



INVITATION TO SUBMIT FORMAL WRITTEN PRICE QUOTATIONS

RFQ NO.:	RFQ/WSS/2024-25/188
DESCRIPTION OF GOODS / SERVICES:	BIOREMEDIATION TO MDANTSANE AND POTS DAM SEWAGE TREATMENT PLANT (MIDLANDS) FOR A PERIOD OF 30 DAYS – BUFFALO CITY METROPOLITAN MUNICIPALITY (BCMM)

For publication on the Buffalo City Metropolitan Municipality Website and Supply Chain Management Unit Noticeboard

NAME OF BIDDER:	
BCMM SUPPLIER DATABASE REGISTRATION NO.:	
STREET ADDRESS:	
POSTAL ADDRESS:	
TEL NO.:	CELL PHONE NO.:
EMAIL ADDRESS:	FAX NO.:
TOTAL QUOTATION AMOUNT:	R

Issued by:	Prepared by:
The City Manager c/o The General Manager: Supply Chain Management Unit Buffalo City Metropolitan Municipality 80 Phillip Frame Road Chiselhurst East London	Department: Water, Wastewater & Scientific Services 01 Reservoir Road Selborne East London 5201

INVITATION TO SUBMIT FORMAL WRITTEN PRICE QUOTATIONS

Buffalo City Metropolitan Municipality requests your quotation for the goods and/or services listed hereunder in this RFQ document. Bidders are requested to furnish all information requested and return their quotation submission on the date stipulated in this invitation and the RFQ advertisement. Late and incomplete submissions will invalidate the quotation submitted.

RFQ NO.:	RFQ/WSS/2024-25 /188
DESCRIPTION OF GOODS / SERVICES	<p>BIOREMEDIATION TO MDANTSANE AND POTS DAM SEWAGE TREATMENT PLANT (MIDLANDS) FOR A PERIOD OF 30 DAYS – BUFFALO CITY METROPOLITAN MUNICIPALITY (BCMM)</p> <p>To treat sewage effluent to compliant standards in line with the Water Use Licence set criteria per plant using liquid biodegradable bio-enzyme.</p>
ADVERT DATE:	19 NOVEMBER 2024
CLOSING DATE:	26 NOVEMBER 2024
CLOSING TIME:	11:00AM
COMPULSORY BRIEFING MEETING DATE & TIME: VENUE:	Not Applicable
RFQ DOCUMENTS ARE OBTAINABLE FROM:	<p>The BCMM Website – www.buffalocitymetro.gov.za/tenders</p> <p>OR:</p> <p>Request by sending email to sikelewam@buffalocity.gov.za; sibongilesa@buffalocity.gov.za; sitatun@buffalocity.gov.za; bonganinmn@buffalocity.gov.za:</p>
SUBMISSION OF RFQs:	<p><u>Informal</u> Tender Box Supply Chain Management Unit, BCMM 80 Phillip Frame Road Chiselhurst East London</p>
TECHNICAL ENQUIRIES:	<p>Project Manager: Mr. DC Jozana Email: CyprianJ@buffalocity.gov.za Tel: (043) 705 9381</p>
PROCEDURAL ENQUIRIES:	<p>Sydney Vincent Tel: (043) 705 9272 Email: sydneyv@buffalocity.gov.za</p>

NB: NO SUBMISSIONS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE (as defined in Regulation 1 of the Local Government: Municipal Supply Chain Management Regulations)

1.1 GENERAL CONDITIONS OF THE REQUEST FOR QUOTATIONS (RFQ)

BIDDERS ARE REQUIRED TO FAMILIARISE THEMSELVES WITH THE TENDERING CONDITIONS AND PROCEDURES AS DOCUMENTED BELOW.

1. For the purposes of this RFQ document, the words 'bidder' and 'tenderer', and 'RFQ' and 'tender' shall bear the same meaning.
2. 'BCMM,' where referred to in this document means Buffalo City Metropolitan Municipality'.
3. No quotation will be considered unless submitted on this RFQ document.
4. The whole original RFQ document, as issued by BCMM must be submitted. A quotation will be considered invalid and will not be accepted, if any part of this RFQ document is not submitted.
5. Bidders must submit one RFQ offer only, either as a single tendering entity or as a member of a joint venture.
6. Telephonic, telegraphic, telex, facsimile or emailed RFQ submissions will not be accepted.
7. Any portion of the RFQ document not completed will be interpreted as 'not applicable'. Notwithstanding the afore-going, failure to complete any compulsory portion of the RFQ document will result in the RFQ submission being declared non-responsive.
8. **Quotations must be properly received and deposited, on or before the closing date and on or before 11:00am**, in the **Informal Tender Box** at the BCMM Supply Chain Management Unit ('SCMU') situated at 80 Phillip Frame Road, Chiselhurst, East London. If the quotation submission is too large to fit in the allocated box, please enquire at the reception for assistance.
9. **BCMM accepts no responsibility for ensuring that quotations are placed in the correct tender box, and should a quotation be placed in the incorrect tender box, it will be not be accepted.**
10. **BCMM reserves the right to accept:**
 - 10.1 the whole quotation or part of a quotation or any item or part of any item, or to accept more than one quotation (in the event of a number of items being offered), and BCMM is not obliged to accept the lowest or any quotation;
 - 10.2 a quotation which is not substantially or materially different from the RFQ specifications.
11. BCMM shall not consider quotations that are received after the closing date and time, as specified in the RFQ advertisement.
12. BCMM will not be held responsible for any expenses incurred by bidders in preparing and submitting quotations.
13. BCMM may, after the RFQ closing date, request additional information or clarification of submitted quotations, in writing.
14. A quotation may be rejected as non-responsive if the bidder fails to provide any clarification requested by BCMM within the time for submission stated in the written request for such clarification.
15. A bidder may request in writing, after the closing date, that its quotation be withdrawn. Such withdrawal will be permitted or refused at the sole discretion of BCMM after consideration of the reasons for the withdrawal, which shall be fully set out by the bidder in such written request for withdrawal.
16. The RFQ document must be signed by a person duly authorised to do so.
17. Quotations submitted by joint ventures, consortia, partnerships shall be accompanied by a joint venture, consortium, partnership agreement, in which it is defined precisely the conditions under which the joint venture, consortium or partnership will function, its period of duration, the persons authorised to represent

and obligate it, the participation of the several firms of which it is formed, and any other information necessary to permit a full appraisal of its functioning.

18. **Once the RFQ is awarded, all purchases will be made through an official BCMM Purchase Order. Therefore, no goods must be delivered or services rendered before an official Purchase Order has been forwarded to the successful bidder. The successful bidder must then deliver or render service upon receiving an official signed Purchase Order from BCMM.**

19. **Evaluation of RFQs**

- 19.1 **Quotations will be evaluated in accordance with the evaluation criteria set out in the Special Conditions of the Request for Quotations.**

- 19.2 Quotations will be evaluated for price and preference using the 80/20 preference points system as follows –

Price	80
Specific Goals	20

- 19.3 Unless otherwise stated in the Special Conditions, a contract will be concluded with the bidder who complies with the evaluation criteria, and scores the highest total price, BBBEE and locality points.

- 19.4 Bidders prices must include all taxes.

20. **Test for Responsiveness**

20.1 **Invalid Submissions**

Quotations shall be invalid if:

- (a) The quotation submission is not sealed when submitted into the tender box.
- (b) The quotation submission is not completed in non-erasable ink.
- (c) The form of offer has not been completed.
- (d) The bidder has been listed on the National Treasury's Register for Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, or has been listed on the National Treasury's List of Restricted Suppliers and who is therefore prohibited from doing business with the public sector.
- (e) The bidder is prevented from doing business with BCMM in terms of Regulation 38 and 44 of the Supply Chain Management Regulations (MFMA).

20.2 **Non-responsive Submissions**

Quotations will be declared as non-responsive and eliminated from further evaluation in the following circumstances –

- (a) The submission has not achieved the minimum score for functionality as set out in the evaluation criteria, where functionality is applicable.
- (b) Where there are material deviations or qualifications to the RFQ which in BCMM's opinion would –
 - (i) Detrimentially affect the scope, quality or performance of the works, services or supply identified in the scope of works;
 - (ii) Significantly change BCMM's or the bidder's risks and responsibilities under the contract, or
 - (iii) Affect the competitive position of the bidder, or other bidders presenting responsive submissions, if it were to be rectified.

- (c) The submission will be declared non-responsive if the bidder fails to adhere to a written request (within the specified period set out in such request) to –
 - (i) Comply with the general conditions applicable to RFQs as contained in the BCMM Supply Chain Management Policy;
 - (ii) Complete and/or sign any declarations and/or authorisations;
 - (iii) Submit items 2 - 3 of the list of returnable documents in Part 2 (section 2.1) of this bid document.
- (d) **The bid will be declared non-responsive in the event that the bidder's tax matters, as verified on the government Central Supplier Database, are shown not be in order, and the bidder fails to ensure that its tax matters are in order within such timeframe as may be required by BCMM in writing.**

21. **Clarification of quotation after submission**

The bidder must provide clarification of its submission in response to a request to do so from BCMM during the evaluation process. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of bidders or substance of the submission may be sought, offered, or permitted.

22. **Provide other material**

The bidder shall provide, on request by BCMM, any other material that has a bearing on the RFQ submission, the tenderer's commercial position (including notarized joint venture agreements), or samples of materials, considered necessary by BCMM for the purpose of a full and fair risk assessment. Should the bidder not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in BCMM's request, BCMM may regard the RFQ submission as non-responsive.

23. **Inspections, tests and analysis**

The bidder shall, at the request of BCMM, provide access during working hours to its business premises for any inspections, tests and analyses as required for the RFQ.

24. **Securities, bonds, policies, etc**

If required, the bidder must submit for BCMM's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract.

25. **BCMM supplier database**

- 25.1 **Bidders must be registered on the BCMM Supplier Database or meet the listing criteria set out in the BCMM Supply Chain Management Policy, in order to be considered responsive to the RFQ.**
- 25.2 Bidders must be registered within 7 days of being requested to do so, failing which its submission shall be declared to be non-responsive.
- 25.3 It is each bidder's responsibility to keep all the information on the BCMM Supplier Database updated. If any information required (e.g. tax clearance certificate, CIDB certificate, etc) is not valid or has expired, all transactions with the vendor may, in the sole discretion of BCMM, be suspended until such time as the correct, verified information is received.

26. **Tax compliance status**

- 26.1 **No award shall be made to a person whose tax matters have not been declared to be in order by the South African Revenue Service (SARS).**
- 26.2 **Each party to a consortium, joint venture or partnership must comply with the above.**

27. **Declarations and authorisation**

Bidders are required to complete all statutory declarations and authorisations in the schedules attached to this RFQ document, failing which the submission may be declared non-responsive.

28. **Samples**

If the specifications require a bidder to provide samples, these shall be provided strictly in accordance with the instructions set out in the special conditions of the RFQ below.

29. **Alterations to tender document**

Bidders may not make any alterations or additions to the RFQ document, except to comply with instructions issued by BCMM, or as are necessary to correct errors made by the bidder. All signatories to the RFQ submission shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

30. **Objections, Complaints, Queries and Disputes / Appeals in terms of Section 62 of the Systems Act**

30.1 **Objections, complaints, queries and disputes**

Persons aggrieved by decisions or actions taken by BCMM in the implementation of the supply chain management system or any matter arising from a contract awarded in terms of the supply chain management system may, within 14 days of the decision or action, lodge a written objection or complaint or query or dispute against the decision or action.

30.2 **Section 62 Appeals**

- (a) In terms of section 62 of the Systems Act, a person whose rights are affected by a decision taken by a political structure, political office bearer, councillor or staff member of a municipality in terms of a power or duty delegated or sub-delegated by a delegating authority, may appeal against that decision by giving written notice of the appeal and reasons to the Accounting Officer within 21 days of the date of notification of the decision.
- (b) An appeal shall contain the following:
 - (i) The reasons and/or grounds for the appeal;
 - (ii) The manner in which the appellant's rights have been affected;
 - (iii) The remedy sought by the appellant.

30.3 **Lodging of appeals, objections, complaints, queries and disputes relating to this tender**

Appeals, objections, complaints, requests for information, queries and disputes must be submitted in writing to the Office of the Municipal Manager, 10th Floor, Trust Centre Building, Cnr of Oxford & North Streets, East London, OR by email, amandaq@buffalocity.gov.za .

30.4 **Additional objective criteria as per section 2(1)(f) of the PPPFA**, will apply, as indicated in the tender document and which may include, but is not limited to:

- Poor track record of the preferred bidder.
- Unrealistic price offering which is not market related.
- Unrealistic own conditions set by the bidder.

When using the list of accredited prospective providers, the municipal manager must promote ongoing competition amongst providers, including by inviting providers to submit quotations on a rotation basis, unless differently specified during the procurement process

1.2 SPECIAL CONDITIONS OF THE REQUEST FOR QUOTATIONS (RFQ)

The special conditions qualify or are in addition to the general conditions in section 1.1 above. In the event of any ambiguity or inconsistency between the general conditions and the special conditions, the latter shall have precedence.

These special conditions, the general conditions, and the returnable schedules are only required for evaluation purposes and shall not form part of any contract arising from the invitation to tender.

General Conditions Clause No.	Additions or Variations to General Conditions
Clause 13 & 21 CLARIFICATION OF RFQ SUBMISSION	Where a bidder is requested to provide additional information or clarification of its submission, this shall not be an opportunity for the bidder to bolster its submission in any way, so as to afford it an unfair competitive advantage.
Clause 16 AUTHORITY OF SIGNATORY	The bidding entity must submit a letter of authority on its letterhead authorising the signatory to this RFQ to sign all documents in connection with the RFQ, and any contract which may arise therefrom, on behalf of the bidding entity. The letter of authority must be attached to Schedule A.
Clause 18	After the Service provider has been notified of the Award and signs Letter of Award, the bidder will have to wait for an official signed Purchase Order before commencing with the delivery or rendering of services appointed for.
Clause 19 EVALUATION OF RFQs	RFQs will be evaluated in accordance with the evaluation criteria set out on page 8-10 of this document.
Clause 23 INSPECTION, TESTS AND ANALYSES	No inspections, tests and analyses shall be required for this RFQ.

RFQ EVALUATION CRITERIA

The Buffalo City Metropolitan Municipality (BCMM) is exploring the market to understand viable and commercially available products or innovations with proven track record and capabilities for the restoration of waste water quality prior to release to aquatic systems, including, but not limited to: wastewater treatment plants, lakes, ponds, vleis, oceans, rivers and estuaries by breaking down organic wastes & eliminating pathogens.

In order for the City to understand which product(s) would be most effective, the following critical information is required (detailed responses are expected):

- product application requirements,
- product cost per volume water treated per cubic metre and illustrate how this compares to conventional treatment methods
- water quality results that highlight the efficacy of the relevant treatment product.
- Product accreditation / relevant certification.
- Submit **1kg product sample** for performance verification in our in-house lab against submitted claimed performance results obtained from an accredited lab, failure to submit such sample by the tenderer shall result in their submission being deemed **non-responsive**
- Tenderer shall either be a manufacturer or an approved distributor or supplier
- Tenderer shall submit a documentary proof showing if a manufacturer, an approved distributor or a supplier
- Tenderer to transport product using own vehicles or third party arranged transport
- The liquid product should yield positive performance within 18 hours of its application in low or high flow rate
- The product from the tenderer has to treat wastewater to meet the best permissible limits as indicated in table of limits below
- The tenderer shall supply and deliver a product that has a minimum shelf life of 5 years and should also advise on storage requirements to meet the shelf life
- Secured uninterrupted supply of the product must be assured
- Tenderer must supply Material Safety Data Sheet (MSDS) of their product
- Certificate of analysis (COA) certifying the quality, purity, composition and specifications of the product material
- Technical support personnel details and their roles must be provided
- Previous and or current supply trails, and delivery contracts of product details must be declared

The product shall not:

- discolour the water in any way,
- leach toxic chemicals/bio-chemicals into the water body or waterway,
- adversely affect water quality in any way,
- be of a pallet / grain or powder form,
- be used in conjunction with other products for “optimum performance”,
- Contain any binding agents / chemicals of any sort
- Cause further damage the water quality

The product must be capable of performing the following:

- Phosphorus Reduction
- Nitrogen Reduction (Eliminates floating sludge problems)
- Lower Fats, Oils and Greases
- Significant & immediate odour reduction
- Pathogen Reduction / Elimination
- Sludge (Class A – Pathogen Free)
- Eliminates Struvite Problems
- Eliminate (not mast) odours quickly
- Metabolize nitrates and phosphates into amino acids and proteins.

The product required must be supplied by a reputable manufacturer, with an externally accredited QA/QC program that utilizes industry standardized methods and protocols and ideally has food grade SANS.1828.2016 or EN 1276:2009 accreditation to ensure that it is absolutely safe for the environment and general water bodies.

The proposed solution must achieve the below desired results:

- Chemical Oxygen Demand 50-150
- Orthophosphate < 1.5
- Ammonia elimination < 10
- Decomposition of organic matter & hydrocarbons
- Naturally balance pH
- Suspended solids <20
- Eliminates odours: reduce hydrogen sulfide (H₂S) and eliminate malodours at their source rapidly.
- At least a 50% reduction of all parameters 1 week of use.
- Elimination of all pathogens without use of chlorine or other chemicals

Technical Specification of Product

The supplied product must be a synergistic optimal microbial blend specifically formulated to contain the natural facultative aerobic bacteria to also provide outstanding performance in high and low-oxygen environments. The supplied product must be 100% biological, using only natural beneficial microbes, and must not contain any emulsifiers, binding agents, surfactants of any kind, alcohol, toxins, added enzymes, or any other chemical or substance that may serve similar purposes.

Microorganisms: There must be at least more than 42 known strains of viable bacteria that degrade carbohydrates, proteins, and lipids, along with some known strains that are able to reduce the levels of hydrogen sulphide and metabolise various forms of inorganic nitrogen.

Actinomycetes and Bacillus: this specialised group of bacteria have the ability to degrade complex polymers such as cellulose, chitin, their intermediates, and related compounds.

Fungi: must contain unicellular harmless fungi with complementary degradation ability to decompose a wide variety of organic materials.

The activation nutrient product (micro-nutrient enriched carrier) must not contain any detrimental components. The activation nutrient product must also be completely incorporated biologically during the activation process and must provide accelerated germination, growth, and superior enzyme production.

Mandatory requirements:

- The product must not be based on a finite number of non-living enzymes but must be made up of immediately available microbial contents that possess the ongoing living, dynamic capabilities to produce infinite enzymes while existing and propagating.
- The supplier must provide at least two (2) signed reference letters – from a state entity – stating that similar (bioremediation) tests have been conducted at one of the municipal wastewater treatment works. At least one (1) of such reference letters should include comments on a pre and post analysis, highlighting results prior to the application of the product with at least 7 days of data – preferably broken down in daily intervals afterwards – must be provided to show efficacies.

Product Safety:

- Ensure that the product complies with South African regulatory standards for environmental and safety requirements. The bioremediation products must be environmentally friendly and not harm aquatic ecosystems. All strains used in the production of the biological product must be Biosafety Level 1 (BSL-1).
- Provide documentation certifying the quality and safety of the product, including relevant certificates and test reports on the environmental impact assessment of the biological product.

Every batch must be certified for performance and for absence of:

- *Pseudomonas aeruginosa, Streptococcus sp., Salmonella sp., Vibrio sp., Aeromonas sp., Pasteurella sp. Staphylococcus epidermidis, Renibactedum sp., Eubacterium sp. Flexibacter sp., Flavobacterium sp., Cytophaga sp., fungi, yeast, mycobacteria, Nocardia sp. nor any other strain that is an opportunistic pathogen.*
- Sulphides, azides or any other substance that may cause detrimental effects to the treatment facility, its collection system or the environment.

Product Quality:

- Liquid mix with a minimum five-year shelf life is preferred.
- The supplied product should not be active until mixed with water for treatment.
- Tenderer to submit MSDS reflecting the above

1.3 RETURNABLE DOCUMENTS

In addition to the requirements stipulated in this tender, tenderers are required to submit the documentation listed below.

Failure to submit a BBBEE certificate will result in no points being allocated to the bidder for BBBEE.

ITEM NO.	RETURNABLE DOCUMENT	AVAILABLE (TICK ✓)
1.	Original or certified copy of BBBEE certificate or sworn affidavit; if points are claimed (a copy of a certified certificate will not be accepted)	
1.1	A sworn affidavit confirming annual total revenue and level of black ownership, if bidder is an Exempted Micro Enterprise (EME) or Qualifying Small Enterprise (QSE)	
1.2	Original or certified copy of BBBEE certificate, if bidder is a Trust, Joint Venture or Consortium that is a legal entity	
1.3	Original or certified copy of consolidated BBBEE scorecard, if bidder is a Trust, Joint Venture or Consortium that is an unincorporated entity	
2.	Certified copy of Joint Venture or Consortium Agreement; if bidder is a Joint Venture or Consortium	
3.	Original Municipal debt clearance certificate / bidders' business premises lease agreement.	
4.	ID copies of directors	
5.	Print-out of Tax Clearance Certificate	
6.	Current Central Supplier Database printout	

In the event that the bidding entity is a joint venture, consortium, or partnership, each partner must supply the above information.

NOTE:

Bidders' Tax Compliance Status before award of Formal Written Quotation will be verified on Central Supplier Database. Therefore bidders are required to ensure that they are registered on the database (CSD) upon submission of this RFQ.

1.4 RETURNABLE SCHEDULES

All returnable schedules below must be completed by the bidding entity, save for those schedules which are not applicable to it in which case the bidder must indicate which schedules are not applicable. Should the bidder fail to complete all applicable and compulsory schedules, its quotation submission shall be deemed to be non-responsive in accordance with clause 20.2 (d) (ii) of the general conditions.

The schedules required to be completed are as listed below –

Schedule A	Authority for Signatory
Schedule B	Confirmation of Registration of Bidder on Central Supplier Database (CSD)
Schedule C	SANS.1828.2016 or EN 1276:2009 certificate/s
Schedule D	MATERIAL SAFETY DATA SHEET (MSDS)
Schedule E	Signed reference letters
Schedule F	Manufacture / distribution rights letter
Schedule G	Municipal Bidding Documents

SCHEDULE A - CERIFICATE OF AUTHORITY FOR SIGNATORY

Indicate the status of the bidder by ticking the appropriate box hereunder with an x.

COMPANY	CLOSE CORPORATION	PARTNERSHIP	JOINT VENTURE	SOLE PROPRIETORSHIP

NOTE:

BIDDERS MUST ATTACH A LETTER OF AUTHORITY TO THIS PAGE, AUTHORIZING THE SIGNATORY TO THIS RFQ TO SIGN ALL DOCUMENTS IN CONNECTION WITH THE RFQ AND ANY CONTRACT WHICH MAY ARISE THEREFROM, ON BEHALF OF THE BIDDING ENTITY.

SCHEDULE B – CONFIRMATION OF REGISTRATION OF BIDDER ON CENTRAL SUPPLIER DATABASE (CSD)

NAME OF BIDDER	CSD SUPPLIER NUMBER

Bidders are required to register as suppliers on the government Web-based Central Supplier Database (CSD) prior to submission of this RFQ, and provide their CSD supplier number in the table above.

It is the responsibility of a bidder to ensure that this requirement is complied with. In the case of Joint Ventures and Consortia, this requirement will apply to each party to the Joint Venture or Consortium.

BIDDER'S SIGNATURE:

SCHEDULE C: SANS.1828.2016 OR EN 1276:2009 CERTIFICATE/S

SCHEDULE D: MATERIAL SAFETY DATA SHEET (MSDS)

SCHEDULE E: SIGNED REFERENCE LETTERS

SCHEDULE F: MANUFACTURE / DISTRIBUTION RIGHTS LETTER

SCHEDULE G – MUNICIPAL BIDDING DOCUMENTS

MBD 4

DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state¹.
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 bidder 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 bidder or his or her representative:.....

3.2 Identity Number:

3.3 Position occupied in the Company (director, trustee, shareholder²):

.....

3.4 Company 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.....

.....

¹ MSCM 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) a 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.

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 bidder 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.....

.....

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

Full Name	Identity Number	State Employee Number

.....
Signature

.....
Date

.....
Capacity

.....
Name of Bidder

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

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

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

1. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

- a) The applicable preference point system for this tender is the 80/20 preference point system.
- b) 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

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

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

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

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

that preference points for specific goals are not claimed.

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

2. DEFINITIONS

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 PREFERENCE POINT SYSTEMS

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

80/20

$$P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

Where

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

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

3.2.1. POINTS AWARDED FOR PRICE

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

80/20

$$Ps = 80 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

B-BBEE POINTS

B-BBEE Status Level of Contributor	Number of Points for Preference (80/20)
1	10
2	8
3	6
4	4
5	2
6	2
7	2
8	2
Non-compliant contributor	0

A tenderer must submit proof of its BBEE status level contributor.

Failure on the part of a tenderer to submit An original B-BBEE Verification Certificate from a Verification Agency accredited by the South African National Accreditation System (SANAS), or a sworn affidavit confirming annual turnover and level of black ownership in case of an EME and QSE together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

LOCALITY

10 points will be allocated to promote locality, and points will be allocated as follows:

Local area of supplier	Number of Points for Preference
	80/20
Within the boundaries of Buffalo City	10
Within the boundaries of the Eastern Cape	2
Outside of the boundaries of the Eastern Cape	0

Failure on the part of tenderer to submit the following:

- where the tenderer is the owner of the property / business: o Municipal account registered in the name of the tenderer not older than 3 months.
- where the tenderer is not the owner of the property / business: o A valid lease agreement; or o Affidavit from the property owner that the address used to claim points in the MBD 6.1 is being rented out to the tenderer at no cost not older than 3 months.
- where the tenderer submitted incorrect or outdated information (account, lease agreement or affidavit) or none of the above, it will be interpreted to mean that preference points for Locality are not claimed.

DECLARATION OF POINTS CLAIMED BY SERVICE PROVIDER

Bidders who claim points in respect of B-BBEE and Locality must complete the following:

80/20 B-BBEE Status level Contributor	B-BBEE Status Level of Contribution Points 10 Points	Locality Points 10 Points	Total Points Claimed 20 points

DECLARATION WITH REGARD TO COMPANY/FIRM

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

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

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

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

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

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

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Municipal Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be rejected if that bidder, or any of its directors have:
 - a. abused the municipality's / municipal entity's supply chain management system or committed any improper 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).
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

Item	Question	Yes	No
4.1	<p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	<p>Is the bidder or any of its directors 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)?</p> <p>The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		

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

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)
CERTIFY THAT THE INFORMATION FURNISHED ON THIS
DECLARATION FORM IS TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT,
ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE
TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

1 This Municipal Bidding Document (MBD) must form part of all bids¹ invited.

- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Municipality / Municipal Entity)

do hereby make the following statements that I certify to be true and complete in every respect:

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

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 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 bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
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 bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

³ 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.

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

2.1 AGREEMENT & CONTRACT DATA

2.1.1 FORM OF OFFER AND ACCEPTANCE

PART 1 (OFFER TO BE COMPLETED BY THE BIDDER)

1. Buffalo City Metropolitan Municipality has solicited offers to enter into a contract for the procurement of:

BIOREMEDIATION TO MDANTSANE AND POTS DAM SEWAGE TREATMENT PLANT (MIDLANDS) FOR A PERIOD OF 30 DAYS – BUFFALO CITY METROPOLITAN MUNICIPALITY (BCMM)

2. I, the Bidder, hereby undertake to supply and deliver all or any of the goods and/or works; OR render the services described in the attached bidding documents to BCMM in accordance with the requirements and specifications stipulated in RFQ number **RFQ/WSS/2024-25/189** at the price/s quoted. My offer/s remains binding upon me and open for acceptance by the purchaser during the validity period indicated and calculated from the closing time of RFQ.
3. The following documents shall be deemed to form and be read and construed as part of this Agreement:
 - (i) The Scope of Work;
 - (ii) This RFQ document, viz
 - Scope of Services;
 - The Pricing Data;
 - This Form of Offer & Acceptance;
 - (iii) Bidder's RFQ submission;
 - (iv) The Special Conditions of Contract;
 - (v) The General Conditions of Contract; and
 - (vi) Any Service Level Agreement that may be concluded by the appointed bidder and BCMM.
4. I confirm that I have satisfied myself as to the correctness and validity of my quote; that the price(s) and rate(s) quoted cover all the goods and/or works specified in the RFQ document; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.
5. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfilment of this contract.
6. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.
7. I confirm that I am duly authorized to sign this contract.

The **TOTAL QUOTATION AMOUNT** inclusive of value-added tax (where applicable) is

..... Rand

(in words); R (in figures)

This offer may be accepted by the authorised BCMM representative signing the acceptance part of this form of offer and acceptance, and returning one copy of this document to the bidder before the end of the period of validity stated in the tender conditions, whereupon the bidder becomes the party named as the appointed service provider in terms of the conditions of contract identified in the contract data.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES:

1

2

DATE:

FAILURE BY THE BIDDER TO SIGN OR FILL IN THIS FORM SHALL DISQUALIFY ITS SUBMISSION.

PART 2 (ACCEPTANCE TO BE COMPLETED BY BCMM)

By signing this part of this form of offer and acceptance, BCMM accepts the bidder's offer. In consideration thereof, BCMM shall pay the appointed service provider the amount due in accordance with PART 1 of this offer and acceptance. Acceptance of the bidder's offer shall form an agreement between BCMM and the bidder upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

1. I..... in my capacity as ...**GM SCM**..... accept your bid under reference number **RFQ/WSS/2024-25/188** dated ...**26NOVEMBER2024**..... for the supply or the rendering of services indicated hereunder and/or further specified in the annexure(s).
2. An official order indicating service delivery instructions is forthcoming.
3. I undertake to make payment for the services rendered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice.

DESCRIPTION OF SUPPLY/ SERVICE	PRICE (ALL APPLICABLE TAXES INCLUDED)	COMPLETION DATE	B-BBEE STATUS LEVEL OF CONTRIBUTION	LOCALITY

4. I confirm that I am duly authorised to sign this contract.

SIGNED AT ON

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

1

2

DATE:

2.1.2 CONTRACT DATA

GENERAL CONDITIONS OF CONTRACT

The contract will be administered in terms of the **General Conditions of Contract 2015** as issued by National Treasury.

A copy of the General Conditions of Contract may be obtained from the National Treasury website – www.treasury.gov.za

2.2 PRICING DATA

2.2.1 PRICING INSTRUCTIONS

- (i) The rates and prices submitted by the bidder must be entered into the pricing schedule below.
- (ii) The quotation amount must be inclusive of VAT, where the bidder is a registered VAT vendor.
- (iii) Bidders must provide rates that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract.
- (iv) Bidders are required to pay attention to clause 25 of the general conditions (imbalance in quoted rates).
- (v) Should there be a discrepancy between the total quotation amount in the pricing schedule, and that in the form of offer; the price in the form of offer will take precedence. Where there is a discrepancy between the amount in figures and the amount in words, the amount in words will govern.
- (vi) The pricing sheet is to be signed and stamped by the prospective company.

2.2.2 PRICING SCHEDULE

Item Description	Product Quantities Required over 20 days	Unit Price	Total
Mdantsane Sewage Treatment Plant			
Pots Dam Sewage Treatment Plant			
SUB-TOTAL			
VAT (15%)			
TOTAL TENDER PRICE (to be carried over to form of offer page)			

Name of Tenderer

Date Signature

Company Stamp:

2.3 SCOPE OF WORK

2.3.1 Scope of Supply or Services

Buffalo City Metropolitan Municipality calls for formal written price quotations for Bioremediation to the Kidds Beach Oxidation Ponds and the Hood Point Sewage Treatment Work for a period of thirty (30) days. The Technical Data for the said plants can be found in the next page(s) together with the Green Drop maximum permissible limits for treated final effluent.

Effluent quality results will be monitored daily by the BCMM Scientific Services Section for a period of 30 days and confirmed against the Green Drop compliance standards.

Summary Technical Data:

TECHNICAL DATA FOR BUFFALO CITY METROPOLITAN MUNICIPALITY WASTEWATER TREATMENT WORKS															
Description	Berlin	Bhisho	Breibach	Central	Dimbaza	East Bank	Hood Point	Keyzer Beach	Kidds Beach	Mdantsane	Potsdam	Quinera	Reeston	Schornville	Zwelitsha
Treatment Type	BioFilter	Ponds	Ponds	Petro System	Activated Sludge	Activated Sludge	Screens	Ponds	Ponds	BioFilter	BioFilter	Activated Sludge	Activated Sludge	BioFilter/Activated Sludge	Activated Sludge
Classification	D	D	E	E	D	C	D	E	E	D	D	C	C	D	D
Biological Capacity (MI/d)	2	2,5	1,6	3,2	7	40	40	0,5	0,4	24	9	18	10	5	9
Permitted Flows (MI/d)	4,5	0,8	0,2	2,2	7	30	32	0,5	0,3	18	9,2	17,8	35	4,8	9,3
2020-2021 Average Flows (MI/d)	0,7	1,7	2,8	4,4	6,2	15,0	26,8	0,1	0,6	5,4	2,2	6,8	1,6	6,8	5,8
Average COD	399 mg/l	416 mg/l	801 mg/l	789 mg/l	304 mg/l	627 mg/l	1192 mg/l	No Data	No Data	687 mg/l	675 mg/l	580 mg/l	258 mg/l	796 mg/l	607 mg/l
Effluent Discharge	Stream	Irrigation	Irrigation	Stream	Stream	Marine	Marine	None	None	Stream		Stream	Marine	River	River
Sludge Production (kg/d)	70	160	130	1570	1900	6800	1600	0,01	0,01	1900	900	1000	400	1500	1800
Domestic / Industrial Split	30:70	90:10:00	100:00:00	40:60	70:30:00	70:30:00	30:70	100:00:00	100:00:00	80:20:00	70:30:00	80:20:00	100:00:00	70:30:00	70:30:00
Sludge Treatment	Anaerobic Digestion	None	None	Anaerobic Digestion	Sludge Lagoons	None	None	None	None	Anaerobic Digestion	Anaerobic Digestion	None	Sludge Lagoons	Anaerobic Digestion	Anaerobic Digestion
Sludge Drying	Drying Beds	None	None	Drying Beds	None	None	None	None	None	Drying Beds	Drying Beds	Belt Press	None	Drying Beds	Drying Beds
Sludge Disposal	Landfill	Landfill	Landfill	Landfill	Landfill	Marine	Marine	Landfill	Landfill	Landfill	Landfill	Landfill	Landfill	Landfill	Landfill
RESIDENTIAL AND INDUSTRIAL AREAS FALLING UNDER THE CATCHMENTS															
Industrial Areas	Berlin Industrial			Wilsonia	Dimbaza Industrial	Arcadia Chiselhurst	West Bank Industrial IDZ			Mdantsane industrial	Fort Jackson	Quenera Industrial			Da Gama Industrial
Estimated Serviced Population	8393	10600	15755	34462	19439	147069	15601	2195	1835	102912	45256	29530	17358	12608	31707

TABLE OF GREEN DROP MAXIMUM PERMISSIBLE LIMITS FOR TREATED FINAL EFFLUENTS

Site name	Berlin	Bhisho	Breidbach	Central	Dimbaza	East Bank	Hood Point	Kayser's Beach	Kidds Beach	Mdantsane	Potsdam	Gonubie	Reeston	Schornville	Zwelitsha
Parameters	GREEN DROP SYSTEM PERMIT LIMITS														
Oxygen Absorbed as O ₂	10	25	52	10	10	10			10	10	10	10	10	10	10
Ammonia as N	10		2	10	10	10	190	2	10	10	10	10	6	10	10
COD as O ₂	75	30	30	75	75	75	4500	400	75	75	75	75	75	75	75
Nitrate/Nitrite as N	15			15	15	15				15	15	15	15	15	15
Nitrite as N						15									
o-PO ₄ as P	10	2.5	2.5	10	10	10		2.5		10	10	10			
Sodium as Na	177				177	136				136	177				
E.coli/F.coliforms	0/0	0/1000	0/1000	0/1000	0/1000	0/1000		0/100000	1000/1000	0/0	0/0	0/1000	0/1000	0/0	0/0
Cl ₂ as free chlorine	1000			1000	1000	1000				1000	1000			1000	1000
Arsenic as As							3.6		0.5						
Cadmium as Cd	0.05			0.05	0.05	0.05	1.2		0.05	0.05	0.05	0.05	0.005	0.05	0.05
Chromium (VI)	0.5			0.5	0.5	0.5	2.5		0.5	0.5	0.5	0.5	0.05	0.5	0.5
Copper as Cu	1			1	1	1	1.6		1	1	1	1	0.01	1	1
Iron as Fe							20								
Lead as Pb	0.1			0.1	0.1	0.1	3.7		0.1	0.1	0.1	0.1	0.01	0.1	0.1
Nickel as Ni							7.8								
Manganese as Mn	0.4			0.4	0.4	0.4			0.4	0.4	0.4	0.4	0.1	0.4	0.4
Mercury & its compds							0.09								
Dissolved Oxygen	1000				1000	1000				1000	1000	1000	0	1000	1000
Zinc as Zn	5			5	5	5	7.8		5	5	5	5	0.1	5	5
EC (mS/m)	135		100	120	105	120		200	111	105	105	120	150	105	105
pH	9.5		5.5 – 7.5	5.5 – 9.5	5.5 – 9.5	5.5 – 9.5	5.5 – 9.5	6.0 – 9.9	5.5 – 9.5	5.5 – 9.5	5.5 – 9.5	5.5 – 9.5	5.5 – 9.5	5.5 – 9.5	5.5 – 9.5
Suspended solids (mg/L)	25	10	10	25	25	25	1500	10	25	25	25	25	25	25	25

