



THEMBISILE HANI LOCAL MUNICIPALITY



PROVISION OF LABORATORY SERVICES FOR MONITORING OF WATER AND WASTEWATER QUALITY FOR A PERIOD OF 36 MONTHS

SCOPE OF WORK

Thembisile Hani Local Municipality hereby invites quotations from suitably qualified service provider for the appointment of contractors for provision of laboratory services for monitoring of water and wastewater quality for a period of 36 months

The scope of work will entail: provision of laboratory services for monitoring of water and wastewater quality for a period of 36 months as follows:

- Collection of samples as and when required for drinking water from the reservoirs, water reticulation, water treatment plant and boreholes.
- Collection of water samples from the wastewater treatment plant, downstream and upstream from the water resource.
- Field water testing
- Laboratory water sample analysis
- Cleaning of Reservoirs, Jojo tanks, and water trucks.
- Disinfection of Reservoirs, Jojo Tanks and Water Trucks
- Special Sampling and analysis as and when required
- Sampling and classification of sludge produced from the waste water treatment works.
- Provision of materials for disinfection
- Provision of the monthly report with recommendations.

1. PURPOSE

To provide laboratory analysis service of water quality for drinking water, wastewater influent and effluent for Thembisile Hani local municipality.

2. BACKGROUND

Thembisile Hani Local Municipality is operating the Tweefontein K wastewater treatment facility and oxidation ponds, and is also supplying drinking water to its communities. One of the Municipality's institutional mandate is to provide water and wastewater services to the communities in its jurisdiction. It is therefore critical for the Municipality to frequently assess



the effectiveness of its operation and maintenance (O&M) systems, through regular testing and monitoring of the quality of water from the wastewater treatment facilities, Oxidation ponds, Water treatment Works, Water reticulation and Boreholes to ensure compliance with the Department of Water and Sanitation Bluedrop and Greendrop regulations.

3. ANALYTICAL METHODS

- Specific methods used for the analysis of the various parameters must be in accordance with the relevant SANS specifications and DWS effluent general standard.
- Only approved laboratory method of analysis is to be used for analysis of water, in order to ensure credible results.

4. SCOPE OF THE WORKS

- The scope of work comprises of drinking Water and wastewater quality monitoring in Thembisile hani local Municipal Area.
- Samples must be collected, preserved, analysed, reported on and archived in such a way to provide a complete history and database over a three-year tender period. Sampling has to be performed on potable water, wastewater, treated wastewater and borehole water, etc. in order to monitor
 - Drinking water standards at the Water Treatment Works (WTW), reservoirs and water reticulation networks.
 - Wastewater quality at the Wastewater Treatment Works (WWTW), treated wastewater being returned to rivers and the streams.
 - Borehole water condition and potential contamination, and quality of water in rivers, streams, dams and estuaries.
- Ad hoc sampling or resampling of samples as and when required by Municipality.
- Sampling and analysis must be performed over a period of 36 months from the commencing Date of Award.
- All available data must be handed over to the Thembisile hani local municipality on completion of the project.
- Boosting disinfection of reservoirs and supply of chemical as and when required
- Cleaning of the water storage facilities and Water trucks as and when required.
- Provision of chemicals for treatment of the water storages as and when required.

4.1. DETAILED DESCRIPTION ON SERVICE REQUIRED GENERAL

4.1.1. Wastewater Quality Monitoring

- Monthly testing will be required for samples collected from Tweefontein WWTW, Kwamhlanga west oxidation ponds, Kwamhlanga east oxidation Ponds and Kwamhlanga North oxidation ponds.
- Monthly testing will be required for samples collected from the downstream and upstream section of the receiving body of Tweefontein WWTW, Kwamhlanga East



Oxidation Pond, Kwamhlanga West Oxidation Pond and Kwamhlanga North Oxidation Ponds.

- Service Provider will be required to sample and classify the sludge production from the Wastewater treatment works as and when required.

4.1.2. Drinking water Quality Monitoring

- Monthly Physical, chemical and microbiological analysis for applicable sampling points.
- Monthly testing for the samples collected from the reservoirs and distribution system (end user point)
- Analysis of samples from consumers as and when required.
- Quarterly Testing of water from boreholes and other potable water sources will be conducted on an as and when required.
- Bi-weekly testing will be required for sample collected from Water treatment works.

4.1.3. Ad-hoc samples and resampling

- Sampling and analysing of special samples will be required as and when required

4.1.4. Supply of Chemical and laboratory inventory

- Service provider will be required to supply and deliver water and wastewater treatment chemicals to the area/site identified by the municipality.
- A certificate of analysis (COA) must accompany each delivery.
- The minimum information to be supplied in COA must include: Manufacture date, Expiry date and Batch number

4.1.5. Disinfection of reservoirs

- Service provider will be required to boost the reservoirs by disinfecting them as when required by the municipality.

4.1.6. Cleaning of Water Storages

- Service Provider will be required to clean and disinfect the water storages of the municipality such as Reservoirs, storage Tanks and Water trucks on an as and when basis.

4.1.7. Calibration of Laboratory Testing Equipment

- Service Provider will be required to calibrate the laboratory equipment's on an as and when required.



- Service provider will be required to provide Certificate for calibration for each equipment calibrated

5. WATER QUALITY REPORT

- Signed reports must be submitted within 10 days upon receiving the water samples on a monthly basis to Technical Services Manager and responsible officials.
- A report must contain information from an inspection performed.
- The reports must be compiled by a technically competent person to advise on process optimization and technical improvements required.
- The reports must be comprehensive and include at least the following information:
 - Date of sampling.
 - Time of sampling.
 - Name of person conducted sampling.
 - Inspection point ID/address.
 - Inspection point location (coordinates).
 - Determinant description.
 - Result of sample and minimum standards where applicable.
 - Lab details (Lab name, Lab SANAS accreditation nr. etc.).

6. CONDITION OF CONTRACT

6.1. Payment for work completed

- Payments will be made within 30 calendar days after submission of Tax invoice.
- Claims for payment shall be submitted on a monthly basis and shall consist of the following:
 - Description of work undertaken
 - Distance travelled in km for every category vehicle over and above that for any work included for in this contract.
 - Acceptance certificate signed by the representative of the council.

6.2. Tenderers must clearly state the rates to be charged in the spaces provided and must complete the price schedule.

6.3. The council reserves the right to add to or omit any plant to or from this contract.

6.4. The service provider will supervise his own workmen, provide his own tools, and where materials are used, this shall comply with the current SABS / SANS specifications, except where otherwise requested by the project manager

6.5. Analysis to be done on a monthly basis or as and when required in compliance with drinking water quality standards (SANS 241) and national water act waste discharge standard (DWS 2010 guideline).

6.6. The municipality will now and then collect the samples and deliver to the service provider for lab analysis.

6.7. The service provider to supply the municipality with sampling bottles and necessary sampling equipment.

6.8. Upon receipt of samples the service provider must submit an analysis report within 10 days for the full report and within 24 hours for non-complied micro analysis.

6.9. Service Provider must have a laboratory that is SANAS accredited.



PROJECT NO: THLM/SCM23/2023-2024/WS07
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QUALITY FOR A PERIOD OF 36 MONTHS