

**MONTHLY REPORT ON THE GREEN DROP WASTE WATER QUALITY COMPLIANCE FOR  
UTHUKELA DISTRICT MUNICIPALITY  
MONTH : DECEMBER 2020**

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**Compiled by** : GENERAL MANAGER: MHS & WSA

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**1. PURPOSE**

For the Council to note the Green Drop Waste Water quality compliance report per system for the month of December 2020.

**2. BACKGROUND / DISCUSSION**

The Green Drop regulation process measures and compares the results of the performance of the Water Services Authorities and their Providers and subsequently rewards or penalizes according to the minimum requirements as set out by the Department of Water and Sanitation (2013).

The Green Drop Assessment takes into account the entire wastewater value chain (reticulation, pumping, treatment and discharge). The cumulative risk assessment focuses on the wastewater treatment function. This allows the regulator to have insight into the treatment components of the municipal business, it also allows the municipality to identify and prioritize the critical risk areas within its Waste Water Treatment Plant processes and to take the necessary corrective measures in order to mitigate the risks. On the 1<sup>st</sup> of October 2018, the Green Drop Certification programme was replaced by the more thorough Department of Water and Sanitation Integrated Regulatory Information System (IRIS).

**3.1 REPORT**

**WASTE WATER:**

Sewage treatment is the process of removing contaminants from wastewater, primary from household sewage and industries. The treatment process includes physical, chemical and biological processes to remove these contaminants and produce environmentally safe treated wastewater.

**WASTE WATER QUALITY INDICATORS:**

Quality indicators are determined through Laboratory tests to assess suitability of wastewater for disposal or re-use. The tests selected measures physical, chemical and biological characteristics of the wastewater.

During the month of December 2020, nine (9) Wastewater Treatment facilities were monitored [seven (7) WWTW's and two (2) Ponds].

**3.1.1 Microbiological quality:**

Refers to the presence of organisms that cannot be individually seen by the naked eye, such as protozoa, bacteria and viruses. Many of these microbes are associated with the transmission of infectious water-borne diseases such as gastroenteritis and cholera. Microbiological quality can be improved by increasing or optimising disinfection in the final sewage outflow.

No Waste Water Treatment Works complied with the microbiological requirements for acceptable waste water quality.

### **3.1.2 Physical quality:**

Solid material in wastewater can either be dissolved, suspended or settled. It can be reduced by conducting on-site analysis and implement the necessary changes in plant operations. (Example: de-sludge frequently to reduce build-up of sludge)

Only Colenso WWTW complied with the requirements of acceptable physical quality for wastewater.

### **3.1.3 Chemical quality:**

Virtually any chemical may be found in wastewater, but routine testing is commonly limited to a few chemical elements of significance. The nature and concentration of dissolved organic substances in domestic/industrial inflow contributes to the organic load on the sewage treatment facility. Plant operations needs to be optimised in order to improve the chemical quality of the final effluent.

No Waste Water Treatment Works complied with the requirements of acceptable chemical quality for wastewater.

## **3.2 SAMPLES TAKEN**

According to the Department of Water and Sanitation's General Waste Water Quality Standards, a minimum of 36 samples must be taken. Total number of wastewater samples taken for the month of December 2020: 51

## **3.3 INDUSTRIAL SAMPLING**

For the month of December 2020, the following industries were sampled and analysed. Accounts were generated and submitted to the Finance Department for the billing process.

### **ALFRED DUMA LOCAL MUNICIPALITY**

1. Northern Natal Abattoir
2. Lasher Tools
3. Pioneer Foods (Sasko)
4. Spotless dry Cleaners
5. Sumitomo Tyres (Dunlop)
6. Transvaal Pressed Nuts & Bolts (TPN)
7. Ithala Development Finance Corporation
8. Northern Mills Textile

### **INKOSI LANGALIBALELE LOCAL MUNICIPALITY**

1. Eskort Bacon
2. Flamingo Moon
3. Narrowtex
4. Nestle

## **4. FINANCIAL IMPLICATIONS**

2020/2021 Budget

## **5. LEGISLATION**

- 5.1 Wastewater Discharge Standards DWA 2010 guideline
- 5.2 National Water Act (no 36 of 1998)
- 5.3 DWS Green Drop Requirements (IRIS)

6. **ATTACHMENT**

Wastewater Quality Compliance Report for the month of December 2020.

7. **RECOMMENDATION**

1. That the Committee notes the report on the December 2020 Green Drop Wastewater Quality Compliance.
2. That the Committee supports the submission of the report to EXCO.

*For noting*



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**BH KHOZA**  
**GENERAL MANAGER**  
**MUNICIPAL HEALTH & WATER SERVICES AUTHORITY**

31/12/2020

**WASTE WATER QUALITY COMPLIANCE REPORT FOR THE MONTH OF NOVEMBER 2020 AND DECEMBER 2020 COMPARATIVELY**

MICROBIOLOGICAL COMPLIANCE				PHYSICAL COMPLIANCE				CHEMICAL COMPLIANCE			
Discharge Standard: ➢ Faecal Coliform - 1000 cfu/100ml				Discharge Standard: ➢ Electrical Conductivity - < 170ms/m above Intake ➢ pH - 5.5 - 9.5 pH Units ➢ Suspended Solids - 25.0mg/l				Discharge Standard: ➢ COD - 75mg/l ➢ Ortho phosphate - 10mg/l ➢ Ammonia as N - 3mg/l			
Wastewater Treatment Facility	Nov - 2020 % Compliance	Rating	Dec - 2020 % Compliance	Wastewater Treatment Facility	Nov - 2020 % Compliance	Rating	Dec - 2020 % Compliance	Wastewater Treatment Facility	Nov - 2020 % Compliance	Rating	Dec - 2020 % Compliance
1. Bergville-	0.00%	U	0.00%	1. Bergville-	75.0%	U	75.00%	1. Bergville-	33.30%	U	33.30%
2. Colenso-	0.00%	U	0.00%	2. Colenso-	99.90%	E	99.90%	2. Colenso-	66.70%	U	66.70%
3. Ekuvukeni-	0.00%	U	0.00%	3. Ekuvukeni-	50.0%	U	75.00%	3. Ekuvukeni-	0.00%	U	33.30%
4. Estcourt-	0.00%	U	0.00%	4. Estcourt-	75.00%	U	75.00%	4. Estcourt-	33.30%	U	16.67%
5. Ezakheni-	99.90%	E	0.00%	5. Ezakheni-	99.90%	U	87.50%	5. Ezakheni-	99.90%	E	66.67%
6. Ladysmith-	0.00%	U	0.00%	6. Ladysmith-	87.50%	U	87.50%	6. Ladysmith-	66.67%	U	50.00%
7. Winterton WWTW	0.00%	U	0.00%	7. Winterton WWTW	75.00%	U	75.00%	7. Winterton WWTW	66.67%	U	66.67%
8. Wembezi Ponds	99.90%	E	50.00%	8. Wembezi Ponds	99.90%	E	87.50%	8. Wembezi Ponds	99.90%	E	83.30%
9. Weenen Ponds	The Final Treatment is Evaporation Ponds which does not discharge into a watercourse and therefore not measured against DWS discharge limits			9. Weenen Ponds	The Final Treatment is Evaporation Ponds which does not discharge into a watercourse and therefore not measured against DWS discharge limits			9. Weenen Ponds	The Final Treatment is Evaporation Ponds which does not discharge into a watercourse and therefore not measured against DWS discharge limits		
UTHUKELA DM	25.00%	U	6.26%	UTHUKELA DM	82.90%		82.88%	UTHUKELA DM	58.36%	U	52.12%

Compliance below 80% - U

Compliance between 80 - 90% - F

Compliance between 90 - 95% - G

Compliance above 95% -