

The City of Ekurhuleni is responsible for providing its citizens with clean and safe drinking water. The Department of Water Affairs introduced the Blue Drop certification to ensure that municipalities provide residents with clean and safe water. The quality and drinkability of water is measured against the South African National Standards for Drinking water (SANS) 241 which compares the quality of water supplied by a municipality against chemical and microbiological parameters.

Blue Drop Certification and Drinking Water Quality Report 2014 - 2015 Financial Year

Blue Drop Certification

The National Department of Water and Sanitation introduced the Blue Drop certification programme in September 2008 to ensure that municipalities provide their citizens with clean and healthy water. Blue Drop Certification is an incentive-based regulation programme that acknowledges the management of drinking water quality according to the risk management principles endorsed by the World Health Organisation and in line with the legislative requirements of Section 62 of the Water Services Act. This implies that Blue Drop Certification does not only reflect on the actual quality of the tap water but also the ability of the municipality to sustain the quality, as well as preparedness to deal with any incident that may pose a health risk to the public. This prestigious certification is only awarded to municipalities that achieve a score above 95% of the Blue Drop certification programme criteria. These criteria are Water Safety Planning; Drinking Water Quality Process Management & Control; Drinking Water Quality Verification; Management, Accountability & Local Regulation; Asset Management; and Water Use Efficiency and Water Loss Management. Municipalities are assessed on all these criteria and they must comply with all of them.

The City of Ekurhuleni's Blue Drop Performance

Through the City of Ekurhuleni's dedication to providing our consumers with excellent water services, the City of Ekurhuleni was awarded Blue Drop Status during the release of the 2014 Blue Drop report, with a score of 96.62%. The City of Ekurhuleni had previously been awarded a Platinum Blue Drop Award, as recognition for obtaining the certification for 4 consecutive years since the Blue Drop Certification was introduced by the National Department of Water and Sanitation, and has again obtained Blue Drop Certification for 2014.

Ekurhuleni has been in the top ten of the Blue Drop Certification recipients since the inception of the certification programme. The Platinum Blue Drop status and the constant Blue Drop achievement by EMM are indicative of EMM's efficiency with regards to overall management of drinking water quality.

The Department of Water and Sanitation is conducting a full Blue Drop audit only every second year and a progress report (PAT) in between. The Blue Drop Pat information for 2015 has not been released yet by the Department of water and Sanitation.

Drinking Water Quality Requirements

The quality and drinkability of water is measured against the South African National Standard for Drinking Water (SANS 241). The standard compares the quality of water supplied by a municipality against chemical and microbiological parameters. As part of our efforts towards transparency we are publishing this report highlighting Ekurhuleni’s water quality compliance with SANS 241.

Microbiological Health Compliance reflects the state of the water with respect to the absence (good water quality) or presence (poor water quality) of certain disease causing micro-organisms. Microbial water quality is usually indicated by reporting the number of *E. coli* bacteria present in a given volume of water. SANS 241 requires an annual compliance of 99%. Chemical Health Compliance, on the other hand, reflects the nature and concentration of dissolved substances such as salts, metals and organic chemicals. SANS 241 requires an annual compliance of 99%.

The City of Ekurhuleni’s Water Quality Management Performance

Through SANS, Municipalities are also obligated to publish annual Water Quality Reports. As indicated in the monthly chemical health and microbiological health compliance graph below (Figure 1) and in the detailed full year water quality report below (Table 1), it is evident that the City of Ekurhuleni has met all the SANS 241 compliance requirements and is still providing its residents with excellent quality drinking water.

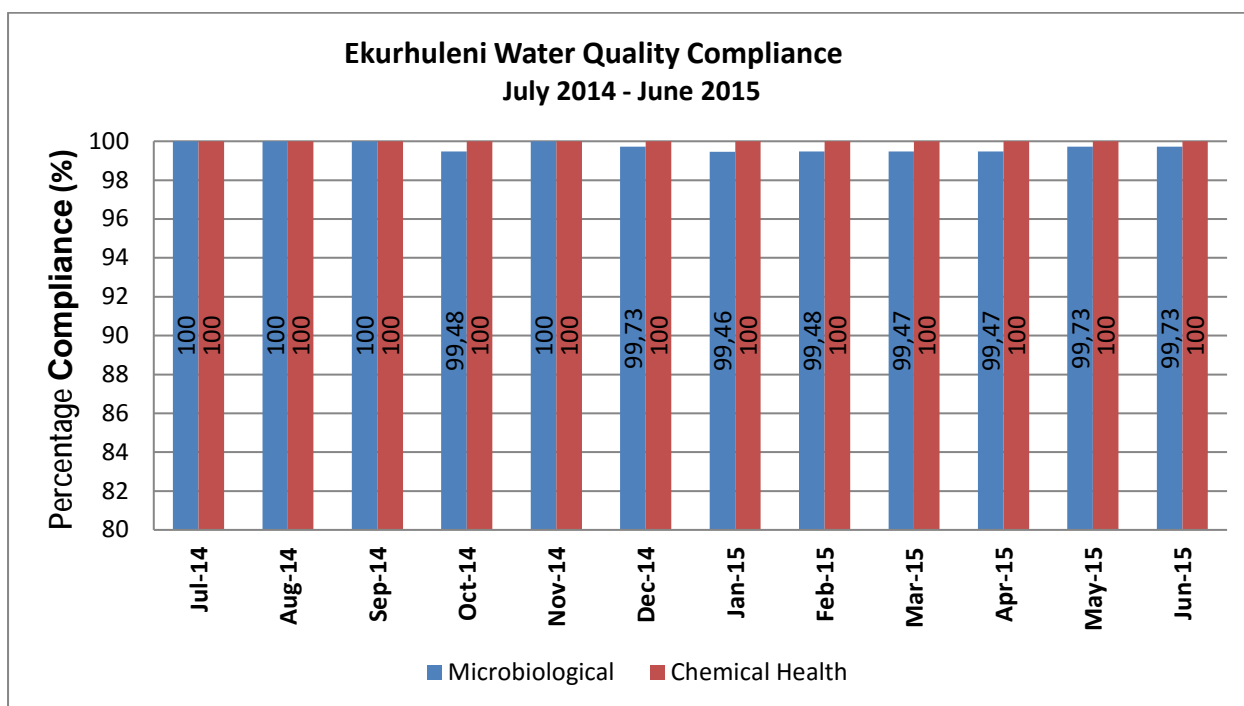


Figure 1: Monthly Chemical Health and Microbiological Health (*E. coli*) compliance of Ekurhuleni drinking water to SANS 241 requirements.

Table 1: Detailed full year water quality report indicating level of compliance to SANS241-1:2011.

Element	No. Analyses	No. Compliant Analyses	% Compliancy
Aluminium as Al	314	314	100.0%
Arsenic as As	2	2	100.0%
Boron	1	1	100.0%
Barium	1	1	100.0%
Bromodichloromethane	295	295	100.0%
Bromoform	295	295	100.0%
Ca Dissolved	288	288	100.0%
Cadmium as Cd	2	2	100.0%
Chloride	299	299	100.0%
Chloroform	295	295	100.0%
Free Chlorine	4 553	4 552	100.0%
Cyanide (Recoverable)	2	2	100.0%
Cobalt as Co	269	269	100.0%
Colour	2	2	100.0%
Conductivity	3849	3849	100.0%
Chromium as Cr	291	291	100.0%
Copper as Cu	291	291	100.0%
Dibromochloromethane	295	295	100.0%
E. Coliform Bacteria	4 503	4 490	99.7%
Fluoride as F	299	299	100.0%
Iron as Fe	2 446	2 446	100.0%
Mercury as Hg	2	2	100.0%
Heterotrophic Plate Count	4 525	4 443	98.2%
Potassium as K	*	290	100.0%
Microcystin as Lr	1	1	100.0%
Magnesium as Mg	*	288	100.0%
Manganese as Mn	291	291	100.0%
Ammonia Nitrogen as N (Formula)	3	3	100.0%
Sodium as Na	291	291	100.0%
Nickel as Ni	291	291	100.0%
Nitrate	28	28	100.0%
Nitrite	28	28	100.0%
Nitrate and Nitrite	*	272	100.0%
Odour	*	2	100.0%
Lead as Pb	2	2	100.0%
pH	4 384	4 384	100.0%
Phenols	2	2	100.0%
Residual Chlorine	4 554	4 248	93.3%
Antimony as Sb	2	2	100.0%
Somatic Coliphages	2	2	100.0%
Selenium as Se	2	2	100.0%
Sulphates as SO ₄	299	299	100.0%
Total Alkalinity	296	296	100.0%
Taste	*	2	100.0%
Total Coliform Bacteria	4 513	4 491	99.5%
Total Dissolved Solids	299	299	100.0%
Total Organic Carbon	2	2	100.0%
Total Trihalomethane	*	294	100.0%
Turbidity	4 388	4 374	99.7%
Uranium as U	2	2	100.0%
Vanadium as V	3	3	100.0%
Zinc as Zn	291	291	100.0%

*These elements are not listed in the SANS 241-1:2011 schedule, therefore SANS241: 2006 are used.

In an effort to increase transparency Ekurhuleni's water quality data is loaded on the Department of Water and Sanitation's Blue Drop System on a monthly basis. Consumers can check the quality of the drinking water in their area by going to www.dwaf.gov.za/dir_ws/DWQR/default.asp.