



MKHONDO
LOCAL MUNICIPALITY

TECHNICAL SERVICES DEPARTMENT
WATER & SANITATION DIVISION

Water and Wastewater Quality Report
(October 2020 – December 2020)

Submitted by:
Technical Services Department
01 March 2021

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A. BACKGROUND INFORMATION

This report indicates an overview of water quality status for the last three months (i.e. October 2020 – December 2020) across Mkhondo Local Municipality jurisdiction area. The report is generated from the monthly water quality results received from Gert Sibande District Municipality Water Quality Laboratory. The report provides summary information on water quality results as required for legislation compliance and thus includes percentage characterisation of water quality against national standards limit/standards for the specified period.

1. OVERVIEW WATER QUALITY RESULTS

Mkhondo Local Municipality serves as the Water Service Authority (WSA) and also Water Service Provider (WSA). The municipality provides access to water for the communities within its jurisdiction in accordance to the constitution of the Republic of South Africa (Act 108 of 1996), the Municipal Structures Act (Act 117 of 1998), Municipal Systems Act (Act 32 of 2000) and Water Services Act (Act 108 of 1997).

1.1 MKHONDO LM TREATMENT WORKS

1.1.1 Mkhondo Water Treatment Works

	Design Capacity	Population	Abstraction	Communities Supplied
Mkhondo WTW	12.4	72 260	Assegai	Town, Harmony Park, Group 10, Kemp Ville, Retief Ville, eThandukukhanya, Rustplaas, Maphepheni and eNkonjaneni.
Saul Mkhize Ville WTW	7.5	39 585	Heyshope	Saul Mkhize Ville, Kwa-Ngema, Emabola and Malayinini
Amsterdam WTW	6.3	22 308	Gobosch Dam	Town, KwaThandeka, Winnie Mandela and eFrance
Rural Boreholes	525 BH	28 346	Ground water	Rural villages

1.1.2 Mkhondo Wastewater Treatment Works

	Design Capacity	Population	Discharge	Communities Servicing
Mkhondo WWTW	10	72 260	Klipmesselspruit	Town, Harmony Park, Group 10, Kemp Ville, Retief Ville, and eThandukukhanya.
Amsterdam WWTW	3	22 308	iThole	Town, KwaThandeka, Winnie Mandela and eFrance

1.2 WATER LABORATORY IN USE

The municipality is using a fully accredited laboratory Gert Sibande District Municipality Water Quality Testing Laboratory. The laboratory does perform some of the water and wastewater analysis in-house and outsource others to be tested at eMhlathuze Water Quality Laboratory (Fully accredited laboratory) as per the National Specification of drinking water, SANS 241:2015 requirements and General effluent standards.

There are 49 sampling points which are sampled on a monthly basis, thus 147 points are sampled quarterly for both water and wastewater compliance quality analysis.

1.3 WATER QUALITY PARAMETERS

Each sampled point is required to be analysed; 17 water quality parameters are tested ranging from:

- Microbiological (*E.coli*, Total coliform, Heterotrophic count);
- Physical (Conductivity, pH and Turbidity);
- Chemical group (Free chlorine, Sodium, Fluoride, Chloride, Nitrate, Nitrite, Sulphate, Iron, Manganese, and Aluminium) are analysed.

1.4 WASTEWATER QUALITY PARAMETERS

Mkhondo wastewater treatment works are required to comply with the general effluent standards, thus 11 parameters are analysed per sample site (Upstream, downstream, inlet and outlet). Analysed parameters are Chemical Oxygen Demand, pH, Total Suspended Solids, Conductivity, Ortho-Phosphate, Nitrate, Nitrite, Fluoride, free Chlorine, Total Coliform and *E.coli*.

1.5 MKHONDO LM WATER QUALITY OVERVIEW

A.5.1. Water Quality

Table: 1 Drinking water quality overview for October – December 2020.

Water Quality Compliance SANS 241:2015													
For October – December 2020													
Water Treatment Works	No. of Samples	Treated Volume (m3)	Percent Compliance with SANS 241:2015										
			Acute microbiological health			Acute chemical health			Chemical Non health Aesthetic			Operational	
			Excellent ≥99%	Good ≥95%	Unacceptance <95%	Excellent ≥99%	Good ≥97%	Unacceptance <97%	Excellent ≥99%	Good ≥97%	Unacceptance <97%	Excellent ≥95%	Good ≥97%
Mkhondo WTW	50	705 800	97%			99%			99%			88%	
Amsterdam WTW	18	478 500	72%			99%			97%			79%	
Saul Mkhize WTW	27	607 100	99%			99%			99%			99%	
Rural Boreholes	24	69300	64%			93%			99%			90%	

A.5.2. Wastewater Quality

Table: 2 Wastewater quality overview for October – December 2020.

Wastewater Quality Compliance SANS 241:2015											
For October – December 2020											
Water Treatment Works	No. of Samples	Treated Volume (m3)	Percent Compliance with SANS 241:2015								
			Microbiological			Chemical			Physical		
			Excellent ≥90%	Good ≥70%	Unacceptance <50%	Excellent ≥90%	Good ≥70%	Unacceptance <50%	Excellent ≥90%	Good ≥70%	Unacceptance <50%
Mkhondo WWTW	12	354985	0.00%			39%			67%		
Amsterdam WWTW	12	288193	0.00%			44%			67%		

B. INTERVENTIONS

- Significant efforts are carried out by the municipality in improving blue and green drop scores.
- Refurbishment of Mkhondo New Water Treatment Works is due to completion by the end of March 2021.
- Maintenance and Repairs of mechanical equipment at Mkhondo Old Water Treatment Works is in progress to enhance the water quality status.
- Rural water testing is ongoing to determine the quality of water provided in rural villages.
- Awareness campaigns on water quality and water conservation has resumed after the lockdown restriction has been lifted to level 1.

C. CONCLUSION

The quality monitoring of drinking water and wastewater effluent is paramount to Mkhondo Local Municipality. During the National Lockdown COVID-19, the municipality is working hard to ensure that reliable and sustainable water is supplied to all areas and the community at all times. *All incidents of non-compliance are immediately identified through operational testing and monitoring, and timeously resolved to ensure compliance to SANS 241:2015.*

For more technical information or queries can be directed to the Water and Sanitation Division (*Mrs THA Dlodlu, 017 285 0232, Email: amandamzkb@gmail.com*).

Prepared by:

Mr N.M.V Makhubu
Laboratory Technician Assistant

Approved by

Mrs T.H.A Dlodlu
Senior Manager: Water and Sanitation Division

Approved by

Ms Z.O Lugongolo
General Manager: Technical Department

D. QUARTELY WATER QUALITY STATEMENT

AMSTERDAM, eMKHONDO, SAUL MKHIZE VILLE and RURAL WATER SUPPLY SCHEMES

Statement from the Municipal Manager **Mr M. Kunene**:

It gives me great pleasure to present water quality results for the second quarter of financial year 2020/2021 to the residents of Mkhondo Local Municipality, for Amsterdam, Saul Mkhize Ville and Mkhondo and Rural Water Supply Schemes. This publication illustrates our commitment on the provision of Quality Water Services to the residents of the municipality.

Publication of Quarterly Water and Wastewater Quality Results are available to the public through: **Municipal website:** www.mkhondo.gov.za , **Local Newspaper, Municipal notice boards and the IRIS system:** <http://ws.dwa.gov.za/iris> .

Amsterdam Water supply scheme utilizes 1 water treatment works which is 6.3ml/day. Treated water is distributed to over 22 308 populations which include Amsterdam and surrounding areas. Mkhondo water supply scheme abstract water from Assegai River for treatment in 2 water treatment plants with a combined capacity of 12.4ml/day and distribute to over 72 260 population including communities at Mkhondo and the surrounding areas. Saul Mkhize Ville water supply scheme receives water from Heyshope Dam and has a capacity of 7.5ml/day which provides water to a population of approximately 39 585 in Kwa-Ngema, Dirkiesdorp and Saul Mkhize Ville.

I urge the residents of Mkhondo local municipality to work with the municipality in ensuring that the use of clean water is sparingly and not misused. The municipality ensures compliance in Drinking Water Quality Standards as stipulated in SANS 241:2015. Consumer’s responsibilities in Section 6 of our Water Services Customers Charter includes the following:

- Adherence to Municipal Bylaws,
- Pay for services over and above any free allocation
- Water conservation management through borehole maintenance

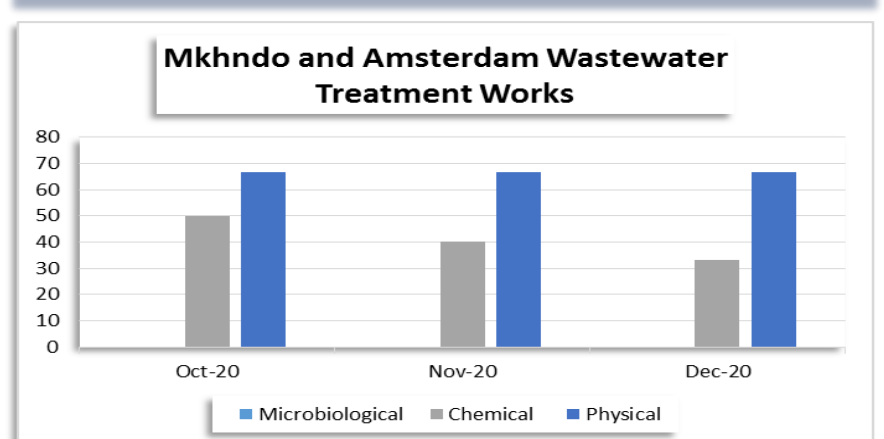
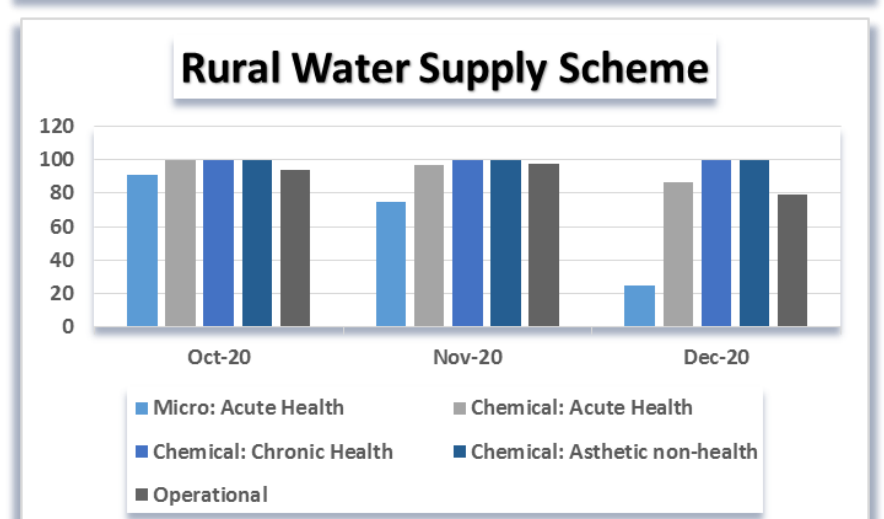
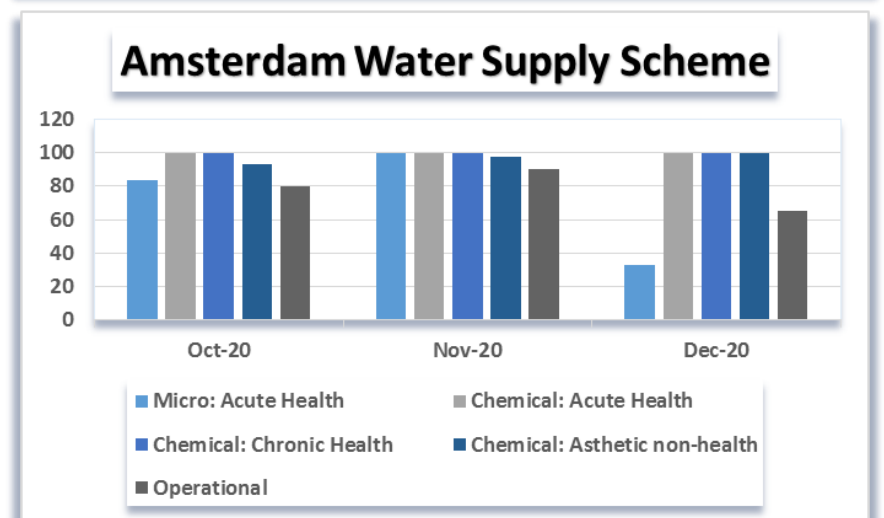
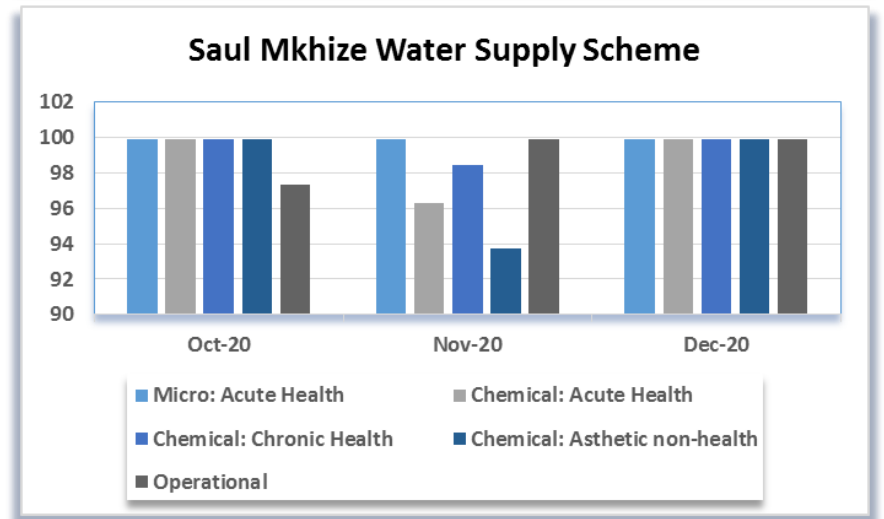
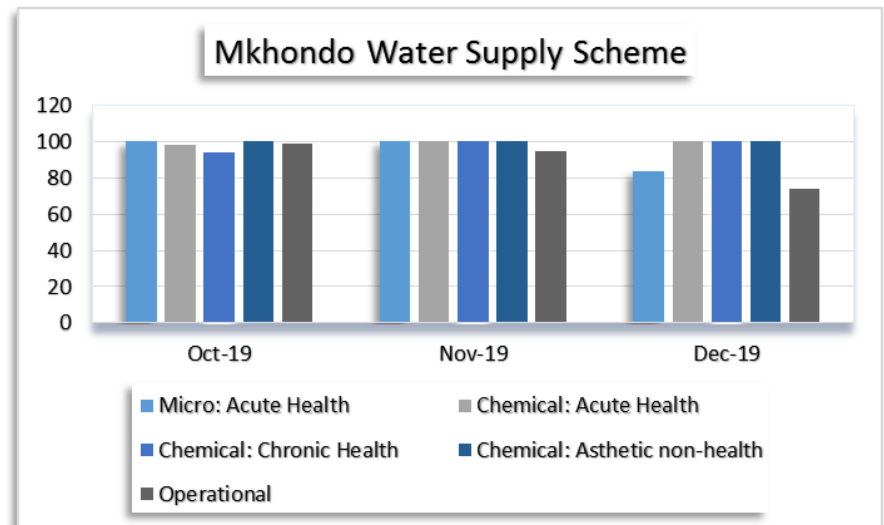
“SAVE WATER, SAVE LIFE”

Yours Sincerely

Mr. M. Kunene
Municipal Manager

WATER AND WASTEWATER QUALITY RESULTS:

Over 2533 analyses were conducted on the sampling points of eMkhondo, Amsterdam, Saul Mkhize, and the Wastewater Treatment Works, since the inception of agreement between Mkhondo Local Municipality and Gert Sibande District Municipality Water Testing Laboratory in December 2011 and the results are graphed as follows:



For enquires related to this article you are welcome to contact: **Mrs THA Dlodlu**, Senior Manager: Water and Sanitation Division (017 285 0232/ 082 876 0762).