and Silwerstroom) and near-field monitoring boreholes according to the schedule and frequency detailed below. Routine maintenance will initially include an inspection to determine if mechanical or chemical rehabilitation is required as an extra over and as instructed by the Client/Engineer. All abstraction boreholes are on average 40

meters deep and with 12" diameter casing installed (mainly stainless steel but the occasional smaller diameter uPVC), monitoring boreholes are on average 40 meters deep and with 6.5" uPVC casing installed.

13.3.1 Abstraction Borehole Inspection and Yield Testing

13.3.1.1 Description

This subsection addresses the routine inspection of abstraction boreholes within the defined wellfields of Region 1 - CFA (Strandfontein West and Mitchells Plain Barrier Wellfields) and Region 2 - Atlantis (Witzands and Silwerstroom Wellfields). Routine abstraction borehole inspections will be done on a biannual basis per borehole (Region 1 - CFA – 15 abstraction, 4 standby abstraction and 2 planned abstraction boreholes for drilling; Region 2 - Atlantis – 48 abstraction) which includes:

- Establishment of all required equipment at individual borehole sites, including work over ramps where required;
- Ensure all health and safety and environmental requirements are met per site as detailed in Spec E and Spec H;
- Removal and replacement of security cages;
- Removal and reinstallation of stringwork, downhole monitoring equipment and pump sets;
- Cleaning and disinfection of the string work and pump sets;
- Transport of pump sets to the Atlantis Testing Facility if determined to be faulty and instructed by the Client/Engineer;
- Cleaning of the chamber and maintenance of chamber and cage locks;
- Keep access and the area clean and accessible;
- Downhole camera survey that can view and record images from the borehole facing downwards and sideways against the borehole wall;
- Borehole yield test via step-tests consisting of at least 4 steps ranging from 0.5 to 60 l/s to determine the efficiency of the borehole (according to SANS 10299-4);
- Photography evidence of site area, chamber, cage, pulled equipment prior to any maintenance and post maintenance;
- All data associated with the inspection to be provided in digital format per borehole to the Client/Engineer
- Maintenance report to be provided per borehole

13.3.1.2 Measurement

The quantity to be paid for the routine inspection of listed abstraction boreholes in two Regions (Region 1 – CFA - Strandfontein West and Mitchells Plain Barrier Wellfields; Region 2 – Atlantis - Witzands and Silwerstroom Wellfields) shall be made according to the number of abstraction boreholes inspected and certified by the Client/Engineer in writing.

13.3.1.3 Payment

The price tendered and specified per borehole shall include full compensation for all equipment, security, H&S and environmental requirements to undertake the inspection and yield testing as detailed above. Price shall be deemed to cover all labour, transport and materials associated with successfully completing the work.

13.3.2 Mechanical Rehabilitation/Cleaning

13.3.2.1 Description

This subsection forms an extra over to the initial inspection (13.3.1) and addresses the routine mechanical rehabilitation/cleaning of abstraction boreholes within the defined wellfields of Region 1 - CFA (Strandfontein West and Mitchells Plain Barrier Wellfields) and Region 2 - Atlantis (Witzands and Silwerstroom Wellfields). Routine mechanical rehabilitation/cleaning will be undertaken based on the findings of the initial inspection but is planned to be done on an annual basis per abstraction borehole (Region 1 - CFA – 15 abstraction, 4 standby abstraction & 2 planned abstraction to be drilled; Region 2 - Atlantis – 48 abstraction) as instructed by the Client/Engineer which includes the following after the initial step tests listed above:

- Ensure all health and safety and environmental requirements are met per site as detailed in Spec E and Spec H;
- Air jetting of the borehole (according to SANS 10299-7);
- Mechanical brushing of the borehole (according to SANS 10299-7);
- Downhole camera survey that can view and record images from the borehole facing downwards and sideways against the borehole wall after rehabilitation;

- Borehole yield test via step-tests consisting of at least 4 steps ranging from 0.5 to 60 l/s to determine the efficiency of the borehole (according to SANS 10299-4) after rehabilitation;
- All data associated with the mechanical rehabilitation/cleaning to be provided in digital format per borehole to the Client/Engineer
- Maintenance report to be provided per borehole

13.3.2.2 Measurement

The quantity to be paid for the routine mechanical rehabilitation/cleaning of listed abstraction boreholes in two Regions (Region 1 – CFA - Strandfontein West and Mitchells Plain Barrier Wellfields; Region 2 – Atlantis - Witzands and Silwerstroom Wellfields) shall be made according to the number of abstraction boreholes rehabilitated/cleaned and certified by the Client/Engineer in writing.

13.3.2.3 Payment

The price tendered and specified per borehole shall include full compensation for all equipment, security, H&S and environmental requirements to undertake the mechanical rehabilitation/cleaning as detailed above. Price shall be deemed to cover all labour, transport and materials associated with successfully completing the work.

13.3.3 Chemical Rehabilitation/Cleaning

13.3.3.1 Description

This subsection is an extra over to the initial inspection (13.3.1) and mechanical rehabilitation/cleaning (13.2.2) and addresses the routine chemical rehabilitation/cleaning of abstraction boreholes within the defined wellfields of Region 1 - CFA (Strandfontein West and Mitchells Plain Barrier Wellfields) and Region 2 - Atlantis (Witzands and Silwerstroom Wellfields). Routine chemical rehabilitation/cleaning will be undertaken based on the findings of the initial inspection but is planned to be done on an annual basis per abstraction borehole (Region 1 - CFA – 15 abstraction, 4 standby abstraction & 2 planned abstraction to be drilled; Region 2 - Atlantis – 48 abstraction) as instructed by the Client/Engineer which includes the following after the initial camera survey and step tests and prior to any mechanical rehabilitation/cleaning:

- Ensure all health and safety and environmental requirements are met per site as detailed in Spec E and Spec H;
- Chemical cleaning of the borehole (sulfamic acid or similar as approved by the ECO and Client/Engineer and according to SANS 10299-7, this should include chemical contact time of up to 24 hours);
- Removal of chemicals and debris through pumping until baseline conditions are achieved;
- The collection and disposal of abstracted water to an approved treatment plant (proof of delivery slip to be provided to Client/Engineer).

13.3.3.2 Measurement

The quantity to be paid for the routine chemical rehabilitation/cleaning of listed abstraction boreholes in two Regions (Region 1 – CFA - Strandfontein West and Mitchells Plain Barrier Wellfields; Region 2 – Atlantis - Witzands and Silwerstroom Wellfields) shall be made according to the number of abstraction boreholes rehabilitated/cleaned and certified by the Client/Engineer in writing.

13.3.3.3 Payment

The price tendered and specified per borehole shall include full compensation for all equipment, security, H&S and environmental requirements to undertake the chemical rehabilitation/cleaning as detailed above. Price shall be deemed to cover all labour, transport and materials associated with successfully completing the work.

13.3.4 Near-field Monitoring Borehole Inspection

13.3.4.1 Description

This subsection addresses the routine inspection of near-field monitoring boreholes within the defined wellfields of Region 1 - CFA (Strandfontein West and Mitchells Plain Barrier Wellfields) and Region

2 - Atlantis (Witzands and Silwerstroom Wellfields). Routine near-field monitoring borehole inspections will be done on an annual basis per borehole (Region 1 - CFA – 12 near-field; Region 2 - Atlantis – 50 select) which includes the following. Should the inspection find the rehabilitation is required, this would then be claimed under intervention maintenance:

- Establishment of all required equipment at individual borehole sites, including work over ramps where required;
- Removal and reinstallation of downhole monitoring equipment;
- Keep access and the area clean and accessible;
- Cleaning of the manhole and maintenance of manhole and cage locks;
- Downhole camera survey that can view and record images from the borehole facing downwards and sideways against the borehole wall;
- Photography evidence of site area, chamber, cage, pulled equipment prior to any maintenance and post maintenance;
- All data associated with the inspection to be provided in digital format per borehole to the Client/Engineer
- Maintenance report to be provided per borehole

13.3.4.2 Measurement

The quantity to be paid for the routine inspection of listed near-field monitoring boreholes in two Regions (Region 1 – CFA - Strandfontein West and Mitchells Plain Barrier Wellfields; Region 2 – Atlantis - Witzands and Silwerstroom Wellfields) shall be made according to the number of monitoring boreholes inspected and certified by the Client/Engineer in writing.

13.3.4.3 Payment

The price tendered and specified per borehole shall include full compensation for all equipment and security required to undertake the inspection as detailed above. Price shall be deemed to cover all labour, transport and materials associated with successfully completing the work.

13.4 Borehole Maintenance Interventions

Intervention maintenance includes any maintenance work on the abstraction boreholes that fall outside of the routine schedule and any maintenance work required on monitoring, MAR injection boreholes, MAR piezometer and MAR monitoring boreholes and additional abstraction boreholes in other wellfields as identified by the client or Engineer.

13.4.1 Borehole Inspection and yield testing

13.4.1.1 Description

This subsection addresses the inspection and yield testing of boreholes as instructed by the Client/Engineer for intervention maintenance and includes:

- Establishment of all required equipment at individual borehole sites, including work over ramps where required;
- Ensure all health and safety and environmental requirements are met per site as detailed in Spec E and Spec H;
- Removal and replacement of security cages if required;
- Removal and reinstallation of stringwork, downhole monitoring equipment and pump sets if required;
- Cleaning and disinfection of the string work and pump sets if required;
- Transport of pump sets to the Atlantis Testing Facility if determined to be faulty and instructed by the Client/Engineer;
- Cleaning of the chamber/manhole and maintenance of chamber/manhole and cage locks;
- Keep access and the area clean and accessible;
- Downhole camera survey that can view and record images from the borehole facing downwards and sideways against the borehole wall;
- Borehole yield test via step-tests consisting of at least 4 steps ranging from 0.5 to 60 l/s to determine the efficiency of the borehole (according to SANS 10299-4);
- Photography evidence of site area, chamber, cage, pulled equipment prior to any maintenance and post maintenance;
- All data associated with the inspection to be provided in digital format per borehole to the Client/Engineer

- Maintenance report to be provided per borehole

13.4.1.2 Measurement

The quantity to be paid for the intervention inspection shall be made according to the number of boreholes inspected and certified by the Client/Engineer in writing.

13.4.1.3 Payment

The price tendered and specified per borehole shall include full compensation for all equipment, security, H&S and environmental requirements to undertake the inspection as detailed above. Price shall be deemed to cover all labour, transport and materials associated with successfully completing the work.

13.4.2 Mechanical Rehabilitation/Cleaning

13.4.2.1 Description

This subsection forms an extra over to the initial inspection (13.4.1) and addresses the intervention mechanical rehabilitation/cleaning of boreholes within Region 1 (CFA) and Region 2 (Atlantis). Mechanical rehabilitation/cleaning will be undertaken based on the findings of the initial inspection as instructed by the Client/Engineer which includes the following after the initial inspection listed above:

- Ensure all health and safety and environmental requirements are met per site as detailed in Spec E and Spec H;
- Air jetting of the borehole (according to SANS 10299-7);
- Mechanical brushing of the borehole (according to SANS 10299-7);
- Downhole camera survey that can view and record images from the borehole facing downwards and sideways against the borehole wall after rehabilitation;
- Borehole yield test via step-tests consisting of at least 4 steps ranging from 0.5 to 60 l/s to determine the efficiency of the borehole (according to SANS 10299-4) after rehabilitation;
- All data associated with the rehabilitation to be provided in digital format per borehole to the Client/Engineer
- Maintenance report to be provided per borehole

13.4.2.2 Measurement

The quantity to be paid for the intervention mechanical rehabilitation/cleaning of boreholes shall be made according to the number of boreholes mechanically rehabilitated/cleaned and certified by the Client/Engineer in writing.

13.4.2.3 Payment

The price tendered and specified per borehole shall include full compensation for all equipment, security, H&S and environmental requirements to undertake the mechanical rehabilitation/cleaning as detailed above. Price shall be deemed to cover all labour, transport and materials associated with successfully completing the work.

13.4.3 Chemical Rehabilitation/Cleaning

13.4.3.1 Description

This subsection is an extra over to the initial inspection (13.4.1) and mechanical rehabilitation/cleaning (13.4.2) and addresses the intervention chemical rehabilitation/cleaning of boreholes within Region 1 (CFA) and Region 2 (Atlantis). Intervention chemical rehabilitation/cleaning will be undertaken based on the findings of the initial inspection and as instructed by the Client/Engineer which includes the following after the initial camera survey and step tests and prior to any mechanical rehabilitation/cleaning:

- Ensure all health and safety and environmental requirements are met per site as detailed in Spec E and Spec H;
- Chemical cleaning of the borehole (sulfamic acid or similar as approved by the ECO and Client/Engineer and according to SANS 10299-7, this should include chemical contact time of up to 24 hours);
- Removal of chemicals and debris through pumping until baseline conditions are achieved;

- The collection and disposal of abstracted water to an approved treatment plant (proof of delivery slip to be provided to Client/Engineer).

13.4.3.2 Measurement

The quantity to be paid for the intervention chemical rehabilitation/cleaning of boreholes shall be made according to the number of boreholes rehabilitated/cleaned and certified by the Client/Engineer in writing.

13.4.3.3 Payment

The price tendered and specified per borehole shall include full compensation for all equipment, security, H&S and environmental requirements to undertake the chemical rehabilitation/cleaning as detailed above. Price shall be deemed to cover all labour, transport and materials associated with successfully completing the work.

13.4.4 Borehole Inspection

13.4.4.1 Description

This subsection addresses the intervention inspection of boreholes within Region 1 (CFA) and Region 2 (Atlantis). Intervention borehole inspections will be done as instructed by the Client/Engineer and includes the following:

- Establishment of all required equipment at individual borehole sites, including work over ramps where required;
- Removal and reinstallation of downhole monitoring equipment;
- Keep access and the area clean and accessible;
- Cleaning of the manhole and maintenance of manhole and cage locks;
- Downhole camera survey that can view and record images from the borehole facing downwards and sideways against the borehole wall;
- Photography evidence of site area, chamber, cage, pulled equipment prior to any maintenance and post maintenance;
- All data associated with the inspection to be provided in digital format per borehole to the Client/Engineer
- Maintenance report to be provided per borehole

13.4.4.2 Measurement

The quantity to be paid for the intervention inspection of boreholes shall be made according to the number of boreholes inspected and certified by the Client/Engineer in writing.

13.4.4.3 Payment

The price tendered and specified per borehole shall include full compensation for all equipment and security required to undertake the inspection as detailed above. Price shall be deemed to cover all labour, transport and materials associated with successfully completing the work.

13.5 PROTECTION OF THE ENVIRONMENT

The Contractor is requested to pay special attention to the environmental requirements as contained in the EMPr and Spec E.

The Contractor shall take all necessary measures to;

- (a) protect the environment (both on and off the Site);
- (b) comply with the EMPr; and
- (c) limit damage and nuisance to people and property resulting from pollution, noise and other results of the Contractor's operations and/ or activities.

The Contractor shall ensure that emissions, surface discharges, effluent and any other pollutants from the Contractor's activities shall exceed neither the values indicated in the Employer's Requirements nor those prescribed by applicable Laws.

If the Contractor deems it necessary to appoint a sub-consultant as Environmental Officer (EO), the cost thereof must be included in the rates tendered for the project.

13.6 TENDERED RATES

Except only where specific provision is made in the Specifications and/or the Price Schedule for separate compensation for any of these items, the Contractor's tendered rates under items in the Price Schedule shall collectively cover all charges for:

- a) risks, costs and obligations in terms of the Conditions of Contract and of this standardized specification;
- b) head-office and site overheads and supervision;
- c) profit and financing costs;
- d) expenses of a general nature not specifically related to any item or items of the permanent or temporary work;
- e) providing such facilities on Site and in the Workshop as may be required by the Contractor for the proper performance of the Contract and for its personnel, including, but without limitation, providing offices, storage facilities, workshops, ablutions, services such as water, electricity, sewage and rubbish disposal, access roads and all other facilities required, as well as for the maintenance and removal on completion of the works of these facilities and cleaning-up of the site of the Contractor's establishment and reinstatement to not less than its original condition.

13.7 ADVERTISING RIGHTS

No nameboards or advertising will be permitted.

13.8 AFTER HOURS WORK ON SITE

After hours on site will only be allowed if requested by the Contractor in writing and approved by the Employer. After hours work will only commence after the approval is received from the Employer. Normal working hours on site will be daylight hours, Monday to Saturday.

The rates tendered in the Price Schedule shall include for all after hour work and no extra-over payment shall be made for work undertaken outside of normal working hours.

13.9 COMPETENT PERSONNEL

Only competent personnel that have been adequately trained by the Contractor shall execute all the required work.

13.10 COMMUNICATION

The Contractor shall ensure that he is accessible by telephone, email and a cellular telephone connection to ensure that he can be reached during normal working hours. Services may be required in an emergency outside of normal working hours therefor an Emergency contact number must be made available.

The specific works package initiated by the Employer will list the specific Employer contact details of relevant operating and maintenance personnel at the various installations.

Should the Employer determine or suspect that preventative, corrective or breakdown maintenance is required, a call shall be logged through the Employer's representative to reach the Contractor as soon as possible.

13.11 WORKS SCHEDULING AND APPROVAL

The Contractor shall visit the site and submit a detailed works programme to the Employer prior to work commencing on site, unless an emergency whereby submission is required as the urgency require. The programme shall clearly indicate the detail and nature of work to be completed, which section of the works will be effected, how water will be handled, a detailed schedule clearly indicating the duration of work (commencement/kick-off date to date of completion).

Only once the works programme has been approved by the Employer will the Contractor be allowed to proceed with the Works.

The Works execution Programme to be submitted to the Employer, by the Contractor shall:

- i) List the detailed tasks
- ii) Schedule and duration of each task;
- iii) List the plant, tools and equipment that will be used;
- iv) Clearly identify all the major maintenance activities that may have a significant impact on the day to day operations of the site;
- v) Indicate hold points either on site or within the workshop;
- vi) Indicate submission of required documentation and approval thereof by the Employer; and
- vii) Take full cognizance of all the Contractor's risks and obligations in terms of the Contract.

13.12 PERMITS

The Contractor shall be responsible for obtaining all necessary permits and wayleaves where required to perform his work.

13.13 CLOSE OUT OF CONTRACT

The Contract shall be closed out when the Contract Period expires. No work will be undertaken of which the completion date of the Works Order exceeds the Contract Period expiry date.

The Employer may, at his sole discretion, issue a Completion Certificate. The Contractor may apply for a Completion Certificate by giving a Notice to the Employer not more than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over by the Employer.

The Works shall be taken over by the Employer when a Completion Certificate for the Works has been issued.

13.14 GUARANTEES ON WORK

All workmanship, materials, parts fitted and components used for replacements shall be guaranteed for a minimum of three (3) months.

For a period of three (3) months after the works order have been taken over the Contractor must be responsible for any defects that may develop, under the conditions provided for in the Contract and under proper use, make good with all possible speed at his/her own expense any defects arising from faulty workmanship on his/her part, or personnel in his/her employment, or sub-Contractors and their employees part, the cost of any additional material or equipment required to make good the work will also be his/her responsibility.

Only material and equipment that has been tested and proved thoroughly satisfactory and dependable in continuous service will be considered.

Should the Contractor fail to make good any defect in compliance with the aforementioned paragraph, the Employer may do so or employ any other person/company to do so and all expenses consequently thereon must be paid by the Contractor to the Employer.

13.15 DEFAULT OF CONTRACTOR

If it appears to the Employer that the Contractor: -

- i) Has not commenced the work timeously; or
- ii) Has not made due progress with the work or exercised due diligence in its execution or maintained it satisfactorily; or
- iii) Has not completed the work timeously; or
- iv) Has not executed the work in accordance with this agreement; or
- v) Has failed to comply with any other provision of this Agreement; or
- vi) Has abandoned the contract,

the Employer shall issue a written warning to the Contractor regarding his/her non-compliance to the bid specifications. After three (3) written warning notices for non-compliance with the prescribed bid specifications, the Contractor may be deemed to be in breach of Contract, and the appointment may be terminated.

13.16 HEATH AND SAFETY

If the Contractor considers it necessary to employ the services of the safety specialist in order to execute duties in terms of the Occupational Health and Safety Act, 85 of 1993 and the Construction Regulations, 2014, should the Employer accept the tender, the cost thereof must be included in the fee tendered for this aspect of the project.

13.17 SECURITY ON REMOTE SITE

The Contractor shall be responsible for the security of the portion of the Site he occupies while working on the Site during Routine Maintenance and Intervention Maintenance, and:

- (a) for keeping unauthorised persons off the Site; and
- (b) authorised persons shall be limited to the Contractor's Personnel, the Employer's Personnel, and to any other personnel identified as authorised personnel (including the Employer's other contractors on the Site), by a Notice from the Employer to the Contractor.

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

13.18 SPEC E: ENVIRONMENTAL MANAGEMENT SPECIFICATION

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E: ENVIRONMENTAL MANAGEMENT SPECIFICATION**E1 SCOPE**

The general Environmental Management Programme (EMP) for the contract is comprised of this Environmental Management (EM) Specification and its Annexures, including the “Additional environmental issues deemed to form part of the Environmental Management Specification” attached as Annexure D hereto, which together cover the requirements for controlling the impact on the environment of construction activities. Additional site-specific specifications might be provided for in each Works Order.

E2 INTERPRETATIONS**E2.1 Supporting specifications**

The following standardised specification shall, *inter alia*, apply to this Contract:

- a) New Water Programme – Environmental Management Programme

E2.2 Application

This EM Specification covers the requirements for controlling the impact of borehole maintenance on the environment, and is applicable to all of the activities associated with the maintenance process, including access, site establishment, test-pumping and rehabilitation and closure. Environmental management is concerned not only with the results of the Contractor's operations, but also with the manner in which operations are carried out. It is thus a requirement that the Contractor shall comply with the environmental requirements on an on-going basis.

Site specific EMPs will be compiled for each working area and will contain site specific information detailing the sensitivity of the environment, concerns raised by environmental specialists and landowners, as well as mitigation measures proposed to reduce the risk of environmental degradation.

In the event of any difference or discrepancy between the provisions of the Standardised Specifications and the provisions of the EM Specification, the latter shall prevail.

E2.3 Definitions and abbreviations

For the purposes of this EM Specification the following definitions and abbreviations shall apply:

E2.3.1 Contaminated water

Water contaminated by the Contractor's activities containing cements, concrete, lime, paint products, thinners, turpentine, chemicals, fuels, oils washing detergents, etc.

E2.3.2 Contractor's camp or construction camp

The area designated for all temporary site offices, storage areas, construction plant parking areas, staff welfare facilities, etc.

E2.3.3 Environment

The surroundings within which humans exist and that are made up of

- a) the land, water and atmosphere of the earth;
- b) micro-organisms, plant and animal life;
- c) any part or combination of a) and b) and the interrelationships among and between them; and
- d) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

E2.3.4 Environmental Officer (EO)

Appointed by the Client/Engineer as his environmental representative on Site, with the mandate to enforce compliance with the EMP. The duties of the EO are stipulated in the City's guideline document for the EO and ER.

E2.3.5 Environmental Control Officer (ECO)

An independent appointment to objectively monitor implementation of relevant environmental legislation,

conditions of Environmental Authorisations (EAs), and the EMP for the project.

E2.3.6 Environmental Site Officer (ESO)

Employed by the Contractor as his environmental representative to monitor, review and verify compliance with the EMP by the Contractor. The ESO must ensure that he is involved at all phases of the construction (from site clearance to rehabilitation).

E2.3.7 Method Statement (MS)

A written submission by the Contractor to the Client/Engineer in response to the EM Specification or a request by the Client/Engineer, setting out the plant, materials, labour and method the Contractor proposes using to carry out an activity, in such detail that the Client/Engineer is enabled to assess whether the Contractor's proposal is in accordance with the Scope of Work and/or will produce results in accordance with the EM Specification. The MS will feed into the compilation of the site specific EMP, which will be approved by the ECO and Contractor at a minimum.

E2.3.8 Pollution incident

Any incident that may or has caused damage to or the contamination of the natural environment.

E2.3.9 Potentially hazardous substance

A substance which, in the reasonable opinion of the Client/Engineer, can have a deleterious effect on the environment.

E2.3.10 Reasonable

Unless the context indicates otherwise, means reasonable in the opinion of the Client/Engineer after he has consulted with a person suitably experienced in "environmental implementation plans" and "environmental management plans" (both as defined in the National Environmental Management Act, 107 of 1998).

E2.3.11 Sensitive area

Any area that is denoted as sensitive by this Specification or ECO/Client/Engineer due to its particular attributes, which could include the presence of rare or endangered vegetation and the presence of heritage resources. When works are to be done in a nature reserve, the Reserve Manager is to provide input on the scope of work. This must be included in the site specific EMP.

E2.3.12 Solid waste

All solid waste, including construction debris, chemical waste, excess cement/ concrete, wrapping materials, timber, tins and cans, drums, wire, nails, domestic waste (e.g. plastic packets and wrappers), dead vegetation, asphalt products, etc.

E2.3.13 Watercourse

Any river, stream and natural drainage channel whether carrying water or not.

E2.3.14 Water body

A body containing any form of water and includes dams and wetlands, whether ephemeral or permanent. In this regard, wetland means any area that is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the area is covered by shallow water.

E2.3.15 Working area

Any area within the boundaries of the Site where construction is taking place.

E2.3.16 Abbreviations

The following abbreviations occur in this EM Specification:

EMP - Environmental Management Programme
 EM Specification – Environmental Management Specification
 EO - Environmental Officer
 ECO – Environmental Control Officer
 ESO – Environmental Site Officer

ER – Engineer's Representative
 MSDS - Material Safety Data Sheets
 MS – Method Statement

E2.4 Measurement and payment

E2.4.1 Basic principles

No separate measurement and payment will be made to cover the costs of complying with any of the provisions of this Specification, and such costs shall be deemed to be covered by the rates tendered by the Contractor when submitting his tender.

E3 MATERIALS

E3.1 Materials handling, use and storage

The Contractor shall ensure that any delivery drivers are informed of all procedures and restrictions (including "no go" areas) required to comply with the EM Specification. The Contractor shall ensure that these delivery drivers are supervised during off loading by someone with an adequate understanding of the requirements of the EM Specification.

Materials shall be appropriately secured to ensure safe passage between destinations. Loads, including but not limited to, sand, stone chip, fine vegetation, refuse, paper and cement, shall have appropriate cover to prevent them spilling from the vehicle during transit. The Contractor shall be responsible for any clean-up resulting from the failure by his employees or suppliers to properly secure transported materials.

All manufactured and or imported materials shall, where reasonably possible, be stored within the Contractor's camp and, if so required by the Client/Engineer, out of the rain. The location and method of protection of such materials stored outside of the Contractor's camp and the method of rehabilitation of these areas, shall be subject to the Client/Engineer's approval.

Stockpile areas shall be approved by the Client/Engineer before any stockpiling commences.

E3.2 Hazardous substances

Hazardous chemical substances (as defined in the Regulations for Hazardous Chemical Substances in GN 1179 (25 August 1995)) stored on Site for use during construction shall be stored in secondary containers which are clearly and appropriately marked/signed. The relevant Material Safety Data Sheets (MSDS) shall be available on Site. Procedures detailed in the MSDSs shall be followed in the event of an emergency situation.

If potentially hazardous substances are to be stored on Site, the Contractor shall inform the Client/Engineer of such substances and provide a Method Statement detailing the substances/ materials to be used, together with the storage, handling and disposal procedures of the materials. Hazardous substances shall be stored out of flood risk areas and disposal of these substances shall be at a licensed waste disposal facility.

E3.2.1 Fuel (petrol and diesel)

Fuel may be stored on site in an area approved by the Client/Engineer. The fuel storage area shall be located in a portion of the exploration camp where it is unlikely to pose a significant risk in terms of water pollution or traffic safety. The Contractor shall ensure that diesel is stored in sound storage tanks or in bowsters. The tanks/ bowsters shall be placed within a bunded area or on an area where the ground has been protected. The proper dispensing equipment shall be used, and the drum shall not be tipped in order to dispense fuel. The dispensing mechanism of the fuel/ oil storage drum shall be stored in a waterproof container when not in use.

The Contractor shall prevent unauthorised access into the fuel storage area. No smoking shall be allowed within the vicinity of the fuel storage area. The Contractor shall ensure that there is adequate fire-fighting equipment at the fuel stores.

Where reasonably practical, equipment shall be refuelled at the fuel storage area. If it is not reasonably practical, then fuel containers shall be appropriately secured during transport and the surface under the refuelling area shall be protected against pollution to the reasonable satisfaction of the Client/Engineer prior to any refuelling activities.

E3.2.2 Oils and lubricants

The Contractor shall ensure that oil and lubricant containers are stored in an area where the ground has been protected. The containers shall be inspected regularly to ensure that no leakage occurs. When oil/ lubricant are dispensed, the proper dispensing equipment shall be used, and the storage container shall not be tipped in order to dispense the oil/ lubricant. The dispensing mechanism of the oil/ lubricant storage container shall be stored in a waterproof container when not in use. The Contractor shall take all reasonable precautions to prevent accidental and incidental spillage during the use of oils. A spill kit and drip trays to be available during all drilling and construction processes.

In the event of an oil/ lubricant spill, the source of the spillage shall be isolated, and the spillage contained. The Contractor shall clean up the spill, either by removing the contaminated soil or by the application of absorbent material in the event of a larger spill. Treatment and remediation of the spill area shall be undertaken to the reasonable satisfaction of the Client/Engineer.

E4
E4.1 PLANT General

The Contractor shall be cognisant of the requirements of this Specification in the selection and operation of his equipment, to ensure that environmental degradation is kept to a minimum. To this end, the Contractor shall ensure that his equipment operators are made aware of the environmental requirements and any other reasonable controls.

E4.2 Equipment maintenance and storage

All vehicles and equipment shall be kept in good working order. Leaking equipment or vehicles emitting noticeably excessive fumes shall be repaired immediately or removed from Site. Where practical, no maintenance of equipment and vehicles shall be performed on Site. If it is necessary to do maintenance on Site, the Contractor shall obtain the prior approval of the Client/Engineer, and portable drip trays shall be used to collect the waste oil and other lubricants to ensure there is no contamination of the environment.

Drip trays shall be provided in construction areas for stationary and "parked" equipment. Drip trays shall be inspected and emptied daily. Drip trays shall be closely monitored during rain events to ensure that they do not overflow. Where practical, the Contractor shall ensure that equipment is covered so that rainwater is excluded from the drip trays. Oil from the drip trays shall be stored in externally clean drums on an area where the ground has been protected. These shall be removed on a regular basis to an oil-recycling centre.

The washing of equipment on Site shall be strictly prohibited.

E4.3 Ablution and toilet facilities

Washing, whether of the person or of personal effects, defecating and urinating are strictly prohibited other than at the facilities provided.

The Contractor shall provide ablution facilities for all personnel employed on the Site, including shelter, toilets and washing facilities during all maintenance processes. Proof of sewage disposal, with a stamp from a Waste Water Treatment Works, must be retained by the ECO. The Contractor's personnel will not be permitted to use the City's ablution facilities.

Toilet facilities provided by the Contractor shall occur in a ratio of not less than 1 toilet per 30 workers (1:15 is preferred) of each sex. Toilet facilities shall be located within the Contractor's camp, but also at work areas remote from the camp, all to the satisfaction of the Client/Engineer. All portable toilets shall be adequately secured to the ground to prevent them toppling over as a result of wind or any other cause.

The Contractor shall ensure that the entrances to these toilets are adequately screened from view, that they are maintained in a hygienic state, serviced regularly, that no spillage occurs when they are cleaned and that contents are removed from Site. Toilets shall also be emptied before any temporary site closure for a period exceeding one week. Discharge of waste from toilets into the environment and burial of waste is strictly prohibited. The Contractor shall provide toilet paper at all times.

No ablution facilities shall be located closer than 50m to any water body

A Method Statement shall be provided by the Contractor detailing the provision, location, and maintenance of ablution facilities.

E4.4 Eating areas

The Contractor shall designate eating areas within the approved Contractor's camp. The feeding of, or leaving

of food for, animals is strictly prohibited. Sufficient bins, as specified in Clause E4.7 below, shall be present in these areas.

Any cooking on Site shall be done on well-maintained gas cookers with fire extinguishers present. No open fires for cooking purposes shall be permitted.

E4.5 Water use

Water is a scarce resource in South Africa and water shall be conserved wherever possible. The Contractor shall minimise the use of water and shall immediately attend to any wastage.

E4.5.1 General water use

Water for potable uses shall be sourced from a legal source and the Contractor shall absolve the Employer of all risk or liability in terms of compliance with all relevant statutory obligations in this regard. Where a water source is located on private property, the Contractor shall not abstract water without the prior written approval of the landowner.

E4.5.2 Sourcing and storage of rehabilitation water

Water for rehabilitation operations shall be brought to site in bowzers and stored in appropriately sized portapools. Cognisance shall be taken of the requirements of this Specification in the siting and management of the portapools, particularly with respect to the site demarcation and no go areas, site clearing, erosion and sediment control and landscaping and rehabilitation. The Contractor shall ensure that the re-use of water is maximised, and shall include both water brought to site as well as water derived from the rehabilitation operation themselves.

E4.6 Fire control

The Fynbos Biome, within which the maintenance activities occur, is a particularly fire prone environment. The Contractor shall thus take adequate precautions to ensure that the fire hazard on and near the Site is reduced to a minimum.

No open fires may be lit on Site. Any fires which occur shall be reported to the Client/Engineer and ECO immediately.

Smoking shall only be permitted in designated smoking areas on Site. These smoking areas must be demarcated and equipped with suitable ash trays and fire-fighting equipment. Smoking areas may not be located near areas considered to be a fire hazard, such as in close proximity to fuel storage and refuelling areas, nor where the vegetation is dense and grassy, etc. The vegetation is highly sensitive to the rapid spread of fire. All cigarette butts are to be disposed of in provided bins and removed from Site.

In terms of the National Environment Management: Air Quality Act, 39 of 2004 and Community Fire Safety By-law, burning is not permitted as a disposal method.

The Contractor shall appoint a Fire Officer (who may be the ESO) who shall be responsible for ensuring immediate and appropriate actions in the event of a fire and shall ensure that employees are aware of the procedure to be followed. The Contractor shall advise the relevant authority of a fire as soon as one starts and shall not wait until he can no longer control it. The Contractor shall forward the name of the Fire Officer to the Client/Engineer for his approval.

The Contractor shall comply with Clause 27 of the Construction Regulations, 2014 where applicable, and shall ensure that there is suitable and sufficient fire-fighting equipment available on Site at all times.

The Contractor shall be liable for any costs relating to the rehabilitation of burnt areas, should the fire be the result of the Contractor's activities on Site

The Contractor shall submit a MS to the Client/Engineer covering the procedure to be followed in the event of a fire.

E4.7 Solid waste management

E4.7.1 Litter and refuse

The site shall be kept neat and clean at all times, littering is prohibited.

No on-site burying or dumping of any waste materials, vegetation, litter or refuse shall occur. The Contractor

shall provide scavenger and weatherproof bins with lids, of sufficient number and capacity to store the solid waste produced on a daily basis. The lids shall be kept firmly on the bins at all times. Bins shall not be allowed to become overfull and shall be emptied regularly, at least once a week. Waste from bins may be temporarily stored on Site in a central waste area that is weatherproof and scavenger-proof, and which the Client/Engineer has approved. Wherever possible refuse shall be recycled, and containers for glass, paper, metals and plastics shall be provided and the contents delivered to suitable recycling facilities when necessary.

All other litter and refuse shall be disposed of off Site at an approved landfill site. The Contractor shall supply the Client/Engineer and ECO with a certificate of disposal.

E4.7.2 Construction waste

Where possible all construction waste or spoil material shall be recycled, either on Site or elsewhere. As a last resort all construction waste shall be disposed of off Site at an approved landfill site. The Contractor shall supply the Client/Engineer and ECO with a certificate of disposal.

E4.7.3 Treatment of spoil

Unless specified otherwise elsewhere, the sediment that emanate from the mechanical rehabilitation, shall be regarded as spoil. In operating the spoil areas, the Contractor shall ensure that:

- a) Only existing disturbed areas are utilised as spoil areas;
- b) Topsoil that would have been buried as a result of the spoiling of material is moved to one side within the demarcated area, appropriately covered, and placed over the spoil site on completion;
- c) The spoil disposed of in the spoil areas is free of contamination;
- d) Surface water runoff is appropriately channelled through or around the spoil areas to minimise erosion and sedimentation; and
- e) The surface of the spoil area is appropriately rehabilitated as per the requirements of this Specification.

E4.8 **Contaminated water management**

E4.8.1 General

Potential pollutants of any kind and in any form shall be kept, stored, and used in such a manner that any spill or escape can be contained and the water table and/or any adjacent water courses or bodies are not endangered. Spill kits which can be used to contain and/or mop up spills shall be available on site throughout the maintenance processes. Water containing such pollutants as cements, concrete, lime, chemicals, oils and fuels shall be discharged into a conservancy tank for removal from the Site to a licensed disposal or treatment facility, and proof of disposal retained by the ECO. This particularly applies to water emanating from concrete batching plants and to runoff from fuel storage, refuelling or construction equipment washing areas. Wash down areas shall be placed and constructed in such a manner so as to ensure that the surrounding areas are not polluted.

No paint products, chemical additives and cleaners, such as thinners and turpentine, may be disposed of into the stormwater system or elsewhere on Site. Brush/roller wash facilities shall be established to the satisfaction of the Client/Engineer.

A Method Statement shall be provided by the Contractor detailing the management of contaminated water.

Should contaminated water be released into the environment, specifically into a water course, monitoring thereof shall commence in accordance to the National Water Act, 36 of 1998, Section 21(f) – refer to GN 399 (26 March 2004). Contaminated water must not be released into the environment without authorisation from the relevant authority.

The Contractor shall notify the Client/Engineer immediately of any pollution incidents on Site and, at his own cost, take all reasonable measures to contain and minimise the effects of the pollution.

Any rehabilitation of the environment required as a result of such pollution shall be carried out by the Contractor at his own cost in accordance with a Method Statement (MS) approved by the Client/Engineer.

E4.8.2 Contamination of rehabilitation water

Contamination of rehabilitation water could result from the water exhibiting an unacceptably high temperature or a neutral, alkaline or excessively acidic pH or from the presence of suspended solids or undesirable chemical compounds.

During the rehabilitation and pump-testing operations, the Contractor shall ensure that the contamination of water is actively managed and minimised, and that measures are put in place to manage contaminated water. In this regard:

- a) No additives shall be utilised for rehabilitation operations without the prior approval of the Client/Engineer and ECO;
- b) Where instructed by the Client/Engineer, the Contractor shall construct a retainer sump within the demarcated boundary of each of the sites, downstream of all platforms to retain chemical additives, sludge and grouting, and to accommodate water. The Contractor shall ensure that sumps are located outside of the floodplain and riparian vegetation zones of watercourses and that the area is rehabilitated pursuant to the cessation of the operation of the pond. Each sump shall have sufficient capacity for their purposes and shall be made watertight using a minimum of a 250 µm plastic lining. Construction shall follow specified design parameters. Side walls and berms to be constructed from sand bags. Pond base and side walls to be underlain with DPC. Joins in DPC to be water resistant bonded to ensure no leakage;
- c) Care shall be taken to minimise disturbance to natural vegetation during the construction of the sumps, and the plant and materials used in the construction shall themselves not cause environmental degradation. As per the requirements of Subclause 5.3.4, topsoil from the area affected by the sumps shall be stockpiled for subsequent use in the rehabilitation of the affected area;
- d) All natural ground water and stormwater runoff must be diverted around the sumps to ensure that washout of contaminated water or accumulated sludge does not occur;
- e) The launder at the site shall be constructed to ensure that all water is contained and channelled into the sump, and that no contaminated water is discharged into the environment causing pollution, erosion and sedimentation;
- f) Water of an acceptable quality shall be pumped from the sump into the storage portapools for re-use in the operations;
- g) All effluent emanating from sumps shall be sampled and tested at point of source using approved hand-held instruments. No water shall be released into the environment without the prior approval of the Client/Engineer, and the quality of released water shall comply with the criteria agreed to by the Client/Engineer. Water from settling tanks shall only be released after settling and precipitation of solids;
- h) Subject to the Site-Specific Environmental Management Plan, excess or surplus water shall be released into the environment via lay-flat pipes or DPC lined channel directed to the closest suitable watercourse or drainage line. No water shall be released into any water bodies. The site of and arrangements for water release back to the environment shall be subject to the Client/Engineers and ECO approval;
- i) Irrespective of the provisions of this specification, no water used for or emanating from rehabilitation shall be discharged into the environment. Water that does not comply with the agreed water quality requirements shall be transported from site and disposed of at an appropriate and approved facility, and proof thereof retained by the ECO;
- j) A flow measuring device shall be installed at the start of each lay-flat or DPC lined channel to measure water flow; and
- k) Uncontaminated water discharged during each pump test will be channelled into either (1) the nearest stormwater or sewerage drain, with DWS being informed prior to the commencement of the test, (2) the adjacent vegetation, or (3) a nearby dam which will require written permission from the owner prior to the commencement of test pumping. Erosion measures to be used at each site include, but are not limited to, the following:
 - Placing a steel plate at exit of layflat pipe to diffuse flow of water and prevent erosion at end point;
 - Utilisation of a manifold to create sheet flow;
 - Moving the end of the layflat regularly to prevent erosion patterns forming and to prevent flooding of one area;
 - Utilising a perforated layflat to diffuse the spread of water;
 - Any other measures to reduce flow strength and minimise impacts of erosion and flooding, and;
 - Relocation of discharge point should the flooding cause a visible disturbance to local population of burrowing creatures

Natural stormwater runoff not contaminated by drilling operations and clean water can be discharged directly to watercourses and water bodies, as specified in the Site Specific Environmental Management Plan.

E4.9 Site structures

The type and colour of roofing and cladding materials to the Contractor's temporary structures shall be selected to reduce the visual impact.

E4.10 Lights

The Contractor shall ensure that any lighting installed on the Site for his activities does not cause a reasonably avoidable disturbance to other users of the surrounding area.

Lighting installed shall, as far as practically possible, be energy efficient. Lighting utilised on Site shall be turned off when not in use.

E4.11 Workshop, equipment maintenance and storage

No workshops or plant maintenance facilities shall be constructed on Site for performing major or routine maintenance of equipment and vehicles.

The Contractor shall ensure that in those areas where, after obtaining the Client/Engineer's approval, the Contractor carries out emergency or minor routine plant maintenance, there is no contamination of the soil, water sources or vegetation. Drip trays to collect waste oil and other lubricants shall be provided in any areas of the Site where such maintenance takes place. Drip trays must be emptied regularly and after rain, and the contents disposed of at a licensed disposal facility.

All vehicles and plant shall be kept in good working order. Leaking vehicles and plant shall be repaired immediately or removed from the Site.

The washing of vehicles and plant on Site shall be restricted to emergency or minor routine maintenance requirements only. Washing may only be undertaken in areas designated by the Client/Engineer.

E4.12 Noise

The Contractor shall limit noise levels (for example, by installing and maintaining silencers on plant).

Appropriate directional and intensity settings are to be maintained on all hooters and sirens.

No amplified music shall be allowed on Site. The use of audio equipment shall not be permitted, unless the volume is kept sufficiently low so as to be unobtrusive. The Contractor shall not use sound amplification equipment on Site, unless in emergency situations.

Construction activities generating output levels of 85 dB(A) or more in residential areas, shall be confined to the hours approved by the Client/Engineer. Should the Contractor need to do this work outside of the above times, he shall do so only with the approval of the Client/Engineer, and the surrounding communities shall be informed prior to the work taking place.

E5 CONSTRUCTION

E5.1 Method Statements

The Contractor shall submit the Environmental Method Statements (MSs) required within such reasonable time as the Client/Engineer shall specify or as required by the EM Specification. The Contractor shall not commence any activity until the Method Statement in respect thereof has been approved and shall, except in the case of emergency activities, allow a period of two weeks for consideration of the Method Statement by the Client/Engineer. Approval is required by the ECO, the Contractor, as well as any Interested and Affected Parties such as a Nature Reserve Manager.

The Client/Engineer may require changes to a Method Statement if the proposal does not comply with the specification or if, in the reasonable opinion of the Client/Engineer, the proposal may result in, or carries a greater than reasonable risk of, damage to the environment in excess of that permitted by the EM Specification.

Approved Method Statements shall be readily available on the Site and shall be communicated to all relevant personnel. The Contractor shall carry out the Works in accordance with the approved Method Statement. Approval of the Method Statement shall not absolve the Contractor from any of his obligations or responsibilities in terms of the Contract.

Changes to the way the Works are to be carried out must be reflected by amendments to the original approved Method Statements, and these amendments require the signature of both the Contractor, the Client/Engineer and ECO.

Method Statements shall consider all environmental hazards and risks identified by the Contractor and/or Client/Engineer and ECO, and shall contain sufficient information and detail to enable the Client/Engineer to assess the potential negative environmental impacts associated with the proposed activity and shall cover applicable details with regard to:

1. Overview of the site location, including:
 - 1.1. Maintenance type or required construction,
 - 1.2. Exact site location/(s) with coordinates,

- 1.3. Vegetation of the area, highlighting sensitive/endangered species and necessary rehabilitation if required,
- 1.4. Site access and parking;
2. Site classification as per SANBI 2018 and City of Cape Town Biodiversity Network 2018;
3. Site photographs;
4. Site layout with a conceptual site plan to be considered by the Contractor;
5. Site-specific instructions addressing:
 - 5.1. Site establishment, maintenance work, site closure, and rehabilitation,
 - 5.2. Test pumping, including identifying the point of discharge;
6. Construction procedures;
7. Materials and equipment to be used;
8. Getting the equipment to and from Site;
9. How the equipment/material will be moved while on Site;
10. How and where material will be stored;
11. The containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur;
12. The control of fire;
13. Timing and location of activities;
14. Compliance/non-compliance with the EM Specification. This to include:
 - 14.1. Penalties and their associated fines,
 - 14.2. Contact information of the Site Manager, Site Supervisor, Site Safety Officer, ECO and City of Cape Town Emergency Contact,
- 14.3. An example of an information board required on site during all maintenance processes;
15. Any other information deemed necessary by the Client/Engineer;
16. An approval page where the ECO, Contractor and Interested and Affected Parties can sign.

The format to be used for the Method Statements is bound in Annexure A of this EM Specification. The Contractor, ECO, and Interested and Affected Parties must also sign the Method Statement, thereby indicating that the work will be carried out according to the methodology contained in the approved Method Statement.

E5.1.1 MSs to be provided within 14 days from the Commencement Date

- a) Mobilisation and Operation Plans which include:
 - * Location and layout of the footprint, showing vehicle parking, access point, sumps, staff toilet placement, and designated smoking area.
 - * Method of undertaking earthworks, including spoil management, erosion, dust and noise controls.
 - * Management measures to be undertaken in instances where traffic flows may be interrupted.
 - * A description of the proposed security and access control measures.
 - * Extent of areas to be cleared, the method of clearing and the preparation for this clearing so as to ensure minimisation of exposed areas.
 - * Measures to be put in place during temporary closure periods (e.g. Builders Holidays).
 - * Method for site rehabilitation and stabilisation.
 - * Provisional Construction Programme – In the event of a delay or lost time, a revised programme and method of how he proposes to rectify this.
- b) Solid Waste Management: number of, type, location, cleaning, method of securing to the ground, etc. of bins (E4.5).
- c) Contaminated water management system: including an indication of the source and volume of contaminated water and how this would be disposed of (E4.6)
- d) Environmental Awareness Training: logistics for the environmental awareness courses for all the Contractor's management staff, as well as other employees (E5.2).
- e) Emergency Procedures for spillages of hazardous substances, fire and serious accidents, including who should be notified (with contact information), where and how any spillages will be disposed of, the size of spillage which the emergency procedure could contain, and the location of all emergency equipment and an indication of how regularly the emergency equipment will be checked to ensure that it is working properly (E3.2, E5.7 and E5.8).
- f) Labour Plan including the number and type of positions (unskilled, semi-skilled, skilled); outline of the Contractor's staff recruitment policy, medical and other competencies, and transportation and accommodation.

E5.2 Site specific environmental management requirements

Each of the sites will have specific environmental requirements that have been documented in a Site Specific Environmental Management Plan. These site specific environmental specifications will be provided to the

Contractor on appointment. Specific Provisional Sum items have been allowed for in the Schedule of Quantities for compliance with the requirements of the Site Specific Environmental Specifications. These items will be under the control of the Client/Engineer.

E5.3 Environmental Awareness Training

It is a requirement of this Contract that environmental awareness training courses are run for all personnel on Site. Two types of courses shall be run: one for the Contractor's and subcontractors' management, and one for all site staff and labourers. Courses shall be run during normal working hours at a suitable venue provided by the Contractor. All attendees shall remain for the duration of the course and sign an attendance register that clearly indicates participants' names on completion, a copy of which shall be handed to the Employer's Agent. The Contractor shall allow for sufficient sessions to train all personnel. Subsequent sessions shall be run for any new personnel coming onto Site. A Method Statement with respect to the organisation of these courses shall be submitted.

Notwithstanding the specific provisions of this clause, it is incumbent upon the Contractor to convey the spirit of the EM Specification to all personnel involved with the Works.

E5.3.1 Training Course for Management and Foremen

The environmental awareness training course for management shall include all management and foremen. The course, which shall be presented by the Employer's Agent or his designated representative, shall be of approximately one hour duration. The course shall be undertaken prior to the commencement of work on Site.

E5.3.2 Training Course for Site Staff and Labour

The environmental awareness training course for site staff and labour shall be presented by the Contractor from material provided by the Employer's Agent. The course shall be approximately one hour long. The course shall be undertaken not later than 3 working days after the commencement of work on Site, with sufficient sessions to accommodate all available personnel.

All the Contractor's employees, sub-contractors' employees and any suppliers' employees that spend more than 1 day a week or four days in a month on Site shall attend the Environmental Awareness Training Course for Site Staff and Labour

E5.4 Contractor's Environmental Representative (ESO)

The Contractor shall appoint an environmental representative, also called an Environmental Site Officer (ESO), who shall be responsible for undertaking a daily site inspection to monitor compliance with this EM Specification. The Contractor shall forward the name of the environmental representative (ESO) to the Client/Engineer for his approval. The environmental representative (ESO) shall complete Environmental Site Inspection Checklists (Annexure B attached hereto) and these shall be submitted to the Client/Engineer once a week.

E5.5 Site division, demarcation and "no go" areas

The Contractor shall restrict all his activities, materials, plant and personnel to within the Site or any particular working areas specified or indicated on the drawings.

The Contractor shall erect and maintain permanent and/or temporary fences of the type and in the locations specified elsewhere in the Scope of Work or on the drawings. Such fences shall, if so specified, be erected before undertaking any construction activities.

Where environmentally sensitive areas are specified as "no go" areas, the Contractor shall ensure that, insofar as he has the authority, no person, plant or material shall enter the "no go" areas at any time.

A Method Statement detailing the layout and method of establishment of the Contractor's camp (including all offices, shelters, eating areas, storage areas, ablution facilities and other infrastructure required for the running of the project) shall be provided.

E5.6 Access routes/ haul roads

On the Site and, if so required, within such distance of the Site as may be stated by the Client/Engineer, the Contractor shall control the movement of all vehicles and construction equipment, including that of his suppliers, so that they remain on designated routes, are distributed so as not to cause an undue concentration of traffic, and that all relevant laws are complied with. In addition, the movement of such vehicles and construction equipment shall be planned and operated so as to minimise disruption to regular users of the routes. As far as possible the Contractor shall use existing access and haul routes. Damage to existing access roads as a result of construction

activities shall be repaired to the satisfaction of the Client/Engineer, using material similar to that originally used. The cost of the repairs shall be borne by the Contractor.

No new access roads or tracks shall be constructed to gain access to the exploratory camps without written consent of the landowner. Where new access routes are required to gain access to the sites, these shall be subject to prior approval by the Client/Engineer and shall be planned to ensure that as small an area as possible is disturbed (maximum width of 4 m), that they avoid all "no-go" areas and, as far as possible, that they follow the natural contours. For new access routes, no formal road shall be constructed, and construction equipment shall drive directly across the veld from the closest designated access road or track to the position of the site. Works required to facilitate the crossing of drainage channels shall be subject to the approval of the Client/Engineer. The boundaries of the access route shall be demarcated using wooden posts at 2 m centres. The top 300 mm of each wooden post shall be painted with white paint and each post shall be long enough so that at least 1.5 m protrudes above the ground once it has been installed. To minimise damage to the vegetation, the Contractor shall ensure that vehicle trips are kept to a minimum and that all equipment remains on the demarcated access route.

Any directional signage required by the Contractor for the purposes of directing the movement of his own vehicles and construction equipment (or that of his subcontractors or suppliers) must be of a design and in a location approved by the Client/Engineer. Directional signage may not be erected in such a manner that it interferes with sight lines or pedestrian movement.

Preferred access routes to the site have been detailed in the site specific EMPs.

E5.7 Dust management

The Contractors shall be solely responsible, at his cost, for the control of dust arising from his activities on Site, and for any costs involved in damages resulting from the dust. The Contractor shall take all reasonable measures to minimise the generation of dust.

E5.8 Construction personnel information posters

The Contractor shall erect and maintain information posters for the information of his employees, depicting actions to be taken to ensure compliance with aspects of the EM Specification. A2 information posters, printed on white vinyl, shall be erected at the eating areas and any other locations specified by the Client/Engineer.

The specification for the poster is presented in Annexure C of this EM Specification. The symbols shall be black and the circles shall be red lines. The Contractor shall ensure that the construction personnel information posters are not damaged in any way, and shall replace a poster if any part of it becomes illegible.

E5.9 Emergency procedures

The Contractor's attention is drawn to the Method Statements required in terms of Clauses E1 above. Such Method Statements shall include procedures to be followed by the Contractor in the event of an emergency.

Furthermore, in the event of an emergency the Contractor shall contact the City of Cape Town's Emergency Call Centre by telephoning 107 or 021 480 7700 (from a cell phone). Telephone numbers of emergency services, including the local fire fighting service, shall be posted conspicuously in the Contractor's office near the telephone.

E5.10 Health and safety

The Contractor shall comply with requirements of the Occupational Health and Safety Act, 85 of 1993 and Construction Regulations, 2014, the Health and Safety Specification and relevant clauses of GCC 2015, insofar as health and safety is concerned.

The Contractor must be aware of, and have the contact details, of the nearest emergency healthcare centre.

E5.11 Community relations

If so required, the Contractor shall erect and maintain information boards in the position, quantity, design and dimensions specified in the Scope of Work or as directed by the Client/Engineer. Such boards shall include contact details for complaints by members of the public in accordance with details provided by the Client/Engineer.

The Contractor shall take every effort to ensure that private property abutting the Working Area is not damaged because of his activities, and that access for landowners and communities residing in the vicinity of the Working Area is maintained. The Contractor shall absolve the Employer of any and all risk and liability in this regard.

In terms of the Fencing Act (Act 63 of 1963), it is a criminal offence to dismantle fences without the landowner's permission or to leave gates open. Accordingly, during the maintenance activities, the Contractor shall:

- a) Use the gates provided to gain access to all parts of the defined Working Area;
- b) Leave the gates in the state the landowner intended (open if intentionally left open by the landowner, closed if inadvertently left open by the landowner or closed if left closed by the landowner); and
- c) Not drop or dismantle any fence or gate without the Client/Engineer's permission.

The Contractor shall keep a "Complaints Register" on Site. The Register shall contain all contact details of the person who made the complaint, and information regarding the complaint itself. The Contractors shall ensure that any complaints are appropriately addressed, and the complaints registered shall merely serve as a record of the complaint and its remediation. All complaints, as well as the remedial actions taken, shall be brought to the attention of the Client/Engineer, who shall be the sole arbiter regarding the adequacy of such actions.

The Contractor shall take all reasonable measures to ensure the safety of the public. Where the public could be exposed to danger because of the activities associated with the maintenance, the Contractor shall provide suitable flagmen, barriers and/or warning signs in English, Afrikaans and isiXhosa, as appropriate, and subject to the approval of the Client/Engineer.

All unattended open excavations shall be adequately demarcated (fencing shall consist of orange safety net or similar approved by the Client/Engineer).

No firearms shall be permitted on site.

E5.12 General protections in terms of the National Heritage Resources Act, 25 of 1999

The Contractor shall take cognisance of the provisions of the National Heritage Resources Act, 25 of 1999 in respect of, *inter alia*, structures older than 60 years; archaeology, palaeontology and meteorites; burial grounds and graves; and public monuments and memorials. A heritage specialist needs to be consulted and a Notice of Intention to Develop (NID) be undertaken when necessary.

E5.13 Protection of natural features

The Contractor shall not deface, paint, damage or mark any natural features (e.g. rock formations) situated in or around the Site for survey or other purposes, unless agreed beforehand with the Client/Engineer and Interested and Affected Parties. Any features affected by the Contractor in contravention of this clause shall be restored/rehabilitated to the satisfaction of the Client/Engineer. The cost of restoration/rehabilitation shall be borne by the Contractor.

The Contractor shall not permit his employees to make use of any natural water sources (e.g. springs, streams, open water bodies) for the purposes of swimming, personal washing and the washing of machinery or clothes.

E5.14 Protection of flora and fauna

Except to the extent necessary for the carrying out of the Works, as specified by the Client/Engineer, no vegetation shall be removed, damaged or disturbed.

Except to the extent necessary for the carrying out of the Works, flora shall not be removed, damaged or disturbed. At the commencement of the Contract, the Client/Engineer and Interested and Affected Parties will identify to the Contractor natural vegetation or any rare or endangered flora that shall be preserved. The Contractor shall thereafter demarcate such and undertake all necessary measures to ensure the protection of such flora. Where possible, no equipment shall be driven across natural vegetation that is less than three years old (e.g. recently burned areas).

In areas where needless destruction of vegetation has occurred, the Contractor shall, at his own expense, reinstate those areas to the standard specified by the Client/Engineer. In this regard, the Client/Engineer will contact Cape Nature, False Bay Nature Reserve, Koeberg Nature Reserve or Witzands Nature Reserve and will arrange for the disturbed area to be examined by an appropriate botanical specialist. Acting upon the advice of Cape Nature, False Bay Nature Reserve, Koeberg Nature Reserve or Witzands Nature Reserve and the botanical specialist, the Client/Engineer will advise the Contractor of the requisite actions. The costs for the appointment of the botanical specialist shall be borne by the Contractor.

The presence of any wild animals found on Site shall be reported to the Employer's Agent, who shall issue an instruction with regard to their removal or relocation. If a wild animal needs removal from the Site the Cape Nature (Metro Region) Conservation Services Manager may be contacted for assistance (tel 021 955 9132/9121/3122/9130). The Contractor shall protect fauna living within the Site and shall ensure that trapping, poisoning, shooting and/ or other hunting of animals is strictly prohibited, including the collection of the carcass of any domestic or wild animal. The Contractor shall ensure that no domestic pets or livestock are permitted on Site, and the keeping of pets by the Site staff shall be strictly prohibited. The requisite measures shall be put in place to ensure that domestic and native animals belonging to surrounding landowners are kept away and are safe from the unprotected Works.

The Contractor shall ensure that the Working Area is kept clean, tidy and free of rubbish that would attract animal pest species, and that no feeding of animals occurs. The Contractor's employees shall be prohibited from collecting firewood from the surrounding areas, and this shall be supplied by the Contractor from a legitimate supplier.

E5.14.1 Clearing of vegetation

The Contractor shall ensure that the clearance of vegetation is strictly restricted to that required to facilitate the execution of the maintenance activities. Vegetation clearance shall be subject to prior approval from the Client/Engineer, and where required shall be restricted to the exploration camp, approved access routes and areas of the exploration sites where vegetation interferes with maintenance operations. No undue or unnecessary removal of vegetation shall be permissible. Any natural vegetation, particularly trees, within or immediately adjacent to the Working Area, which do not require removal, shall be fully protected against damage.

Vegetation clearance shall be undertaken by hand, using hand held implements, with vegetation being cut off at ground level, and not uprooted (viz. brush-cutting). No tracked or wheeled mechanised equipment shall be used. Root structure shall not be removed or tampered with and all roots shall be left intact and in situ as far as reasonably possible.

In order to reduce erosion and the pollution of water entering watercourses and water bodies, vegetation clearance shall occur in a phased manner. Clearing operations shall be programmed to minimize the time that cleared areas are exposed before maintenance activities start and to ensure that cleared areas are stabilised as soon as possible. The detail of vegetation clearing shall be subject to the Client/Engineer's approval.

Should fauna be encountered during site clearance, activities shall cease until such fauna have been safely relocated.

All cleared vegetation shall be used as brush packing along pathways on access routes (depending on the type of vegetation) or disposed of at an approved disposal site. The disposal of vegetation by burying or burning shall be strictly prohibited.

E5.15 Stripping and stockpiling of topsoil

The Contractor shall strip the topsoil, which includes the top 300 mm of soil (or to the depth of the bedrock where the soil is shallower than 300 mm) and root material of cleared vegetation, for subsequent use during rehabilitation and revegetation. Topsoil shall be stripped from all areas of the Working Area where topsoil will be compacted by the Contractor's activities, as directed by the Site Specific Environmental Specifications and the Client/Engineer. Topsoil stockpiles may be stored and appropriately covered with shade net (not plastic) within the demarcated area.

Topsoil collected from different areas shall be stockpiled separately and covered and replaced in the same areas from which it was taken. Furthermore, topsoil shall be stockpiled separately from subsoil. Where possible, stockpiles shall be located on previously disturbed areas or in areas where they pose the minimum risk of causing further environmental degradation. Topsoil stockpiles shall not exceed 2 m in height and shall be so placed as to occupy the minimum width compatible with the natural angle of repose of the material, and measures shall be taken to prevent the material from being spread over too wide a surface. Where required, appropriate precautions shall be taken to prevent the erosion and limit the compaction of the stockpiles. The Contractor shall ensure that all stockpiles do not cause the damming of water or run off, or is itself washed away. Bund walls shall be built around stockpiles to reduce the risk of water erosion.

E5.16 Erosion and sedimentation control

The Contractor shall take all reasonable measures to limit erosion and sedimentation due to the construction activities and shall, in addition, comply with such detailed measures as may be required by the Scope of Work. Where erosion and/or sedimentation, whether on or off the Site, occurs, rectification shall be carried out in accordance with details specified by the Client/Engineer. Where erosion and/or sedimentation occur due to the fault of the Contractor, rectification shall be carried out to the reasonable requirements of the Client/Engineer, at the Contractor's cost. In particular, the Contractor shall ensure that the City's stormwater system is kept free from sediment arising from the Works.

Any runnels or erosion channels developed during the construction period or during the vegetation establishment period shall be backfilled and compacted, and the areas restored to a proper condition. Stabilisation of cleared areas to prevent and control erosion shall be pro-actively managed by the Contractor. The method of stabilisation shall be determined in consultation with the Client/Engineer.

E5.17 Protection of watercourses, water bodies and wetlands

The Contractor shall ensure that all watercourses and water bodies are protected from contamination or degradation as a result of his activities, including protection from direct or indirect spills of pollutants. In the event of a spill, prompt action (as planned and approved in the Emergency Plan Method Statement) shall be taken to clear the polluted or affected areas, and the Client/Engineer and ECO shall be notified immediately. The Contractor shall not permit his employees to make use of any natural watercourse or water body for the purposes of swimming, personal washing and the washing of machinery or clothes.

The Contractor shall not work within the flood plain of any watercourses or within water bodies without the written approval of the Client/Engineer. No activities shall be permitted within any wetland area, unless exceptional circumstances require that such activities cannot be avoided: The Client/Engineer shall be the sole arbiter in this regard. Where, in the opinion of the Client/Engineer, activities within a wetland area are unavoidable, the extent of any disturbances shall be kept to an absolute minimum. The various soil layers shall be removed and stockpiled separately. Following the completion of the construction activities, the soil layers shall be returned in the reverse order to which they were removed.

When working near any watercourses, the Contractor shall be cognisant of the following environmental controls and considerations:

- a) When planning work near watercourses the Contractor shall take into account possible river levels during the period of his activities;
- b) Construction equipment shall neither ford any watercourse containing flowing water nor operate from within the river channel. Where a flowing watercourse must be crossed, the necessary temporary crossing shall be constructed in accordance with the requirements of the Client/Engineers and the Site-Specific Environmental Specifications;
- c) During the execution of the maintenance activities, the Contractor shall take appropriate measures to prevent pollution and contamination of the riverine environment e.g. including ensuring that construction equipment is well maintained, using drip trays, provision of bins, monitoring etc., as detailed in the Site-Specific Environmental Specifications;
- d) Where earthwork is being undertaken in close proximity to any watercourse, slopes shall be stabilised using sandbags or geotextile fabric to prevent sand and rock from entering the channel;
- e) Appropriate rehabilitation and revegetation measures for the riverbanks shall be implemented timeously. In this regard, the banks should be appropriately and incrementally stabilized as soon as construction allows.

E5.18 Aesthetics

The Contractor shall take any requisite measures to ensure that construction activities do not have an undue negative impact on the aesthetics of the area.

E5.19 Contractor's advertising signage

Any advertising on the Site or any part of the Works shall remain at the sole discretion of the Employer, who reserves the right to order, via the Client/Engineer, its removal, covering or re-sizing, wherever placed, at no cost to the Employer.

Apart from at the Contractor's camp, no signage advertising the Contractor, or any of its subcontractors, manufacturers, suppliers or service providers shall be placed, fixed or erected anywhere on the Site or on the Works without the prior approval of the Client/Engineer. No advertising signage will be permitted on any designated scenic route. Notwithstanding any prior approval given, the Client/Engineer may instruct the Contractor to remove, cover or re-size any advertising signage at any time at no cost to the Employer.

Advertising signage at the Contractor's camp shall be appropriately designed and sized with due consideration to the surrounding environment, views and sight lines.

Branding or identification markings on the Contractor's and subcontractor's vehicles and equipment is generally permitted, although the Employer reserves the right to instruct, via the Client/Engineer, the removal, covering or re-sizing of any branding, markings or signage, on any equipment (scaffolding, for example), which it considers inappropriate in the environment in which it is placed.

No third party advertising (that is, in respect of any person, business or product that is not associated with the Works) shall be permitted anywhere on the Site or Works.

E5.20 Temporary site closure

In the event of temporary Site closure (for a period exceeding one week), the Contractor's ESO shall carry out checks and ensure that, amongst others, the following conditions pertain and report on compliance with this clause:

- a) Fire extinguishers are serviced and accessible.
- b) There is adequate ventilation in enclosed spaces.
- c) All hazardous substance stores are securely locked.
- d) Fencing and barriers are in place.
- e) Emergency and management contact details are prominently displayed and available.
- f) Wind and dust mitigation measures, e.g. straw, brush packs, irrigation, etc. are in place.
- g) Excavated and filled slopes and stockpiles are at a stable angle and capable of accommodating normal expected water flows.
- h) There are sufficient detention ponds or channels in place.
- i) Cement and materials stores are secured.
- j) Toilets are empty and secured.
- k) Central waste area and all refuse bins are empty and secured.
- l) Contaminated water conservancy tank empty.
- m) Any bunded areas are clean and treated with an approved product where applicable (e.g. Spill Sorb or Enretech #1 powder or equivalent).
- n) Drip trays are empty and secure

E6 Landscaping and rehabilitation

E6.1 Scope

All areas disturbed as a result of the construction activities and from which topsoil was stripped and stockpiled for this purpose, shall be subject to the landscaping and rehabilitation requirements outlined in this Specification.

For most disturbed areas, landscaping and rehabilitation shall entail the clearing, shaping, trimming and scarification of the area and replacement of the stockpiled topsoil. In some cases, these areas will be allowed to vegetated naturally, in others assistance will be required. The rehabilitation has been detailed further in the Site Specific Environmental Management Plan.

E6.2 Timing of landscaping and rehabilitation

Vegetation is the most effective control against surface erosion. Accordingly, taking cognisance of the fact that the optimal period for revegetation is April to September, the Contractor shall programme for the landscaping and rehabilitation of disturbed areas to occur as soon as practically possible for cessation of the work in a specific area. The period between the cessation of activities associated with the maintenance at a particular site and the onsite of landscaping and rehabilitation for the area affected by these activities shall not exceed one week (seven days).

E6.3 Demolition and removal of structures

Prior to landscaping and rehabilitation, the Contractor shall demolish and remove from Site everything not forming part of the Permanent Works. This includes, but is not limited to, temporary facilities, portable fences, temporary access routes, protective works, equipment, materials (nuts, bolts, washes, cut strands of conductor wire etc.), solid waste and contaminated water. All material generated from the demolition and removal of structures from site shall be appropriately disposed of.

All sumps and incidental excavations shall be refilled and adequately compacted.

E6.4 Erosion control and revegetation measures

Site specific rehabilitation measures will be indicated in the Site Specific Environmental Management Plan. Detailed measures will explain management of sediment trapping and erosion control; management of the reapplication of topsoil; and species with which to re-vegetate, etc.

E6.5 Traffic on landscaped and rehabilitated areas

The Contractor shall not undertake the landscaping and rehabilitation of any areas until all operations that may require construction material and equipment to pass over those areas has been completed. All landscaped and rehabilitated areas shall be regarded as "no-go" areas, and no equipment, other than that required for establishment and maintenance purposes, shall be allowed to operate on these areas.

E6.6 Follow-up inspection, maintenance and monitoring

After initial rehabilitation, a once-off follow up inspection will be undertaken within the liability period. The Contractor shall check that soil stabilisation treatments are still intact and functioning, check that the established plants survive and check for the establishment of unwanted alien plants and remove them from the sites. Where needed, or instructed by the ECO, repairs shall be carried out and plants that die shall be replaced.

A fixed point photo site (FPPS) shall be established for each of the rehabilitation sites. Each FPPS shall allow for

taking photographs in each compass direction (4 photos per site). Photographs shall be taken prior to rehabilitation, post rehabilitation and during the inspection at the end of the liability period.

E6.7

E7 TOLERANCES**Fines**

Environmental management is concerned not only with the final results of the Contractor's operations, but also with the control of how these operations are carried out. Tolerance with respect to environmental matters applies not only to the finished product, but also to the standard of the day-to-day operations required to complete the Works.

It is thus required that the Contractor shall comply with the EM Specification on an on-going basis and any failure on his part to do so will entitle the Client/Engineer to certify the imposition of a fine. Fines may be issued per incident at the discretion of the Client/Engineer. Such fines will be issued in addition to any remedial costs incurred as a result of non-compliance with the environmental specifications. The Client/Engineer will inform the Contractor of the contravention and the amount of the fine, and will deduct the amount from monies due in payment certificates issued under the Contract.

Maximum fines for the following transgressions by either the Contractor and/or his sub-contractors may be imposed by the Client/Engineer, as follows:

	Maximum fine per incident
a) Vehicles, plant or materials related to the Contractor's operations, parked or stored outside the demarcated boundaries of the Site.	R 2 000
b) Persons, vehicles, plant or materials related to the Contractor's operations, found within the designated boundaries of a "no go" area.	R 4 000
c) Persistent and unrepaired oil leaks from machinery/not using a drip tray to collect waste oil and other lubricants/not using specified absorbent material to encapsulate hydrocarbon spillage/using inappropriate methods of refuelling (the use of a funnel rather than a pump).	R 3 000
d) Refuelling in areas not approved by the Client/Engineer.	R 3 000
e) Litter on Site.	R 1 000
f) Deliberate lighting of fires on Site.	R 5 000
g) Individual not making use of the Site ablution facilities.	R 1 000
h) Damage to trees not specified to be removed.	R 5 000
i) Dust or excessive noise emanating from the site	R 1 000
j) Not containing water contaminated with pollutants such as cement, concrete, fuel, etc.	R 2 000

For each subsequent similar offence the fine shall be doubled in value to a maximum value of R50 000. Furthermore, time spent to clear up around the site will not be considered working time and will therefore not be paid. It is therefore advised that the site be kept in a neat and clean manner daily to act proactively.

Record is to be kept of these penalties, and money is to be held in an environmental fund by the Client. As an incentive for future projects, a portion of the fund may be used as bonuses to individual site staff members who have shown exceptional diligence in applying good environmental practice on site. The remaining funds should be allocated towards increasing environmental education in the local community. The Client, in consultation with the ECO, will make a final decision regarding the allocation of penalty funds. These transactions should be kept on record and filed upon completion of the project.

TENDER NO: 296S/2021/22

ANNEXURE A: ENVIRONMENTAL METHOD STATEMENT

CONTRACT:.....

DATE:.....

PROPOSED ACTIVITY (give title of method statement and reference number from the EMP):

WHAT WORK IS TO BE UNDERTAKEN (give a brief description of the works - attach extra information to ensure accurate description given):

WHERE THE WORKS ARE TO BE UNDERTAKEN (where possible, provide an annotated plan and a full description of the extent of the works):

START AND END DATE OF THE WORKS FOR WHICH THE METHOD STATEMENT IS REQUIRED:

Start Date:

End Date:

HOW THE WORKS ARE TO BE UNDERTAKEN (provide as much detail as possible, including annotated sketches and plans where possible):

Note: please give too much information rather than too little. Please ensure that issues such as emergency procedures, hydrocarbon management, wastewater management, access, individual responsibilities, materials, plant used, maintenance of plant, protection of natural features, etc. are covered where relevant

DECLARATIONS**1) ENVIRONMENTAL OFFICER/ENVIRONMENTAL CONTROL OFFICER**

The work described in this Method Statement, if carried out according to the methodology described, appears to be satisfactorily mitigated to prevent avoidable environmental harm:

(signed)

(print name)

Dated: _____

2) CONTRACTOR

I understand the contents of this Method Statement and the scope of the works required of me. I further understand that this Method Statement may be amended on application to other signatories and that the Employer's Agent's Representative/Environmental Officer/Environmental Control Officer will audit my compliance with the contents of this Method Statement. I understand that this method statement does not absolve me from any of my obligations or responsibilities in terms of the Contract.

(signed)

(print name)

Dated: _____

3) RWECO

The works described in this Method Statement are approved.

(signed)

(print name)

(designation)

Dated: _____

ANNEXURE B: ENVIRONMENTAL SITE INSPECTION CHECKLIST

To be submitted to the Employer once a week

CONTRACT:.....

DATE:.....

ENVIRONMENTAL ASPECT	YES/ NO (✓ or X)	COMMENTS
• All new personnel on Site are aware of the contents of the EMP and have been through the environmental awareness course.		
• Contractor's camp is neat and tidy and the labourers' facilities are of an acceptable standard.		
• Sufficient and appropriate fire fighting equipment is visible and readily available in the appropriate places.		
• Waste control and removal system is being maintained.		
• Fences are being maintained.		
• Drip trays are being utilised where there is a risk of spillage.		
• Bunded areas/drip trays are being emptied on a regular basis (especially after rain).		
• No leaks are visible from construction vehicles.		
• Refuelling of vehicles and plant occurs within designated areas, and appropriate refuelling apparatus and drip trays are being used.		
• "No go" areas, natural features, vegetation, etc. have not been damaged.		
• Dust control measures (if necessary) are in place and are effectively controlling dust.		
• Noise control measures (if necessary) are in place and are working effectively.		
• Erosion and sedimentation control measures (if necessary) are in place and are controlling effectively.		
• Material stockpiles are located within the boundary of the Site and are protected from erosion.		
• Other		

Completed by:.....

Signed:.....

ANNEXURE C: CONSTRUCTION PERSONNEL INFORMATION POSTER

ENVIRONMENTAL MANAGEMENT DO'S AND DON'TS

	Workers & equipment must stay inside the site boundaries at all times		Use the toilets provided Report full or leaking toilets
	Do not swim in or drink from streams Do not throw oil, petrol, diesel, concrete or rubbish in the stream Do not work in the stream without direct instruction Do not damage the banks or vegetation of the stream		Only eat in demarcated eating areas Never eat near a river or stream Put packaging & leftover food into rubbish bins
	Protect animals on the site Ask your supervisor or Contract's Manager to remove animals found on site		Do not litter - put all rubbish (especially cement bags) into the bins provided Report full bins to your supervisor The responsible person should empty bins regularly
	Do not damage or cut down any trees or plants without permission Do not pick flowers		Always keep to the speed limit Drivers - check & report leaks Ensure loads are secure & do not spill
	Put cigarette butts in a rubbish bin Do not smoke near gas, paints or petrol Do not light any fires without permission Know the positions of fire fighting equipment Report all fires Do not burn rubbish or vegetation without permission		Know all the emergency phone numbers
	Work with petrol, oil & diesel in areas marked for this Report any petrol, oil & diesel leaks or spills Use a drip tray under vehicles & machinery Empty drip trays after rain & do not throw this water into a river		Fines of between R1000 and R5000 Removal from site Construction may be stopped
	Try to avoid producing dust - wet dry ground & soil		Report any breaks, floods, fires, leaks and injuries to your supervisor Ask questions!
	Do not make loud noises around the site, especially near schools and homes Report or repair noisy vehicles		

13.19 HEALTH & SAFETY SPECIFICATIONS**HEALTH AND SAFETY SPECIFICATIONS FOR****Project:** Aquifer Borehole maintenance in Atlantis and the Cape Flats

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1. INTRODUCTION AND BACKGROUND

1.1. Background to the Health and Safety Specifications (also termed These Specifications)

The Construction Regulations 2014 places the onus on the Client to prepare a baseline risk profile and health & safety specifications highlighting hazards not successfully eliminated during design. The Client also has the opportunity to set the tone and standard of occupational health & safety on the construction site.

1.2. Responsibility and Accountability

It is imperative to understand the process of determining legal accountability as the OHS Act is the only criminal Act still administered by the Department of Labour. It *assumes* that the CEO is overall accountable even though he/she may delegate some of his/her responsibilities. This principle is entrenched in Section 37(1) of the Act and is set out below for your benefit. This is generally referred to as the REASONABLE MAN TEST.

SECTION 37: Acts or omissions by Employees or Mandataries

- (1) Whenever an employee does or omits to do any act which it would be an offence in terms of this Act for the employer of such employee or a user to do or omit to do, then, unless it is proved that -
 - (a) in doing or omitting to do that act the employee was acting without the connivance or permission of the employer or any such user;
 - (b) it was not under any condition or in any circumstance within the scope of the authority of the employee to do or omit to do an act, whether lawful or unlawful, of the character of the act or omission charged; and
 - (c) all reasonable steps were taken by the employer or any such user to prevent any act or omission of the kind in question, *the employer himself shall be presumed to have done or omitted to do that act, and shall be liable to be convicted and sentenced in respect thereof; and the fact that he issued instructions forbidding any act or omission of the kind in question shall not, of itself, be accepted as sufficient proof that he took all reasonable steps to prevent the act or omission.*

1.3. Purpose of the Health and Safety Specifications

The purpose of the H&S specifications document is to assist in achieving compliance with the Occupational Health & Safety Act 85/1993 (OHS Act), Regulations and in particular the Construction Regulations (CR's) in order to prevent or as far as possible reduce incidents and injuries. **Note that the CR's 2014 were promulgated on the 7th February 2014 and are enforceable on this project.** These specifications should act as the basis for the drafting of the Principal Contractor and Contractors' construction phase health & safety plans.

The health & safety specifications document sets out the requirements to be followed by the **Principal Contractor who will be appointed to do the borehole maintenance as well as its sub-contractors** so that the health & safety of all persons (including the public) potentially at risk may receive the same priority as other facets of the project e.g. cost, programme, environment, quality, etc.

1.4. Implementation of the Health and Safety Specifications (Drafting of the Contractors' Health & Safety Plans)

This health & safety specifications document forms an integral part of the contract and the **Principal Contractor and its Contractors** appointed are expected to make use of it when compiling their project-specific construction-phase health & safety plans. The Principal Contractor must forward a copy of these specifications to all Contractors at their bidding stages so that they can in turn prepare health & safety plans relating to their specific operations.

2. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM ELEMENTS

2.1. Scope of the Project

These Specifications set out the requirements for eliminating or if this is not possible, for minimising as far as reasonably practicable, the risk of incidents and injuries occurring on this contract with the following scope of works:

- **Test-pumping**

Test-pumping of a borehole which includes the installation of a pumping down the borehole and the discharge via a layout further afield. The pumps are generally run via generators.

Injection testing where water is pumped from one borehole or another source (fire hydrant) into an injection borehole under a pressure of up to 1 bar.

During all test and injection pumping, neighbouring boreholes are monitored manually using a dip meter and the discharge rate is measured using a flow meter, v-notch or drum system. On occasions access to site may require clearing of vegetation and sand.

- **Rehabilitation of boreholes**

Mechanical rehabilitation includes the drilling through any blockages or the physical jetting or brushing of the casing by lowering a brush or jetting tool down the borehole.

Chemical rehabilitation includes pouring chemicals such as sulfamic acid, or boresaver into the borehole. This is allowed to remain in the borehole for a number of hours before it is pumped out of the borehole into a tank for disposal. On occasions access to site may require clearing of vegetation and sand.

The description of the Works is not necessarily complete and shall not limit the work to be carried out by the Contractor under this Contract.

The health & safety specifications document includes an identification of hazards by the appointed H&S Agent as well as public protection protocols and specific construction related minimum safety and health requirements, control measures and procedures which need to be taken into account when: pricing the project; programming your activities and trades; compiling your project-specific health & safety plan; compiling your preliminary risk assessment document; compiling your baseline fall protection plan; and producing activity-specific health & safety risk assessment documentation.

The scope also addresses legal compliance, hazard identification and risk assessment, risk control, and the promotion of a health and safety culture for those personnel working on the project. The health & safety specifications also make provision for the protection of those persons other than employees i.e. site visitors and members of the public.

2.2. Interpretations

2.2.1 . Application

This specifications document is a legal compliance document compiled in terms of the OHS Act and is therefore binding. The document must be read in conjunction with other relevant legislation including: **The Occupational Health & Safety Act 85/1993; Construction Regulations 2014; all other regulations and codes incorporated into the OHS Act; the civil engineer's specification document; all engineers drawings, specifications, notes and guidelines; the geo-tech science report; project tender documentation; the local authority's by-laws and requirements.**

2.2.1.1 Definitions

The definitions as listed in the OHS Act 85/1993 and Construction Regulations (2014) shall apply

- CHSA – Construction Health & Safety Agent = Pr.CHSA
- Contractors include sub-contractors and principal contractors.
- Contractor's Construction Manager as defined in the Construction Regulations 2014 [CR 8(1)] as the Construction Manager. This is not the Client's Project Manager / site representative.
- Directs – Any Contractor appointed directly by the construction Client.
- Principal Agent = P/Agent = Client Representative.
- Principal Contractor includes any Direct Contractor appointed on the project.

As well as

- **Consequence**

The outcome of an unwanted event (risk scenario) expressed qualitatively or quantitatively. It is usual to consider this in terms of the maximum reasonable potential outcome.

- **Control Measure (or Control)**

An act, object (engineered) or system (combination of act and object) intended to prevent or mitigate an unwanted event (risk scenario).

- **Critical Control**

A control measure that is crucial to preventing an unwanted event (risk scenario) or mitigating the consequences of an unwanted event. The absence or failure of a critical control would significantly increase the risk despite the existence of other control measures. In addition, a control measure that prevents more than one unwanted event or mitigates more than one consequence is usually classified as critical.

- **Hazard**

A source of potential harm in terms of human injury or ill health, or a combination of these. A hazard is typically an energy source.

- **Hierarchy of Controls**

A sequence of control measures, arranged in order of decreasing effectiveness, used to eliminate or minimise exposure to workplace health and safety hazards:

- i. Elimination – Completely removing a hazard or risk scenario from the workplace.
- ii. Substitution – Replacing an activity, process, substance or energy with a less hazardous alternative.
- iii. Engineering Controls – Designing control measures into processes and / or equipment (e.g. mechanical aids, interlocks, pressure relief systems, extraction, and ventilation) or isolating a hazard from persons through the provision of barriers, machine guarding, or insulation.
- iv. Administrative Controls – Establishing appropriate policies, procedures and work practices to reduce the exposure of persons to a hazard. This may include the provision of specific training and supervision.
- v. Personal Protective Equipment – Providing suitable and properly maintained PPE to cover and protect persons from a hazard (i.e. prevent contact with the hazard).

- **Likelihood**

A description of probability or frequency, in relation to the chance that an unwanted event (risk scenario) will occur.

- **Risk (Rating)**

A combination of the likelihood of the occurrence of an unwanted event (risk scenario) and the severity of injury or ill health that can be caused by the event.

- **Risk Assessment**

A process of evaluating the risk scenarios arising from identified hazards, and identifying control measures that are as effective as possible in order to manage the risks to levels that are as low as is reasonably practicable.

- **Risk Management**

1. The systematic application of management policies, processes and procedures to:
2. Identifying hazards;
3. Analysing and evaluating the associated risks;
4. Controlling the risks through the implementation of control measures; and
5. Monitoring the risks and related control measures on an ongoing basis.

2.3. Minimum Administrative Requirements

2.3.1 Notification of Intention to Commence Construction Work & Construction Work Permit

The Principal Contractor must notify the Provincial Director of the Department of Labour in writing at least 7 days before construction work commences. A copy of this notification must be held in the Principal Contractor's health & safety file on site. The fax transmission slip will serve as proof of notification. Notifications can also be submitted via email to: fezeka.ngalo@labour.gov.za

The requirement for a construction work permit is foreseen on the contract due to the duration being longer than a year.

2.3.2 Assignment of the Principal Contractor's / Contractors' Responsible Persons to Supervise and Co-ordinate Health and Safety on Site

The Principal Contractor must make supervisory appointments as well as other relevant appointments in writing (as stipulated by the OHS Act and Construction Regulations). See attached **Annexure 'B'** for more detail on which health & safety management appointments are relevant on this project.

2.3.3 Competence of the Principal Contractors' / Contractors' Appointed Competent Persons

The Principal Contractor and Contractors' competent persons for the various risk management portfolios must fulfil the criteria as stipulated in terms of the definition 'Competent Person' in accordance with the Construction Regulations. Proof of competence to be attached to each appointment letter kept in safety file. **These persons must also have a knowledge of the OHS Act and relevant Regulations (CR 2014 requirement).**

Proof of the same to be kept with each appointment.

2.3.4 Compensation for Occupational Injuries and Diseases Act 130 of 1993 (COIDA)

The Principal Contractor must have in its possession a letter of good standing issued by its Compensation Assuror as proof of registration. Contractors must also hold proof of workman's compensation assurance registration in the form of a letter of good standing and forward a copy to the Principal Contractor before they begin work on site. Contractors must be in good standing at all times while carrying out work on site.

2.3.5 Health and Safety Organogram

The Principal Contractor must prepare an organogram outlining their site health & safety management structure including all appointed risk management competent persons. In cases where appointments have not yet been made, the organogram shall reflect the intended positions. The organogram must be updated when there are changes in the Site Management Structure, and dated accordingly. The organogram merely serves as a quick reference to who is responsible for what risk portfolio in what area on site.

2.3.6 Preliminary Hazard Identification and Risk Assessments (HIRA's), Activity-Specific Risk Assessments, and Risk Assessment Reviews

The P/Contractor's risk assessments must take into account the Client (CoCT)'s baseline health & safety risk profile and designers risk assessment (separate addendum).

Detailed hazard identification and risk assessment processes must be followed for all work to be performed as well as for all associated equipment and facilities.

The contractor must ensure that effective procedures and assessment systems are in place to control hazards and to mitigate risks to levels that are as low as is reasonably practicable.

The risk assessment processes must be applied to:

- The full life cycle of the project;
- Routine and non-routine activities;
- Planned or unplanned changes;
- All employees, sub-contractors, suppliers and visitors; and
- All infrastructure, equipment and materials.

The risk assessment processes and methodologies must be appropriate for the nature and scale of the risks, and must be implemented by competent persons.

The process of analysing and managing risk must include the following:

- Establishing the context of the risk assessment;
- Identifying hazards and determining possible risk scenarios (unwanted events);
- Evaluating risks and assigning ratings (classification);

- Recording the risk analysis in a risk register;
- Managing risks according to their classification (prioritising for action);
- Identifying and implementing control measures (through the application of the Hierarchy of Controls) to ensure that risks are managed to levels that are as low as is reasonably practicable (ALARP);
- Developing action plans for reducing risk levels (where possible);
- Verifying the completion of actions;
- Re-evaluating the risks and classifications as appropriate; and
- Reviewing and updating the risk register.

3. Baseline Risk Assessments

Prior to site establishment, the contractor must conduct a detailed Baseline Risk Assessment identifying foreseeable hazards and risk scenarios associated with the contractor's scope of work on the project. Details concerning proposed control measures must be included. The risk assessment process must be facilitated by a competent person who has been appointed in writing and must involve the participation of the contractor's site management representatives, health and safety reps, supervisory personnel and technical experts (as required). An attendance register must be completed and retained. The Baseline Risk Assessment must be reviewed by the project management representative.

When carrying out a Baseline Risk Assessment or a Task-Based Risk Assessment, Hazard (Energy) Types must be specified in accordance with the categorisation. Risk scenarios must be described indicating the manner in which a person may come into contact with, or be exposed to, a specific hazard.

An initial risk rating must be assigned to each risk scenario without taking any control measures into consideration. Control measures for managing the risks to levels that are as low as is reasonably practicable must then be identified for implementation on the project.

Risk ratings must be assigned qualitatively using consequence and likelihood scales and descriptors

A Risk Register comprised of all significant risks (i.e. risks rated as high or critical) identified for the project must be compiled using the information contained in the project Baseline Risk Assessment as well as the contractor's Baseline Risk Assessment. Key control measures for managing each of these risks must be specified in the register.

For the significant risks in particular, action plans must be developed for reducing the risk levels (where possible).

The project Risk Register will be reviewed and, if necessary, updated:

- On a six monthly basis during construction;
- When changes are made to a design and / or the construction scope, schedule, methods, etc. that result in a change to the risk profile; and
- Following an incident.

The contractor must ensure that the hazards, risk scenarios and control measures identified in the contractor's Baseline and Task-Based Risk Assessments are taken into consideration when developing, implementing and maintaining the various elements of the contractor's health and safety management system for the project (e.g. competence, training and awareness requirements).

All persons potentially affected must be made aware of the hazards, risk scenarios and control measures identified in the contractor's risk assessments. This must be done through training, Toolbox Talks, and Daily Safe Task Instructions.

4. Task-Based Risk Assessments

The contractor must carry out detailed project-specific Task-Based Risk Assessments prior to the commencement of any work. The risk assessment process must be facilitated by a competent person who has been appointed in writing. The contractor's site management representatives, H&S Rep, supervisory personnel, technical experts (as required) and workforce personnel directly involved with the task being examined must participate in the risk assessment process. An attendance register must be completed and retained.

Please Note: Under no circumstances may a Contractor's Health and Safety Officer perform a risk assessment in isolation. The active participation of all persons referred to above is mandatory.

A Task-Based Risk Assessment must at least:

- Be accompanied by a Work Method Statement (describing in sufficient detail how the specific job or task is to be performed in a logical and sequential manner);
- Provide a breakdown of the job or task into specific steps;
- Identify the hazards and potential risk scenarios associated with each step;
- Include consideration of possible exposure to noise, heat, dust, fumes, vapours, gases, chemicals, radiation, vibration, ergonomic stressors, or any other occupational health hazard or stressor;
- Describe the control measures that will be implemented to ensure that the risks are managed to levels that are as low as is reasonably practicable; and

- Assign an initial risk rating (without taking any control measures into consideration) to each risk scenario.

A Task-Based Risk Assessment must be reviewed and, if necessary, updated:

- On an annual basis (as a minimum);
- When changes are made to the associated Work Method Statement; and
- Following an incident.

4.1.1.1 . Pre-Task Hazard Assessments

Daily Safe Task Instructions.

4.1.1.2 Safe Work Procedures

- The contractor must develop, document and implement Safe Work Procedures for all activities involving significant health or safety risk. These procedures must detail the control measures required to effectively manage the health and safety risks associated with the work activities.
- Each Safe Work Procedure must be consistent with the Task-Based Risk Assessment completed for the activity.
- Every person engaged in an activity for which a Safe Work Procedure has been developed must receive suitable training on the procedure.
- Furthermore, the contractor must develop, document, communicate and implement formal procedures, work instructions and / or programmes for the operation, maintenance, inspection and testing of all plant and equipment (including protective systems and devices) brought onto the project site.

4.1.1.3 Planned Task Observations

All contractor and sub-contractor supervisors must perform Planned Task Observations (PTO's) to verify that the control measures that have been identified in Safe Work Procedures (and associated Risk Assessments) are being adhered to and are being properly implemented, and to provide guidance where deviations are noted.

Each supervisor must complete at least one PTO per week involving one or more employees in his work team.

When an unsafe act or condition is identified, the supervisor must coach the work team to correct the act or condition in line with the Safe Work Procedure.

Where valid changes to the work method are identified, the supervisor must ensure that the Safe Work Procedure and Risk Assessment are updated to reflect the current practice.

Contractors must conduct their own hazard identifications and risk assessments specific to their operations and forward copies to the Principal Contractor for assessment and acceptance. The Principal Contractor when required must report on the status of its Contractors' risk assessments to the Client/H&S Agent at monthly audits or more often as the case may be.

The Principal Contractor must ensure that contractors inform, instruct and train their workers regarding any hazards, the associated risks and the related safe work procedures to be implemented before any work commences and thereafter at regular intervals as the risks change and as new risks develop. Contractors must conduct their own risk assessment training and keep proof in the form of attendance registers.

4.1.2 . General Record Keeping

The Principal Contractor must keep and maintain all the necessary Health and Safety records to demonstrate compliance with these Specifications, with the OHS Act 85/1993, and with the Construction Regulations. Principal Contractor must also ensure that all records of incidents/injuries, emergency procedures, training, planned maintenance inspections, monthly contractor audits, etc. are kept in the health & safety file(s) held in the site office. The Principal Contractor must also ensure that their Contractors keep their own health & safety files, maintain the files and make them available on request (the file must include the Contractor's health & safety plan and all relevant records). Such 'Contractor health & safety files' must be audited by the Principal Contractor on a monthly basis with audit reports kept as proof.

4.1.3 . Injury / Incident Reporting and Investigation

Injuries are to be categorised into first aid; medical; disabling (lost day); and reportable (Section 24). When reporting injuries to the Client/H&S Agent, these categories must be used. The Principal Contractor must investigate all injuries, with an annexure 1 investigation report being completed and filed for all injuries requiring treatment over and above first aid. The Principal Contractor must report on the 4 categories of injuries at monthly project progress meetings. Contractors must investigate injuries and incidents involving their employees and forward a copy of the 'annexure 1' investigation report to

the Principal Contractor concerned forthwith. The Principal Contractor must report all injuries to the Client/Safety Agent in the form of an injury report, at least monthly (at audits).

All incidents reportable in terms of the provisions of Section 24 of the OHS Act must be reported to the local Dept. of Labour in the prescribed manner (Dept. of Labour contact number: Cape Town 021 441 8000 / 021 441 5500 or fezeka.ngalo@labour.gov.za) as well as the OHS Agent.

4.1.4 ... Consolidation of Health & Safety Documentation

It is the duty of the Principal Contractor to ensure that all documentation required to be kept or generated during the construction stage is consolidated into one set of documents that must be handed over to the Client upon completion of the construction work.

These consolidated health & safety file(s) should include all instructions/guidelines/specifications/information from the design team that will be required for the continued safe operation and maintenance of the new structure(s) or part(s) thereof.

4.1.5Offences and Penalties

Penalties may be imposed on the Principal Contractor and Contractors for ongoing non-compliance with the provisions of the Client's health & safety specifications, the Principal Contractor's health & safety plan, and site health & safety procedures and rules, including: **Consultants rules, procedures, and specifications; Client-specific rules/protocols. The P/Contractor can also impose penalties on its sub-contractors and on other Directs within its areas of responsibility.** Non-compliances identified during H&S Agent audits, inspections, surveys and visits will be categorised into one of three levels based on frequency and severity. These will be as follows:

1. **Life threatening situation** - a prohibition notice/order will be issued by means of a written instruction in the site instruction book or an explanation/detail in an audit report/e-mail. The activity in question must then be seized immediately and corrective measures taken to the satisfaction of the H&S Agent after which permission will be given to resume the activity.
2. **Injury foreseen** – a contravention notice will be issued by means of a written instruction in the site instruction book or an explanation/detail in an audit report/e-mail with a time frame for compliance stipulated. Failure to comply within the time frame may result in up to a R2000 penalty per non-compliance item per day that the non-compliance persists. Ongoing non-compliance may also result in a further issue of a prohibition notice/order.
3. **Ongoing contravention for similar non-compliances** - a contravention notice will be issued with a time frame for compliance stipulated. Failure to comply within the time frame may result in up to a R2000 penalty per non-compliance item per day that the non-compliance persists. On-going non-compliance may also result in a further issue of a prohibition notice/order.
4. **Minor or no injury foreseen** – an improvement notice will be issued.

The corrective measures stipulated in a written instruction in the site instruction book or an explanation/detail in an audit report/e-mail must be taken.

4.2 Principal Contractor, Contractors and Sub-contractors

4.2.1The Principal Contractor and Contractors' Requirements

The Principal Contractor must ensure that all Contractors appointed by it comply with these Specifications as well as with the OHS Act, the Construction Regulations, and other relevant legislation including project-specific rules and guidelines documentation that may relate to the activities directly or indirectly. A Contractor when appointing other Contractors as 'Sub-contractors', shall mutatis mutandis ensure compliance as if it was the Principal Contractor.

The Principal Contractor may only allow a Contractor to begin work on site after receiving a suitable/coherent health & safety plan which must include a project-specific hazard identification, risk assessments and safe work procedures documentation. The Principal Contractor must audit each of its contractors on a monthly basis, with audit reports kept in the health & safety file on site. **The audit must include an administrative assessment of H&S documentation as well as a physical inspection of the contractor's site activities.**

A Principal Contractor must stop any Contractor from carrying out construction work that is not in accordance with the Principal Contractor's and/or its Contractor's health & safety plans or if there is an immediate threat to the health and safety of persons.

- A Principal Contractor shall take all reasonable steps necessary to ensure co-operation between all contractors including other Principal Contractors to enable each of those contractors to comply with the provisions of the Construction Regulations;

- A Principal Contractor shall take all reasonable steps to ensure that each contractor's health and safety plan is implemented and maintained on the construction site: Provided that the steps taken shall include periodic audits at intervals mutually agreed upon between the Principal Contractor and contractors, but at least once every month;
- A Principal Contractor must ensure that where changes are brought about to the design and construction, that sufficient health and safety information and appropriate resources are made available to contractors so as to allow them to execute the work safely;
- A Principal Contractor must ensure that every contractor is registered and in good standing with a recognised compensation fund or with a licensed compensation insurer prior to work commencing on site;
- A Principal Contractor must ensure that potential contractors submitting tenders have made provision for the cost of health and safety measures during the construction process;
- A Principal Contractor shall discuss and negotiate with the contractor the contents of the health and safety plan and shall finally approve that plan for implementation;
- A Principal Contractor shall hand over a consolidated health and safety file to the client upon completion of the construction work and shall include a record of all drawings, designs, materials used and other similar information concerning the completed structure;
- A Principal Contractor may only appoint a contractor to perform construction work when such Principal Contractor is reasonably satisfied that the contractor he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely.

4.2.2 ... Principal Contractor / Contractor Competency Assessment

The Principal Contractor must be reasonably satisfied that the contractors it intends to appoint have the necessary competencies and resources to safely conduct the work they will be appointed for. This should be established at tender stage and before appointments are made. One of the preferred ways of determining whether a contractor is competent is to ask for a previous safety plan as compiled for another similar project. Once the contractor is appointed, but before it begins work on site a site- specific safety plan must be discussed and negotiated with the Principal Contractor. Such health & safety plan must be approved for implementation by the Principal Contractor.

4.2.3 . Pricing for Occupational Health & Safety Compliance

All parties bidding for work on this construction project must ensure that they have made provision for the cost of complying with this Specifications document as well as with the OHS Act and incorporated Regulations as a minimum requirement in their tender documentation. It must also be taken into consideration that time is money, which implies that sufficient time must be allowed for the implementation of the minimum OHS standards. No additional claims will be entertained at a later stage should a compliance requirement be prescribed in the OHS Act, incorporated regulations or in this Specifications document unless due to design changes which would require additional resources. Refer to Annexure "D"

4.2.4 . Contractors' Health & Safety Plans

5. Introduction

- The Construction Regulations aims to improve overall management and co-ordination of Health, Safety and Welfare throughout the Construction Stage and reduce the large number of serious and fatal injuries and cases of ill health, which occur every year in the Construction Industry.
- In terms of the Construction Regulations, a Principal Contractor is required to develop a Health and Safety Plan before work commences and review it throughout the construction stage. The degree of detail required in the Health and Safety Plan and the time and effort in preparing it should be in proportion to the nature, size and level of Health and Safety risks foreseen on the project. Projects involving minimal risks will call for simple, straightforward plans. Larger projects or those involving significant risks will need substantially more detail.

6. What should the construction health & safety plan cover?

The Construction Health and Safety Plan should set out the arrangements for ensuring the Health and Safety of personnel carrying out the construction work as well as other persons who may be affected by such work.

The health & safety plan should set out:

- The project-specific preliminary risk assessments taking into account the Client's baseline HIRA and must also cover at least the first month's activities.
- The arrangements and procedures for managing Health and Safety of the construction work including supervision and safety officer involvement.
- The monitoring systems for checking that the Health and Safety Plan and H&S procedures are being properly followed by the P/Contractor and Contractors.
- The Health and Safety Risk Assessment strategy and rating system to be used on this project including the activity look-ahead strategy.

- The **safety officer duties and time** to be dedicated to this project based on the assessment of project complexity. Note that every Contractor needs to appoint at least a part-time safety officer.
- Safe work procedures for minimising the risks posed by the hazards identified.
- Special attention must be given to: **public protection health & safety measures; site fencing/hoarding; signage; waste/spoil control and removal; public roadway management and cleaning; existing services including underground services/utilities; hazardous chemicals substances and flammables; noise; dust; lifting machines and tackle, plant and equipment; injury and incident management, emergency procedures.**
- Regular liaison between parties on site i.e. meetings; information sessions. **The Client's P/Agent will hold regular co-ordination/progress meetings in this regard.**
- Consultation with the work force i.e. H&S inductions; toolbox talks; risk assessment training.
- The exchange of design information between the Client, Designers, and Contractors on site.
- Selection **and** control of Contractors i.e. selection criteria; inspections; audits, etc.
- Welfare facilities, first aid, emergency planning and fire prevention strategies.
- The reporting and investigation of injuries and incidents including near misses i.e. what the intended system will be.
- Site specific rules and procedures including the company disciplinary code – enforcement of discipline on site (P/Contractor personnel and sub-contractor personnel).

The Health and Safety Plan will then need to be reviewed and updated as the project develops, as information becomes available pertaining to new risks and as information becomes available from the Contractors carrying out specific activities on your behalf. Unforeseen circumstances or variations to planned work may also arise and must be dealt with by reviewing the health & safety plan (and activity-specific risk assessments) and updating the health & safety procedures set out in the plan (and risk assessments).

6.1.1 Contractors' Health & Safety File(s)

Such Files must contain at least the following documentation / records:

- H&S Plan, risk assessments, HIRA look-ahead programme, fall protection plan;
- Notification of Construction work and copy of construction permit when applicable;
- Copy of the OHS Act and relevant Regulations;
- Emergency plan and telephone numbers;
- H&S inductions records (including visitor inductions), HIRA training, H&S information session records (toolbox talks);
- Management appointments and management organogram for the project (latest update);
- Proof of competence – various personnel and operators;
- Inspection registers – various project-specific planned maintenance inspections, load test certificates, service records, etc.;
- Injury and incident investigation reports and first aid dressing book;
- Safety officer inspection reports;
- Audit reports – monthly audits on sub-contractors;
- Sub-contractor H&S Plan assessments and formal approvals;
- Material safety data sheets – haz chem.;
- PPE issue records;
- Health & safety meeting minutes and attendance registers;
- Medical assessment certificates – workers;
- Disciplinary records and unsafe act/condition warning notices issued.

6.2 Client identified Hazards and Potentially Hazardous Situations

6.2.1 ... H&S Agent-identified Hazards / Hazardous Activities

The following items have been identified by the H&S Agent as potential hazards for this construction project and must be incorporated in the Principal Contractors' and Contractors' health & safety plans where applicable to that contractor's work. **Note that these hazards/activities do not include all usual hazards/activities which should be foreseen by the specific Contractor involved.**

1. Traffic and pedestrian routes to any specific location.
2. Protection of the public – existing roadway and/or pedestrian walkways.
3. Construction vehicles entering and exiting site.
4. Construction related materials on roadways e.g. sand, stone, etc.
5. Site camp/office establishment including the offloading of office containers, and equipment.
6. Noise related to equipment used
7. Dust generated during construction activities

8. Lifting machines, equipment, tackle.
9. Temporary electrical installations if required.
10. Hazardous chemicals such as: solvents, cement, grout, fuels, oils, etc.
11. Ergonomic hazards such as: work above shoulders; repetitive work; manual lifting; etc.
12. Working with heavy plant
13. COVID – 19 disease

These hazards should be used as a starting point by the Principal Contractor and their Contractors so as to elaborate on their own hazard identifications and risk assessments in terms of Section 8 of the OHS Act and General Safety Regulations 2(1).

6.2.2 Unforeseeable Hazards

The Principal Contractor must immediately notify Contractors as well as the Client/Safety Agent, in writing, of any hazardous or potentially hazardous situations that may arise during the performance of construction activities so that the necessary precautions may be taken before such work begins.

6.3 Site Operational Requirements

6.3.1 Health and Safety Representative(s)

At least one health & safety representative is required by every Contractor who has more than 20 employees on a site. Where the total workforce on site is more than 20, the P/Contractor will need to appoint an H&S representative. The Principal Contractor must ensure that Health and Safety Representative(s) are appointed under consultation with the employees. The H&S representatives must be competent to carry out their functions. The appointments must be in writing. The Health and Safety Representatives should carry out monthly inspections, keep records of the inspections and report all findings to the Construction Manager or Safety Officer forthwith and at monthly health & safety committee meetings.

6.3.2 Health and Safety Meetings

The Principal Contractor must ensure that project health and safety meetings are held monthly with minutes kept. Meetings must be chaired by the Principal Contractor's Responsible Person [CR 8(1) person] or suitable CR 8(2) Person if CR 8(1) is not available. Further, CR 8(2), CR 8(7), and CR 8(8) appointees must attend such monthly meetings. All sub-contractor site managers/supervisors must be in attendance. Project H&S meetings will be required as soon as the site team exceeds 20 persons and or more than one sub-contractor is on site and then every month thereafter.

All sub-contractors' Responsible Persons [CR 8(7)], Health & Safety Representatives, and safety officers must attend the Principal Contractor's monthly health & safety meetings.

The following topics must be tabled at meetings: management appointments and risk management portfolios; sub-contractor legal compliance issues; injuries and incidents; hazards and risk assessments (present and foreseen); health & safety procedures; method statements for upcoming activities; planned inspections and registers/record keeping, etc. The meeting chairperson must sign off and date the minutes.

6.3.3 . Health and Safety Training

6.3.3.1 Induction

The Principal Contractor will need to ensure that all site personnel including all sub-contractors undergo a site-specific health & safety induction training session before any worker starts work on the project (termed a 'site-wide' H&S induction session). A record of attendance must be kept in each contractor's health & safety file. Note that all contractors need to induct their own personnel as to their own activity-specific hazards, risks and safe work procedures.

6.3.3.2 Awareness

The Principal Contractor must ensure that, on-site, periodic toolbox health & safety talks take place at least once every two weeks or more often depending on the particular contractor's risk assessment programme requirements. All site personnel including all sub-contractors must attend health & safety talks at such intervals and keep proof thereof. These talks should deal with risks relevant to the construction work at hand i.e. they should be based on the job-specific risk assessments and safe work procedures. Records of attendance

must be kept in the health & safety file. All contractors' employees must attend health & safety awareness toolbox talks carried out by their own supervisors, the attendance registers must be copied to the Principal Contractor together with information on the topics/risks discussed at the session.

6.3.3.3 Competence

All competent persons must have the knowledge, experience, training, and qualifications specific to the work they have been appointed to supervise, control and/or carry out. This must be assessed on a regular basis e.g. training, evaluation, periodic audits, progress meetings, etc. The Principal Contractor is responsible to ensure that Competent Contractors are appointed to carry out construction work on site.

6.3.4 Health & Safety Audits, Monitoring and Reporting

The Principal Contractor is obligated to conduct monthly audits on all Contractors appointed by them and keep audit reports in its health & safety file. Contractors have to audit their sub-contractors and keep records of these audits in *their* health & safety files, made available on request. The H&S Agent will conduct monthly audits on the **Principal Contractor's health & safety management system and sub-contractors' H&S systems** to ensure that contractors are working in accordance with the agreed safety & health requirements/procedures. Refer to Attached **Annexure 'C'** for more details regarding these audits.

In addition to the agreed Client H&S audits on the Principal Contractor, the H&S Agent will require a formal written report to be compiled by the Principal Contractor. This will be the official response to the safety agents report and must be submitted within 3 working days from receipt of the audit report. This report should outline the steps the Principal Contractor has taken or will be taking in order to comply with the noted deviations.

6.3.5. Medical Fitness of Personnel

Contractors must ensure that all personnel undergo medical fitness assessments specific to the work they carry out and the hazards they are/will be exposed to. Such assessments must be conducted by a **certified occupational health practitioner** as required by the Construction Regulations 2014. Should a questionnaire be used as part of the assessment tool then such questionnaire must be administered by a **certified occupational health practitioner**.

Proof of these medical fitness assessments must be available on site in the site H&S file.

Note that the CR's 2014 requires all Contractor personnel to undergo medical assessments based on the work they undertake (not merely work in elevated positions).

6.3.6 Emergency Procedures

The Principal Contractor must prepare an Emergency Procedure prior to commencement on site. The procedure/plan must take into consideration the hazards and potential incidents posed by work to be carried out on this project. The procedure must detail the response plan including the following key elements:

- List of key competent personnel;
- Details of emergency services;
- Actions or steps to be taken in the event of the specific types of emergencies;
- Evacuation procedures;
- Returning the site to an acceptable state, ready for continuing operations

Emergency procedure(s) must include, but shall not be limited to: fire; chemical spills; injury to employees; damage to material/equipment/plant; use of hazardous substances; bomb threats; major incidents/injuries; evacuation; rescue from elevated positions; etc. The Principal Contractor must advise the Client in writing forthwith, of any emergency situations, together with a record of action taken/action to be taken. A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc.) must be maintained and made available to site personnel. The emergency plan may need to be reviewed from time to time as conditions/environment changes.

6.3.7 . First Aid Boxes and First Aid Equipment

All Contractors with more than 5 employees shall supply their own first aid box. Contractors with more than 10 employees must have their own trained, certified first aider on site at all times. **The Principal Contractor will however need to have a first aid box together with splints, eye wash, and a burn kit available in its main office or other suitable position on site. A first aider will be required to be available on site as soon as the total workforce exceeds 10 inclusive of sub-contractor personnel.** Copies of valid certificates are to be kept on site. The Principal Contractor must ensure that any contractor working after hours has the necessary first aid and first aider on duty.

6.3.8 . Personal Protective Equipment (PPE) and Clothing

Contractors must ensure that all site workers are issued with and wear the appropriate PPE as indicated in their own risk assessments. The Contractors must make provision and keep adequate quantities of SANS approved PPE on site at all times according to their risk assessments e.g. hard hats, ear plugs/muffs, gloves, dust masks, goggles/specs, gum boots, safety harnesses etc.

Eye protection must be worn by those working where there is a risk of eye injury. Even those workers in close proximity to these operations will also be required to wear such eye protection.

Safe footwear will be required as decided upon after a risk assessment has been carried out by the respective contractor.

Hand protection must be taken into consideration when assessing the risks associated with certain activities with the aim of minimising the risk of hand injuries.

Hearing protection is required where noise zones are envisaged and/or where activities emit noise higher than 85dB(A).

Work within the bulk excavation will more than likely be considered a noise zone and should be sign-posted as such due to the use of various plant and machinery.

Respiratory protection is required during activities where dust and other airborne vapours/gases/fibres are emitted.

High visibility vests will have to be worn by contractors working in close proximity to construction vehicles and mobile plant.

Visitor PPE must be available in the site office and must at least consist of hard hats, high vis vests and ear plugs.

6.3.9 . Occupational Health and Safety (OHS) Signage

H&S notices and signs should include but not be limited to: 'construction work - no unauthorised entry', 'beware of overhead work', 'hard hat area due to overhead work', 'report to site office', 'beware of mobile plant and vehicles' to be posted up at the entrance to site. **Signage must also be posted up at strategic locations to warn the public of any diversions, alternative through-ways and other irregularities caused by the construction work.** Signs are also required as per legislation e.g. fall hazards, location of fire extinguishers and first-aid box, scaffolding (safe / unsafe) and other potential risk areas/operations such as exposed edges and openings where persons are at risk of falling – **it will be the duty of the Principal Contractor to post up these task-specific safety/health notices and warning signs.** Health & safety signage must be well maintained including weekly inspections, cleaning, replacement and repair.

6.3.10 . Public and Site Visitor Health & Safety

Public walkways and roadways must be kept clean and free of excessive construction materials so as to prevent any negative impact on the public. Public roadways and walkways will have to be cleaned on a regular basis – daily inspections to be conducted by the Principal Contractor with action to be taken without delay (daily). No loading/offloading or other construction activities may take place outside the designated construction site unless authorised by the **Client's P/Agent**.

Site visitors must be briefed on the hazards they may be exposed to as well as what measures are in place or should be taken to minimise these hazards. The Construction Regulations require that a record of these 'inductions' be kept on site.

It will be the duty of the Principal Contractor to manage all site H&S inductions including site visitors.

Visitor hard hats, high visibility vests, and ear plugs must be made available in the site office or other suitable location and issued to visitors before they are exposed to the relevant site hazards.

6.3.11 . Night Work (Before and After Normal Hours)

The Principal Contractor must abide by the working time prescriptions set out by the Client.

The Principal Contractor must ensure that adequate lighting is provided to allow for work to be carried out safely at all times in all areas.

First aid facilities and supervision must be present during all afterhours work.

Work activities during dawn and dusk and at night time will require additional public protection safety measures to be taken e.g. vehicles entering and leaving site, traffic accommodation, pedestrian accommodation, etc.

6.3.12 . Transport of Workers

The Principal Contractor and sub-contractors may not transport persons:

- together with goods or tools unless there is an appropriate area or section to store the tools or equipment;
- in a non-enclosed vehicle, e.g. truck unless there is a canopy (properly covering the back and top) with suitable seating area. Workers shall not be permitted to stand or sit at the edge of the transporting vehicle;
- in bakkies unless they are closed/covered and have the correct number of seats for the passengers being transported.

6.3.13 . Construction Health & Safety Officer

The Principal Contractor co-ordinating earthworks and lateral support operations will need to appoint a part-time construction health & safety officer [in terms of Construction Regulation 8(5) 2014]. It is foreseen that this person dedicates at least two full days per month to the contract. Note that any Contractors appointed by the P/Contractor will also need their own appointed part-time safety officers in terms of CR 8(5).

The following **health & safety officer related duties** will be required to be carried out:

- a) Health & safety audits and inspections including administrative and physical audits of all Contractors' health & safety plans, files and activities, and record findings in the form of audit reports to be kept in the health & safety file;
- b) Fortnightly inspection reports – site hazard survey findings recorded and actions taken recorded;
- c) Assess, and finally approving sub-contractor H&S plans;
- d) Maintain and co-ordinate the Principal Contractor's health & safety management plan and file;
- e) Investigate near misses, incidents and injuries;
- f) Co-ordinate the function of reviewing the hazard identifications and risk assessments;
- g) Assisting with method statements and safe work procedures and checking whether the responsible persons follow these safe work procedures;
- h) Enforcing discipline on the site and checking on compliance with safety procedures, standards and rules;
- i) Co-ordinating health & safety induction training and two-weekly safety awareness sessions;
- j) Implement and enforce the site hot work permit system;
- k) Ensure that public protection protocols are adequate and well maintained;
- l) Conduct planned job observations to check whether workers are carrying out activities in accordance with the safe work procedures;
- m) Fire risk assessments and enforcement;

The appointed H&S Officer will need to be competent in terms of training, experience, knowledge of construction and health & safety and will need to be qualified in terms of the SACPCMP (South African Council for Project & Construction Management Professions) requirements (became applicable from August 2015).

6.4 Physical Requirements

6.4.1 Deliveries, Waste Removal, Stacking/Storage of Materials

The Principal Contractor and other relevant contractors must ensure that there are appointed stacking supervisors and all materials, plant and equipment is stacked and stored safely on the site. No construction materials or equipment may be stacked or stored in public areas unless authorised by the client and fenced off as per the client's requirements. Waste materials must be kept within designated construction zones and removed on a regular basis. All spoil and materials must be stacked and stored far enough away from the edges of excavations.

The Principal Contractor will be responsible for co-ordinating and managing this function. Flagmen will be required where delivery vehicles need to reverse into on-coming traffic lanes.

Access to the sites is generally along existing roads or dirt tracks. However, access to some sites could be problematic especially if wet conditions are encountered. Certain of the drill sites might not be located along access tracks and will require construction of access tracks to the sites. The new access tracks are generally shorter than 100 m.

6.4.2 Fire Extinguishers and Fire Fighting Equipment

The Principal Contractor and its Contractors must provide adequate, regularly serviced fire-fighting equipment located at strategic points on site e.g. site office, plant, store, hot work activities. **Such extinguishers should be suitable for all classes of fire foreseen.** The appropriate notices and signs must be posted up as required. **The Principal Contractor will need to conduct a preliminary fire risk assessment of the site and office compound as soon as possible after setting up on site. Should any questions arise as to the validity of such fire risk assessment conducted by the P/Contractor, the local Fire Department's fire prevention division must be consulted for assistance with such site fire risk assessments to ensure that the necessary fire-fighting equipment is adequate during the construction agent. Such fire risk assessment will have to be reviewed at least monthly and after any incident and/or before any new hot work activity.** Wherever *'hot work' is taking place, additional fire extinguishers must be on hand. Contractors are responsible for ensuring compliance with hot work procedures and must be in possession of method statements detailing the safe working procedures.

*'Hot work' includes all work that generates a spark or flame.

6.5 Plant, Machinery and Equipment

6.5.1 . Construction Vehicles & Mobile Plant

“Construction Plant” includes all types of plant including but not limited to, lifting machines, equipment and tackle, earthworks plant, construction vehicles, compaction plant, piling and lateral support plant, pumps, etc.

The Principal Contractor must ensure that such plant complies with the requirements of the OHS Act, Construction Regulations and any manufacturers' specifications. The Principal Contractor must inspect and keep records of inspections on construction vehicles and mobile plant used on site. Only authorised/competent persons in the possession of the necessary **training certificates** and in possession of a **certificate of medical fitness (valid for one year)** may operate **construction vehicles and mobile plant**. Appropriate PPE and clothing must be provided and maintained in good condition at all times.

Reverse alarms and strobe lights must be installed on construction vehicles i.e. trucks, digger loaders, etc.

Any vehicle or mobile plant using any public road must be roadworthy and carry a license proving this. Likewise any operator of such construction vehicle or mobile plant will have to carry the necessary driver's license.

6.5.2 . Pressurized Equipment (PE) and Gas Bottles

The Principal Contractor must comply with the Vessels under Pressure Regulations, including:

- Providing competency and awareness training to the operators/users;
- Providing the relevant PPE and clothing;
- Inspecting equipment regularly (every 3 months) and keeping records of these inspections;
- Providing appropriate fire-fighting equipment (Fire Extinguishers) on hand;
- Ensuring that oxygen and acetylene bottles are secured in an upright position, do not show signs of corrosion or damage and have flash back arrestors fitted on both torch & bottle ends of hoses.
- Operators must be competent and proven as such.

6.5.3 Hired Plant and Machinery

The Principal Contractor must ensure that any hired plant and machinery used on site is safe for use and complies with the minimum legislated requirements. The necessary requirements as stipulated by the OHS Act and Construction Regulations shall apply. The Principal Contractor shall ensure that operators hired with machinery are competent and that competency and medical certificates are kept on site in the health & safety file. Any load test requirements and inspections in terms of legislation must be complied with and copies of load test certificates and inspections must be kept in the health & safety file. All relevant contractors must ensure the same when they hire plant and machinery.

6.5.4 . General Machinery

The Principal Contractor must ensure compliance with the Driven Machinery Regulations 2015 and General Machinery Regulations, as well as the Electrical Machinery Regulations, which includes carrying out risk assessments on the machines, inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE and relevant clothing, and training those who use machinery.

6.5.5 . Electrical Installations and Portable Electrical Tools

The consulting engineers will ensure as far as possible that the P/Contractor is made aware of the positions of all electrical installations and other services. The Principal Contractor must notify the engineer concerned should it not be sure of the location of any particular service.

The Principal Contractor and contractors must comply with the Electrical Installation Regulations, the Electrical Machinery Regulations and the Construction Regulations.

The Principal Contractor must keep a copy of the Certificate of Electrical Compliance (CoC) for its temporary electrical power supply and installation (should one be supplied). A revised CoC is required whenever the installation is altered or changed in any way. All temporary electrical installations must be inspected at least weekly by a competent person appointed in writing with records kept. Portable electrical tools and equipment must be visually inspected daily by a competent person (trained by an electrician or suitable person to carry out visual inspections on electrical tools and extension leads) before use, with records kept as proof.

6.6 Occupational Health

6.6.1 . Industrial Hygiene (Exposure to Physical and Chemical Stress Factors)

Exposure of workers to occupational health hazards and risks is very common in any work environment, especially in construction. Occupational exposure is a major problem and all Contractors must ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards. Prevent inhalation, ingestion, and adsorption through the skin of hazardous chemical substances.

6.6.1.1 Noise induced hearing loss is a highly underrated occupational condition. Occupational noise emitted by construction machinery and power tools must be controlled as far as possible by implementing engineering solutions such as noise dampening, regular maintenance, servicing and inspection, screening off the noise, and reducing the number of persons exposed. Personal protective equipment such as earmuffs and earplugs must also be used in conjunction with engineering controls so as to reduce noise exposure to below the acceptable levels. **Each and every contractor is required to identify sources of noise which could impact on its personnel, assess the levels of noise, followed by implementing the necessary control measures to reduce the noise to acceptable levels [below 85dB(A)]. This must be clearly set out in the Contractor's hearing conservation programme contemplated in the NIHL Regulations.**

6.6.1.2 Ergonomics is the study of how workers relate to their workstations. We advise the Principal Contractor and Contractors to take this into consideration when conducting risk assessments, thereby improving the worker-task relationship, which will in turn improve productivity and reduce chronic conditions such as back strains, joint problems and mental fatigue, amongst others.

6.6.1.3 Dust control (silica dust) – The Principal Contractor must ensure that dust control measures are implemented and enforced **in order to minimise the levels of exposure to below the legal limits. Nuisance dust must also be controlled by means of damping down stock piles and operations.**

6.6.2 . Hazardous Chemical Substances (HCS)

The Principal Contractor must provide the necessary training and information as far as the use, transport, and storage of HCS. The Principal Contractor and contractors must ensure that the use, transport, and storage of HCS are carried out as prescribed in the HCS Regulations. The Principal Contractor and contractors must ensure that all hazardous chemicals on site have been assessed for risk (written risk assessments for each hazardous chemical in terms of HCSR 5(3) and have Material Safety Data Sheets (MSDS) available and the users are made aware of the hazards and precautions that need to be taken when using the chemicals. The First Aiders must be made aware of the MSDS's and how to treat HCS incidents appropriately. Copies of the MSDS's must be kept in the first aid box and in the store. All containers must be clearly labelled.

Flammable substances must be stored separately, away from other materials, and in a well-ventilated area (appropriate cross ventilation). A competent person should be appointed to be in control of this portfolio.

Stores must be well ventilated, preventing the build-up of flammable and toxic gases/vapours.

No bulk storage of chemicals and similar substances are permitted on this premises – maximum of 40 litres per substance. Should substances have to be held in larger quantities, the contractor concerned will have to notify the local fire department which will have to conduct the necessary inspection and assessment of the site and report accordingly.

Plant and machinery may only be serviced and repaired in designated areas where control measures can be effectively implemented to prevent spills, leaks and other environmental contamination. Drip trays must be used.

6.6.3 . Welfare Facilities

The Principal Contractor must ensure that sufficient toilets (1 toilet per 30 workers), hand washing facilities, soap, toilet paper, and hand drying material are made available at the site in accordance with the Construction Regulations.

Workers must not be exposed to hazardous materials/substances while eating and must be provided with adequate, sheltered eating areas complete with benches and tables. Stores may not double up a change rooms or mess areas.

Adequate undercover facilities must be made available for workers.

6.6.4 . COVID - 19

Compliance with Disaster Management Act, 2002 Gazette number 43258 and DoL Gazette number 43257 dated 29 April 2020 as amended.

Due to the perceived high risk nature of the virus in question with regard to its apparent contagiousness and relatively high morbidity and mortality rate, as well as its spread on construction sites, we believe that contractors need to revise their project specific health & safety plans and the assessment of their activity risks so as to integrate the associated control measures into the daily management of the project.

The following guidelines serve to assist contractors with devising project plans to minimise the spread of the virus.

1. Training and information:

As with general 'site-wide' H&S induction which is carried out by the principal contractor, it would be expected that all site personnel are informed of the COVID-19 site management procedures by the principal contractor in the form of formal information sessions held with small groups at a time. The 1st sessions are to be held on the day that the site commences its operations after lockdown. The observation of the 2m social distancing protocols would need to be enforced. It is then also required that daily info sessions are held by each subcontractor, reminding its personnel of the risks and health/ hygiene protocols to be implemented and enforced.

2. Travel:

It is requested that employees are provided with face masks to be used by them during travel whether it be public or private. The restrictions on social distancing during commuting after lockdown are now known and these would need to be explained to employees.

3. Site access control and screening on entry:

It is advised that site access is formalised so as to include a screening station manned by a site clerk or other suitable person who will question persons on entry and as far as possible make use of a non-touch thermometer as a form of screening. Social distancing would need to be maintained at 2m as advised by best practise information available currently. Such screening would apply to all persons entering site, including site visitors. Note that it is required for visitors to site to be limited to only those necessary e.g. inspections by the appointed consultants and the like.

It is advised that personnel remain on during the day do not visit shops and other public places unnecessarily. The use of breathalysers and biometric readers need to be taken out of service during the next while so as to minimise the contact transmission risks associated therewith.

Question screening would need to ascertain whether the person has come into contact with a 'positive case' and/or whether the person is suffering any of the classic symptoms i.e. cough, flu-like sore muscles, fever, night sweats or shivering, shortness of breath, sore throat.

The temperature screening would be to ascertain whether the person has a potential fever i.e. two readings of more than 37.5°Celsius, 15 minutes apart. After the 1st elevated reading, the person would need to be sent to the isolation zone to undergo the 2nd temperature screening and further questioning. A person with a temperature of over 38°Celsius would need the National Institute of Communicable Diseases (NICD) to be contacted. Contact them on 0800 029 999.

The site would need to identify an isolation area/zone in which such potential infected employees would be kept before deciding on transport to a health facility for further assessment or for dispatch to their home for self-isolation. Note that the assistance of the NICD will assist with the decision as to seek further assessment or to send home for self-isolation. Persons waiting at the isolation zone would need to wear a face mask and have properly sanitized hands and arms.

Persons having passed the screening would need to sanitise their hands and lower arms properly at the screening station and then move to their change areas where they would need to collect their personal protective equipment.

4. General site areas – touch/contact points

Common touch points such as balustrades, door handles, electrical equipment, chair arm rests, clock machines/cards, and the like would need to be cleaned/sanitised regularly. It is thus advised that dedicated cleaning staff be employed where necessary to ensure such things as replenishing sanitising stations and soap dispensers, cleaning elevators, balustrades, etc., and cleaning toilets and associated surfaces.

5. Social distancing:

Social distancing is advised to be at 2m. This would need to be implemented and enforced by site management.

The principal contractor would need to identify 'hot spots' on site where high volumes of personnel gather such as changing areas, mess areas, stores and the like. These would need to be reviewed and perhaps even reconfigured so as to reduce such gatherings to the 2m distancing and to smaller groups.

It is further required that gatherings on site such as meetings, info sessions, task discussions and the like are minimised to essential persons and that distancing is observed at all times. The reason for the distancing is simply to minimise the transmission of the virus through the air (sputum droplets due to coughing, sneezing, spitting while talking) from one person to the next.

Social distancing also needs to be implemented on public transport and at home i.e. away from the workplace. This is easier said than done ;however we await the next set of instructions from our Government wrt post lock-down or lockdown easing social distancing, travel, and gatherings.

6. **Personal hygiene:**
 Apart from the sanitising station on entry to site, the principal contractor would need to ensure that other strategic sanitising stations are set up allowing for regular sanitising of persons' hands. Such stations also need to be set up outside offices, stores, meeting rooms and the like. It is advised that sanitising be done at least once per hour. Adequate numbers of ablution facilities and hand washing basins need to be provided with soap and hand drying paper or similar. Hands need to be washed before eating, after eating, after using the ablutions, on entry to site, and before exiting site, as well as the regular sanitising of hands during the day.
 Info posters need to be posted up at ablutions and at sanitising stations reminding personnel of the risks and hygiene measures to be implemented and enforced, on site, during travel, at home, and in public spaces.
7. **Personal protective equipment and clothing:**
 It is advised, in line with common practise now, that personnel wear face masks as far as possible especially in areas where distancing is difficult and where work is in enclosed spaces. We also await further direction from our Government on this control measure. It is however advised that personnel making use of transport, whether public or private, wear face masks at all times.
 Face masks and gloves should be sanitised at the end of each day and stored adequately. Overalls would also need to remain at work.
8. **Ventilation:**
 Workplaces would need to be adequately ventilated so as to minimise the concentration of viral loads in such areas.
9. **Meetings and other forums:**
 Meetings and other gatherings would need to be limited to the very necessary and should limit the number of persons so as to observe the social distancing requirements. The use of face masks would be a consideration if not a requirement in the short-term during meetings and the like.
10. **Management of persons suspected of having been exposed to the virus:**
Persons who have contracted the disease -
 This is someone who has tested positive to the COVID-19 strain of the virus. Such person will need to be isolated for at least 10 days after which that such person may return to work.
 Persons who may have come into contact with such person, especially those involved on site need to be tracked, traced, and screened so as to decide on self-isolation or testing.
Suspected exposure -
 A person who has an elevated temperature of over 38°Celcius i.e. two successive screenings 15 minutes apart needs to be sent home for self-isolation. Such person needs to wear a mask and must be contacted by his employer (contractor) before the end of the day to assess the person's condition and to advise the person as to whether further health assessment is necessary. A person with a temperature of over 38°Celcius needs the NICD to be contacted for assistance i.e. whether a health assessment is required or whether the person needs to go directly home for self-isolation. This person's contacts need to be tracked and recorded.
 Should a person have come into contact (within 2m) with a confirmed positive case, even if such case only became positive after such contact, the person needs to call the NICD hot line and go directly home for isolation or follow other directions from the NICD which could include a screening or even a test.

6.6.5 . Alcohol and other Drugs

No alcohol and/or other drugs will be allowed on site. No person may be under the influence of alcohol or any other drugs while on the construction site. Any person on prescription medication must inform his/her superior, who shall in turn report this to its Principal Contractor forthwith. Any person suffering from any illness/condition that may have a negative effect on his/her /anyone else's health or safety performance must report this to his/her superior, who shall in turn report this to its Principal Contractor forthwith. Any person suspected of being under the influence of alcohol or other drugs must be sent home immediately, to report back the next day for a preliminary inquiry. The Contractor concerned must follow a full disciplinary procedure and a copy of the disciplinary action must be forwarded to its Principal Contractor for its records.

6.7 Duties of Designers

A designer must ensure that he/she complies with the requirements of the Construction Regulations. Designers have a duty both to assist in health and safety during construction as well as post construction to ensure safe occupation of the structures concerned. This will include informing the [Principal Contractor](#) in writing of any known or anticipated dangers or hazards relating to the construction work, and making available all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered.

Designers must ensure that the following information is included in a report and made available to the Principal Contractor:

- i) The health & safety information pertaining to the design of the relevant structure(s) that may affect the pricing of the construction work.
- ii) The loading that any structure is designed to withstand; and
- iii) The geotechnical science aspects where appropriate.

With reference to the borehole maintenance contract, a written report will be required from each Designer addressing the information set out below (in terms of Construction Regulation 6). The Construction Regulations (CR's) requires Designers (see definition of Designer in CR 1) to make certain information available to the Client (H&S Agent) and Contractors with the aim of 'designing out hazards' as far as possible. The aim of the report(s) would be to address the various headings (set out below) as best possible in an effort to make as much information available to the contractors so that they can improve their H&S management on the actual site.

Items to be addressed by Designers in terms of CR 6:

1. Anticipated or known dangers or hazards (known at this stage) relating to the construction work, foreseen by the Designer, including the relevant information required for the safe execution of the work. This must also include health & safety information about the design which could have an influence on the pricing of the work.
2. Dangerous substances/materials foreseen which cannot be avoided during this particular type of construction.
3. Dangerous procedures foreseen which cannot be avoided.
4. Hazards and risks relating to the subsequent maintenance of the structure/building foreseen and resulting safe work procedures advised.
5. Site inspections to verify whether construction of the relevant work is being carried in accordance with the designs and procedures. How will this be handled by you and your team on the project?
6. The stoppage of contractors where required (by the Designer) - the envisaged protocol to be followed to stop an activity or process on site. How will this be handled by you and your team on the project?
7. The application of ergonomic principles during design - how has and will this be implemented by the respective Designers?
8. Design of temporary works if applicable on this portion of the project e.g. shoring and bracing of excavations if required. You may merely need to refer to the temporary works designer as being a separate entity, appointed by the P/Contractor.
9. The loading that a structure can withstand (in this case the lateral support structure) and/or is designed to withstand - details on this must be included. Please pay special attention to the definition of 'structure' in Construction Regulation 1.
10. Geotechnical-science aspects where appropriate. You may merely have to refer to the geo-tech report and make this available to me and to the Contractors.

Note that no guidance notes have yet been made available from the Department of Labour and the above list therefore represents the Agent's interpretation of the Regulations.

PRIMARY HEALTH AND SAFETY COMPLIANCE

Project: Aquifer – Borehole Maintenance

ANNEXURE A

The Principal Contractor must submit compliance with Annexure 'A' before commencing work on site. Compliance with Annexure 'A' must be maintained and proven to the H&S Agent at audits.

HSS Item No.	Requirement	Legal Reference	Compliance required:
A1	Health & Safety Plan (H&S plan)	Constructions Regs.	Within two weeks of receipt of these Specifications and before work commences.
A2	Notification of Intention to Commence Construction / Building Work	Complete Schedule 1 (Construction Regs)	At least seven days before commencement on site. Fax transmission slip or similar proof in file
A3	Assignment of Responsible Persons to Supervise Construction Work	OHS Act ~ Section 16(2) appointee ~ Construction Manager, Alternate Manager; Assistants, and Activity Supervisors.	Before commencement on site.
A4	Compensation for Occupational Injuries and Diseases – proof of registration	COIDA	Before commencement on site.
A5	Preliminary Hazard Identification and safe work procedures	Construction Regs.	Together with H&S plan.
A6	Fall protection plan (first draft) as defined in the Construction regulations	Construction Regs.	Together with H&S plan.
A7	Method statements required before work starts. <u>See 'annexure D' below.</u> Certain method statements will be required at the outset.	Construction Regs.	Before particular activity begins: See annexure 'D' below for guidance to 'primary method statement compliance'.

HSS = health & safety specifications

OHS Act = occupational health & safety Act

CR = construction regulations

COIDA = compensation for occupational injuries and diseases Act

**ASSIGNMENT OF PRINCIPAL CONTRACTOR'S AND CONTRACTORS'
RESPONSIBLE PERSONS**

Project: Aquifer – Borehole Maintenance

ANNEXURE B

The Principal Contractor must make all the management appointments as set out below.
Compliance with annexure 'B' to be maintained and proven to the safety agent at audits
(Further appointments could become necessary as the project progresses).

Item	Appointment	Legal Reference	Requirement
B1	CEO Assignee or Construction Work Manager	CR 8(1)	A competent person to assist the CEO in achieving compliance with the OHS Act – P/Contractor's / Contractor's Responsible Person. Managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance.
B2	Construction Supervisor Work	CR 8(7)	A full time competent person to supervise and be responsible for health & safety related issues on site. The person is appointed by the Construction Manager CR 8(1)
B3	Subordinate Construction Work Supervisors	CR 8(8)	A full time competent person(s) to assist the CR 8(7) appointee with daily supervision of construction work safety. One of the CR 8(8) appointees must be designated to fulfil the role of the CR 8(7) when such person is not on site. Make this clear in the appointment letter.
B4	Health & Safety Representative(s)	Section 17	A competent person(s) to be appointed to represent the workforce in H&S matters. Reps may attend safety meetings, conduct monthly site audits, attend incident/injury investigations and make recommendations as far as H&S goes.
B5	Health & Safety Committee Member(s)	Section 19	H&S reps, site supervisors/foremen and the safety officer should make up the committee, with the CR 8(7) appointee chairing the committee.
B6	Incident Investigator	GAR 9	A competent person to head up the investigation team and co-ordinate incident/injury investigations on site.
B7	Risk assessment co-ordinator	CR 9	A competent person to co-ordinate the drafting/reviewing/distribution of risk assessments on behalf of the Principal Contractor. The same applies to Contractors.
B8	Fall protection plan co-ordinator	CR 10	A competent person to co-ordinate the drafting/reviewing/distribution the fall protection plan. The same applies to Contractors. SAQA 229994 accreditation
B9	Emergency plan co-ordinator	CR27	A competent person to co-ordinate the drafting/reviewing/distribution of the site emergency procedures/evacuation plan. Such person must be fulltime on site so as to take charge of emergency situations.
B10	First Aider(s)	GSR 3	A certificated person to address first aid situations and take charge of injuries.
B11	Lifting machine and lifting tackle supervisor	DMR 18	A competent P/Contractor employee to co-ordinate the management of lifting machines and tackle, ensuring that such equipment is safe for use at all times, inspected

Item	Appointment	Legal Reference	Requirement
			when necessary and repaired when required. The operators, banks men and contractors to liaises with this person.
B12	Scaffolding inspector	SANS 10085 - 2004	A competent person to inspect scaffolding before use and every time after bad weather, etc.
B13	Scaffold co-ordinator (P/Contractor employee)	SANS 10085 – 2004 Section 15.3	A competent P/Contractor employee to supervise all scaffolding on site, ensuring that scaffolds are safe for use, inspected, extended/alterd, repaired when required and that all trades are co-ordinated and authorised to work on such scaffolds.
B14	Scaffolding erector	SANS 10085 - 2004	A competent person(s) to erect scaffolding – leader of the scaffold team.
B15	Ladder inspector	GSR 13A	A competent person to inspect ladders daily and ensure they are safe for use, keeping monthly record.
B16	Stacking supervisor	CR 28	A competent person to supervise all stacking and storage operations.
B17	Temporary electrical installations inspector	CR 24	A competent person to inspect all temporary electrical installations. Including weekly inspections and record keeping.
B22	Fire-fighting equipment inspector	CR 29	A competent person to co-ordinate & inspect fire-fighting equipment. Including ad-hoc checks and monthly inspections with records kept.
B18	Construction vehicles & mobile plant supervisor	CR 23	A competent person(s) to co-ordinate the safety of all construction vehicles & mobile plant. Ensuring that daily inspections are done and records kept, that safety measures are in place, that operators are certified and authorised to operate and that maintenance and services are carried out when required.
B19	Construction safety officer	CR 8(5)	A competent person to fulfil the functions as set out in these HSS.
B20	Hazardous chemical substances controller	HCSR 5 Spec 2.10.2	A competent person to be appointed to supervise and control the use of hazardous chemical substances.

GENERAL COMPLIANCE REQUIREMENTS**Project: Aquifer – Borehole Maintenance****ANNEXURE C**

The Principal Contractor and Contractors must comply with but not be limited to the requirements tabled below: Prove compliance with annexure 'C' at audits conducted by the safety agent.

Item & Weight	What	When	Output	Reviewed by Client
C1 20	Construction-phase Health & Safety Plan	Monthly review	Principal Contractor to indicate the status of Contractors' health & safety plans.	
C2 10	Health & Safety File(s)	Open file when construction begins and maintain throughout.	Have file on hand at audits. Contractors to report on their file at monthly health & safety audits by the Principal Contractor.	
C3 10	OHS Act and relevant Regulations	Monthly review	To be kept in the health & safety file on site.	
C4 20	Induction training	Every worker before he/she starts work.	Attendance registers to be kept.	
C5 10	Awareness Training (Tool Box Talks)	At least weekly	Attendance registers to be kept.	
C6 10	Health & Safety Meetings	Monthly	Meeting minutes to be kept.	
C7 20	Health & Safety Reports	Monthly	Report covering: - Incidents / injuries and investigations - Non conformances by employees & Contractors - reports - Internal H&S audit reports	
C8 40	Audits on contractors	Monthly	Report covering - H&S File/Plan - WCA status - Appointment letters - Section 37(2) agreements - Risk assessment and method statements - Physical site inspection - Any other contractor specific requirements	
C9 10	Emergency procedures	Monthly evaluation of procedure	Compile written procedure as well as tel. numbers.	
C10 40	Risk assessments & fall protection plan	Updated and signed off at least monthly.	Documented risk assessments to be available.	
C11	Method	Drawn up and	Documented set of safe work	

Item & Weight	What	When	Output	Reviewed by Client
40	statements (Safe work procedures)	distributed before workers are exposed to the risks.	procedures (method statements) reviewed and signed off.	
C12 30	General Inspections	Daily	Report OHS Act compliance: • Portable electrical tools • Mobile Plant • Hoarding • Stacking & Storage	
C13 30	General Inspections	Weekly	• Scaffolding • Temporary Electrical Installations	
C14 20	General Inspections	Monthly	• Fire fighting equipment • First-aid box(es)	
C15 30	General Inspections	3-monthly	• Lifting tackle • Oxy-acetylene cutting & welding sets	
C16 40	General Inspections	6-monthly	• Lifting machines	
C17 40	Load tests / performance tests	Annually / once erected, before use	• Lifting machines	
C18 10	List of Contractors	List to be updated weekly	Compile a list of Contractors: Name, supervisor, company tel. numbers and trade.	
C19 10	Workman's Compensation	Ongoing	Compile a list of Contractors' workman's compensation proof of good standing.	
C20 10	Construction site rules & Section 37(2) Mandatory Agreements	Ongoing	Compile a list of all signed up Mandataries. Proof of agreement documents to be kept in H&S file.	
C21 20	Medicals	Annual renewal	Compile a list of workers who was subjected to medical examinations for activities specific to their work on annexure 3	

OCCUPATIONAL HEALTH & SAFETY – HEALTH & SAFETY COSTS TO BE INCLUDED IN THE PRINCIPAL CONTRACTORS' PRICE

Project: Aquifer – Borehole Maintenance

ANNEXURE D

In terms of the Construction Regulations (2014), it is the Client's duty to ensure that the cost for health & safety has been provided for by the Principal Contractor, before appointment.

Acting on behalf of our Client, we require the following health & safety costs to be provided for by the Contractors. It must be made very clear that these are just some of the health & safety costs to be included in your tender price. It is the duty of the Principal Contractors and their Contractors to ensure that all aspects of the Occupational Health & safety Act 85/1993 and Construction Regulations are catered for.

No.	ITEM	DETAILS	PRICE budgeted by Contractor
1	Personal protective equip. (PPE)	1.1 Safe footwear 1.2 High vis vests 1.3 General PPE as required (hearing Protection, eye protection, etc.). All as per risk assessments by P/Contractor and Contractors 1.4 Lockable, clean areas to store PPE.	
2	H&S induction training	2.1 All workers, Directs, and visitors – <u>Principal Contractor</u> to induct all personnel and visitors during the construction phase. This may include induction of direct contractor personnel and tenant contractor personnel at end of the project if required. 2.2 Induction officer to be designated. This could be the site supervisor or similar competent person designated to site.	
3	First aid management	3.1 First aid box, splints, eye wash, burn kit 3.2 First aider by P/Contractor as soon as total workforce exceeds 10.	
4	First aid training	4.1 Training of first aider(s).	
6	Access control, security and site hoarding	6.1 Gate(s) 6.2 Chains and locks 6.3 Signage and notices 6.4 Fencing to a height of 1.8m and maintenance thereof. 6.5 General area lighting for safety and security reasons 6.6 Site security	
7	Traffic and pedestrian management	7.1 Facility to clean construction vehicles when leaving site (excessive mud from wheels and chassis). Truck must also be inspected for any loose materials and whether loads are stabilised	
8	H&S officer – P/Contractor	8.1 Monthly rate. Two full days per month dedicated to the contract. 8.2 Safety administration – files and paperwork. 8.3 Consolidated H&S documentation at end of the project including all sub-contractor documentation 8.4 Desk, computer, office, telephone, printer, email access. 8.5 Camera and cell phone.	
9	Fire-fighting equip.	9.1 Fire extinguishers as per fire risk assessment by P/Contractors. 9.2 Flammable store – ventilated area separate from other stores.	
10	Electrical compliance	10.1 Temporary electrical connection and supply if required. 10.2 Temporary electrical boards – safety thereof. 10.3 Inspection of installation – weekly. 10.4 Temporary lighting for work areas.	

No.	ITEM	DETAILS	PRICE budgeted by Contractor
11	Welfare facilities	12.1 Toilets. 12.2 Soap. 12.3 Change area. 12.4 Drinking water. 12.5 Toilet paper. 12.6 Lockable containers for PPE. 12.7 Electrical supply and plug points for cooking and hot water. 12.8 Lights.	
12	COVID-19	13.1 2x face cloth masks per person 13.2 No touch thermometer 13.3 Hand sanitizer 13.4 Screening officer 13.5 Screening station 13.6 Information signage	

BASELINE HEALTH & SAFETY RISK PROFILE & RISK RATING MATRIX
Project: Aquifer – Borehole Maintenance
ANNEXURE E

Contractors must ensure that they include an assessment of the activities listed below in their health & safety plan and baseline risk assessment documents. This list is not exhaustive and only includes the activities foreseen by the Client as posing a substantial risk of injury and/or property damage. The risk ratings (E, H, M, L) are an indication of the perceived inherent risk (injury and/or property damage) assessed by the Client based on: severity of injury/damage and likelihood of injury/damage.

The following health & safety control categories must be considered by Contractors and Designers depending on the level of risk (E, H, M, L):

1. Eliminate the hazard (remove the activity altogether)
2. Substitute the hazard (replace the activity with a suitable alternative)
3. Supervision: 3(a) Trade/activity-specific supervision; 3(b) Section/area-specific supervision
4. Written method statement (step-by-step sequence of events incl. the H&S interventions)
5. Engineering controls (barriers, screens, guards, covers, electronics, public protection, etc.)
6. Training: 6(a) H&S Induction; 6(b) HIRA training session; 6(c) Competence training; 6(d) OHS Act training; 6(e) Daily safety task instructions (DSTi's)
7. Planned task observations (PTO's)
8. Inspections and records/registers (preventative maintenance)
9. Sign and notices
10. Personal protective equipment (PPE)

Which H&S control categories to consider:

Extreme risk: make use of all categories 1 – 10

High risk: 3 – 10

Moderate: 3, 4, 5, 6(a)(b), 7, 8, 9, 10

Low: 3(b), 6(a), 9, 10

Activity no.	Activity / Task / Situation	Assessed Risk – rating (inherent risk)	Health & Safety control categories to be considered by Contractors and Designers plus some pertinent issues to be considered:	Designers' input
001	Site camp/office establishment including site access control and fencing.	Medium	<u>Control categories:</u> 3, 4, 5, 6(a)(b), 7, 8, 9, 10 - Emphasis on strict written safe work procedures and training of drivers. - Truck-mounted crane use and safety: HIRA training, inspections and registers, etc. - Controlled gate access and site fencing to be erected before work starts – 1.8m high. - Cape flats is a security risk	-
002	Identification and detection of existing services such as electrical, water, sewer.	High	<u>Control categories:</u> 3 – 10 - As-built drawings / way leaves indicating the existing services must be clear and accurate. - Where doubt exists, detection methods must be used. - Any uncertainty as the exact location of electrical services must be clarified with the respective authorities. The use of detection equipment may be necessary	- As-built drawings to be made available. - Regular site inspections by designers. - Way-leaves from local authorities.
003	Noise & dust	Moderate	<u>Control categories:</u> 3, 4, 5, 6(a)(b), 7, 8, 9, 10 - Dust suppression methods could be required - Medical surveillance for noise zone employees.	- Designers to take this into account when deciding on construction methods.
004	Construction vehicles and mobile plant	High	<u>Control categories:</u> 3 – 10 - Reverse alarms to be checked daily. - Vehicle to be inspected by the driver before departing to ensure stability / securing of load and that vehicles are free of excessive mud. - High visibility vests to be worn by all on site. - Persons and vehicle access ways and entrances to site must be separated. - Strobe amber lights - Lifting equipment and machinery to comply with DMR18	-
005	The use of access ladders	High	<u>Control categories:</u> 3 – 10 - The top two rungs/steps may not be worked on. - Ladders to extend well past the area being accessed and at the required angle.	-
006	Hazardous chemicals and flammable substances use and storage	Moderate	<u>Control categories:</u> 3, 4, 5, 6(a)(b), 7, 8, 9, 10 - Emphasis on storage and ventilation. - An inventory is required from the P/contractor including all chemical substances being used/stored by sub-contractors. Monthly review. - Material safety data sheets to be available for all haz. chem. substances being used. - Sulfamic acid and Hypochlorous will be used	-Do a risk assessment ito HCSR 5(3)
007	Temporary electrical installation	Moderate	<u>Control categories:</u> 3, 4, 5, 6(a)(b), 7, 8, 9, 10 - Electrical contractor to provide a written lock-out procedure to be implemented during work on any temporary electrical installations. - The temporary builders supply must be installed and signed off by an installation	- Electrician to design the temporary electrical installation and issue a CoC after testing.

Activity no.	Activity / Task / Situation	Assessed Risk – rating (inherent risk)	Health & Safety control categories to be considered by Contractors and Designers plus some pertinent issues to be considered:	Designers' input
			electrician. - Temporary supply installations must be supervised and inspected weekly by the appointed responsible person(s).	
008	Portable electrical tools including small plant, generators, leads, etc.	Moderate	<u>Control categories:</u> 3, 4, 5, 6(a)(b), 7, 8, 9, 10 - Trained operators of electrical tools and small plant. - Daily inspections of electrical tools and small plant.	-
009	Working in elevated positions	High	<u>Control categories:</u> 3 – 10 - Using cranes to remove cages - Fall protection plan to be compiled by competent person. - Over under work situations – objects falling below - risk assessment to be location specific	Fall protection plan developer to have SAQA 229994 course
010	Wildlife, snakes, scorpions, etc	Medium	<u>Control categories:</u> 3 – 10 - Training and awareness as well as first-aider must have specific knowledge	
011	Covid-19	High	<u>Control categories:</u> 3 – 10 - <u>Disaster management Act</u> - <u>Dept Labour Regulations</u>	

RISK RATING MATRIX						
Consequence of occurrence (Severity)		Likelihood of occurrence				
	-People, -Property, -Environment	5 - Very likely	4 - Good chance	3 - Likely	2 - Unlikely	1 - Very unlikely
		The threat is expected to occur (once per week, say)	The threat will quite commonly occur (once per month, say)	The threat may occur occasionally (once per year, say)	The threat could occur infrequently (1 in 10 years, say)	The threat may occur in exceptional circumstances (1 in 30 years, say)
A - Disastrous	-Single or multiple fatality. -Virtual complete loss of plant, system, structure(s). -Permanent widespread ecological damage, not able to be remediated.	Extreme	Extreme	Extreme	Extreme	High
B - Critical	-Disabling injury (LTI) resulting in a Section 24 injury or occupational illness i.e. amputation, loss of consciousness, etc. -Extensive damage to plant or system – section 24 incident. -Heavy ecological damage, costly, lengthy remediation.	Extreme	Extreme	Extreme	High	High
C - Serious	-Any lost time injury (LTI) resulting in one or more consecutive days off work. -Significant damage to plant or system. -Major ecological damage but able to be remediated.	Extreme	High	High	Moderate	Moderate
D - Significant	-A medical treatment injury (MTI) i.e. any injury resulting in a worker requiring medical treatment other than first aid, but not being booked off work. -Damages impact on budget and program. -Localised ecological damage, easily remediated.	High	High	Moderate	Low	Low
E - Minor	-Minor First Aid Injury or an injury not requiring treatment. -Minor damage to plant or system. -Negligible ecological damage, may or may not require any remediation.	Moderate	Moderate	Low	Low	Low

**Proof of Contractor H&S competence and resources
in terms of the Construction Regulations 2014
Project: Aquifer – Borehole Maintenance**

ANNEXURE F

Construction Regulation 5(1)(h) requires the Client to assess every Principal Contractor's competence and resources to carry out the work in question safely and without negative effects to the health of its personnel and/or other persons who could be affected by the construction work in question.

It is with this in mind that the following questions are posed. **It is requested that the respondent answers all the questions below and provides the necessary supporting documentation as part of their tender submission.**

1. Company profile or similar, detailing such information as: years in existence; experience and qualifications of senior company officials; support systems e.g. plant yard, maintenance workshops, in-house plant, etc.
2. CIDB (Construction Industry Development Board) grading if any.
3. Registration with any industry associations e.g. SAFCEC or MBA.
4. Previous contracts of similar scope and complexity to the one in question. Note that your appointment as the Principal Contractor will include the oversight and co-ordination of other trades based on the specific scope of work set out in the tender. Have you managed such trades before?
5. A copy of a preliminary risk assessment document and health & safety plan compiled for a similar project within the past two years which was approved by a Client's Health & Safety Agent. Proof required.
6. An H&S audit conducted on a sub-contractor within the past two years – audit report required.
7. The contents of a typical company health & safety file – index page will do (must carry company logo or similar).
8. What calibre of construction manager and foreman would you envisage placing on this project – experience, qualification, knowledge, and training? It is understood that you may not have these persons earmarked at this time however a mere indication of the competence of such person will do.
9. Does your company employ a safety officer or do you consult with an outside safety consultant? Are these persons registered with the SACPCMP (South African Council for Project & Construction Management Professions) – proof will be required?
10. Proof of valid workman's compensation will be required in the form of a letter of good standing. Public liability insurance will also need to be proven.

ANNEXURE G

Project: Aquifer – Borehole Maintenance

Acknowledgement of receipt:

I, _____ representing

_____ Principal Contractor /

Contractor have received the Health and Safety Specifications in good order and shall ensure that the Principal Contractor / Contractor and its personnel comply with all obligations / requirements / specifications in respect thereof. This document is legally binding in terms of Regulation 5 of the Construction Regulations (2014).

Signature of Principal Contractor / Contractor

Date

Signature of Client / Client's Agent

Date

Comments:

(14) FORMS FOR CONTRACT ADMINISTRATION

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

- a) B-BBEE Sub-Contract Expenditure Report **(14.1)**.
- b) Joint Venture Expenditure Report **(14.2)**.

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.

(14.1) MONTHLY PROJECT LABOUR REPORT (EXAMPLE)**ANNEX 1****CITY OF CAPE TOWN
MONTHLY PROJECT LABOUR REPORT****Instructions for completing and submitting forms**General

- 1 The Monthly Project Labour Reports must be completed in full, using typed, proper case characters; alternatively, should a computer not be available, handwritten in black ink.
- 2 Incomplete / incorrect / illegible forms will not be accepted.
- 3 Any conditions relating to targeted labour stipulated in the Contract (in the case of contracted out services or works) shall apply to the completion and submission of these forms.
- 4 This document is available in Microsoft Excel format upon request from the City's EPWP office, tel 021 400 9406, email EPWPLR@capetown.gov.za.

Project Details

- 5 If a field is not applicable insert the letters: NA
- 6 Only the Project Number supplied by the Corporate EPWP Office must be inserted.
The Project Number can be obtained from the Coordinator or Project Manager or from the e-mail address in point 4 above.
- 7 On completion of the contract or works project the anticipated end date must be updated to reflect the actual end date.

Beneficiary Details and Work Information

- 8 Care must be taken to ensure that beneficiary details correspond accurately with the beneficiary's ID document.

- 9 A new beneficiary is one in respect of which a new employment contract is signed in the current month. A certified ID copy must accompany this labour report on submission.
- 10 Was the beneficiary sourced from the City's job seeker database?
- 11 The contract end date as stated in the beneficiary's employment contract.
- 12 Where a beneficiary has not worked in a particular month, the beneficiary's name shall not be reflected on this form at all for the month in question.
- 13 Training will be recorded separately from normal working days and together shall not exceed the maximum of 23 days per month
- 14 Workers earning more than the maximum daily rate (currently R450 excluding any benefits) shall not be reflected on this form at all.

Submission of Forms

- 15 Signed hardcopy forms must be scanned and submitted to the City's project manager in electronic (.pdf) format, together with the completed form in Microsoft Excel format.
- 16 Scanned copies of all applicable supporting documentation must be submitted along with each monthly project labour report. Copies of employment contracts and ID documents are only required in respect of new beneficiaries.
- 17 If a computer is not available hardcopy forms and supporting documentation will be accepted.

PROJECT DETAILS

Numbers in cells below e.g (6) refer to the relevant instruction above for completing and submitting forms

CONTRACT OR WORKS PROJECT NAME: (6)		EPWP SUPPLIED PROJECT NUMBER: (6)														
DIRECTORATE:		DEPARTMENT:														
CONTRACTOR OR VENDOR NAME:		CONTRACTOR OR VENDOR E-MAIL ADDRESS:														
CONTRACTOR OR VENDOR CONTACT PERSON:		CONTRACTOR OR VENDOR TEL. NUMBER:	CELL WORK													
PROJECT LABOUR REPORT CURRENT MONTH (mark with "X")																
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR				

ACTUAL START DATE (yyyy/mm/dd)								ANTICIPATED / ACTUAL END DATE (yyyy/mm/dd) (7)							
TOTAL PROJECT EXPENDITURE / VALUE OF WORK DONE TO-DATE (INCLUDING ALL COSTS, BUT EXCLUDING VAT)															
R															

MONTHLY PROJECT LABOUR REPORT



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

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												
3												
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5												
6												
7												
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16												
17												
18												
19												
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			

(14.2) 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*	%

SignaturesDeclared by supplier
to be true and correct:

.....

Date:

Verified by CCT
Project Manager:

.....

Date:

(14.3) 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	Total value of partner's contribution (excl. VAT) ¹	Value of partner's contribution to date (excl. VAT) ¹	Value of partner's contribution as a percentage of the work executed to date
		A	B = A% x P*	C	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:

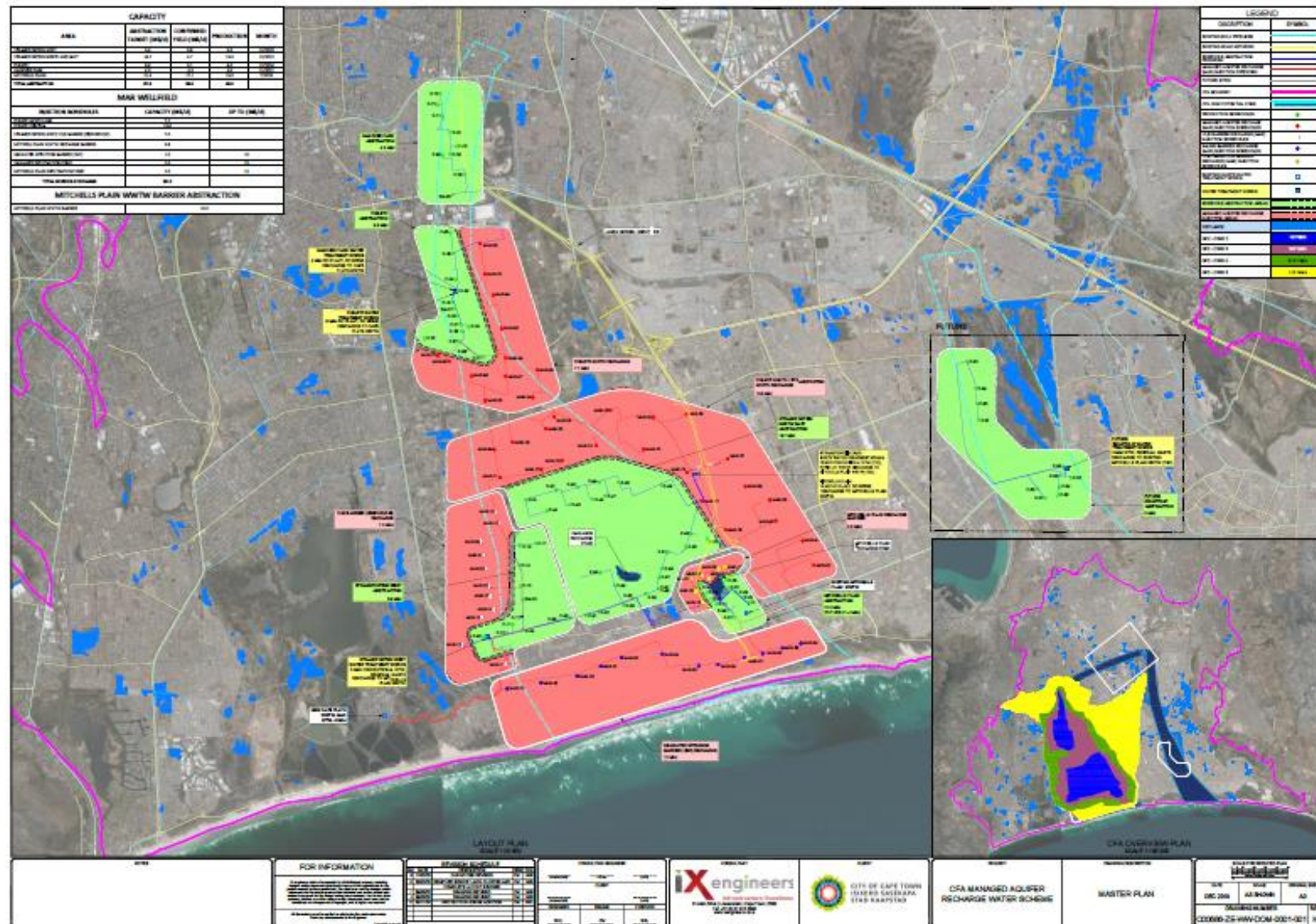
Date:

(15) SITE INFORMATION

The following documents are provided below:

- 15.1 Appendix A – Cape Flats Aquifer Management Scheme Layout Master Plan
- 15.2 Appendix B - Drawings of the Region 1 CFA (Strandfontein West, Mitchells Plain Barrier) wellfields
- 15.3 Appendix C – Construction and coordinates of abstraction, injection and monitoring boreholes in Region 1 Cape Flats Aquifer
- 15.4 Appendix D – Atlantis Water Resource Management Scheme Layout Master Plan
- 15.5 Appendix E - Drawings of the Region 2 Atlantis (Witzands and Silwerstroom) wellfields
- 15.6 Appendix F - Construction and coordinates of abstraction and monitoring boreholes in Region 2 Atlantis

15.1 Appendix A – Cape Flats Aquifer Management Scheme Layout Master Plan



15.2 Appendix B - Drawings of the Region 1 CFA (Strandfontein West, Mitchells Plain Barrier) wellfields

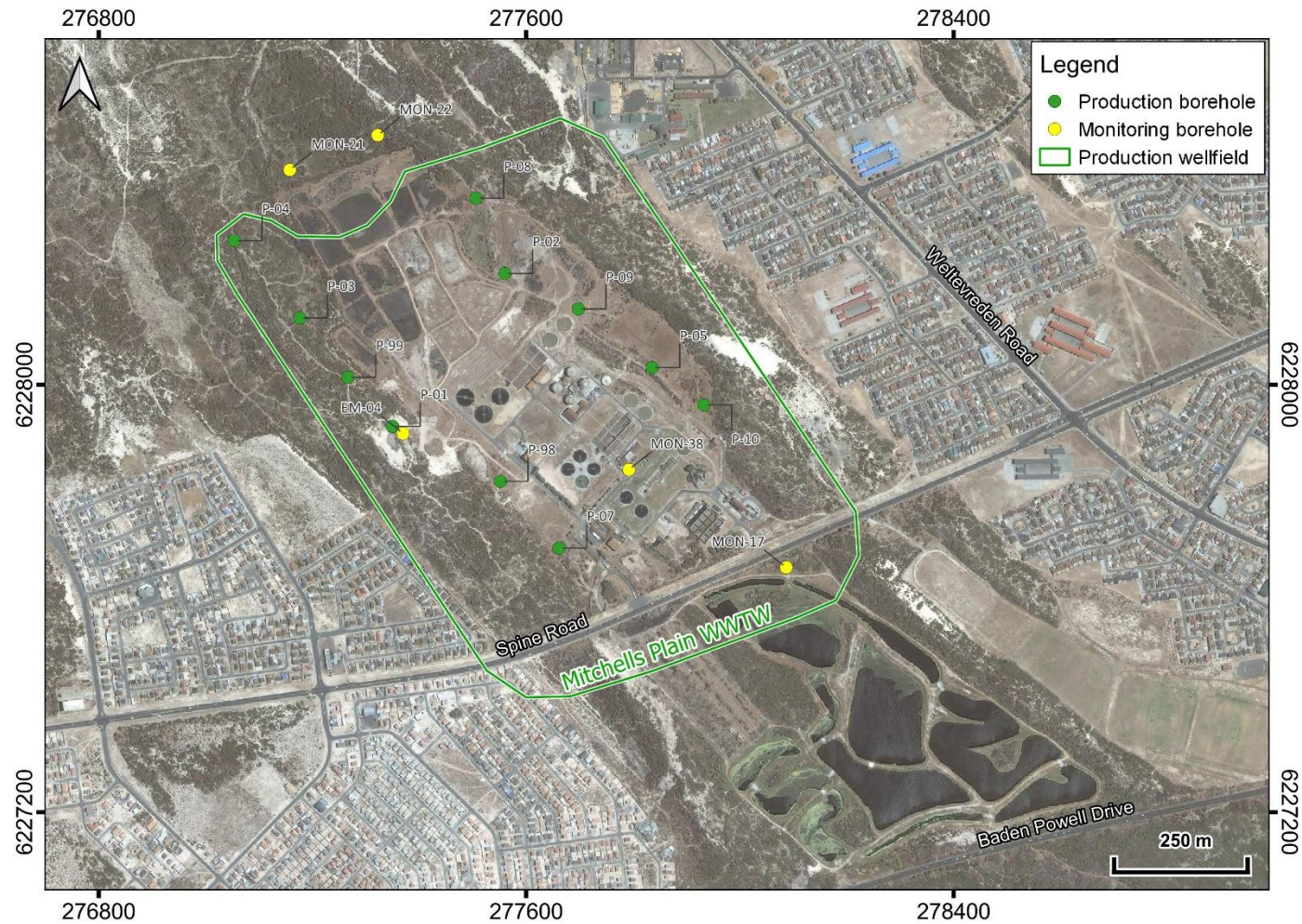


Figure B1: Mitchells Plain Barrier Wellfield Layout

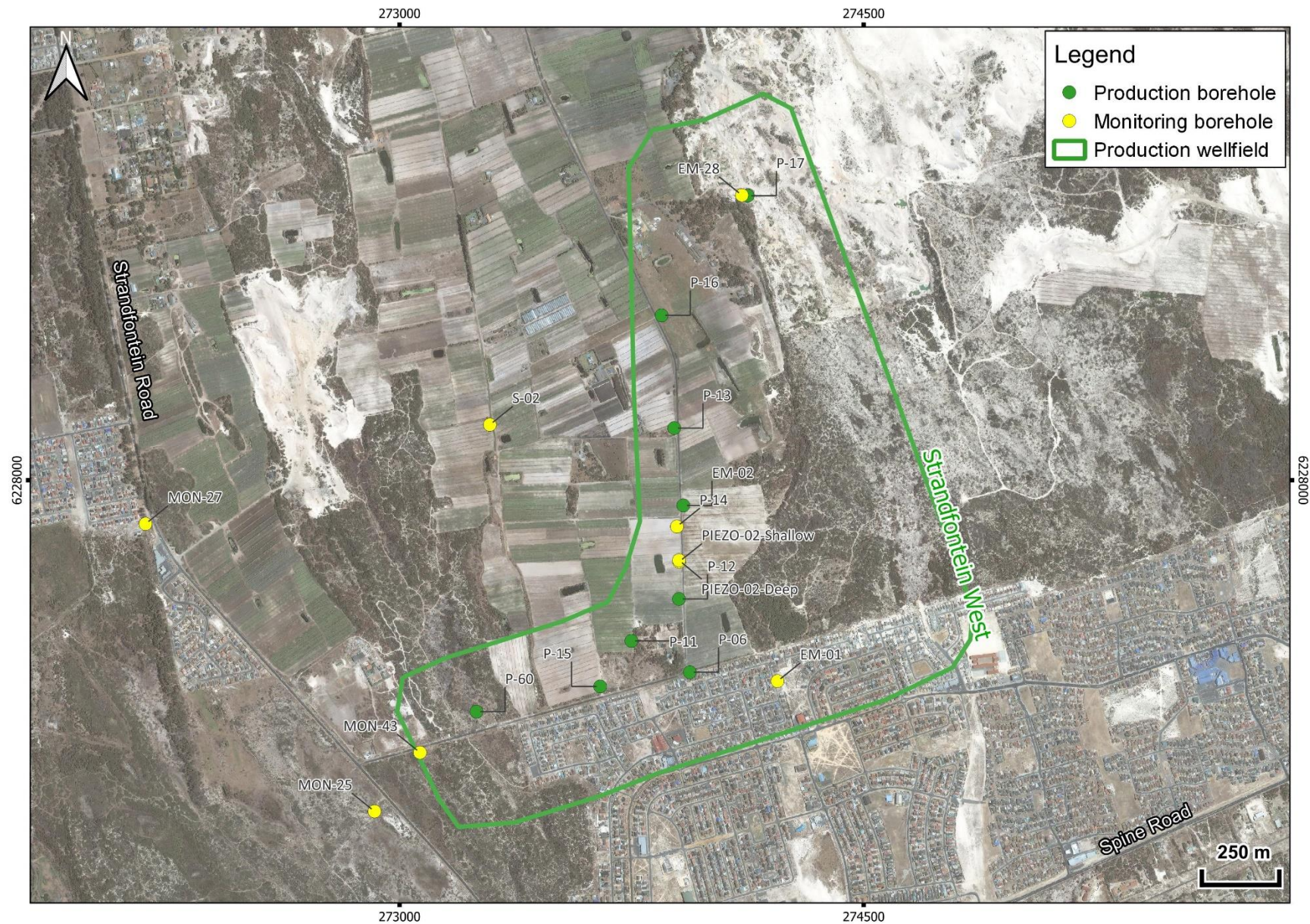


Figure B2: Strandfontein West Wellfield Layout

15.3 Appendix C – Construction and coordinates of abstraction, injection and monitoring boreholes in Region 1 Cape Flats Aquifer

Borehole	X	Y	Elevation Survey	End of Hole	Wellfield Name	Borehole	Casing Diameter
	UTM	UTM	mamsl	mbgl		Type	mm
EM-01	274221.022	6227351.429	20.65	63	Strandfontein West Abstraction	Exploration	165.0
EM-02	273916.699	6227918.601	18.89	49	Strandfontein West Abstraction	Production	165.0
EM-03	275721.710	6227670.421	23.10	60		Exploration	165.0
EM-04	277369.146	6227908.637	26.16	56	Mitchells Plain WWTW Abstraction	Exploration	165.0
EM-05	274525.903	6229874.929	25.80	66	Strandfontein North Abstraction	Exploration	165.0
EM-06	273099.623	6232203.759	22.89	55	Philippi Abstraction	Exploration	165.0
EM-07	272580.981	6233047.963	18.56	49	Philippi Abstraction	Production	280.0
EM-08	273217.733	6233834.149	23.88	39	Philippi North MAR	Exploration	165.0
EM-09	275638.880	6239169.896	28.51	39	Bishop Lavis West Abstraction	Exploration	186.0
EM-10	276471.680	6239665.834	34.33	42	Bishop Lavis West Abstraction	Exploration	186.0
EM-11	276589.950	6241137.210		36		Exploration	
EM-12	278781.755	6241290.458	50.52	41		Exploration	186.0
EM-13	281857.868	6232089.734	29.80	33	Swartklip Abstraction	Exploration	186.0
EM-14	280730.387	6233265.471	33.38	27		Exploration	203.2
EM-15	279183.071	6235698.699	43.15	28		Exploration	203.2
EM-16	285081.080	6235154.570	0.00	12		Exploration	
EM-17A	287279.720	6230112.460	22.55	34		Exploration	186.0
EM-17	281931.113	6231269.669	26.23	32	Swartklip Abstraction	Exploration	169.0
EM-18	286790.140	6229539.999	19.62	33		Exploration	186.0
EM-19	285150.857	6229543.948	20.20	41		Exploration	186.0
EM-20	283451.535	6230352.723	36.61	46	Swartklip Abstraction	Exploration	186.0
EM-21	279307.015	6240635.950	50.03	41	Bishop Lavis East Abstraction	Exploration	186.0
EM-22	277535.356	6233503.381	35.32	37		Exploration	165.0
EM-23	282453.547	6231184.668	32.88	33		Exploration	186.0
EM-24	282171.147	6232718.112	30.19	26		Exploration	186.0
EM-25	272420.951	6230902.465	17.67	30		Exploration	165.0
EM-26	274240.802	6232372.374	25.29	45	Philippi North MAR	Exploration	165.0
EM-27	276190.892	6227571.998	20.22	48		Exploration	165.0
EM-28	274105.704	6228921.227	23.09	53	Strandfontein West Abstraction	Exploration	165.0
EM-29	279770.185	6229369.360	25.66	39		Exploration	165.0
EM-30	273893.597	6227383.134	17.10	39	Strandfontein West Abstraction	Exploration	165.0

Borehole	X	Y	Elevation Survey	End of Hole	Wellfield Name	Borehole	Casing Diameter
	UTM	UTM	mamsl	mbgl		Type	mm
EM-31	272461.713	6236108.771	19.49	38	Hanover Park Abstraction	Exploration	165.0
EM-32	272100.976	6237479.355	19.04	33		Exploration	165.0
EM-33	273067.944	6238242.689	14.46	35		Exploration	165.0
EM-34	275581.951	6236260.086	25.42	26		Exploration	165.0
EM-35	272508.087	6235064.560	20.00	45	Hanover Park Abstraction	Production	165.0
EM-36	272591.917	6233034.312	18.45	48	Philippi Abstraction	Exploration	165.0
EM-38	280342.711	6239637.449	54.51	48		Standby Production	203.2
EM-39	280960.031	6238102.839	0.00	33		Exploration	
EM-40	278953.102	6240300.740	48.52	39	Bishop Lavis East Abstraction	Exploration	165.0
EM-41	276791.039	6238948.414	36.51	36	Bishop Lavis West Abstraction	Exploration	186.0
EM-42	275836.185	6239294.886	31.20	18	Bishop Lavis West Abstraction	Exploration	-
EM-43	275940.551	6239110.110	31.41	24	Bishop Lavis West Abstraction	Exploration	186.0
EM-44	277193.742	6239271.407	39.71	36		Exploration	186.0
EM-45	279527.696	6240364.858	50.47	36	Bishop Lavis East Abstraction	Standby Production	186.0
EM-49	275550.367	6230080.960	27.37	42	Strandfontein North Abstraction	Exploration	165.0
EM-50	282973.274	6230125.190	30.76	42	Swartklip Abstraction	Exploration	186.0
EM-51	272363.879	6235724.677	19.72	38	Hanover Park Abstraction	Exploration	186.0
EM-52	282273.510	6230166.252	23.45	34	Swartklip Abstraction	Exploration	186.0
EM-54	280513.958	6239574.718	56.20	39		Exploration	186.0
MON-01	271872.134	6235168.385	18.87	40		Monitoring	165.0
MON-02	276291.260	6227189.347	18.87	44	SWI Barrier MAR	Monitoring	203.2
MON-03	279748.610	6242057.160	53.80	51		Monitoring	165.0
MON-04	275785.567	6238741.972	30.31	41		Monitoring	165.0
MON-05	281002.875	6236933.088	43.21	30		Monitoring	165.0
MON-06	284902.767	6242930.685	43.19	12		Monitoring	203.2
MON-07	286044.241	6234006.495	28.87	22		Monitoring	165.0
MON-08	281822.627	6234279.972	35.97	22		Monitoring	203.2
MON-09	283812.935	6228548.693	38.87	60		Monitoring	165.0
MON-10	287386.837	6230452.647	21.79	33		Monitoring	165.0
MON-11	287069.164	6228175.836	11.45	28		Monitoring	186.0
MON-12	287449.485	6239855.636	59.29	10		Monitoring	203.2
MON-13	271111.066	6239765.112	7.33	14		Monitoring	160

Borehole	X	Y	Elevation Survey	End of Hole	Wellfield Name	Borehole	Casing Diameter
	UTM	UTM	mamsl	mbgl		Type	mm
MON-14A	270047.457	6231530.917	0.00	31		Monitoring	
MON-14	270043.230	6231541.481	11.28	41		Monitoring	165.0
MON-15	277872.595	6227260.296	21.54	47		Monitoring	165.0
MON-16	278146.918	6227090.036	11.83	36		Monitoring	165.0
MON-17	278086.633	6227658.044	17.09	42	Mitchells Plain WWTW Abstraction	Monitoring	165.0
MON-18	278469.186	6227206.219	13.90	38		Monitoring	165.0
MON-19	277214.940	6228479.283	21.29	48	Mitchells Plain WWTW Barrier MAR	MAR Monitoring	165.0
MON-20	277033.382	6228401.346	22.65	42	Mitchells Plain WWTW Barrier MAR	Monitoring	165.0
MON-21	277157.292	6228401.447	21.50	42	Mitchells Plain WWTW Barrier MAR	Monitoring	165.0
MON-22	277321.964	6228467.105	21.45	45	Mitchells Plain WWTW Barrier MAR	Monitoring	165.0
MON-23	277367.891	6228549.742	21.82	42	Mitchells Plain WWTW Barrier MAR	Monitoring	165.0
MON-24	271761.329	6227002.408	11.45	29		Monitoring	203.2
MON-25	272919.494	6226930.054	16.02	36	Strandfontein West/Vlei Barrier MAR	Monitoring	203.2
MON-26	271230.765	6227598.172	8.32	18		Monitoring	186.0
MON-27	272179.957	6227859.340	17.78	26		Monitoring	186.0
MON-28	271144.337	6229010.414	8.95	17		Monitoring	186.0
MON-29	271901.867	6229293.617	15.55	29		Monitoring	186.0
MON-31	270329.248	6236614.003	17.07	19		Monitoring	165.0
MON-32	282977.256	6235052.936	32.56	20		Monitoring	203.2
MON-33	284439.237	6236758.777	36.87	20		Monitoring	203.2
MON-34	283983.276	6238600.693	38.72	21		Monitoring	186.0
MON-35	284512.269	6240287.246	42.86	24		Monitoring	186.0
MON-36	275746.508	6238966.501	29.87	14	Bishop Lavis West Abstraction	Monitoring	186.0
MON-38	277792.560	6227840.885	19.31	42	Mitchells Plain WWTW Abstraction	Monitoring	165.0
MON-41	277395.967	6226855.646	14.70	39	SWI Barrier MAR	MAR Monitoring	203.2
MON-42	283419.796	6230501.617	32.12	40	Swartklip Abstraction	Monitoring	304.8
MON-43	273065.917	6227119.840	18.01	38	Strandfontein West Abstraction	Monitoring	203.2
MON-44	272021.852	6226475.497	12.36	30		Monitoring	203.2
MON-45	278227.385	6240907.069	46.62	39		Monitoring	165.0
MON-46	278654.348	6240752.579	48.37	36		Monitoring	165.0
MON-47	277865.011	6226977.607	10.68	33	SWI Barrier MAR	MAR Monitoring	169.0
MON-48	277867.946	6226990.867	10.69	31	SWI Barrier MAR	MAR Monitoring	169.0
MON-49	276406.763	6227029.166	20.36	52	SWI Barrier MAR	MAR Monitoring	169.0

Borehole	X	Y	Elevation Survey	End of Hole	Wellfield Name	Borehole	Casing Diameter
	UTM	UTM	mamsl	mbgl		Type	mm
MON-50	276413.233	6227012.085	20.46	51	SWI Barrier MAR	MAR Monitoring	169.0
MON-51	274926.434	6226592.357	16.70	51	SWI Barrier MAR	MAR Monitoring	169.0
MON-52	274912.894	6226581.535	16.38	43	SWI Barrier MAR	MAR Monitoring	169.0
MON-53	274273.713	6226468.666	15.72	39	SWI Barrier MAR	MAR Monitoring	169.0
MON-54	274278.504	6226445.453	15.82	39	SWI Barrier MAR	MAR Monitoring	169.0
MON-57	273672.676	6226329.682	14.09	41	SWI Barrier MAR	MAR Monitoring	177.0
MON-55	277142.050	6227683.570	0.00	48		Monitoring	169 (
MON-58	275050.157	6226653.884	16.81	46	SWI Barrier MAR	MAR Monitoring	165.0
MON-59	275303.736	6226767.433	18.81	52	SWI Barrier MAR	MAR Monitoring	165.0
MON-60	275563.510	6226879.312	19.63	53	SWI Barrier MAR	MAR Monitoring	165.0
MON-61	275700.016	6226938.741	19.32	51	SWI Barrier MAR	MAR Monitoring	165.0
MON-62	276149.360	6227135.558	18.62	51	SWI Barrier MAR	MAR Monitoring	165.0
MON-63	277296.647	6226847.781	10.04	33	SWI Barrier MAR	MAR Monitoring	177.0
MON-64	277054.298	6226828.172	10.51	38	SWI Barrier MAR	MAR Monitoring	177.0
MON-65	277752.223	6226917.709	10.89	33	SWI Barrier MAR	MAR Monitoring	177.0
MON-66	278186.181	6227071.910	11.59	36	SWI Barrier MAR	MAR Monitoring	180.0
MON-67	278169.052	6227056.477	11.76	34	SWI Barrier MAR	MAR Monitoring	177.0
MON-68	278807.652	6227255.330	16.13	36	SWI Barrier MAR	MAR Monitoring	177.0
MON-69	278863.793	6227260.865	15.89	36	SWI Barrier MAR	MAR Monitoring	177.0
MON-70	276154.127	6231190.046	30.79	37	Philippi Central MAR	MAR Monitoring	177.0
MON-71	277192.839	6231051.178	28.47	45	Philippi Central MAR	MAR Monitoring	165.0
MON-72	276533.248	6231183.324	29.72	40	Philippi Central MAR	MAR Monitoring	165.0
MON-73	273636.345	6226762.692	19.82	43	Strandfontein West/Vlei Barrier MAR	MAR Monitoring	165.0
MON-74	273561.718	6226542.521	18.41	44	Strandfontein West/Vlei Barrier MAR	MAR Monitoring	165.0
MON-75	275937.465	6227948.208	21.03	50	Strandfontein East Abstraction	Monitoring	152.4
MON-76	277055.509	6228018.564	20.06	45	Mitchells Plain WWTW Barrier MAR	MAR Monitoring	152.4
MON-77	276912.847	6228219.908	20.65	45	Mitchells Plain WWTW Barrier MAR	MAR Monitoring	152.4
MON-78	275679.542	6226839.738	16.52	45	SWI Barrier MAR	Monitoring	169.0
MON-79	271725.433	6225748.236	17.13	42		Monitoring	169.0
MON-80	277069.058	6229744.225	27.90	42	Philippi Central MAR	Monitoring	115.0
PIEZO-01-Deep	277245.431	6228013.804	27.47	52	Mitchells Plain WWTW Abstraction	Monitoring	125.0
PIEZO-01- Shallow	277245.429	6228013.795	27.47	18	Mitchells Plain WWTW Abstraction	Monitoring	125.0
PIEZO-02-Deep	273903.015	6227741.676	17.56	46	Strandfontein West Abstraction	Monitoring	125.0

Borehole	X	Y	Elevation Survey	End of Hole	Wellfield Name	Borehole	Casing Diameter
	UTM	UTM	mamsl	mbgl		Type	mm
PIEZO-02- Shallow	273903.360	6227736.923	17.57	16	Strandfontein West Abstraction	Monitoring	125.0
PIEZO-03-Deep	272673.738	6232837.065	18.34	42	Philippi Abstraction	Monitoring	125.0
PIEZO-03- Shallow	272674.821	6232833.421	18.31	16	Philippi Abstraction	Monitoring	125.0
PIEZO-04-Deep	277693.429	6226630.730	6.83	27	SWI Barrier MAR	Monitoring	125.0
PIEZO-04- Shallow	277689.570	6226630.233	6.77	7	SWI Barrier MAR	Monitoring	125.0
PIEZO-05-Deep	276280.489	6226374.555	8.69	39	SWI Barrier MAR	Monitoring	125.0
PIEZO-05- Shallow	276280.311	6226374.709	8.69	12	SWI Barrier MAR	Monitoring	125.0
PIEZO-06-Deep	274173.159	6225568.980	10.96	37	SWI Barrier MAR	Monitoring	125.0
PIEZO-06- Shallow	274173.159	6225568.770	10.96	9	SWI Barrier MAR	Monitoring	125.0
PIEZO-09	276963.409	6228149.415	20.30	41	Mitchells Plain WWTW Barrier MAR	MAR Monitoring	115.0
PIEZO-10	277098.699	6227946.216	20.29	46	Mitchells Plain WWTW Barrier MAR	MAR Monitoring	125.0
PIEZO-11	276829.590	6228362.487	23.89	48	Mitchells Plain WWTW Barrier MAR	MAR Monitoring	125.0
PIEZO-12	277079.455	6228430.858	22.58	45	Mitchells Plain WWTW Barrier MAR	MAR Monitoring	114.3
PIEZO-13	277479.396	6228574.199	22.02	48	Mitchells Plain WWTW Barrier MAR	MAR Monitoring	125.0
PIEZO-14	277491.636	6230505.089	29.46	38	Philippi Central MAR	MAR Monitoring	125.0
PIEZO-15	276749.868	6231276.863	30.46	37	Philippi Central MAR	MAR Monitoring	114.3
PIEZO-16	272639.919	6233380.687	18.73	46	Philippi Abstraction	Monitoring	125.0
PIEZO-17	278363.070	6229423.588	24.40	41	Philippi Central MAR	MAR Monitoring	114.3
PIEZO-18	279054.879	6228657.492	21.58	36	Philippi Central MAR	MAR Monitoring	114.3
PIEZO-19	278255.900	6229777.385	25.82	39	Philippi Central MAR	MAR Monitoring	114.3
P-01	277349.710	6227922.210	26.04	50	Mitchells Plain WWTW Abstraction	Production	304.8
P-02	277559.795	6228208.009	21.45	42	Mitchells Plain WWTW Abstraction	Production	304.8
P-03	277176.434	6228125.021	27.43	53	Mitchells Plain WWTW Abstraction	Production	304.8
P-05	277835.528	6228031.855	21.96	45	Mitchells Plain WWTW Abstraction	Production	304.8
P-04	277053.830	6228269.472	26.34	51	Mitchells Plain WWTW Abstraction	Production	304.8
P-06	273937.829	6227379.563	17.60	37	Strandfontein West Abstraction	Production	304.8
P-07	277661.690	6227694.410	20.69	43	Mitchells Plain WWTW Abstraction	Production	304.8
P-08	277506.232	6228349.628	21.58	44	Mitchells Plain WWTW Abstraction	Production	304.8
P-09	277697.812	6228141.869	21.21	45	Mitchells Plain WWTW Abstraction	Production	304.8

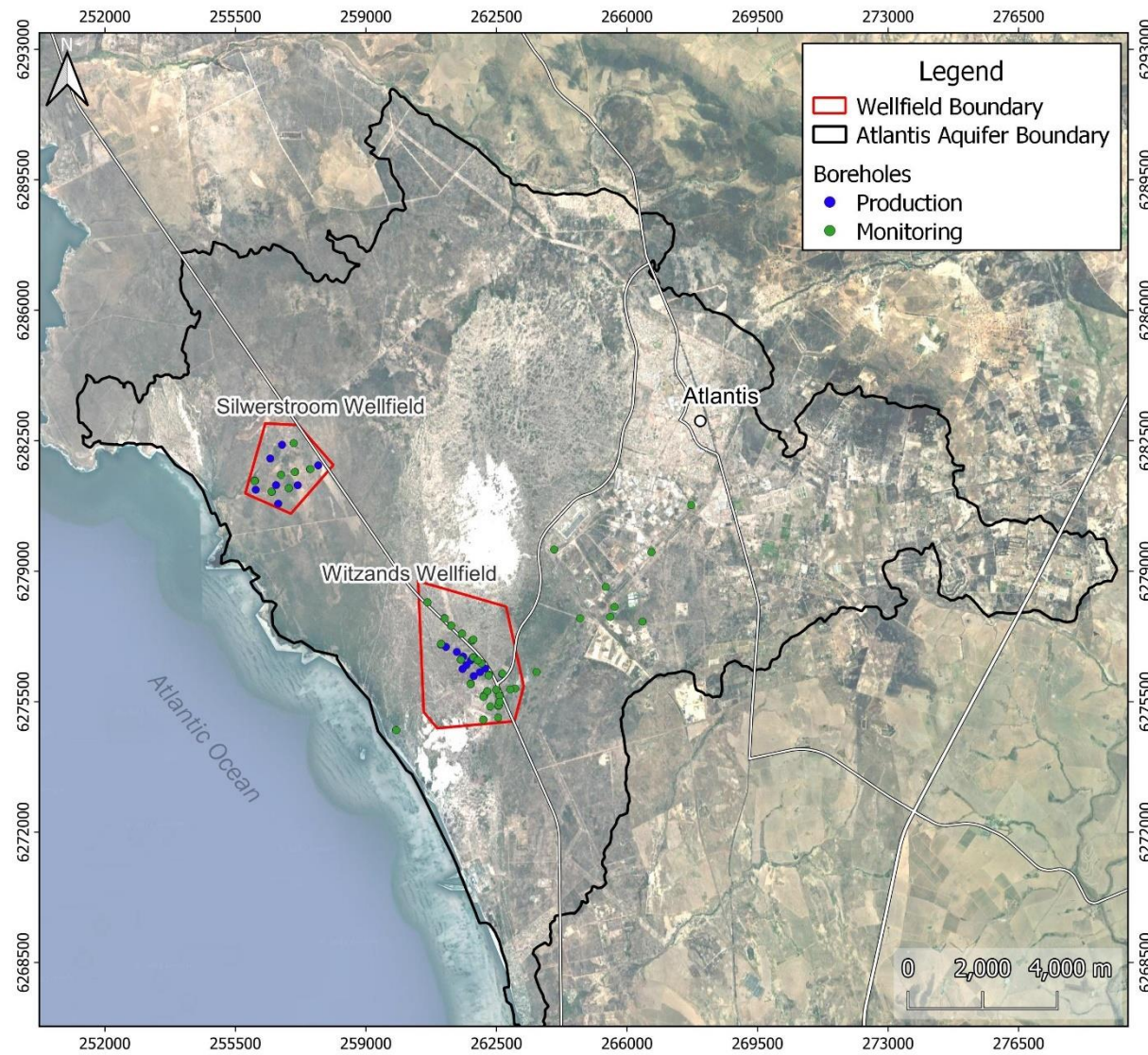
Borehole	X	Y	Elevation Survey	End of Hole	Wellfield Name	Borehole	Casing Diameter
	UTM	UTM	mamsl	mbgl		Type	mm
P-10	277932.083	6227961.997	23.06	45	Mitchells Plain WWTW Abstraction	Production	304.8
P-11	273749.209	6227481.019	16.72	45	Strandfontein West Abstraction	Production	304.8
P-12	273902.372	6227616.958	17.66	49	Strandfontein West Abstraction	Production	304.8
P-13	273887.567	6228168.700	19.25	50	Strandfontein West Abstraction	Production	304.8
P-14	273896.098	6227850.751	18.22	41	Strandfontein West Abstraction	Monitoring	304.8
P-15	273647.992	6227334.471	16.73	48	Strandfontein West Abstraction	Production	304.8
P-16	273847.011	6228533.274	19.49	60	Strandfontein West Abstraction	Production	304.8
P-17	274124.978	6228918.888	23.18	56	Strandfontein West Abstraction	Production	304.8
P-18	273844.130	6228870.260	0.00	55	Strandfontein West Abstraction	Production	
P-19	272546.009	6233160.202	18.62	42	Philippi Abstraction	Production	304.8
P-20	272642.415	6232925.517	18.42	43	Philippi Abstraction	Production	304.8
P-21	272689.351	6232780.117	18.01	44	Philippi Abstraction	Production	304.8
P-22	271840.100	6233221.250	0.00	26		Production	
P-23	272728.100	6232646.201	17.78	48	Philippi Abstraction	Production	304.8
P-25	272063.736	6232505.359	20.58	44	Philippi Abstraction	Monitoring	304.8
P-26	272845.140	6232728.431	19.25	56	Philippi Abstraction	Production	304.8
P-27	273122.119	6232199.973	22.82	51	Philippi Abstraction	Production	304.8
P-28	272447.440	6235783.996	19.77	38	Hanover Park Abstraction	Production	304.8
P-29	272696.089	6235426.257	19.76	36	Hanover Park Abstraction	Production	304.8
P-30A	272556.896	6235933.348	19.03	38	Hanover Park Abstraction	Production	304.8
P-30	272557.574	6235928.220	19.33	41	Hanover Park Abstraction	Production	304.8
P-31	272601.010	6236065.614	19.36	36	Hanover Park Abstraction	Monitoring	304.8
P-32	272450.450	6236173.778	19.48	39	Hanover Park Abstraction	Production	304.8
P-41	275436.130	6239247.030	0.00	26	Bishop Lavis West Abstraction	Production	
P-42	275566.124	6239122.298	27.25	30	Bishop Lavis West Abstraction	Production	304.8
P-43	275748.554	6238969.342	29.92	30	Bishop Lavis West Abstraction	Monitoring	304.8
P-44	274309.516	6229510.614	23.89	42	Strandfontein North Abstraction	Production	304.8
P-45	274715.996	6229621.829	24.46	47	Strandfontein North Abstraction	Production	304.8
P-46	275121.377	6229736.864	25.18	45	Strandfontein North Abstraction	Production	304.8
P-47	275332.821	6229786.004	26.74	38	Strandfontein North Abstraction	Production	304.8
P-48	276325.195	6230000.947	26.55	51	Strandfontein North Abstraction	Production	304.8
P-49	276865.375	6229160.532	24.19	42	Strandfontein East Abstraction	Production	304.8
P-50	276717.279	6228842.350	24.17	42	Strandfontein East Abstraction	Production	304.8

Borehole	X	Y	Elevation Survey	End of Hole	Wellfield Name	Borehole	Casing Diameter
	UTM	UTM	mamsl	mbgl		Type	mm
P-51	276437.480	6228843.813	23.41	42	Strandfontein East Abstraction	Production	304.8
P-52	283574.933	6230306.111	40.17	46	Swartklip Abstraction	Production	304.8
P-53	283373.442	6230334.195	35.36	44	Swartklip Abstraction	Production	304.8
P-54	283376.376	6230140.672	37.14	47	Swartklip Abstraction	Production	304.8
P-55	282993.112	6230101.808	30.87	40	Swartklip Abstraction	Production	304.8
P-57	283124.479	6229941.126	28.98	38	Swartklip Abstraction	Production	304.8
P-59	272641.264	6233375.706	18.70	46	Philippi Abstraction	Production	304.8
P-60	273248.619	6227251.966	16.53	40	Strandfontein West Abstraction	Production	165.0
P-61	273940.927	6229681.081	26.92	43	Strandfontein North Abstraction	Production	304.8
P-62	274460.741	6229873.936	25.78	51	Strandfontein North Abstraction	Production	304.8
P-63	274843.753	6229923.745	26.10	42	Strandfontein North Abstraction	Production	304.8
P-64	275220.603	6230032.910	26.39	36	Strandfontein North Abstraction	Production	304.8
P-65	275566.637	6230036.743	27.30	41	Strandfontein North Abstraction	Production	304.8
P-66	275538.105	6228221.441	24.40	50	Strandfontein East Abstraction	Production	304.8
P-67	274927.485	6228348.996	23.11	42	Strandfontein East Abstraction	Production	304.8
P-68	276317.442	6228174.147	20.98	49	Strandfontein East Abstraction	Production	304.8
P-69	276385.719	6228536.728	24.12	53	Strandfontein East Abstraction	Production	304.8
P-70	276974.248	6229145.178	24.42	42	Strandfontein East Abstraction	Production	304.8
P-71	272286.866	6236446.944	19.69	33	Hanover Park Abstraction	Production	304.8
P-72	272199.445	6236653.617	19.89	29	Hanover Park Abstraction	Production	304.8
P-73	272241.806	6236856.488	19.55	33	Hanover Park Abstraction	Production	304.8
P-74	279308.832	6240551.675	50.61	38	Bishop Lavis East Abstraction	Production	304.8
P-75	278956.116	6240378.445	48.66	32	Bishop Lavis East Abstraction	Production	304.8
P-76	278760.998	6240513.568	48.66	32	Bishop Lavis East Abstraction	Production	302.0
P-78	279448.381	6240421.714	50.43	32	Bishop Lavis East Abstraction	Production	304.8
P-80	272309.119	6235761.132	19.88	38	Hanover Park Abstraction	Production	304.8
P-91	275041.824	6227648.546	28.13	47	Strandfontein East Abstraction	Production	304.8
P-92	275249.529	6227718.997	24.52	56	Strandfontein East Abstraction	Production	304.8
P-93	275706.714	6227860.826	20.68	49	Strandfontein East Abstraction	Production	304.8
P-96	276054.772	6228155.033	21.91	48	Strandfontein East Abstraction	Production	304.8
P-97	276332.607	6228369.304	22.37	50	Strandfontein East Abstraction	Production	304.8
P-98	277551.620	6227818.931	21.25	45	Mitchells Plain WWTW Abstraction	Production	304.8
P-99	277266.277	6228013.986	26.76	50	Mitchells Plain WWTW Abstraction	Production	304.8

Borehole	X	Y	Elevation Survey	End of Hole	Wellfield Name	Borehole	Casing Diameter
	UTM	UTM	mamsl	mbgl		Type	mm
S-01	272350.765	6230801.563	16.60	30		Sonic	125.0
S-02	273291.720	6228179.350	0.00	33	Strandfontein West/Vlei Barrier MAR	Sonic	
S-03	274393.490	6231185.258	27.72	24	Philippi Central MAR	Sonic	125.0
S-04	275435.843	6231382.808	26.52	36	Philippi Central MAR	Sonic	125.0
S-05	276158.317	6231197.147	31.06	36	Philippi Central MAR	Sonic	125.0
S-06	272218.808	6227676.552	17.82	31		Sonic	125.0
S-07	275700.547	6227862.409	20.83	48	Strandfontein East Abstraction	Sonic	125.0
S-08	276850.964	6228323.940	22.01	48	Mitchells Plain WWTW Barrier MAR	Sonic	125.0
S-09	274659.718	6225665.894	6.70	30	SWI Barrier MAR	Sonic	125.0
S-10	279020.820	6226819.834	5.79	27	SWI Barrier MAR	Sonic	125.0
S-11	281141.906	6230100.052	32.95	41		Sonic	114.
S-12	277853.814	6240449.841	44.71	33		Sonic	125.0
S-13	275596.832	6239085.519	27.48	33	Bishop Lavis West Abstraction	Sonic	125.0
S-14	276465.723	6239343.002	34.34	38	Bishop Lavis West Abstraction	Sonic	125.0
S-15	276207.660	6239164.940	0.00	15	Bishop Lavis West Abstraction	Sonic	
S-16	277169.786	6239412.649	39.00	36	Bishop Lavis West Abstraction	Sonic	125.0
S-17	280919.099	6240076.256	52.81	24		Sonic	125.0
S-18	278517.532	6240063.024	45.32	29	Bishop Lavis East Abstraction	Sonic	125.0
S-19	278327.366	6240444.705	48.03	29	Bishop Lavis East Abstraction	Sonic	125.0
S-20	280573.873	6239239.326	53.60	36		Sonic	125.0
S-21	275207.754	6229310.524	23.55	45	Strandfontein North Abstraction	Sonic	125.0
S-22	276033.652	6228771.945	23.93	51	Strandfontein East Abstraction	Sonic	125.0
S-23	276066.142	6229450.222	25.49	42	Strandfontein North Abstraction	Sonic	125.0
S-24	274872.288	6228369.064	23.68	51	Strandfontein East Abstraction	Sonic	125.0
S-25	274196.007	6229465.609	22.76	51	Strandfontein North Abstraction	Sonic	125.0
S-26	275534.395	6228248.002	24.54	51	Strandfontein East Abstraction	Sonic	125.0
S-27	276823.512	6229088.758	23.40	42	Strandfontein East Abstraction	Sonic	125.0
S-28	277811.702	6230024.006	28.31	33	Philippi Central MAR	Sonic	125.0
S-29	278851.766	6229086.740	23.13	36	Philippi Central MAR	Sonic	125.0
S-30	273689.768	6233324.569	24.47	35	Philippi North MAR	Sonic	125.0
S-31	273729.117	6233152.007	24.96	40	Philippi North MAR	Sonic	125.0
S-32	273395.520	6232946.150	0.00	40.5	Philippi North MAR	Sonic	
S-33	273986.178	6232265.797	27.08	46	Philippi North MAR	Sonic	125.0

Borehole	X	Y	Elevation Survey	End of Hole	Wellfield Name	Borehole	Casing Diameter
	UTM	UTM	mamsl	mbgl		Type	mm
S-34	275516.660	6230623.270	0.00	35	Philippi Central MAR	Sonic	
S-35	272463.500	6232168.860	0.00	41	Philippi North MAR	Sonic	
S-36	273549.310	6231619.290	0.00	47	Philippi North MAR	Sonic	
MAR-01	277204.411	6228373.952	22.68	44	Mitchells Plain WWTW Barrier MAR	Injection	812
MAR-02	274275.848	6226457.672	15.70	39	SWI Barrier MAR	Injection	304.8
MAR-03	274909.908	6226589.699	16.66	51	SWI Barrier MAR	Injection	304.8
MAR-04	276411.122	6227017.223	20.33	51	SWI Barrier MAR	Injection	304.
MAR-05	277049.834	6226827.619	0.00	36	SWI Barrier MAR	Injection	304.8
MAR-06	277400.795	6226855.729	14.81	39	SWI Barrier MAR	Injection	304.8
MAR-07	277866.917	6226982.458	10.72	31	SWI Barrier MAR	Injection	304.
MAR-08	277354.159	6228550.054	0.00	42	Mitchells Plain WWTW Barrier MAR	Injection	304.8
MAR-09	277073.628	6228428.789	0.00	45	Mitchells Plain WWTW Barrier MAR	Injection	304.8
MAR-10	273677.904	6226336.079	13.98	34	SWI Barrier MAR	Injection	304.8
MAR-11	273637.852	6226773.276	19.33	42	Strandfontein West/Vlei Barrier MAR	Injection	304.
MAR-18	277102.685	6227943.241	0.00	45	Mitchells Plain WWTW Barrier MAR	Injection	304.8
MAR-19	277474.983	6228584.924	0.00	48	Mitchells Plain WWTW Barrier MAR	Injection	304.8
MAR-20	276962.630	6228153.889	0.00	40	Mitchells Plain WWTW Barrier MAR	Injection	304.8
MAR-21	276834.474	6228364.206	0.00	48	Mitchells Plain WWTW Barrier MAR	Injection	304.8
MAR-26	276153.302	6231199.123	31.10	37	Philippi Central MAR	Injection	304.8
MAR-51	275322.743	6226769.993	19.08	49	SWI Barrier MAR	Injection	304.8
MAR-52	275692.932	6226935.724	19.05	54	SWI Barrier MAR	Injection	304.8
MAR-54	278859.038	6227262.634	16.22	35	SWI Barrier MAR	Injection	304.8
MAR-55	278186.012	6227067.453	11.41	33	SWI Barrier MAR	Injection	304.
MAR-57	277484.636	6230504.940	29.29	38	Philippi Central MAR	Injection	304.8
MAR-59	278254.254	6229781.874	25.94	35	Philippi Central MAR	Injection	304.
MAR-60	278365.575	6229428.683	24.46	36	Philippi Central MAR	Injection	304.8
MAR-61	278846.284	6229085.130	22.89	36	Philippi Central MAR	Injection	304.8
MAR-62	279056.751	6228652.752	21.30	34	Philippi Central MAR	Injection	304.8

15.4 Appendix D – Atlantis Water Resource Management Scheme Layout



15.5 Appendix E - Drawings of the Region 2 Atlantis (Witzands and Silverstroorn) wellfields

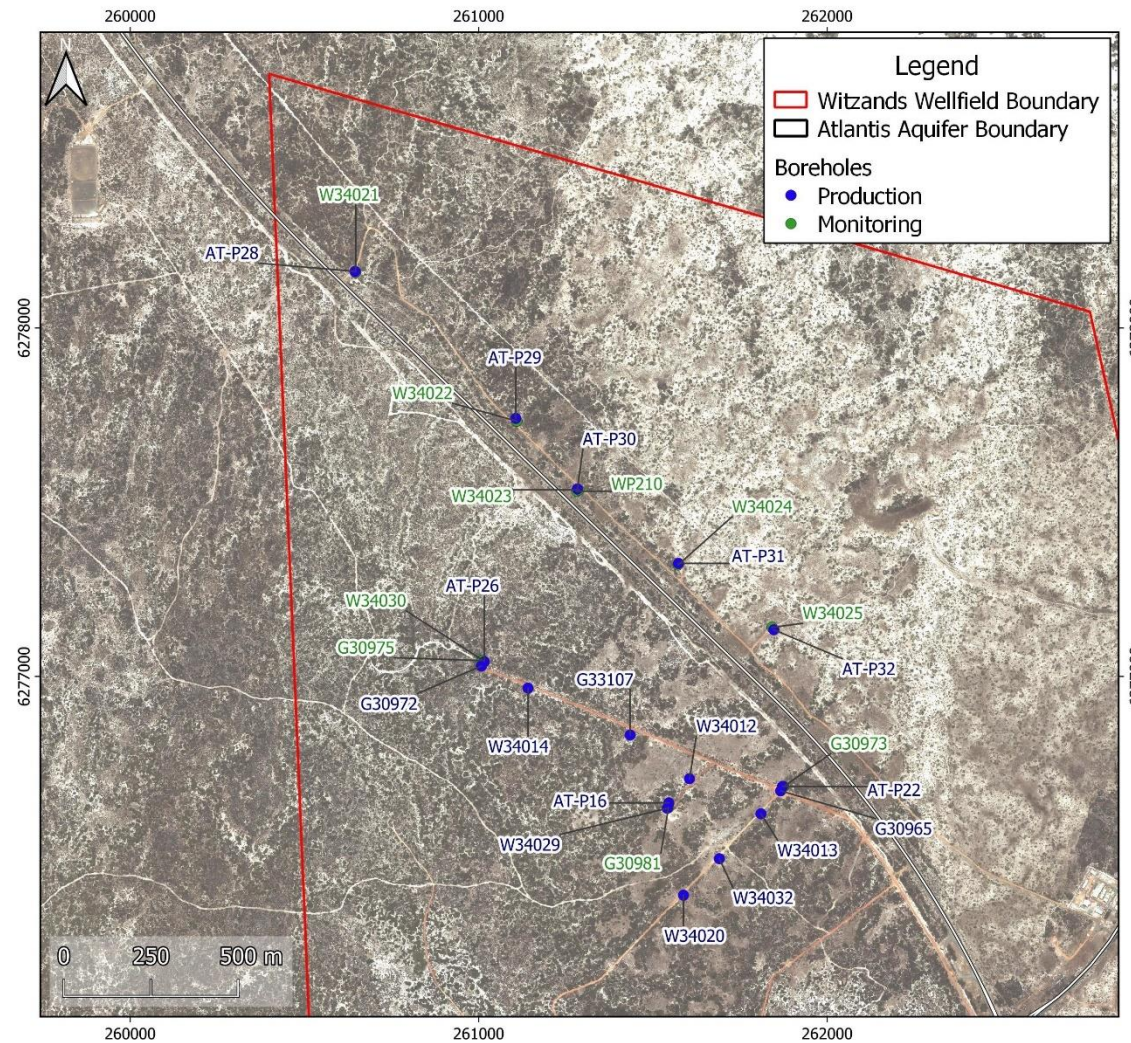


Figure E1: Northern Witzands Wellfield Layout

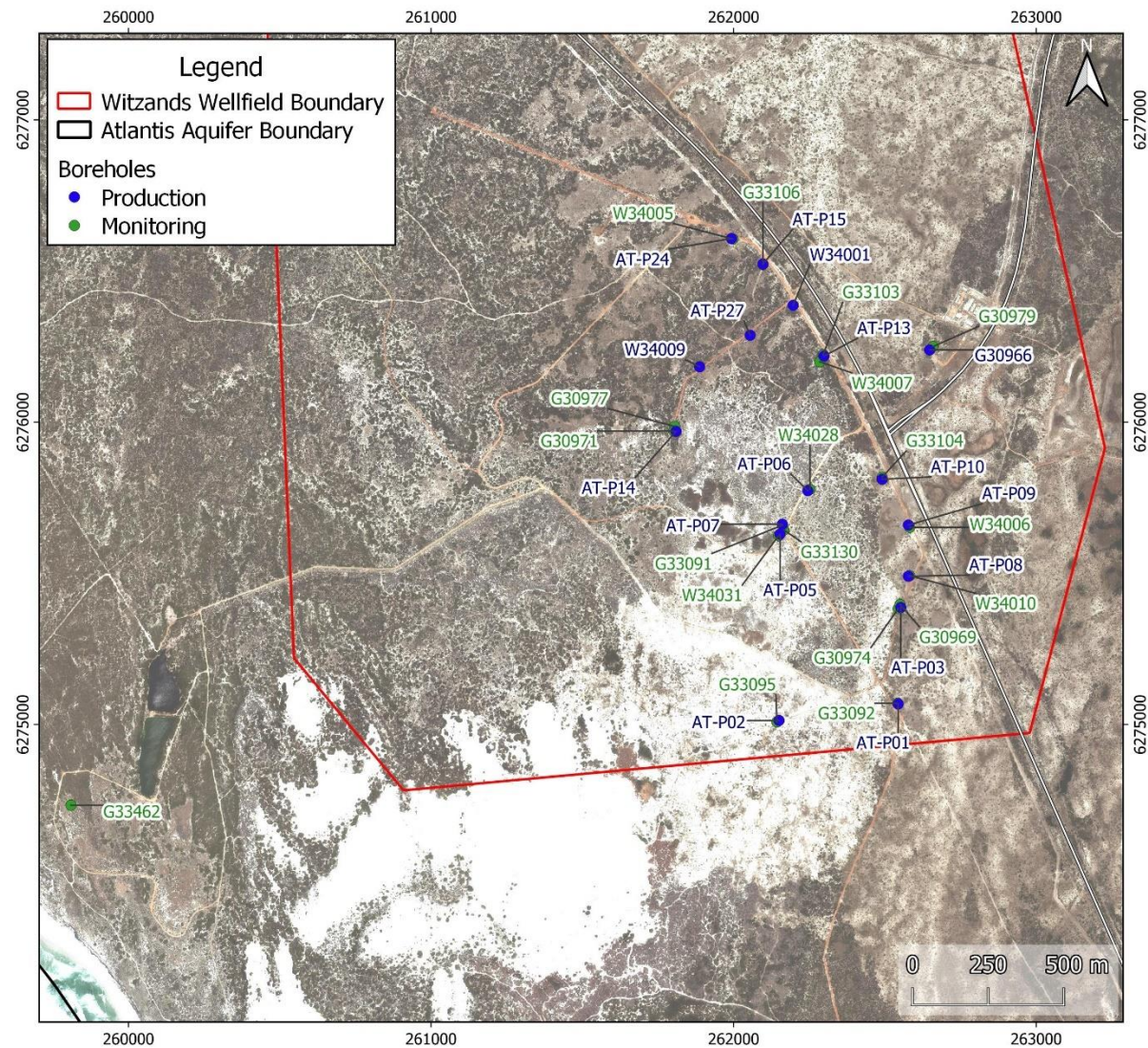


Figure E2: Southern Witzands Wellfield Layout

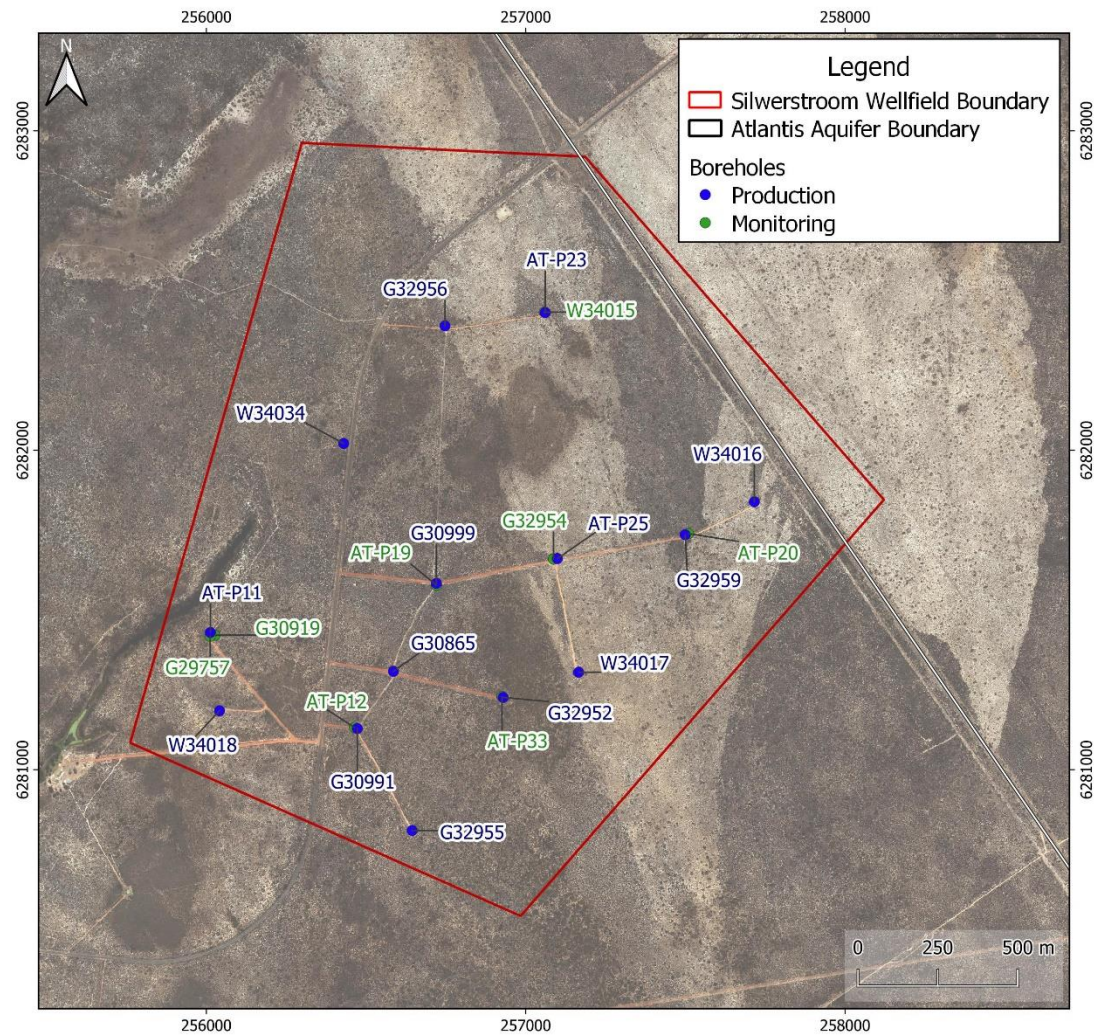


Figure E3: Silverstroom Wellfield Layout

15.6 Appendix F - Construction and coordinates of abstraction and monitoring boreholes in Region 2 Atlantis

Silverstroom Wellfield								
Production								
Borehole	Status	X (UTM)	Y (UTM)	Latitude	Longitude	Elevation	BH Depth (m)	Diameter (mm)
AT-P11	In Production	3717137.63	58375.60	-33.578962	18.371216	31.84	41.00	305.00
AT-P23	In Production	3716156.76	57308.21	-33.570177	18.382775	44.10	36.00	305.00
AT-P25	In Production	3716927.42	57285.21	-33.577126	18.382973	42.55	32.00	305.00
G30865	In Production	3717270.38	57805.08	-33.580190	18.377352	38.82	46.40	152.00
G30991	In Production	3717447.16	57921.69	-33.581777	18.376085	37.92	46.40	200.00
G30999	In Production	3716997.51	57665.17	-33.577737	18.378877	37.98	48.00	220.00
G32952	In Production	3717358.75	57463.17	-33.581005	18.381029	40.09	38.00	195.00
G32955	In Production	3717769.52	57756.21	-33.584692	18.377846	39.51	32.00	195.00
G32956	In Production	3716192.47	57622.79	-33.570482	18.379385	42.77	39.00	195.00
G32959	In Production	3716860.73	56883.66	-33.576546	18.387303	44.74	31.00	195.00
W34016	In Production	3716761.69	56665.16	-33.575665	18.389662	46.11	28.00	250.00
W34017	In Production	3717284.36	57225.27	-33.580347	18.383596	43.27	27.00	250.00
W34018	In Production	3717383.06	58351.64	-33.581176	18.371458	26.63	19.00	250.00
W34034	In Production	3716554.20	57946.93	-33.573725	18.375871	38.60	35.00	250.00
Monitoring								
G30919	Monitoring	256027.085	6281420.959	-33.579	18.371	32.00	9.12	150.00
AT-P12	Monitoring	256463.788	6281131.932	-33.582	18.376	37.90	41.00	305.00
AT-P19	Monitoring	256720.600	6281576.971	-33.578	18.379	38.05	36.00	305.00
AT-P33	Monitoring	256926.087	6281228.255	-33.581	18.381	40.13	36.00	305.00
AT-P20	Monitoring	257510.299	6281738.878	-33.577	18.387	45.07	31.00	305.00
G32954	Replaced	257087.334	6281658.827	-33.577	18.383	42.40	32.00	195.00
G29757	Replaced	256012.192	6281417.566	-33.579	18.371	31.91	43.00	195.00

Witzands Wellfield								
Production								
Borehole	Status	X (UTM)	Y (UTM)	Latitude	Longitude	Elevation	BH Depth (m)	Diameter (mm)
AT-P01	In Production	3723622.65	51970.69	-33.637758	18.439824	51.24	42.00	305.00
AT-P02	In Production	3723669.55	52365.35	-33.638162	18.435568	47.15	40.00	305.00
AT-P03	In Production	3723303.74	51955.76	-33.634884	18.440004	52.57	39.00	305.00
AT-P05	In Production	3723053.39	52350.14	-33.632608	18.435768	52.61	40.21	305.00
AT-P06	In Production	3722911.37	52255.63	-33.631332	18.436795	55.18	43.50	305.00
AT-P07	In Production	3723020.68	52341.92	-33.632313	18.435858	53.20	43.00	305.00
AT-P08	In Production	3723200.87	51928.48	-33.633958	18.440304	52.86	38.00	305.00
AT-P09	In Production	3723031.41	51925.43	-33.632430	18.440346	53.36	39.00	305.00
AT-P10	In Production	3722878.47	52009.19	-33.631047	18.439453	53.16	40.00	305.00
AT-P13	In Production	3722467.28	52193.54	-33.627331	18.437490	57.49	43.00	305.00
AT-P14	In Production	3722706.83	52687.39	-33.629467	18.432154	51.66	45.00	305.00
AT-P15	In Production	3722158.68	52389.47	-33.624540	18.435396	53.72	40.00	305.00
AT-P16	In Production	3722034.88	52938.25	-33.623396	18.429490	51.91	46.00	305.00
AT-P22	In Production	3721993.89	52610.87	-33.623043	18.433020	53.95	42.00	305.00
AT-P24	In Production	3722072.83	52491.91	-33.623760	18.434298	52.19	40.00	305.00
AT-P26	In Production	3721619.56	53459.56	-33.619626	18.423897	52.28	48.00	305.00
AT-P27	In Production	3722393.67	52435.94	-33.626656	18.434882	52.97	41.00	305.00
AT-P28	In Production	3720492.66	53808.96	-33.609449	18.420200	59.11	38.00	305.00
AT-P29	In Production	3720923.33	53355.89	-33.613354	18.425056	53.89	43.00	305.00
AT-P30	In Production	3721129.06	53183.05	-33.615218	18.426906	53.65	42.00	305.00
AT-P31	In Production	3721348.33	52897.20	-33.617209	18.429973	54.29	39.00	305.00
AT-P32	In Production	3721543.98	52627.38	-33.618986	18.432869	53.19	36.00	305.00
G30965	In Production	3722006.63	52616.92	-33.623158	18.432954	53.59	45.00	150.00
G30966	In Production	3722453.86	51844.09	-33.627227	18.441257	55.05	42.00	150.00
G30972	In Production	3721631.65	53468.09	-33.619700	18.423800	51.37	46.00	152.00
G33107	In Production	3721837.85	53045.40	-33.621615	18.428347	53.20	46.00	195.00
W34001	In Production	3722297.33	52292.22	-33.625556	18.436389	54.90	40.00	200.00
W34009	In Production	3722494.87	52604.98	-33.627560	18.433054	52.68	41.00	250.00

Witzands Wellfield								
Production								
Borehole	Status	X (UTM)	Y (UTM)	Latitude	Longitude	Elevation	BH Depth (m)	Diameter (mm)
W34012	In Production	3721966.60	52877.66	-33.622784	18.430147	52.29	40.50	250.00
W34013	In Production	3722071.29	52674.40	-33.623738	18.432331	52.14	39.00	250.00
W34014	In Production	3721697.62	53335.77	-33.620336	18.425226	54.18	36.00	250.00
W34020	In Production	3722300.56	52901.31	-33.581176	18.371458	51.53	36.00	250.00
W34029	In Production	3722050.11	52942.95	-33.623533	18.429438	51.28	43.00	250.00
W34032	In Production	3722197.81	52796.37	-33.624872	18.431009	51.68	37.50	250.00

Witzands Wellfield								
Monitoring								
Borehole	Status	X (UTM)	Y (UTM)	Latitude	Longitude	Elevation	BH Depth (m)	Diameter (mm)
AT-MON01	Monitoring	262328.3816	6275366.299	-33.63501833	18.43758444	54.05	44.00	165.10
AT-MON02	Monitoring	262995.202	6275849.403	-33.63081407	18.44489602	60.77	45.00	165.10
AT-MON03	Monitoring	262866.1322	6275827.657	-33.63098127	18.44349996	55.55	38.00	165.10
AT-MON04	Monitoring	261878.4339	6277164.967	-33.61871104	18.43321865	53.92	35.00	165.10
AT-MON07	Monitoring	264741.3873	6277733.335	-33.61422612	18.46420279	119.30	27.00	165.10
AT-MON08	Monitoring	265547.307	6277771.268	-33.61406206	18.4728922	117.62	27.00	165.10
AT-MON09	Monitoring	265663.0694	6278039.966	-33.61166638	18.47420958	119.50	27.00	165.10
AT-MON10	Monitoring	265427.3771	6278574.722	-33.60679598	18.47181209	123.55	30.00	165.10
AT-MON11	Monitoring	266411.6094	6277646.162	-33.61537929	18.48216763	114.00	30.00	165.10
AT-MON12	Monitoring	264042.9766	6279576.431	-33.59746423	18.45716914	115.20	49.00	165.10
AT-MON15	Monitoring	266651.7453	6279505.536	-33.59867753	18.48524066	130.89	33.00	165.10
AT-MON16	Monitoring	267719.0681	6280771.598	-33.5875024	18.49706315	142.00	45.00	165.10
AT-MON1C	Monitoring	263572.7653	6276290.407	-33.62696886	18.45123434	61.03	32.00	165.10
G30974	Monitoring	262544.0576	6275383.52	-33.63491131	18.43991228	52.23	24.00	195.00
G30975	Monitoring	261007.4612	6277045.402	-33.61959322	18.42380638	51.57	35.00	195.00
G30977	Monitoring	261805.055	6275985.842	-33.629319	18.432113	52.00	35.00	175.00
G30979	Monitoring	262659.1439	6276250.069	-33.627129	18.441383	55.00	35.00	195.00
G33103	Monitoring	262296.1627	6276223.545	-33.62728699	18.43746627	57.18	41.00	195.00

Witzands Wellfield								
Monitoring								
Borehole	Status	X (UTM)	Y (UTM)	Latitude	Longitude	Elevation	BH Depth (m)	Diameter (mm)
G33130	Monitoring	262165.8408	6275643.422	-33.63248502	18.43590761	52.46	31.38	175.00
G33462	Monitoring	259809.2117	6274732.941	-33.64015937	18.41027762	28.19	100.00	195.00
WP210	Monitoring	261280.6725	6277531.132	-33.61527791	18.42687899	53.24	10.00	63.00
G30969	Replaced	262550.01	6275397.02	-33.63491933	18.43992829	52.32	10.32	195.00
G30971	Replaced	261802.6435	6275970.799	-33.629454	18.432083	51.00	35.00	195.00
G30973	Replaced	261875.1764	6276683.495	-33.62304856	18.43305485	53.72	35.00	175.00
G30981	Replaced	261544.2855	6276623.198	-33.62351781	18.42947489	51.26	6.26	195.00
G33091	Replaced	262161.4997	6275659.367	-33.63234038	18.43586511	52.98	43.00	175.00
G33092	Replaced	262541.8973	6275070.213	-33.63773385	18.43980542	51.06	40.00	0.00
G33095	Replaced	262143.0383	6275008.292	-33.6382027	18.43549226	46.53	40.00	180.00
G33104	Replaced	262490.9113	6275818.315	-33.63098176	18.4394558	52.92	38.00	195.00
G33106	Replaced	262096.8263	6276521.792	-33.62455513	18.43539891	53.58	41.00	305.00
W34005	Replaced	261996.9393	6276606.211	-33.62377215	18.43434563	52.04	39.00	200.00
W34006	Replaced	262582.1204	6275651.97	-33.63250095	18.44039388	53.30	14.30	250.00
W34007	Replaced	262284.8408	6276199.86	-33.62749786	18.437338	57.88	40.00	250.00
W34010	Replaced	262581.5198	6275492.281	-33.63393968	18.44034483	52.47	35.00	250.00
W34015	Replaced	257058.7454	6282432.053	-33.57016547	18.3827474	43.96	20.00	250.00
W34021	Replaced	260646.6621	6278160.435	-33.60946538	18.42022016	58.85	38.00	220.00
W34022	Replaced	261109.2617	6277732.477	-33.61342528	18.42508699	53.53	42.00	250.00
W34023	Replaced	261286.9137	6277535.372	-33.61524111	18.42694734	53.25	39.00	250.00
W34024	Replaced	261572.135	6277319.896	-33.61724653	18.42996133	53.94	37.30	250.00
W34025	Replaced	261841.7556	6277140.428	-33.61892394	18.43281707	53.02	34.00	250.00
W34028	Replaced	262251.978	6275777.865	-33.63129288	18.43687135	54.83	13.83	250.00
W34030	Replaced	261010.9548	6277046.439	-33.61958466	18.42384428	52.05	39.50	250.00
W34031	Replaced	262148.5694	6275624.371	-33.63265282	18.43571648	52.83	40.00	250.00