



# THE NO DROP PROGRAMME

**DRIVING WATER USE  
EFFICIENCY IN THE SOUTH  
AFRICAN WATER SECTOR**

**CREATING SHARED VALUE THROUGH  
INNOVATIVE PARTNERSHIPS**



Strategic Water Partners Network  
SOUTH AFRICA



**water & sanitation**  
Department:  
Water and Sanitation  
REPUBLIC OF SOUTH AFRICA



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# ABOUT THE NO DROP PROGRAMME

The Department of Water and Sanitation developed the No Drop Programme to draw attention to and encourage progress in water use efficiency and water loss / Non-revenue Water management in the South African municipal sector.

No Drop Certification means that a municipality is accomplished in its water conservation and water demand management practice and receives public accolade and acknowledgement of its excellence in water supply management against a set of strict criteria.

The No Drop has been developed in a similar framework to the Blue Drop (drinking water quality) and Green Drop (wastewater management) in 2013, followed by a partial roll out to all 152 municipalities in 2014 and a full roll out to all 8 metropolitan municipalities in 2014/15.

## OBJECTIVE OF THE NO DROP CERTIFICATION PROGRAMME:



- *To encourage and acknowledge continuous improvement and performance excellence in water use efficiency, water loss and NRW management in South Africa through the use of incentive- risk-based regulation and benchmarking.*
- *To provide the South African public with credible and transparent results on the status of water use efficiency and the management thereof, in their cities and towns.*

## IN THE BEGINNING

It has been predicted that over the next two decades, South Africans might experience a growing gap between the volumes of water that are available and the volumes of water required (water supply and water demand). South Africa is fast reaching the limits of what can be achieved through developing new infrastructure. The 2030 Water Resources Group identified that by the year 2030, South Africa will face a supply-demand deficit of around 17%, with the gap being in the region of 3.8 billion m<sup>3</sup>. The Minister for Water and Sanitation estimates that more than R570 billion will be needed for investment across South Africa's water value chain over the next 10 years, to be directed to water resources infrastructure, water services and water conservation and demand management.

The Water Research Commission Report (TT 522/12, August 2012) highlighted a national non-revenue water figure of 36.8% for 132 (54%) municipalities, and an average water consumption of 238 litres / capita /day, which is high compared to the international average of 178 litres / capita /day. The volume of non-revenue water for the country represented 1 580 million m<sup>3</sup> in 2011/12 and trends showed a steady increase.

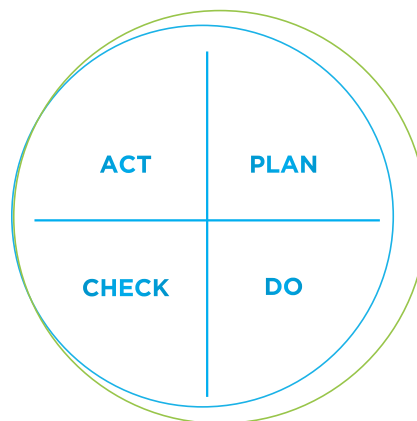
In short, inefficient water usage and water loss became a prime risk to the municipal sector in terms of water availability and financial sustainability. This primary risk translates to direct risk for all water users.

The underlying reasons were numerous: managerial and technical skills in municipalities, aging and dilapidated infrastructure, rapid housing developments which were not aligned to infrastructure master planning and budgets and poor understanding of the complexities of water supply and demand management.

The opportunity in this apparent risk did not pass unnoticed. In line with the Minister's request to enhance public and private partnerships in 'closing the water gap by 2030', the Strategic Water Partners Network – South Africa (SWPN) became the mandated private sector group to develop and tackle sectoral strategies and policies and projects, which include the focus areas of:

## WATER CONSERVATION AND DEMAND MANAGEMENT:

- 💧 Increased water efficiency
- 💧 Leakage reduction from distribution networks



The Strategic Water Partners Network (SWPN) and Department of Water and Sanitation responded by developing a set of criteria that would collectively assess and measure an organisation's ability to render an acceptable service to its community and to identify those organisations that deliver an excellent service. This set of criteria is called the **No Drop Certification Programme**. The Deming process of Plan-Do-Check-Act is followed and results reported on a continuous basis.

# A FRAMEWORK FOR UNDERSTANDING THE NO DROP PROGRAMME

**THE NO DROP PROGRAMME** creates a baseline for continuous **IMPROVEMENT**. Water managers and their teams can set **CLEAR GOALS** and work towards these goals.

*No Drop Definitions as per the 2014 International Standards for Asset Management (ISO 55000):*

**Audit** = 'systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled'

**Performance** = 'a measurable result'

**Competence** = 'ability to apply knowledge and skills to achieve intended results'

**Continual improvement** = 'recurring to enhance performance'

**Capability** = 'measure of capacity and the ability of an entity (organisation, system, person) to achieve its objectives'

**Excellence** = 'the quality of being outstanding or extremely good'

The following focus areas capture the highlights along this inspiring journey to supply high quality water, consistently, affordably, with minimal losses and high efficiency, to the end user. At the heart of the No Drop Programme is its endeavour to pay tribute to the world class people who make it happen day after day.



# SOUTH AFRICAN DRINKING WATER SUPPLY INFRASTRUCTURE

The South African consumer receives drinking water of high quality as prescribed by the South African National Standards (SANS 241:2015). The Blue Drop audits of 2014 indicated that approximately 1085 (audited & estimated) water supply systems are owned and operated by 152 municipalities across nine provinces. The pipe network that provides the water to the consumer is approximately 3 422 374 km and operates at an average pressure of 5-6 meters head or 50-60 kPa. The number of people who are served via these purification systems is 46 295 337, at an efficiency of 265 litres per capita per day.

The System Input Volume (SIV) in 2011/12 was estimated at 3 336 000 Ml/annum, of which 26.2% (1 206.7 m kl/annum) represented water losses, and 33.6% (1 119 kl/a) represented NRW, bringing the value of NRW to >R7 billion per year.

## WHAT IS THE NO DROP PROGRAMME?

The No Drop Programme consists of a set of criteria which is used to assess, verify and validate a municipality's water use efficiency. Each year, a small team of water experts travel around South Africa to conduct an assessment and give a score to each water supply system within a municipality. These results serve as a trigger to acknowledge and award municipalities whom achieve >90% with a No Drop Certificate, the highest accolade for good practice in water supply. Contrary thereto, the No Drop score also serves to direct the necessary regulatory- and support interventions to remedy non-compliance in municipalities with a No Drop score of less than 30%.

The criteria are weighted to focus on the aspects that require the most attention to ensure constant and progressive forward movement. The criteria are as follows:

- 1. Strategy and planning:** The municipality must demonstrate a thorough understanding of its current situation regarding water use as compared to its available resources and Water Use Authorisations/Licenses. It must further demonstrate a thorough understanding of its water use patterns by providing credible water balance diagrams based on IWA guidelines. The diagrams must be prepared on a monthly basis. Using the Water Resource Balance diagram as well as the IWA Water Balance diagrams, the municipality must present a workable Council approved Water Demand Management strategy, along with evidence of implementation thereof, indicating how the municipality aims to achieve its own internal targets, National Reconciliation Strategy as well as Presidential targets.
- 2. Asset management:** Water distribution infrastructure is to be managed in a manner which will ensure that WDM targets are met. A number of performance areas will be measured under this criterion, which include:
  - Asset registers must be presented which demonstrate the municipality's understanding of the age, condition and replacement needs of its complete catalogue of infrastructure related to WUE.
  - A Mains Replacement Programme with evidence of implementation will demonstrate whether municipalities are keeping pace with the replacement needs of its aging networks.
  - A Consumer Meter Replacement Programme and Valve and Bulk Meter Programme will demonstrate the same for other infrastructure components critical to WDM.
  - The municipality must present on its initiatives relating to the monitoring and analysis of, and response to, high water loss supply zones.
- 3. Technical skills:** The municipality must employ personnel that are sufficiently qualified to drive and to add impetus to its WDM initiatives. The necessary competence in skills must be represented in:

- The WDM management structures.
- The networks operations and maintenance staff.
- The teams responsible for data collection (meter readers).

**4. Credibility:** WDM initiatives are developed based on data received from its network monitoring systems. It is therefore critical that the dataset is accurate and credible. Consumers also demand that the billing system employed results in billing which is consistently accurate. To this end the municipality is required to provide evidence which:

- Demonstrates the systems employed in the meter reading to billing process.
- Demonstrates the accuracy of systems as employed.
- Demonstrates how it ensures the integrity of its data, for example by way of an independent audit.
- Demonstrates that flow meter data specifically, is accurate.

**5. Compliance and performance:** WDM compliance and performance is measured against a number of best practice targets. These include:

- All consumption points should be metered or controlled.
- All consumption points must be billed inclusive of points which qualify for discounts and free services.
- Flat rate or deemed consumption billing systems must be avoided.
- Leaks in the reticulation systems must be repaired in the shortest possible time.
- A household leak repair Programme must be rolled out to all domestic consumers.
- Physical water loss indicators must be known and must demonstrate a year-on-year improvement in water loss performance.
- Commercial water loss indicators must be known and must demonstrate a year-on-year improvement.
- Water use efficiency indicators must be known and must demonstrate a year-on-year improvement.
- Pressure management systems must indicate that pressures in distribution systems remain under control.

**6. Local regulations:** Municipalities must apply themselves in their local authority roles as far as WDM is concerned. It is expected that municipalities will use the authority bestowed on them to good effect to ensure that WDM receives sufficient attention by all who fall under the jurisdiction of the municipality. To this end, municipalities must:

- Implement a relevant metering, billing and credit control policy.
- Implement a relevant consumer meter replacement policy.
- Gazette and apply relevant and up-to-date bylaws which include and support their WDM efforts. The bylaws will, at the very least, promote the removal of wasteful devices, and address unlawful use of water, waste of water, authorised use of water fittings, use of measuring control devices and water restrictions.
- Maintain an up-to-date indigent database.
- Ensure that consumer water use installations comply to the relevant SABS specifications as far as water use installations are concerned.

**7. Customer care:** The municipality will engage with its customers in a constructive manner in order to ensure that WDM targets are reached and sustained. This engagement will be demonstrated through:

- A Customer Charter which clearly defines the responsibilities of both the municipality and the consumer with respect to WUE.
- A Customer Care Centre and customer care reports through which the municipality's dedication to the resolution of queries are demonstrated.
- The municipality will issue informative billing in line with the Municipal Systems Act 32 of 2000.
- The municipality will run ongoing Community Awareness Campaigns through various media channels to solicit consumer support for WDM initiatives.
- The municipality will run an ongoing Schools Awareness Campaign to solicit support for WDM initiatives.

# NO DROP PROGRAMME DRIVES CONTINUOUS IMPROVED PERFORMANCE

The No Drop is following in the footsteps of the Blue Drop and Green Drop model, which has proven its ability to successfully turn around the drinking water and wastewater industry. Some of the drivers for the No Drop include:

- No Drop raises awareness on WCWDM, the first step to change behaviour. The No Drop has taken WCWDM to each and every municipality in South Africa. At the onset of the No Drop Programme in 2013, several municipalities did not have Water Balances in place and lacked cohesion between the engineering and financial departments. Already, this behaviour and practice is changing for the better.
- The saying goes: *'to measure is to know'*. No Drop KPA 5 focuses on "Performance and Compliance" and also carries the highest weight out of a possible score of 100%. Using the Water Balance input data, each performance area can be **MEASURED AND MONITORED**, and trends analysis allow the public and decision-makers to follow progress or digress.
- For the first time, the excellent work and years of dedication of individuals are noticed and acknowledged at a national level.
- A credible baseline exists which allows the private sector to identify opportunities to partner and cooperate with the public sector to work towards a common objective – to use water efficiently, cost effectively, and as a catalyst to expand business and create jobs.
- Whilst the **CONTINUOUS PROGRESS** in performance is of utmost importance and a key driver behind the No Drop, it is the acknowledgement of **EXCELLENCE** that makes one realise *'this is a game changer of note'*.
- The No Drop forces municipalities to identify their critical risks. This means that they can plan in advance and motivate successfully for budgets and other resources to Council to address these risks. The No Drop Risk Ratio (NDRR) has been developed to quantify key risks on an annual basis, and prioritise the appropriate risk treatment measures with two key outputs in mind: **RESILIENCE and SUSTAINABILITY**.

## NO DROP RISK RATIO PARAMETERS

90 – 100% **Critical risk**

70 - <90% **High Risk**

50-<70% **Medium risk**

<50% **Low risk**

## CONCLUDING REMARKS

“**THE NO DROP** is creating opportunities for people and water organisations to exchange knowledge and **WORK TOGETHER**. No Drop is a catalyst which **FOCUSES RESOURCES** and actions towards excellence...”

The No Drop initiative is a regulatory driven process, which is implemented under the leadership of the Minister of Water and Sanitation and her Department's Branch Regulations. The SWPN is pleased to note the fast take-off and uptake of the programme, coupled with a high-end demand for the programme. This in itself offers a high end solution to the approaching threat of water insecurity and deficit in water supply. The DWS, SWPN and the water sector are therefore encouraging all municipalities to improve its No Drop scores.

At a seminar on the No Drop Programme held in Kwazulu Natal on 21 May 2015, there was strong support expressed by Ethekwini for the No Drop, Blue Drop and Green Drop Programmes. The No Drop was said to be most probably the best thing that was developed. Ethekwini also made a presentation in which it expressed its full support to the No Drop.

All things are from **WATER** and all  
things are **RESOLVED INTO WATER....**

- Thales, 1879

## CONTACT US

The SWPN-SA Secretariat is hosted by the NEPAD Business Foundation, a neutral non-profit institution promoting public and private sector collaborations to achieve social and economic development across Africa.

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