

Green Drop Report

2009 version 1

South African Waste Water Quality Management Performance



water affairs

Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA



green drop
CERTIFICATION

waste water service
REGULATION

Green Drop Report

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Executive Summary

Green Drop Regulatory Report Card 2009

Context

South Africa has build a substantial waste water management industry that comprises of approximately 850 municipal treatment plants, extensive pipe networks, and pump stations, transporting and treating an average of 7 589 Mega-liters of waste water on a daily basis. The country runs a prominent waste water treatment business with an estimated capital replacement value of >R 23 billion and an estimated operational expenditure of >R 3.5 b per annum.

Recent investigations and audits confirmed that the situation with regard to waste water treatment and compliance with the respective Water Acts must be addressed as a matter of urgency. The municipal waste water services business is generally considered to be far from acceptable, when compared to the required national standards and international best practice.

**Waste water is the FIRST BARRIER
in a multi-barrier system of ensuring safe drinking water quality.**

Fundamental to addressing the gaps and raising the performance of municipal waste water service providers, has been the introduction of the **Green Drop Certification** process. In addition, to this **incentive**-driven initiative, the Department of Water Affairs has also commenced with a corrective process, where **punitive** measures could be applied when all avenues have been exhausted to rectify situations of continued non-compliance. This process is driven by **strengthening the regulatory approach**, whilst at the same time refocusing the Local Government Support model in a manner that is more responsive to regulatory imperatives. The Department of Water Affairs (DWA) targeted approach to regulatory enactment of the Enforcement Protocol uses an action research methodology aimed at **problem solving**.

Whilst many interventions are reactive and triggered by negative reports and/or complaints of poor waste water management practices, the **First Order Assessment** process was geared to address priority cases which are based upon its potential to have a high impact and risk to receiving water bodies and human health. A national roll-out of both the Green Drop assessments and the First Order assessment from August 2008 to September 2009, have campaigned successfully to channel the consumer voice, to raise political awareness and to bring about positive changes to waste water treatment, whilst setting the platform for more efficient forward planning and investment in waste water services facilities and skills.

A risk-based regulatory approach provides early warning signs of plants that contain a certain measure of risk, and in directing the type of intervention required to manage and mitigate the identified risk and move to a more favourable position of compliance and ultimately, **excellence**.....

Risk-based Regulatory Approach

The *First Order Assessment of Municipal Waste Water Treatment Plants* (August 2008 – July 2009) provides a scientific and verifiable status of municipal waste water treatment. This also forms the basis of regulatory intervention, by prioritising the higher risk plants and applying the Enforcement Protocol for Organs of State (a business process geared at solution formulation and rectifying non-compliance

situations). A priority (risk-based) matrix for each province's WSAs and their WWTWs has been developed, comprising of risk ratings calculated by means of cumulative risk ratings (CRR). This would be the risk rating determined from the sum of all the factors that could have a potential compromising effect on the operations efficacy and/or the receiving water body. Hereafter these factors are referred to as weighting factors (WF) of the cumulative risk rating.

The following formula is used to determine the CRR of each waste water treatment facility in South Africa to ensure that decision-makers would have a common basis to determine priorities for intervention and related planning processes.

$$\text{Cumulative Risk Rates (CRR)} = WF1 * WF2 + WF3 + WF4$$

WHERE: Weighting Factors (WF) are assigned to four high risk areas:

WF1 - Design capacity of plant - also represent hydraulic loading onto receiving water body;

WF2 - Flow amount exceeding-, on- and below capacity;

WF3 - Number of non-compliance trends i.t.o. effluent compliance as discharged to receiving water body

WF4 - Compliance / non-compliance i.t.o. technical skills (supervisory, process control, maintenance)

The First Order Assessment process was done to substantiate any interventions with scientific fact and base, with the purpose of:

- ◆ Equipping the Department and its stakeholders with a status report of municipal waste water treatment facilities and their performance;
- ◆ Identification of high risk facilities and priority cases that require intervention in terms of (i) design capacity and receiving flows to the plants (ii) effluent quality compliance; and (iii) operation, maintenance and management (technical) skills;
- ◆ Compiling a priority list on the cumulative risk rating as it impacts on the receiving water body.

Where no information is available (even at municipal level), the measured parameter has been accounted to be risk contributor. The Department of Water Affairs accepts that **risks are only negative if no plans are in place to mitigate/manage the risk.**

Provincial Risk Profiles of Municipal Waste Water Treatment Plants

The status of waste water treatment are often being speculated on and based on anecdotal and evidence from scattered sources and experiences. For this reason, a first order assessment was commissioned in 2008 to establish the status of waste water treatment plants on a scientific basis. The First Order Assessment indicates a number of high-risk waste water treatment plants across the country, with a specific regional spread. The study adds value by specifically identifying the particular plants that falls in the various risk spectrums, and supports the risk value with a set of risk elements within the profile.

It is to be noted that assessments were done within 'political / provincial' borders, not water catchment boundaries, due to the acknowledgement that close cooperation between the departments of Water Affairs and Provincial Local Government will be required to adequately address the situation and effect positive changes.

According to the formulae logic, the lowest CRR that can be achieved is "1" and the highest CRR possible will be "48"

The following table presents a snapshot view of the status of risk identification in each province; depicting the number of waste water treatment facilities per province in the various cumulative risk rating (CRR) categories:

CRR*	E-Cape	N-Cape	W-Cape	Gauteng	KZN	F-State	Limpopo	Mpumalanga	North West	South Africa
28						1			3	4
27	1		1							2
26										0
25			1	1						2
24				1	1					2
23	1			1	3	4			5	14
22			1	1	3	2			1	8
21	2		1	2		2				7
20	2		8	3	1	2				16
19		1	1	2	1	2			2	9
18	16	5	7	1	1	17	23	2	24	96
17	16	8	3	5	1	5	1	6	2	47
16	11	14	8	2	8	4	3	3	5	58
15	10	13	15	3	6	8	2	6	1	64
14	9	5	10	2	15	14	6	7	5	73
13	16	7	21	3	7	12	7	6	2	81
12	10	7	11	5	9	15	5	13	1	76
11	15	4	15	2	17	5	8	11	1	78
10	9	3	12	5	12	2	5	11	1	60
9	4	2	10	5	20	2	1	5	3	52
8	2		14	2	12	1	1	5		37
7	1		10	3	14	2		3	3	36
6		1	6	1	10			1	1	20
5			1	1	5	1		1		9
4					1					1
Total (Waste Water facilities)	125	70	156	51	147	101	62	80	60	852

*Cumulative Risk Rating

The Red line indicates a possible target benchmark as explained below.

The higher risks profiles (CRR of 18 – 28) are indicated in the above table in form of a provincial spread, and is regarded as the first level of intervention to lower this category risks. The risk profiles provide a clinical profile which could inform any form of intervention; whether regulatory, supportive or whatever appropriate intervention approach required. This would initiate an immediate process to systematically reduce the risk ratings of all waste water treatment facilities in the targeted category. Detailed provincial reports are available.

Risk category	2009 status quo	2010 target	2014 target	Intermediate Target
Highest CRR	28	24	17	Reduce risk
Average CRR	17	15	10	Reduce risk
Lowest CRR	4	2	1	Reduce risk
% above CRR 18	19%	10%	0%	Reduce short term
% between CRR 10-18	63%	50%	30%	Increase medium term
% below 10	18%	40%	70%	Increase long term

In effect, this means that the following need to be addressed by the Water Services Authorities in order to achieve the above risk rating reduction targets:

- ◆ Forward planning and upgrading/refurbishment of treatment plants to ensure adequate capacity for the flows received;
- ◆ Operate and maintain the plants within design- and equipment specification;
- ◆ Have trained, qualified and registered staff in place;
- ◆ Get mentoring/coaching contracts in place where there is a great demand for adequately skilled process controllers and supervision;
- ◆ Monitoring of flow to- and from the plants;
- ◆ Sampling and monitoring of effluent quality;
- ◆ Appropriate authorisation in accordance with the National Water Act (36 of 1998); and/or
- ◆ Where plant is overloaded, introduce unorthodox methods (e.g. reed-bed biological treatment of effluent streams; etc) to ensure enhancement of effluent quality.

Key Findings and Way Forward

The Green Drop and First Order assessments of municipal WWTWs highlighted the following:

- ◆ Pockets of excellence in waste water treatment and management are evident across the country, and particularly in stretching the limitation of infrastructure to still meet effluent quality consistently. This is supported by Green Drop awards with high scores achieved on the assessments. 6 out of 169 (3.6%) Water Services Authorities managed to obtain Green Drop status for the facilities they are managing. A percentage of 7.4% of all waste water systems assessed achieved Green Drop certification.
- ◆ 203 waste water services systems out of the 449 (45%) assessed scored better than 50% in measurement against the stringent criteria set. This implies that in spite of all the evident shortcomings, the sector is not in complete disrepair.
- ◆ However there remains concern over the 55% (of systems) that scored between 0% and 49% meaning that drastic improvement is required before the Department's confidence levels in the management practices and abilities of the responsible authorities are fulfilled.
- ◆ Only (449 out of approximately 852 municipal waste water systems) 53% of waste water systems were assessed due to:
 - Municipalities not adhering to call to be assessed;
 - Municipal officials not sufficiently confident in their levels of competence to be subjected to assessments; and or
 - Municipalities not managing waste water services according to expected requirements and therefore not in possession of management information required for Green Drop assessments.
- ◆ The 47% of South African waste water services systems that were not assessed could not obtain a Green score, but the First Order Assessment is being used to provide the Department with credible information on the overall management performance of the treatment facilities.

**The Risk Profiles
has verified and
contributed to the
awarding of Green
Drops**

- ◆ Other than the above-mentioned best practice centres, waste water treatment performance was generally poor. This is supported by the relative low number of Green Drop certifications and the relatively poor scores obtained by the majority of WSAs.
- ◆ The First Order Assessment indicated that the highest possible risk rating that can be achieved is 48. Not one of the municipal WWTW's assessed approached this value, which implies that while there are high risk ratings (18-28), none of the larger and macro facilities is at the point of total collapse – as this will be indicated when macro- and large sized plants enter risk values exceeding 40. This reflects on a situation that is certainly of concern, but lends itself to a possible turn-around process before risk values enter the 30+ values. There is pertinent concern regarding the condition of some smaller plants, most of which are placed at their maximum risk values.
- ◆ A “turn-around intervention” is not only dependant on the replacement/refurbishment of existing infrastructure and expansion of infrastructure. The **strategic decrease of the risk factor** is a reachable target which will have significant benefits to the environmental health of the receiving water bodies.
- ◆ Skills shortages existed at all levels from managerial to junior operational. The result is that many plants are not operated correctly and the resultant effluent water quality is no longer compliant.
- ◆ A poor understanding of the technicalities of waste water treatment and WWTWs is prevalent under senior town management and administration, the needs of the plant and its operators therefore are not prioritised.
- ◆ Understanding of the funding requirements for WWTW operations is generally lacking since plant operation is therefore generally under-funded. This is further exacerbated by the additional burden placed on operators by municipal procurement procedures and its custodians – financial support for dealing with urgent issues at plants is, in many cases, non-existent.
- ◆ As a result, maintenance of infrastructure may have become a luxury rather than a necessity. The state of the bulk of plants can be described as poor to non-functional. In many cases, extensive refurbishment and expansion of the current plants are required.
- ◆ In many cases, the processes employed at plants are no longer sufficient to deliver the required final water quality.
- ◆ It is concerning that a number of municipalities had no information on the waste water treatment works they are responsible for. This allow a situation where any attempt at plant control and effluent compliance will be null and void, as no measured means are in place to verify the status of compliance of such plants.
- ◆ With a number of process controlling and supervisors positions filled with inadequately skilled staff; training and coaching is a necessity. This is a recognized ‘scarce’ skill in the industry and the gap must be addressed in a strategic, but targeted approach.
- ◆ Under-performing water services authorities should appoint competent water services providers to manage waste water services. Institutional re-alignment might be a necessity.
- ◆ Optimising waste water treatment efficacy has the potential to make a treatment facility self-sustainable which could serve as an incentive. (Renewable energy is obtainable from effective biological treatment processes.)

The Green Drop and Risk Profile - Value Proposition

A risk-based approach benefits to various sector players and partners:

- ◆ Provides the **regulator** with a scientific basis to prioritize regulatory interventions on regional, WMA or scheme level;
- ◆ Provides WSA/WSP with information and data to supplement their planning processes and secure funding (opex or capex);
- ◆ Provides a **tool** to monitor and measure improved / reduced performance (and compliance) over time;
- ◆ Provides sectors responsible for **support** with a scientific basis to cost (high level) and apply “appropriate” support measures;

- Provides a **common (data/information)** base – management information to support inform respective plans, resources and strategies
- Provides a meaningful base for performance- and contract management, inter alia:
 - Service Agreements between WSAs and their Service Providers in specifying and monitoring the performance output;
 - Municipal Managers and the Technical Managers to use these targets as KPIs in employment contracts;
 - Conditions attached to financial loans, support arrangements, etc.

Conclusion

South African Waste Water Treatment Works Performance

National Perspective:

In order to facilitate a more transparent way to indicate the **level of confidence** the Department of Water Affairs (DWA), the Regulator, has in waste water quality management, the Department initiated a method of awarding towns within Water Services Authorities with **Green Drop** status. This status is achieved if the WSA complies with waste water legislative requirements and other best practice requirements are being implemented.

Unlike the Blue Drop initiative, the Green Drop assessment process was found to be much more strenuous due to the fact that there are many more waste water treatment systems than drinking water systems that needed to be evaluated. A practical example would be the City of Cape Town. While one water supply system serves the entire Cape Peninsula with drinking water, the same area is served by 23 waste water treatment systems.

The assessments revealed that Green Drop status is difficult to achieve and is thus more illusive than the Blue Drop to most authorities. However it remains encouraging to note that 32 systems achieved Green Drop status during the inaugural assessment period.

It was found that most facilities in the rural areas and smaller towns are not adequately equipped with staff of appropriate skills and this constrained the performance of these systems in their overall Green Drop performance.

It is concerning that most systems that achieved Green Drop status are managed by Metro Councils or Water Services Providers. It is extremely challenging for smaller municipalities to attract the services of adequately skilled personnel to the remote plants, and this normally challenges the authority to manage waste water services according to set requirements.

The Department launched the Green Drop initiative as part of its incentive-based regulation approach but it should be noted that it forms part of a broader regulation approach which could include prosecution as a very last resort, when recurring failures are detected. A risk-based approach has been initiated to determine priority areas and ensure that a strategic approach is adopted to scientifically calculate priority waste water facilities for urgent regulatory intervention but also to present tangible targets for municipalities to reduce risk within an acceptable time-frame. The Department will expect acceptable plans for sustainable rectification from all water services authorities to ensure a definitive

Through the Green Drop incentive, the Department of Water Affairs is promoting incentive-based regulation and acknowledging excellence in waste water quality management

turn-around of the South African waste water business. The implementation of these plans will be monitored and failure to commit will necessitate firm action.

Green Drop Status Awards 2009

Waste Water Services Systems	Water Services Authorities and Providers
1. <i>Amazimtoti</i>	<i>(Ethekeweni Metro, KZN)</i>
2. <i>Bushkoppies</i>	<i>(City of Johannesburg & Joburg Water; Gauteng)</i>
3. <i>Cape Flats</i>	<i>(City of Cape Town; W. Cape)</i>
4. <i>Central</i>	<i>(Ethekeweni Metro, KZN)</i>
5. <i>Craigieburn</i>	<i>(Ethekeweni Metro, KZN)</i>
6. <i>Daspoort</i>	<i>(City of Tshwane; Gauteng)</i>
7. <i>Dekema</i>	<i>(Ekurhuleni Metro & ERWAT; Gauteng)</i>
8. <i>Driefontein</i>	<i>(City of Johannesburg & Joburg Water; Gauteng)</i>
9. <i>Ennerdale</i>	<i>(City of Johannesburg & Joburg Water; Gauteng)</i>
10. <i>Goudkoppies</i>	<i>(City of Johannesburg & Joburg Water; Gauteng)</i>
11. <i>Kanyamazane</i>	<i>(Mbombela Local Municipality & Silulumanzi; Mpumalanga)</i>
12. <i>Kleinkrantz</i>	<i>(George Municipality)</i>
13. <i>Llandudno</i>	<i>(City of Cape Town; W. Cape)</i>
14. <i>Macassar</i>	<i>(City of Cape Town; W. Cape)</i>
15. <i>Matsulu</i>	<i>(Mbombela Local Municipality & Silulumanzi; Mpumalanga)</i>
16. <i>Melkbostrand</i>	<i>(City of Cape Town; W. Cape)</i>
17. <i>Mitchells Plain</i>	<i>(City of Cape Town; W. Cape)</i>
18. <i>Northern Works</i>	<i>(City of Johannesburg & Joburg Water; Gauteng)</i>
19. <i>Olifantshoek</i>	<i>(City of Johannesburg & Joburg Water; Gauteng)</i>
20. <i>Oude Kraal</i>	<i>(City of Cape Town; W. Cape)</i>
21. <i>Outeniqua</i>	<i>(George Municipality. W. Cape)</i>
22. <i>Parow</i>	<i>(City of Cape Town; W. Cape)</i>
23. <i>Phoenix</i>	<i>(Ethekeweni Metro, KZN)</i>
24. <i>Rondebult</i>	<i>(Ekurhuleni Metro & ERWAT; Gauteng)</i>
25. <i>Southern Works</i>	<i>(Ethekeweni Metro, KZN)</i>
26. <i>Umdloti</i>	<i>(Ethekeweni Metro, KZN)</i>
27. <i>Umhlanga</i>	<i>(Ethekeweni Metro, KZN)</i>
28. <i>Umhlatuzana</i>	<i>(Ethekeweni Metro, KZN)</i>
29. <i>Umkhomaas</i>	<i>(Ethekeweni Metro, KZN)</i>
30. <i>Umlazi</i>	<i>(Ethekeweni Metro, KZN)</i>
31. <i>Verulam</i>	<i>(Ethekeweni Metro, KZN)</i>
32. <i>Zeekoegat</i>	<i>(City of Tshwane; Gauteng)</i>

Green Drop Excellence Awards 2009

1. Green Drop Award: Most Presentable Medium Sized Waste Water Treatment Works

a. **East Bank; Buffalo City**

While this works did not qualify for Green Drop status as yet, It certainly impressed the Green Drop Auditors by the manner in which it was kept and maintained. This is regarded as a major step towards Excellence and is keeping the promise of a Green Drop Award soon.

2. Green Drop Award for most promising Performance for smaller systems

a. **Knysna Municipality**

In spite of all the challenges faced this municipality scored an average of 75% for all the systems it is responsible for. This is deemed as remarkable since all criteria is complied with except for effluent compliance. Should serious attention be given to effluent compliance this could be the first smaller municipality that will qualify for a Green Drop on all its systems.

3. Green Drop Excellence Award for Excellence for Medium System

a. **George Municipality**

It is remarkable that this Municipality is managing their Klein Krantz and Outeniqua waste water treatment facilities with excellence, and is the only authority which is not a metro or an aspiring one, that managed to qualify for the “elusive” Green Drop Status.

4. Green Drop Excellence Award for a Large System

a. **Ekurhuleni (ERWAT)**

The two waste water treatment facilities qualifying for Green Drop Status did not only achieve a 100% score but also impressed the Green Drop Auditors with the stunning present- ability of the two plants. This served as clear indication that asset management is being taken seriously.

Green Drop Report Card Scoring Criteria

Table 1: Green drop report card scoring criteria

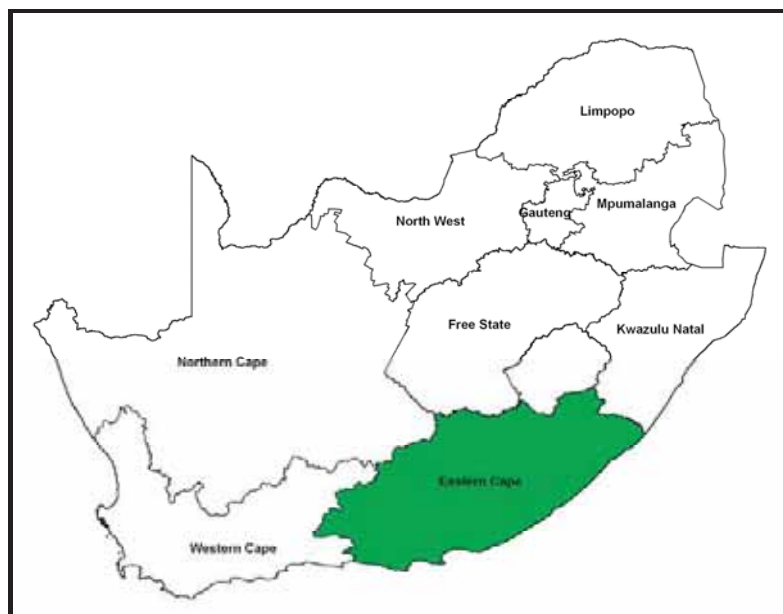
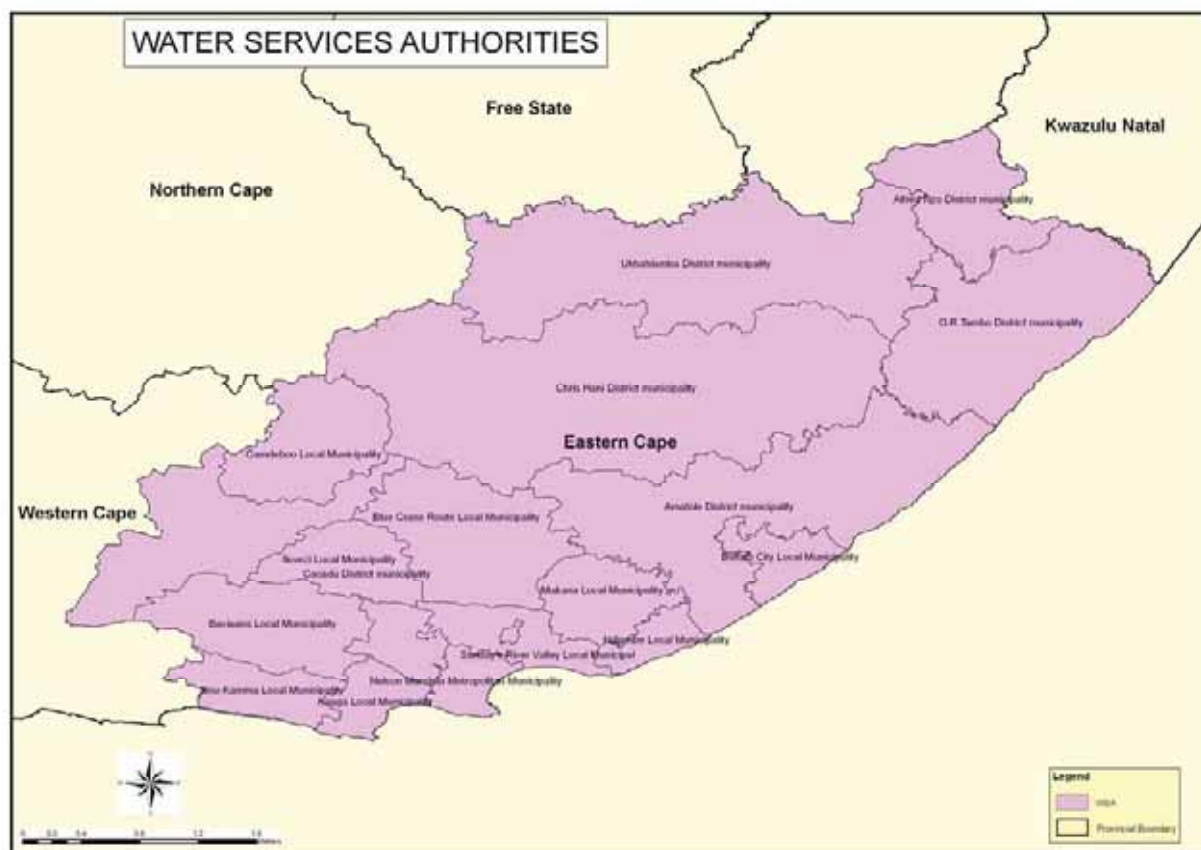
Criteria	Score	Symbol	Description	Requirements (& weighting)
Adequacy of Process Control, Maintenance and Management Skill	100% (10)	A	Fully complies with all requirements.	1. Treatment works complying with Reg. 2834 of Water Act., in terms of Classification and Registration. (20%) 2. Process Controllers are complying with skills requirements of Reg. 2834 of Water Act. (50%) 3. Availability of skilled maintenance skills. (10%) 4. Operations and Maintenance manual is in place. (20%)
	80%-90% (8-9)	B	Complies with all requirements except for 1.	
	70% (7)	C	Not complying with 2 Requirements.	
	50% (5)	D	Not complying with criteria No. 2 or complying with No.2 and none of the other.	
	30% (3-4)	E	Not complying with criteria No. 1 & 2 or No. 2 & 4.	
	10% - 20% (1-2)	F	Not complying with the majority of the requirements.	
	0% (& no info)	G	Not complying with any of the requirements or the complete lack of info.	
Efficiency of Waste Water Quality Monitoring Programme	100% (10)	A	Fully complies with all requirements.	1. Details of an effective Operational Monitoring Programme. 2. Details of an effective Compliance Monitoring Programme. 3. Proof of sufficient samples and determinands taken from sample sites.
	70% (7)	B	Complies with all requirements except for 1.	
	60% (6)	C	Not complying with requirement No. 2 and another requirement. Or not complying with any other 3 requirements.	
	30% (3)	E	Only complying with 1 Requirement. (1 or 2)	
	15% (1.5)	F	Not complying with majority of the criteria. Only complying with one requirement.	
	0% (& no info)	G	Not complying with any of the requirements or the complete lack of info.	
Credibility of Drinking Water Sample Analysis	100% (10)	A	Fully complies with all requirements.	1. Proof to be provided of the laboratory used. 2. Laboratory is either accredited or participates in an accredited Proficiency Scheme (obtaining an acceptable Z-score). 3. Proof that analysis results are used to improve process controlling.
	70% (7)	B	Complies with all requirements except for Requirement No.1.	
	60% (6)	C	Complies with all requirements except for Requirement No.3.	
	30% (3)	E	Not complying with Requirement No.2. Or not complying with Requirements 1 & 2.	
	15% (1.5)	F	Only complying with Requirement No. 3.	
	0% (& no info)	G	Not complying with any of the requirements or the complete lack of info.	

Table 1: Green drop report card scoring criteria (continue)

Criteria	Score	Symbol	Description	Requirements (& weighting)
Regular Submission of Waste Water Quality Results to DWA.	100% (12/12 months)	A	Fully complied with criterion	1. Results must be submitted 12 months a year.
	0% (<10 months)	G	Less than 12 sets of data submitted to DWA. No data submitted.	
Waste Water Compliance with License conditions / General Authorizations or Special Limits.	100% (35)	A	Fully complies with criteria.	1. Proof of waste water quality compliance data for the past 12 months and copy of standards used. 2. Provide figures per determinand; number of analysis per determinand & the number of non-complying analysis per determinand. 3. % compliance per determinand (measured against overall compliance %).
	80% (28)	C	Complies with most criteria, except for 1.	
	60% (21)	D	Does not comply with criteria 1 & 2.	
	20% (7)	E	Does not comply with criteria 3.	
	0%	G	Did not comply with both sub-criteria or failed to submit sufficient data for assessment purposes.	
Waste Water Quality Failure Response Management	100% (20)	A	Fully complies with criteria.	1. Proof of a documented Effluent Quality Incident Management Protocol (or protocol similar in function) specifying roles and responsibilities. 2. Provide evidence of implementation.
	60% (12)	C	Have evidence to proof incident management control, but has no documented protocol.	
	40% (8)	E	Has a documented protocol in place but not evidence to proof implementation.	
	0%	G	Not complying with criteria or failed to submit sufficient information for assessment purposes.	
Waste Water Treatment works capacity	100% (5)	A	Fully complies with criteria	
	80% (4)	B	Complies with all criteria except for one.	
	60% (3)	C	Not complying with 2 criteria or Criterion 2.	
	40% (2)	E		
	20% (1)	F	Only complies with 1 criterion.	
	0% (0)	G	Not complying with criteria or failed to submit sufficient information for assessment purposes.	

Chapter 1

EASTERN CAPE Province



Chapter 1 - EASTERN CAPE Province

Introduction

The municipalities in the Eastern Cape complied rather poorly with the requirements of the Green Drop Certification programme during assessments and audits. The provincial average score of 29% is misleading as some of the municipalities (Nelson Mandela Metro) scored relatively high and thus raised the regional average. Most of the municipalities had very low scores and in most cases the assessment did not reflect the situation at individual WWTWs. The low scoring authorities will be placed under close surveillance with the objective of ensuring improvement.

Water Services Authorities that failed (or was unable) to present the Department with the required information for Green Drop Certification assessment, are:

Responsible Municipality/ Organization & Responsible Authority; Name of WWTW:

-  **Alfred Nzo DM** - Mount Frere, Cedarville, Matatiele, Mount Ayliff
-  **Amatole DM** - Idutywa, Adelaide, Amabele, Bedford, Cathcart, Cintsa East, Hogsback, Kei Mouth, Keiskammahoek, Komga, Middledrift, Peddie, Seymour
-  **Amatole DM & Amatola Water Board** - Butterworth, Fort Beaufort
-  **Amatole DM & WSSA** – Stutterheim
-  **Baviaans LM** - Steytlerville, Willowmore
-  **Blue Crane Route LM** - Cookhouse, Pearston, Somerset East
-  **Cacadu DM** – Rietbron
-  **Camdeboo LM** - Aberdeen, Graaff-Reinet, Nieu-Bethesda
-  **Ikwezi LM** - Jansenville, Klipplaat
-  **Kouga LM** - Hankey, Humansdorp, Jeffrey's Bay, Kruisfontein, St. Francis Bay, Loerie
-  **Kou-Kamma LM** – Blikkiesdorp (Sandrift), Clarkson, Coldstream, Kareedouw, Krakeel River, Laurel Ridge (Plankiesdorp, Lottering), Louterwater, Misgund, Sanddrift (Mandela Park), Storms River West, Joubertina (Twee Riviere), Woodlands
-  **Ndlambe LM** - Alexandria, Bathurst, Boesmans River Mouth, Kenton-on-Sea, Port Alfred
-  **O.R. Tambo DM** - Mthatha Qumbu, Tsolo, Tabankulu, Flagstaff, Lusikisiki, Mqanduli, Port St Johns, Libode, Ngqeleni, Bizana
-  **Sunday's River Valley LM** - Nomathasanqa (Addo), Enon, Kirkwood (Ponds), Kirkwood (AS), Paterson

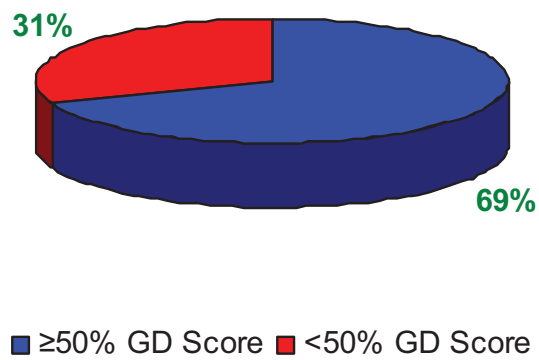
Their failure to adhere to the Green Drop Certification Programme's requirements necessitates that all systems under the jurisdiction of these Authorities be subjected to strict regulatory audits of which the results will be published in due course. As for now the Department is unable to assure the public of the confidence it has in the Waste Water Quality managing abilities of these municipalities, since all of them are classified with **Zero Green Drop scores**.

Green Drop Certification 2009 Summary (Eastern Cape)

Percentage of Water Service Authorities assessed: **5 of 19 = 26%**

Provincial Average Green Drop Score: **29%**

Eastern Cape Green Drop Performance (Assessed Waste Water Systems)



Buffalo City Local Municipality (WSA & WSP)

Although the Municipality has 15 WWTW under its jurisdiction, Green Drop Assessments were only available for 4 WWTWs. These are shown below.

Average Green Drop Score: **53%**

Regulatory Impression: *The overall WWQ management performance of the WWTWs assessed in the Buffalo City Local Municipality, as a whole, is relatively poor. Substantial improvement is required in many of the areas, except for WWQ monitoring and submission of results to DWA.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems			
	Potsdam / Mdantsane West	Reeston	Berlin	Gonubie
Process Control, Maintenance & Management Skill	D	D	D	D
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	C	C	C	C
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	D	D	D	D
Waste Water Failures Response Management	E	E	E	E
Waste Water Treatment Works Capacity	C	F	C	B
Green Drop Score	53%	51%	53%	54%

The following WWTWs were not assessed

Kidds Beach, Amalinda/Central, Bisho Ponds, Breidbach Ponds, Dimbaza, East Bank, Kayser's Beach, Mdantsane East, Schornville/KWT, West Bank/Hood Point Marine Outfall and Zwelitsha

Chris Hani District Municipality (WSA & WSP)

Although the Municipality has 17 WWTWs under its jurisdiction, a Green Drop Assessment was only done on the SADA WWTW.

Average Green Drop Score: **10%**

Regulatory Impression: *The WWQ management performance at the SADA WWTW under jurisdiction of the Chris Hani District Municipality is poor. Substantial effort is required in the all areas, except for the credibility of waste water sample analysis. More disturbing is the lack of Green Drop Assessments for the remainder of the WWTWs.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems
	SADA
Process Control, Maintenance & Management Skill	F
Monitoring Programme Efficiency	E
Credibility of Waste Water Sample Analysis	C
Regular Submission of Waste Water Quality Results to DWA	G
Waste Water Quality Compliance	G
Waste Water Failures Response Management	G
Waste Water Treatment Works Capacity	G
Green Drop Score	10%

The following WWTWs were not assessed

Molteno, Cala, Cofimvaba, Cradock, Dordrecht, Elliot, Hofmeyr, Indwe, Lady Frere, Middelburg, Ngcobo, Queenstown, Sterkstroom, Tarkastad, Tsomo and Whittlesea

Makana Local Municipality (WSA & WSP)

Average Green Drop Score: **7%**

Regulatory Impression: *The WWQ management performance of the Makana Local Municipality, as a whole, is poor. Substantial improvement is required in the all areas of WW Management.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	<i>Mayfield</i>	<i>Belmont Valley</i>	<i>Alicedale</i>
Process Control, Maintenance & Management Skill	G	G	G
Monitoring Programme Efficiency	G	G	G
Credibility of Waste Water Sample Analysis	B	B	B
Regular Submission of Waste Water Quality Results to DWA	G	G	G
Waste Water Quality Compliance	G	G	G
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	G	G	G
Green Drop Score	7%	7%	7%

Nelson Mandela Metropolitan Municipality (WSA & WSP)

Average Green Drop Score: **70%**

Regulatory Impression: *In terms of the overall WWQ performance, most of the works are performing adequately. Substantial effort is however required to improve Response Management to waste water failures. Some effort is also required in ensuring that the process controllers and maintenance teams are adequately qualified. Other areas requiring improvement is design capacity and capacity planning, and at the Fishwater Flats WWTW, the WWQ compliance requires attention.*

Green Drop Report Card (Nelson Mandela Metro 1)

Criteria	Waste Water Treatment Systems			
	<i>Fishwater Flats</i>	<i>Driftsand</i>	<i>Cape Recieve</i>	<i>Kelvin Jones</i>
Process Control, Maintenance & Management Skill	D	B	D	D
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	D	A	A	A
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	C	C	E	C
Green Drop Score	51%	77%	71%	72%

Green Drop Report Card (Nelson Mandela Metro 2)

Criteria	Waste Water Treatment Systems		
	<i>Despatch</i>	<i>Kwanobuhle</i>	<i>Rocklands</i>
Process Control, Maintenance & Management Skill	D	D	D
Monitoring Programme Efficiency	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A
Waste Water Quality Compliance	A	A	A
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	C	C	C
Green Drop Score	72%	72%	72%

Ukhahlamba District Municipality (WSA & WSP)

Average Green Drop Score: **3%**

Regulatory Impression: *The WWQ management performance of the Ukhahlamba District Municipality, as a whole, is very poor. Substantial improvement is required in the all areas of WW Management.*

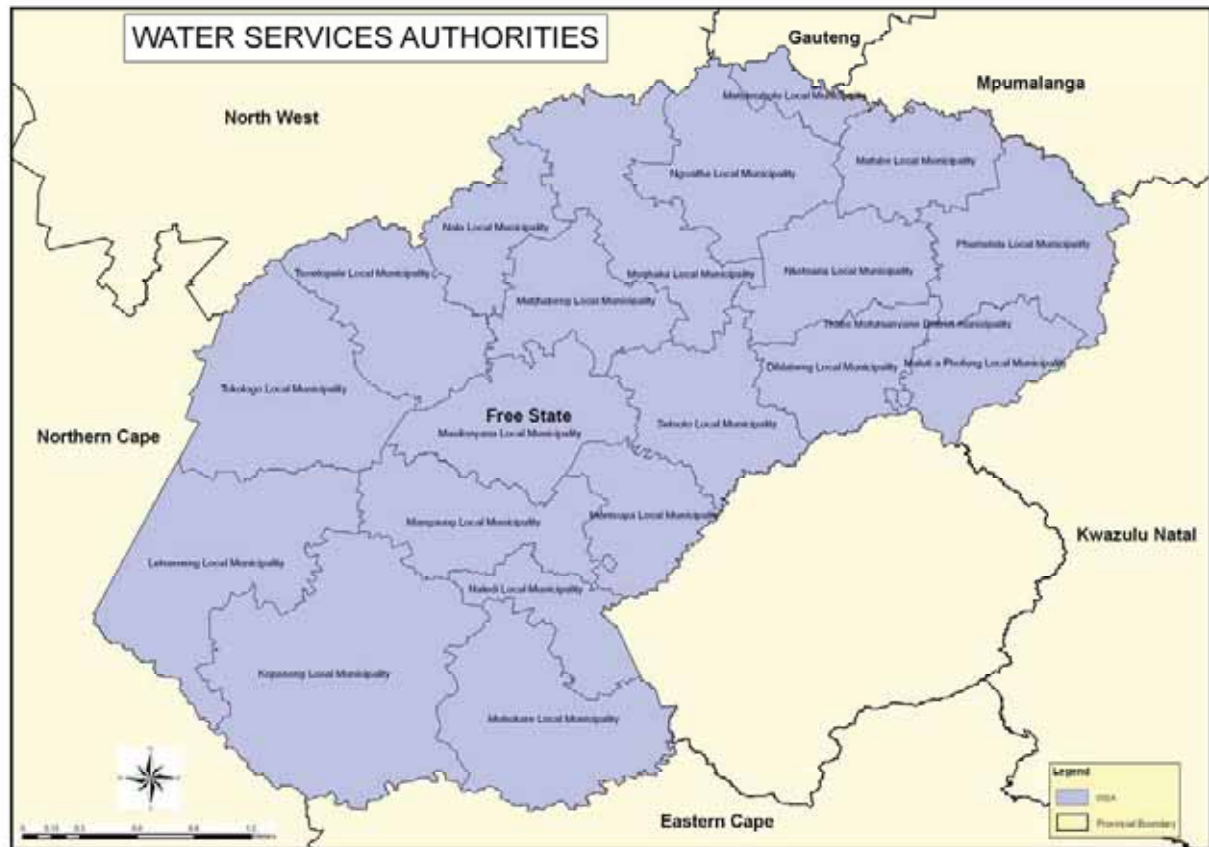
The Green Drop assessment was returned for the District Municipality as a whole, in terms of the combined operations of the following WWTW: Aliwal North WWTW, Barkly East WWTW, Burgersdorp WWTW, Jamestown WWTW, Lady Grey WWTW, Maclear WWTW, Mount Fletcher WWTW, Oviston WWTW, Sterkspruit WWTW, Steynsburg WWTW, Ugie WWTW, Venterstad WWTW and Rhodes WWTW.

Green Drop Report Card

Criteria	Waste Water Treatment Systems
	<i>Ukhahlamba District Municipality's</i>
Process Control, Maintenance & Management Skill	G
Monitoring Programme Efficiency	G
Credibility of Waste Water Sample Analysis	E
Regular Submission of Waste Water Quality Results to DWA	G
Waste Water Quality Compliance	G
Waste Water Failures Response Management	G
Waste Water Treatment Works Capacity	G
Green Drop Score	3%

Chapter 2

FREE STATE Province



Chapter 2 - FREE STATE Province

Introduction

The Free State Province has 102 WWTWs located in 20 municipalities. Only 8 of the 20 municipalities participated in the Green Drop Certification programme. Thirty five (35) WWTWs were assessed, a third of the WWTWs in the Free State. The provincial average score of 15% is however misleading, as some of the municipalities (Mangaung LM and Maluti-A-Phofung LM) scored relatively high and thus substantially raised the regional average. Most of the municipalities and their WWTWs had very low scores. The low scoring authorities will be placed under close surveillance with the objective of ensuring improvement.

Water Services Authorities that failed (or was unable) to present the Department with the required information for Green Drop Certification assessment, are:

- ✍ **Dihlabeng LM** - Bethlehem, Clarens, Paul Roux, Rosendal
- ✍ **Kopanong LM** - Bethulie, Edenburg, Fauresmith, Jagersfontein, Gariep Dam, Philippolis Springfontein, Trompsburg, Reddersburg
- ✍ **Mafube LM** - Frankfort, Namahadi, Tweeling, Villiers Cornelia
- ✍ **Mantsopa LM** - Excelsior Hobhouse, Ladybrand, Tweespruit
- ✍ **Masilonyana LM** - Brandfort, Soutpan, Theunissen, Verkeerdevlei, Winburg
- ✍ **Matjhabeng LM** - Allanridge Hennenman, Phomolong, Kutlwanong, Odendaalsrus, Ventersburg Mbabane, Virginia, Welkom (Thabong, Theronia, Witpan)
- ✍ **Metsimaholo LM** - Sasolburg, Oranjeville, Deneysville
- ✍ **Moqhaka LM** - Kroonstad, Steynsrus, Viljoenskroon
- ✍ **Nala LM** - Bothaville, Wesselsbron
- ✍ **Naledi LM** - Dewetsdorp, Vanstadensrus, Wepener
- ✍ **Ngwathe LM** - Edenville, Heilbron, Koppies, Parys, Vredefort
- ✍ **Tswelopele LM** - Bultfontein Hoopstad

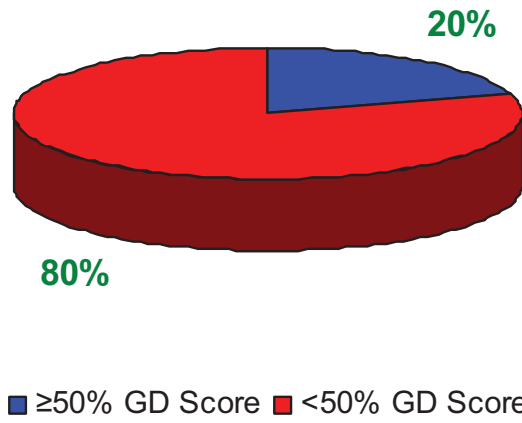
Their failure to adhere to the Green Drop Certification Programme's requirements necessitates that all systems under the jurisdiction of these Authorities be subjected to strict regulatory audits of which the results will be published in due course. As for now the Department is unable to assure the public of the confidence it has in the Waste Water Quality managing abilities of these municipalities, since all of them are classified with **Zero Green Drop scores**.

Green Drop Certification 2009 Summary (Free State)

Percentage of Water Service Authorities assessed: **8 of 20 = 40%**

Provincial Average Green Drop Score: **15%**

Free State Green Drop Performance (Assessed Waste Water Systems)



Letsemeng Local Municipality (WSA & WSP)

Average Green Drop Score: **0%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Letsemeng Local Municipality, as a whole, is exceptionally poor with substantial effort required in all areas. The Technical Department of the municipality is well aware of the requirement for sustainable WWQ management and recognise that this function should be attended to as a matter of urgency.

Green Drop Report Card

Criteria	Waste Water Treatment Systems				
	Jacobsdal	Koffiefontein	Oppermans-gronde	Petrusburg	Luckhoff
Process Control, Maintenance & Management Skill	G	G	G	G	G
Monitoring Programme Efficiency	G	G	G	G	G
Credibility of Waste Water Sample Analysis	G	G	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G	G
Waste Water Quality Compliance	G	G	G	G	G
Waste Water Failures Response Management	G	G	G	G	G
Waste Water Treatment Works Capacity	G	G	G	G	G
Green Drop Score	0%	0%	0%	0%	0%

Maluti a Phofung Local Municipality (WSA)

MAP Water (WSP)

Average Green Drop Score: **51%**

Regulatory Impression: *The WWQ management performance of the Maluti a Phofung Local Municipality, as a whole is between relatively poor and satisfactory. This is mainly due to the lack of WWQ information. Specific improvement is required in terms of formalised submission of WWQ information to DWA and improving WWQ compliance with regards to licensing the WWTWs. The WWQ function is done by MAP Water.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems			
	<i>Phuthaditjaba</i>	<i>Moeding</i>	<i>Makwane_Matsegeng</i>	<i>Elands River (Harrismith)</i>
Process Control, Maintenance & Management Skill	B	A	A	A
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	B	B	B	B
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G
Waste Water Quality Compliance	G	G	G	G
Waste Water Failures Response Management	A	A	A	A
Waste Water Treatment Works Capacity	C	A	A	A
Green Drop Score	48%	52%	52%	52%

Mangaung Local Municipality (WSA & WSP)

Average Green Drop Score: **54%**

Regulatory Impression: *In terms of the overall WWQ performance, half of the works are performing adequately, these being Botshabelo, Thaba Nchu, Bainsvlei and Bloemdundria WWTWs. The other 4 works: Northern Works, Bloemspuit, Welvaart and Sterkwater WWTWs need substantial improvement. Generic improvement areas for all the works are compliance in terms of:*

*Response Management to waste water failures,
Credibility of the waste water sample analysis procedures,
Management planning relating to WWTWs capacity.*

Most of the WWTWs are performing well in terms of WWQ monitoring and regular submission of waste water quality results to DWA and fairly well in terms of Waste Water Quality Compliance.

Green Drop Report Card (Mangaung LM 1)

Criteria	Waste Water Treatment Systems			
	Botshabelo	Thaba Nchu	BFN - Bainsvlei	BFN - Northern Works
Process Control, Maintenance & Management Skill	D	D	D	E
Monitoring Programme Efficiency	A	A	A	B
Credibility of Waste Water Sample Analysis	E	E	E	E
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	A	A	A	D
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	C	E	E	G
Green Drop Score	66%	65%	65%	37%

Green Drop Report Card (Mangaung LM 2)

Criteria	Waste Water Treatment Systems			
	BFN - Bloemspuit	BFN - Bloemdundria	BFN - Welvaart	BFN - Sterkwater
Process Control, Maintenance & Management Skill	D	D	D	D
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	E	E	E	E
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	D	A	D	D
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	E	E	E	E
Green Drop Score	44%	65%	44%	44%

Mohokare Local Municipality (WSA & WSP)

Average Green Drop Score: **2%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Mohokare Local Municipality, as a whole, is exceptionally poor, with substantial effort required in all areas. The Technical Department of the municipality is well aware of the requirement for sustainable WWQ management and recognise that this function should be attended to as a matter of urgency.

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Rouxville	Zastron	Smithfield
Process Control, Maintenance & Management Skill	F	G	G
Monitoring Programme Efficiency	G	G	G
Credibility of Waste Water Sample Analysis	E	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G
Waste Water Quality Compliance	G	G	G
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	G	G	G
Green Drop Score	5%	0%	0%

Nketoana Local Municipality (WSA & WSP)

Average Green Drop Score: **6%**

Regulatory Impression: According to the assessment results, the overall WWQ management performance of the Nketoana Local Municipality, as a whole, is poor with substantial improvement effort required in the all areas.

Green Drop Report Card

Criteria	Waste Water Treatment Systems				
	Lindley	Lindley (Ntha)	Petrus Steyn	Arlington	Reitz
Process Control, Maintenance & Management Skill	F	F	F	F	F
Monitoring Programme Efficiency	G	G	G	G	G
Credibility of Waste Water Sample Analysis	C	E	E	E	E
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G	G
Waste Water Quality Compliance	G	G	G	G	G
Waste Water Failures Response Management	G	G	G	G	G
Waste Water Treatment Works Capacity	G	G	G	G	G
Green Drop Score	8%	5%	5%	5%	5%

Phumelela Local Municipality (WSA & WSP)

Average Green Drop Score: **0%**

Regulatory Impression: The WWQ management performance of the Phumelela Local Municipality, as a whole, is poor with substantial effort required in most areas. It is acknowledged that applications for registration of the WWTWs have been initiated.

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Vrede	Memel	Warden
Process Control, Maintenance & Management Skill	G	G	G
Monitoring Programme Efficiency	G	G	G
Credibility of Waste Water Sample Analysis	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G
Waste Water Quality Compliance	G	G	G
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	G	G	G
Green Drop Score	0%	0%	0%

Setsoto Local Municipality (WSA & WSP)

Average Green Drop Score: **7%**

Regulatory Impression: According to the assessment results, the overall WWQ management performance of the Setsoto Local Municipality, as a whole, is poor with substantial improvement effort required in all areas, other than the Process Control and Management Skills. The Technical Department of the municipality is well aware of the requirement for sustainable WWQ management and recognise that this function should be attended to as a matter of urgency.

Green Drop Report Card

Criteria	Waste Water Treatment Systems			
	Senekal	Clocolan	Marquard	Ficksburg
Process Control, Maintenance & Management Skill	C	C	C	C
Monitoring Programme Efficiency	G	G	G	G
Credibility of Waste Water Sample Analysis	G	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G
Waste Water Quality Compliance	G	G	G	G
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	G	G	G	G
Green Drop Score	7%	7%	7%	7%

Tokologo Local Municipality (WSA & WSP)

Average Green Drop Score: **0%**

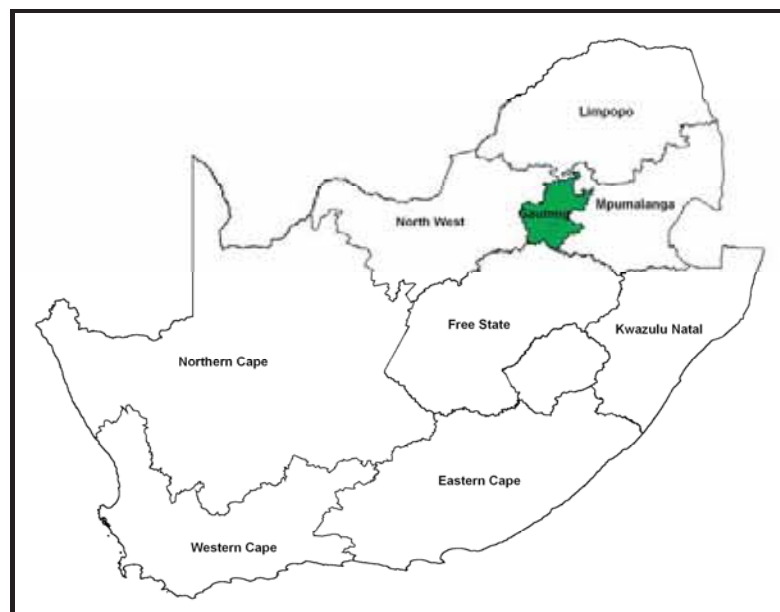
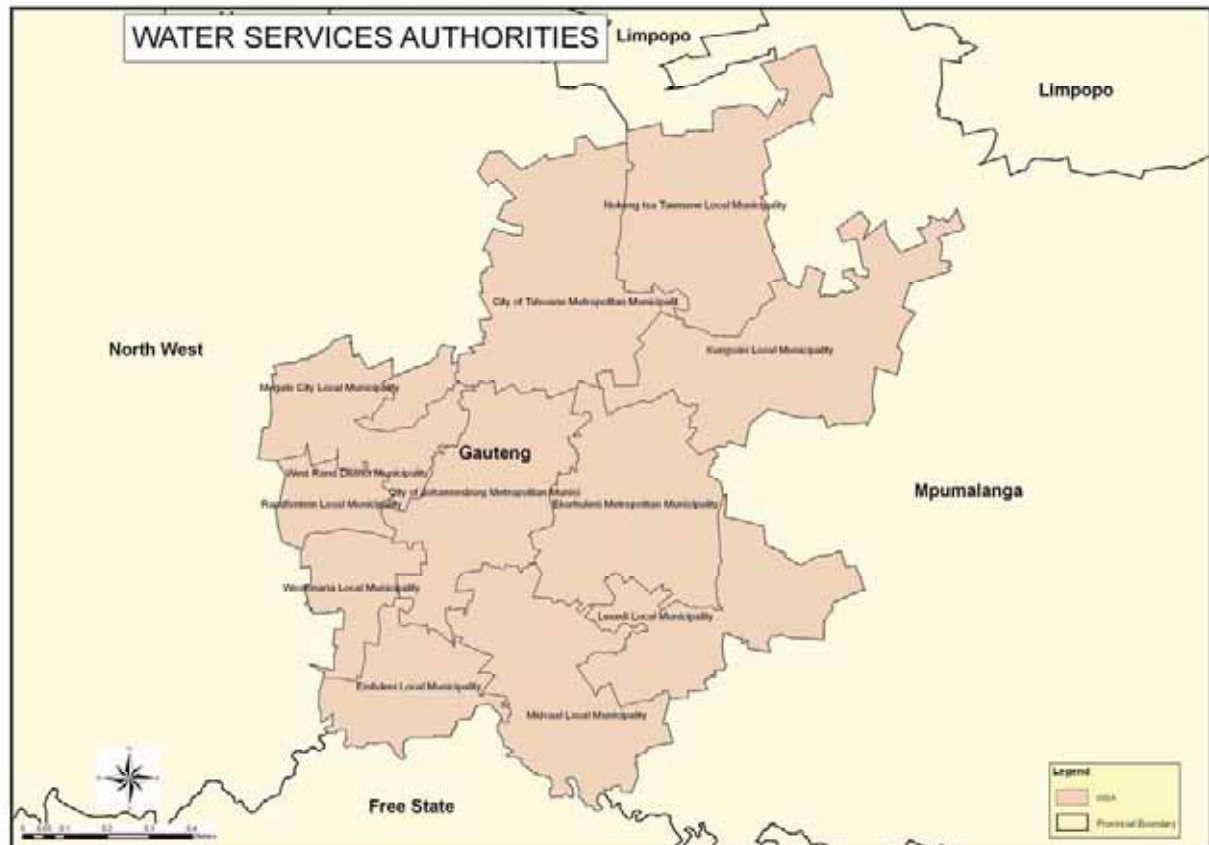
Regulatory Impression: The WWQ management performance of the Tokologo Local Municipality, as a whole, is poor with substantial effort required in most areas.

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Dealesville	Hertzogville	Boshoff
Process Control, Maintenance & Management Skill	G	G	G
Monitoring Programme Efficiency	G	G	G
Credibility of Waste Water Sample Analysis	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G
Waste Water Quality Compliance	G	G	G
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	G	G	G
Green Drop Score	0%	0%	0%

Chapter 3

GAUTENG Province



Chapter 3 - GAUTENG Province

Introduction

Generally the municipalities in the Gauteng complied well with the requirements for the Green Drop Certification programme during assessments and audits. The provincial average score of 53% is however misleading, as some of municipalities (City of Johannesburg) scored very high and thus raised the regional average. A number of the municipalities had very low scores and similarly some of the WWTWs scores were relatively low. The low scoring authorities will be placed under close surveillance with the objective of ensuring improvement.

Water Services Authorities that failed (or was unable) to present the Department with the required information for Green Drop Certification assessment, are:

-  **Emfuleni LM**
-  **Kungwini LM**

Their failure to adhere to the Green Drop Certification Programme's requirements necessitates that all systems under the jurisdiction of these Authorities be subjected to strict regulatory audits of which the results will be published in due course. As for now the Department is unable to assure the public of the confidence it has in the Waste Water Quality managing abilities of these municipalities, since all of them are classified with **Zero Green Drop scores**.

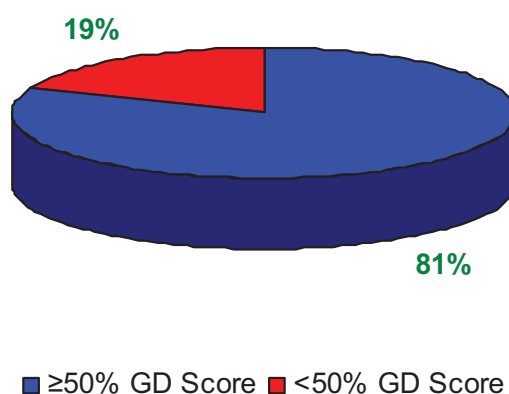
Green Drop Certification 2009 Summary (Gauteng)

Percentage of Water Service Authorities assessed: 9 of 11 = **82%**

Provincial Average Green Drop Score: **53%**

WSAs performance and operations regarding the Green Drop status will be monitored on an ongoing basis. The Department of Water Affairs will utilise all tools available, e.g. the 1st Order Assessment – Waste Water Treatment Works in Gauteng report, at their disposal to ensure effective monitoring and capacity building and guidance to the WSA where applicable.

Gauteng Green Drop Performance (Assessed Waste Water Systems)



City of Johannesburg Metropolitan Municipality (WSA)

Johannesburg Water (WSP)

A number of the Johannesburg Metro's works are operated by Johannesburg Water, and the individual assessment of some of the works is as follows:

Average Green Drop Score: **94%**

Regulatory Impression: Similar to the overall WWQ management performance of Johannesburg Metropolitan Municipality, each WWTW, as operated by Johannesburg Water, will be awarded Green Drop status. There is, however, still a potential for improvement, specifically with regard to the stressed capacity of most of the works, in particular Olifantsvlei WWTW.

Green Drop Report Card

Criteria	Waste Water Treatment Systems					
	Olifantsvlei	Ennerdale	Goud-koppies	Bush-koppies	Northern Works	Drie-fontein
Process Control, Maintenance & Management Skill	A	A	A	A	A	A
Monitoring Programme Efficiency	A	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A	A
Waste Water Quality Compliance	A	A	A	A	A	A
Waste Water Failures Response Management	A	A	A	A	A	A
Waste Water Treatment Works Capacity	C	A	A	A	A	A
Green Drop Score	92% 🟢	94% 🟢	94% 🟢	94% 🟢	94% 🟢	94% 🟢

City of Tshwane Metropolitan Municipality (WSA & WSP)

Average Green Drop Score: **75%**

Regulatory Impression: The WWQ management performance of the City of Tshwane Metropolitan Municipality, as a whole is satisfactory. Of note is that two WWTWs, Daspoort and Klipgat qualify for Green Drop Status. Once the operators at Rietgat are classified and compliant, it is expected that this work too will be awarded Green Drop Status. Specific improvement is required for the remainder of the WWTWs, specifically in terms of formalised classification of the process controllers and improving WWQ compliance.

Green Drop Report Card (City of Tshwane 1)

Criteria	Waste Water Treatment Systems					
	Daspoort	Rietgat	Klipgat	Zeekoegat	Bavianspoort	Babalegi
Process Control, Maintenance & Management Skill	B	D	D	B	A	E
Monitoring Programme Efficiency	A	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A	A
Waste Water Quality Compliance	A	A	D	A	D	D
Waste Water Failures Response Management	A	A	A	A	A	A
Waste Water Treatment Works Capacity	A	A	A	A	A	A
Green Drop Score	92% 	89%	68%	92% 	63%	66%

Green Drop Report Card (City of Tshwane 2)

Criteria	Waste Water Treatment Systems			
	Rooiwal	Sandspruit	Sunderland Ridge	Temba
Process Control, Maintenance & Management Skill	A	D	D	D
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	D	D	D	D
Waste Water Failures Response Management	A	A	A	A
Waste Water Treatment Works Capacity	A	A	A	A
Green Drop Score	73%	68%	68%	68%

Ekurhuleni Metropolitan Municipality (WSA)

ERWAT (WSP)

Waste water treatment works at Ekurhuleni Metro are operated by ERWAT, and the individual assessments of some of the works are as follows:

Average Green Drop Score: **65%**

Regulatory Impression: As mentioned above, the WWTWs are operated by ERWAT as the WSP. In terms of the overall WWQ performance, most of the works are performing adequately, however substantial improvement is required in terms of Regular Submission of Waste Water Quality Results to DWA and Waste Water Quality Compliance. Rondebult & Dekema, based on the assessment outcomes, qualifies for Green Drop Status.

Green Drop Report Card (Ekurhuleni Metro 1)

Criteria	Waste Water Treatment Systems					
	Rondebult	Dekema	Vlaakplaats	Waterval	Tsakane	Herbert Bickley
Process Control, Maintenance & Management Skill	A	A	A	A	A	A
Monitoring Programme Efficiency	A	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	G	G
Waste Water Quality Compliance	A	A	D	D	G	G
Waste Water Failures Response Management	A	A	A	A	A	A
Waste Water Treatment Works Capacity	A	A	A	A	A	A
Green Drop Score	100% 🟢	100% 🟢	79%	79%	55%	55%

Green Drop Report Card (Ekurhuleni Metro 2)

Criteria	Waste Water Treatment Systems					
	JP Marais	Esther Park	Hartebees-fontein	Olifants-fontein	Welgedacht	Benoni
Process Control, Maintenance & Management Skill	A	A	A	A	A	A
Monitoring Programme Efficiency	A	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G	G	G
Waste Water Quality Compliance	G	G	G	G	G	G
Waste Water Failures Response Management	A	A	A	A	A	A
Waste Water Treatment Works Capacity	A	A	A	A	A	A
Green Drop Score	55%	55%	55%	55%	55%	55%

Green Drop Report Card (Ekurhuleni Metro 3)

Criteria	Waste Water Treatment Systems				
	<i>Carl Grundling</i>	<i>Ancor</i>	<i>Rynfield</i>	<i>Jan Smuts</i>	<i>Daveyton</i>
Process Control, Maintenance & Management Skill	A	A	A	A	A
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G	A
Waste Water Quality Compliance	G	G	G	G	D
Waste Water Failures Response Management	A	A	A	A	A
Waste Water Treatment Works Capacity	A	A	A	A	A
Green Drop Score	55%	55%	55%	55%	79%

Lesedi Local Municipality (WSA)

ERWAT (WSP)

Average Green Drop Score: **55%**

Regulatory Impression: *The WWQ management performance of the Lesedi Local Municipality, as supported by ERWAT, is in most instances very good. Further substantial effort is however required from both parties to ensure that there is regular submission of WWQ data to DWA and more specifically to ensure that they are compliant in terms of the Waste Water Quality.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems
	<i>Ratanda</i>
Process Control, Maintenance & Management Skill	A
Monitoring Programme Efficiency	A
Credibility of Waste Water Sample Analysis	A
Regular Submission of Waste Water Quality Results to DWA	G
Waste Water Quality Compliance	G
Waste Water Failures Response Management	A
Waste Water Treatment Works Capacity	A
Green Drop Score	55%

The following WWTWs were not assessed

Heidelberg

Midvaal Local Municipality (WSA & WSP)

Average Green Drop Score: **15%**

Regulatory Impression: *The WWQ management performance of the Midvaal Local Municipality, as a whole, is poor with substantial effort required in all areas, except for the credibility of Waste Water Sample Analysis.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Meyerton	Oheni Muri	Vaal Marina
Process Control, Maintenance & Management Skill	F	G	G
Monitoring Programme Efficiency	E	E	E
Credibility of Waste Water Sample Analysis	A	A	A
Regular Submission of Waste Water Quality Results to DWA	G	G	G
Waste Water Quality Compliance	G	G	G
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	F	F	F
Green Drop Score	16%	14%	14%

Mogale City Local Municipality (WSA & WSP)

Average Green Drop Score: **36%**

Regulatory Impression: *The WWQ management performance of the Mogale Local Municipality, as a whole, is poor with substantial effort required in Process Controller Classification, Waste Water Quality Compliance and Response Management to waste water failures.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Flip Human	Magaliesburg	Percy Stewart
Process Control, Maintenance & Management Skill	D	D	D
Monitoring Programme Efficiency	A	A	A
Credibility of Waste Water Sample Analysis	C	C	C
Regular Submission of Waste Water Quality Results to DWA	A	A	A
Waste Water Quality Compliance	G	G	G
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	A	A	A
Green Drop Score	36%	36%	36%

Nokeng Tsa Taemane Local Municipality (WSA & WSP)

Average Green Drop Score: **44%**

Regulatory Impression: *The WWQ management performance of the Nokeng Local Municipality, as a whole, is poor, with substantial effort required in most areas except Response Management to waste water failures and submission of WWQ data to DWA.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	Refilwe and Rayton	
Process Control, Maintenance & Management Skill	B	
Monitoring Programme Efficiency	C	
Credibility of Waste Water Sample Analysis	E	
Regular Submission of Waste Water Quality Results to DWA	A	
Waste Water Quality Compliance	G	
Waste Water Failures Response Management	A	
Waste Water Treatment Works Capacity	C	
Green Drop Score	44%	

Randfontein Local Municipality (WSA & WSP)

Average Green Drop Score: **66%**

Regulatory Impression: *The WWQ management performance of the Randfontein Local Municipality is satisfactory, but further effort is required in their Response Management to waste water failures and submission of WWQ data to DWA.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems
	Randfontein
Process Control, Maintenance & Management Skill	A
Monitoring Programme Efficiency	A
Credibility of Waste Water Sample Analysis	C
Regular Submission of Waste Water Quality Results to DWA	G
Waste Water Quality Compliance	A
Waste Water Failures Response Management	G
Waste Water Treatment Works Capacity	A
Green Drop Score	66%

Westonaria Local Municipality (WSA & WSP)

Average Green Drop Score: **30%**

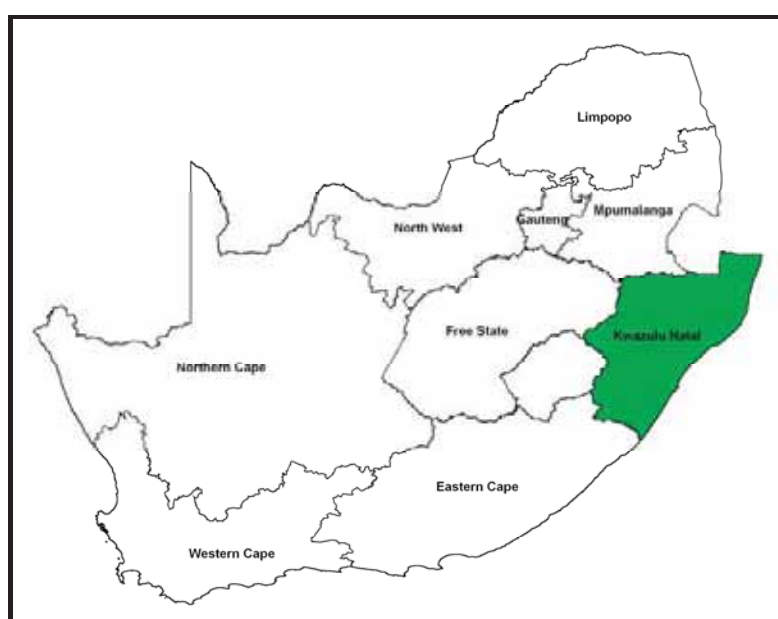
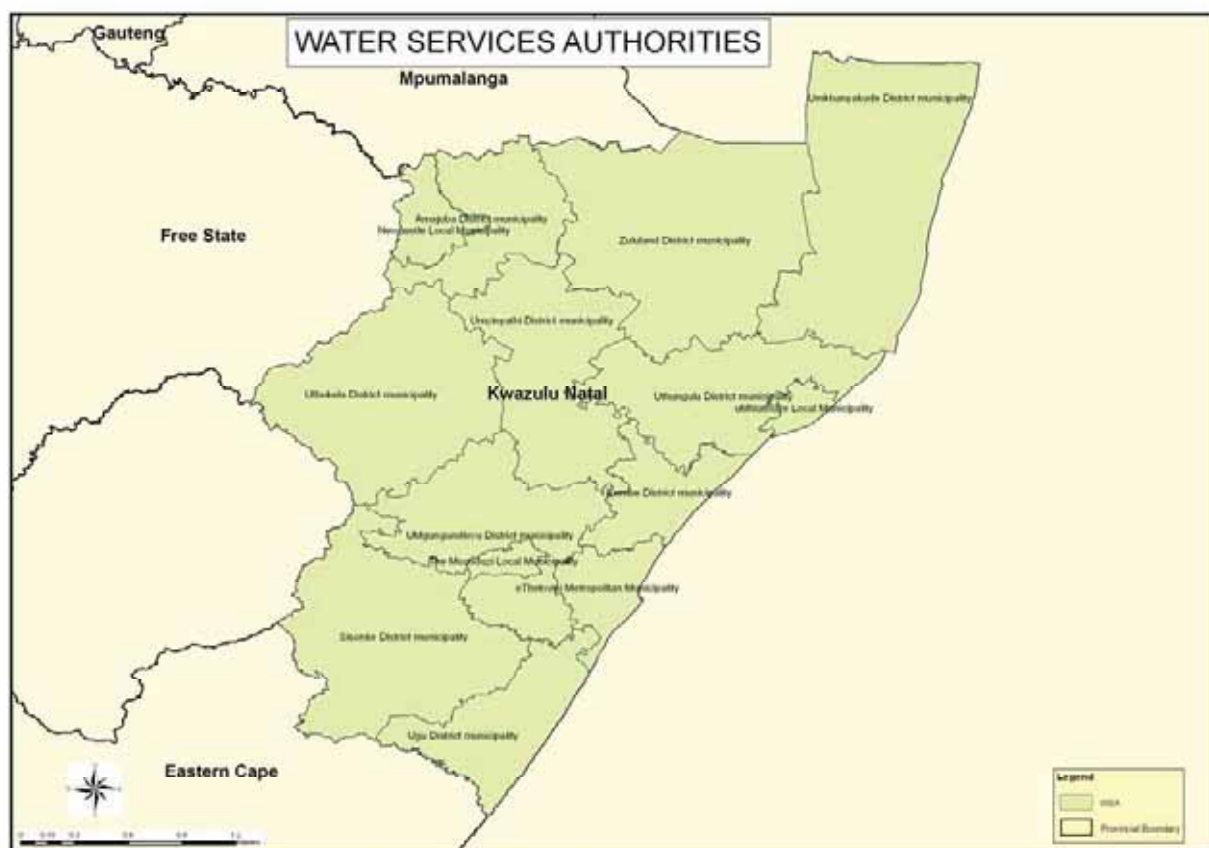
Regulatory Impression: *The WWQ management performance of the Westonaria Local Municipality in terms of the Hannes van Niekerk WWTW, is relatively poor with substantial effort required in most areas.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems
	Hannes van Niekerk
Process Control, Maintenance & Management Skill	F
Monitoring Programme Efficiency	C
Credibility of Waste Water Sample Analysis	B
Regular Submission of Waste Water Quality Results to DWA	G
Waste Water Quality Compliance	D
Waste Water Failures Response Management	G
Waste Water Treatment Works Capacity	F
Green Drop Score	30%

Chapter 4

Kwa-Zulu NATAL Province



Chapter 4 - Kwa-Zulu NATAL Province

Introduction

Generally the municipalities in the KwaZulu-Natal complied very well with the requirements for the Green Drop Certification programme during assessments and audits. Participation was excellent compared to other provinces. The provincial average score of 44% is somewhat misleading, as some of municipalities (eThekweni Metropolitan Municipality) scored very high and thus raised the average for the region. A number of the municipalities had scores that were just below satisfactory and some scores were very low. The low scoring authorities will be placed under close surveillance with the objective of ensuring improvement.

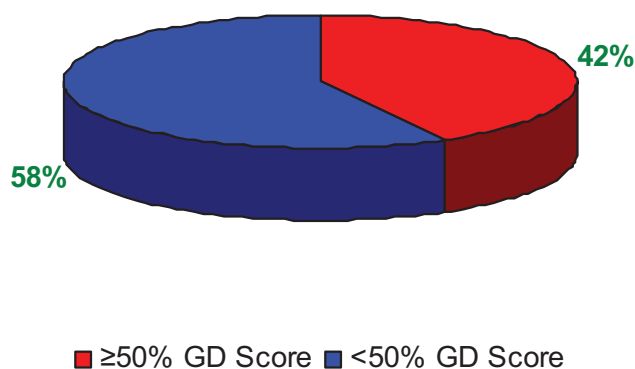
Of note is that eThekweni Metro had 11 potentially qualifying Green Drops, with a further 3 that were very close to qualifying.

Green Drop Certification 2009 Summary (KZN)

Percentage of Water Service Authorities assessed: 14 of 14 = 100%

Provincial Average Green Drop Score: 44%

KZN Green Drop Performance (Assessed Waste Water Systems)



Amajuba District Municipality (WSA)

uThukela Water (WSP)

Amajuba District Municipality has a number of WWTWs, all of which are operated by uThukela Water. The works are: Welgedagt WWTW (Utrecht), Utrecht Ponds, Tweediedale WWTW (Dannhauser) and Durnacol WWTW.

Average Green Drop Score: **47%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, most of the works are performing relatively poorly. Generic improvement areas for all the works are compliance in terms of: Registration and classification of the works as well as the operating staff, WWQ compliance, and Response to waste water treatment failures.*

Green Drop Report Card

Criteria	Amajuba WWTWs
Process Control, Maintenance & Management Skill	F
Monitoring Programme Efficiency	A
Credibility of Waste Water Sample Analysis	B
Regular Submission of Waste Water Quality Results to DWA	A
Waste Water Quality Compliance	E
Waste Water Failures Response Management	G
Waste Water Treatment Works Capacity	B
Green Drop Score	47%

eThekweni Metropolitan Municipality (WSA & WSP)

Average Green Drop Score: **80%**

Regulatory Impression: Overall WWQ management performance of eThekweni Metropolitan Municipality is very good. Out of the 27 WWTWs, 11 achieved scores of equal or higher than 90%. These are the Amanzimtoti, Umlazi (Isipingo), Umkhomaas, Craigieburn, Southern, Phoenix, Central, Umdloti, Umhlanga, Verulam and Umhlathuzana WWTWs, and as such qualify for Green Drop Status. In addition a further 3 works, Dassenhoek, Mapumalanga and Glenwood, could with some minor improvements also be in a position to potentially qualify for Green Drop Status in the near future.

Of concern though is that all of the works, including the above, require further improvement in terms of ensuring that the works are registered and that the relevant document proof is readily available. The works not qualifying for Green Drop Status require improvement, specifically in relation to WWQ compliance and WWTW's capacity planning.

Green Drop Report Card (eThekweni Metro 1)

Criteria	Waste Water Treatment Systems				
	Amanzimtoti	Kingsburg	Umlazi (Isipingo)	Umkhomaas	Magabeni
Process Control, Maintenance & Management Skill	E	E	E	E	F
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	A	D	A	A	D
Waste Water Failures Response Management	A	A	A	A	A
Waste Water Treatment Works Capacity	A	E	B	C	C
Green Drop Score	93% 🟢	69%	92% 🟢	91% 🟢	68%

Green Drop Report Card (eThekwin Metro 2)

Criteria	Waste Water Treatment Systems				
	<i>Craigie-burn</i>	<i>Umbilo</i>	<i>Dassen-hoek</i>	<i>Hillcrest</i>	<i>Fredville</i>
Process Control, Maintenance & Management Skill	E	F	E	E	F
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	A	D	A	D	E
Waste Water Failures Response Management	A	A	A	A	A
Waste Water Treatment Works Capacity	B	B	F	B	F
Green Drop Score	92% 💧	69%	89%	71%	59%

Green Drop Report Card (eThekwin Metro 3)

Criteria	Waste Water Treatment Systems				
	<i>Kwamashu</i>	<i>Mpumalanga</i>	<i>Southern</i>	<i>Phoenix</i>	<i>Tonga Central</i>
Process Control, Maintenance & Management Skill	E	F	E	E	E
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	D	A	A	A	D
Waste Water Failures Response Management	A	A	A	A	A
Waste Water Treatment Works Capacity	B	C	C	B	E
Green Drop Score	71%	89%	91% 💧	92% 💧	69%

Green Drop Report Card (eThekwin Metro 4)

Criteria	Waste Water Treatment Systems			
	<i>Genazano</i>	<i>Central</i>	<i>Umdloti</i>	<i>Umglanga</i>
Process Control, Maintenance & Management Skill	F	F	F	F
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	D	A	A	A
Waste Water Failures Response Management	A	A	A	A
Waste Water Treatment Works Capacity	C	B	B	B
Green Drop Score	68%	90% 💧	90% 💧	90% 💧

Green Drop Report Card (eThekwin Metro 5)

Criteria	Waste Water Treatment Systems			
	Verulam	Northern Works	Hammarisdale	Umhla-tuzana
Process Control, Maintenance & Management Skill	E	E	D	E
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	A	D	D	A
Waste Water Failures Response Management	A	A	A	A
Waste Water Treatment Works Capacity	C	B	B	C
Green Drop Score	91% 💧	71%	73%	91% 💧

Green Drop Report Card (eThekwin Metro 6)

Criteria	Waste Water Treatment Systems			
	New Germany	Kwandengezi	Glenwood	Cato Ridge
Process Control, Maintenance & Management Skill	F	F	F	F
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	D	D	A	D
Waste Water Failures Response Management	A	A	A	A
Waste Water Treatment Works Capacity	C	C	F	C
Green Drop Score	68%	68%	87%	68%

Ilembe District Municipality (WSA & WSP)

Average Green Drop Score: **43%**

Regulatory Impression: In terms of the overall Green Drop Assessment, most of the works are performing relatively poorly with the Amatikulu WWTW very poorly. Generic improvement areas for all the works are compliance in terms of:

Registration and classification of the works as well as the operating staff,
Credibility of the Waste Water Sample Analysis procedures,
Regular submission of WWQ information to DWA,
WWQ compliance,
Management planning relating to the WWTWs capacity.

Green Drop Report Card (Ilembe DM 1)

Criteria	Waste Water Treatment Systems				
	Darnall Mill	Vukile High School	Fraser's	Stanger	Shakas-kraal
Process Control, Maintenance & Management Skill	F	F	F	F	F
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	E	E	E	E	E
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G	G
Waste Water Quality Compliance	E	E	D	E	E
Waste Water Failures Response Management	A	A	A	A	A
Waste Water Treatment Works Capacity	C	F	B	C	B
Green Drop Score	44%	42%	52%	44%	45%

Green Drop Report Card (Ilembe DM 2)

Criteria	Waste Water Treatment Systems			
	Tugela	Montebello Hospital	Maphumulo Hospital	Ntunjambili Hospital
Process Control, Maintenance & Management Skill	F	F	F	F
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	E	E	E	E
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G
Waste Water Quality Compliance	E	E	E	E
Waste Water Failures Response Management	A	A	A	A
Waste Water Treatment Works Capacity	E	C	C	E
Green Drop Score	43%	44%	44%	43%

Green Drop Report Card (Ilembe DM 3)

Criteria	Waste Water Treatment Systems			
	Sundumbile	Mandeni	Gladhow-melville	Amatikulu
Process Control, Maintenance & Management Skill	F	F	F	F
Monitoring Programme Efficiency	A	A	A	G
Credibility of Waste Water Sample Analysis	E	E	E	E
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G
Waste Water Quality Compliance	E	E	E	G
Waste Water Failures Response Management	A	A	A	A
Waste Water Treatment Works Capacity	A	B	C	C
Green Drop Score	46%	45%	44%	27%

Msunduzi Local Municipality (WSA & WSP)

Average Green Drop Score: **43%**

Regulatory Impression: *The WWQ management performance of the Msunduzi Local Municipality, as a whole, is not satisfactory. Fair to substantial effort is required in terms of improving the following aspects: Process Controller Classification, Waste Water Quality Compliance and Response Management to waste water failures. The need for improvement is less urgent with the Darvill WWTW, but is definitely required at the Lynnfield WWTW.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	Darvill	Lynnfield
Process Control, Maintenance & Management Skill	C	F
Monitoring Programme Efficiency	A	A
Credibility of Waste Water Sample Analysis	A	A
Regular Submission of Waste Water Quality Results to DWA	A	G
Waste Water Quality Compliance	D	E
Waste Water Failures Response Management	G	G
Waste Water Treatment Works Capacity	A	F
Green Drop Score	56%	29%

Newcastle Local Municipality (WSA)

uThukela Water (WSP)

Average Green Drop Score: **41%**

Regulatory Impression: Based on the assessment results, the overall WWQ management performance of Newcastle Local Municipality and its WSP are less than satisfactory. The assessments indicated that there is improvement required in most of the areas assessed and specifically with regard to the stressed capacity of most of the works and their planned Response Management to waste water failures.

Green Drop Report Card

Criteria	Waste Water Treatment Systems				
	Charlestown	Kilbarchan	Madadeni	Newcastle	Osizweni
Process Control, Maintenance & Management Skill	F	B	E	E	B
Monitoring Programme Efficiency	G	A	A	A	A
Credibility of Waste Water Sample Analysis	C	C	C	C	C
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	E	D	D	E	D
Waste Water Failures Response Management	G	G	G	G	G
Waste Water Treatment Works Capacity	G	E	E	E	E
Green Drop Score	24%	50%	45%	38%	50%

Sisonke District Municipality (WSA & WSP)

Average Green Drop Score: **34%**

Regulatory Impression: *The WWQ management performance of the Sisonke District Municipality, as a whole, is relatively poor, with substantial effort required in most areas except WWQ monitoring and submission of WWQ data to DWA. All the WWTWs need to be registered and staff certified. Response Management to waste water failures needs to be put in place. The works most urgently in need of attention is Riverside WWTW.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems				
	<i>Ixopo</i>	<i>Kokstad</i>	<i>Underberg</i>	<i>Umzimkhulu</i>	<i>Riverside</i>
Process Control, Maintenance & Management Skill	G	F	G	G	G
Monitoring Programme Efficiency	A	A	A	A	G
Credibility of Waste Water Sample Analysis	B	B	B	B	B
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	E	E	E	E	G
Waste Water Failures Response Management	G	G	G	G	G
Waste Water Treatment Works Capacity	A	E	C	C	B
Green Drop Score	39%	37%	37%	37%	21%

Ugu District Municipality (WSA)

uThukela Water (WSP)

Average Green Drop Score: **51%**

Regulatory Impression: In terms of the overall Green Drop Assessment, most of the works are performing relatively well. Generic improvement areas for all the works are compliance in terms of:
Registration and classification of the works as well as the operating staff,
Credibility of the Waste Water Sample Analysis procedures,
WWQ compliance, and
Response to WW treatment failures.

Green Drop Report Card (Ugu DM 1 - uMdoni)

Criteria	uMdoni WWTWs		
	Scottburgh	Umzinto	Pennington
Process Control, Maintenance & Management Skill	D	B	B
Monitoring Programme Efficiency	A	A	A
Credibility of Waste Water Sample Analysis	A	B	B
Regular Submission of Waste Water Quality Results to DWA	A	A	A
Waste Water Quality Compliance	E	E	E
Waste Water Failures Response Management	A	G	G
Waste Water Treatment Works Capacity	A	A	A
Green Drop Score	70%	47%	47%

Green Drop Report Card (Ugu DM 2 - Hibiscus)

Criteria	Hibiscus WWTWs				
	Eden Wilds	Gamalakhe	Hibberdene	Margate	Melville
Process Control, Maintenance & Management Skill	B	B	F	B	B
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	B	B	A	A	B
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	G	G	A	E	E
Waste Water Failures Response Management	G	G	A	A	G
Waste Water Treatment Works Capacity	A	A	B	C	A
Green Drop Score	40%	40%	*90%	68%	47%

*Currently the works has been decommissioned

Green Drop Report Card (Ugu DM 3 - Hibiscus)

Criteria	Hibiscus WWTWs				
	Mbango	Munster	Murchison Hospital	PalmBeach	Ramsgate
Process Control, Maintenance & Management Skill	B	B	D	B	B
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	B	B	A	B
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	G	G	E	E	E
Waste Water Failures Response Management	G	G	G	G	G
Waste Water Treatment Works Capacity	A	C	A	A	A
Green Drop Score	43%	38%	*45%	50%	47%

*Works in process of transfer from Dept Public Works / hospital to Ugu DM

Green Drop Report Card (Ugu DM 4 - Hibiscus)

Criteria	Hibiscus WWTWs				
	RedDessert	ShelleyBeach	Skoghei-Bhobhoyi	SouthBroom	Uvongo
Process Control, Maintenance & Management Skill	B	B	B	B	B
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	B	B	B	B	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	G	E	E	E	E
Waste Water Failures Response Management	G	G	G	G	A
Waste Water Treatment Works Capacity	A	F	A	A	A
Green Drop Score	40%	50%	54%	47%	70%

Green Drop Report Card (Ugu DM 5 - UMuziwabantu)

Criteria	UMuziwabantu WWTWs	
	Harding	KwaBonwa
Process Control, Maintenance & Management Skill	B	B
Monitoring Programme Efficiency	A	A
Credibility of Waste Water Sample Analysis	B	B
Regular Submission of Waste Water Quality Results to DWA	A	A
Waste Water Quality Compliance	G	G
Waste Water Failures Response Management	G	G
Waste Water Treatment Works Capacity	A	A
Green Drop Score	40%	40%

Umgungundlovu District Municipality (WSA)

The District Municipality utilises the services of its Local Municipalities to act as WSPs.

Average Green Drop Score: **27%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the District Municipality, as a whole, is poor, with substantial effort required in most of the assessed areas. The works requiring most attention is the Appelsbosch WWTW.

Green Drop Report Card

Criteria	Waste Water Treatment Systems					
	<i>Mooi River</i>	<i>Appelsbosch hospital</i>	<i>Camper-down</i>	<i>Howick</i>	<i>Coolair</i>	<i>Richmond</i>
Process Control, Maintenance & Management Skill	G	G	G	G	G	G
Monitoring Programme Efficiency	A	G	G	A	A	A
Credibility of Waste Water Sample Analysis	B	G	G	A	B	A
Regular Submission of Waste Water Quality Results to DWA	G	A	A	G	G	G
Waste Water Quality Compliance	E	G	G	D	D	E
Waste Water Failures Response Management	G	G	A	G	G	G
Waste Water Treatment Works Capacity	E	F	G	E	E	F
Green Drop Score	26%	11%	30%	36%	33%	28%

uMhlathuze Local Municipality (WSA & WSP)

Mzingazi (WSP)

Average Green Drop Score: **72%**

Regulatory Impression: The WWQ management performance of the uMhlathuze Local Municipality, as supported by Mzingazi, is in most instances very good. Effort is however required from both parties to ensure that all the works are registered and classified (as well as the operating staff), that data is submitted on a regular basis to the Department and that the municipality looks into management planning relating to the WWTWs capacity.

Green Drop Report Card

Criteria	Waste Water Treatment Systems				
	Empangeni	Eskhakhwini	Ngwelezane	Nseleni	Vulindlela
Process Control, Maintenance & Management Skill	D	D	D	D	D
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	E	E	E	E	E
Waste Water Failures Response Management	A	A	A	A	A
Waste Water Treatment Works Capacity	C	C	C	C	C
Green Drop Score	72%	72%	72%	72%	72%

Umkhanyakude District Municipality (WSA & WSP)

Average Green Drop Score: **4%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Umkhanyakude District Municipality, as a whole, is exceptionally poor. Substantial improvement effort is required in the all areas.

Green Drop Report Card (Umkhanyakuda DM 1)

Criteria	Waste Water Treatment Systems				
	St Lucia pond	Bethesda Hospital	Hluhluwe ponds	Jozini	Mangusi Hospital
Process Control, Maintenance & Management Skill	G	G	G	F	G
Monitoring Programme Efficiency	G	G	G	A	G
Credibility of Waste Water Sample Analysis	G	G	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G	G
Waste Water Quality Compliance	G	G	G	E	G
Waste Water Failures Response Management	G	G	G	G	A
Waste Water Treatment Works Capacity	F	E	F	F	E
Green Drop Score	1%	2%	1%	19%	16%

Green Drop Report Card (Umkhanyakuda DM 2)

Criteria	Waste Water Treatment Systems			
	Mosvold Hospital	Mtubatuba	Mtubatuba 121 Battalion	Hlabisa Hospital
Process Control, Maintenance & Management Skill	G	G	G	G
Monitoring Programme Efficiency	G	G	G	G
Credibility of Waste Water Sample Analysis	G	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	A	G
Waste Water Quality Compliance	G	G	G	G
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	F	G	G	F
Green Drop Score	1%	0%	10%	1%

Green Drop Report Card (Umkhanyakuda DM 3)

Criteria	Waste Water Treatment Systems			
	<i>Ingwavuma Hospital</i>	<i>Kwamsame</i>	<i>Mkhuze</i>	<i>Nseleni Hospital</i>
Process Control, Maintenance & Management Skill	G	G	G	G
Monitoring Programme Efficiency	G	G	G	G
Credibility of Waste Water Sample Analysis	G	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G
Waste Water Quality Compliance	G	G	G	G
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	G	G	F	G
Green Drop Score	0%	0%	1%	0%

Umzinyathi District Municipality (WSA)

uThukela Water (WSP)

Umzinyathi District Municipality has a number of WWTWs, all of which are operated by uThukela Water. The works are: Dundee WWTWs, Wasbank Ponds, Nqutu Hospital WWTWs, Nqutu Ponds, Nondweni Ponds, Pomeroy WWTWs, Tugela Ferry WWTWs, Greytown WWTWs and the Kranskop ditches. A Green Drop Assessment was completed for the Municipality as a whole.

Average Green Drop Score: **48%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, most of the works are performing relatively poorly. Generic improvement areas for all the works are compliance in terms of: Registration and classification of the works as well as the operating staff, WWQ compliance, and Response to WW treatment failures.*

Green Drop Report Card

Criteria	Umzinyathi WWTWs
Process Control, Maintenance & Management Skill	F
Monitoring Programme Efficiency	A
Credibility of Waste Water Sample Analysis	B
Regular Submission of Waste Water Quality Results to DWA	A
Waste Water Quality Compliance	E
Waste Water Failures Response Management	G
Waste Water Treatment Works Capacity	A
Green Drop Score	48%

uThukela District Municipality (WSA & WSP)

uThukela Water (WSP)

Average Green Drop Score: **34%**

Regulatory Impression: Based on the Assessment results, the overall WWQ management performance of uThukela District Municipality and its WSP are less than satisfactory. The assessment indicated that there is fair to substantial improvement required in most of the areas, specifically with regard to certification of the WWTWs and staff, WWQ Compliance and planned Response Management to waste water failures.

Green Drop Report Card (uThukela DM 1)

Criteria	Waste Water Treatment Systems				
	Escourt	Ekuvukeni	Wembezi	Colenso	Ezakheni
Process Control, Maintenance & Management Skill	F	F	F	F	F
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	B	B	B	B	B
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	E	E	E	E	E
Waste Water Failures Response Management	G	G	G	G	G
Waste Water Treatment Works Capacity	A	E	E	A	A
Green Drop Score	40%	37%	37%	40%	40%

Green Drop Report Card (uThukela DM 2)

Criteria	Waste Water Treatment Systems			
	Ladysmith	Bergville	Limehill	Winterton
Process Control, Maintenance & Management Skill	F	F	F	F
Monitoring Programme Efficiency	A	G	G	G
Credibility of Waste Water Sample Analysis	B	B	B	B
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	E	G	G	G
Waste Water Failures Response Management	G	G	G	A
Waste Water Treatment Works Capacity	B	E	G	F
Green Drop Score	39%	20%	18%	39%

Uthungulu District Municipality (WSA & WSP)

Average Green Drop Score: **50%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, most of the works are performing less than satisfactory (in particular the Richard's bay Minerals and Eshowe Fort Nonquai WWTWs). Generic improvement areas for all the works are compliance in terms of:*

*Registration and classification of the works as well as the operating staff,
WWQ compliance, and
Management planning relating to the WWTWs capacity.*

Green Drop Report Card (Uthungulu DM 1)

Criteria	Waste Water Treatment Systems				
	<i>Gingindlovu ponds</i>	<i>Mpushini ponds</i>	<i>Richard's Bay Minerals</i>	<i>Ekhombe Hospital</i>	<i>Ekuphumu- leni Hospital</i>
Process Control, Maintenance & Management Skill	F	F	F	F	F
Monitoring Programme Efficiency	A	A	G	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	E	E	G	E	E
Waste Water Failures Response Management	A	A	A	A	A
Waste Water Treatment Works Capacity	F	F	G	F	F
Green Drop Score	53%	53%	35%	53%	53%

Green Drop Report Card (Uthungulu DM 2)

Criteria	Waste Water Treatment Systems				
	<i>Kwabadala old age Home</i>	<i>Mbongolwane Hospital</i>	<i>Owen Sithole College</i>	<i>Eshowe- King Dinuzulu</i>	<i>Nkandla</i>
Process Control, Maintenance & Management Skill	F	F	F	F	F
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	E	E	E	E	E
Waste Water Failures Response Management	A	A	A	A	A
Waste Water Treatment Works Capacity	F	G	G	F	F
Green Drop Score	53%	52%	52%	53%	53%

Green Drop Report Card (Uthungulu DM 3)

Criteria	Waste Water Treatment Systems				
	<i>Ocean view</i>	<i>Eshowe-Fort Nonquai</i>	<i>Mthunzini</i>	<i>Melmoth ponds</i>	<i>Catherine Booth Hospital</i>
Process Control, Maintenance & Management Skill	F	F	F	F	F
Monitoring Programme Efficiency	A	G	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	E	G	E	E	E
Waste Water Failures Response Management	A	A	A	A	A
Waste Water Treatment Works Capacity	F	G	G	F	G
Green Drop Score	53%	35%	52%	53%	52%

Zululand District Municipality (WSA & WSP)

Average Green Drop Score: **44%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, most of the works are performing less than satisfactory. Generic improvement areas for all the works are compliance in terms of:*

*Registration and classification of the works as well as the operating staff,
WWQ compliance, and
Management planning relating to the WWTW capacity.*

Green Drop Report Card (Zululand DM 1)

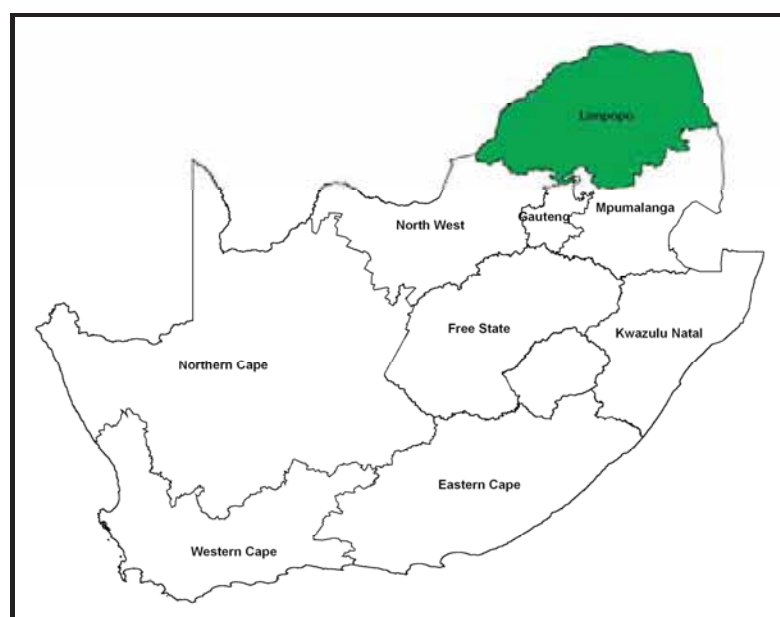
Criteria	Waste Water Treatment Systems					
	St Mary's Hospital	Nongoma	Vryheid	St Francis Hospital	Itshelejuba Hospital	James Nxumalo
Process Control, Maintenance & Management Skill	G	G	G	G	G	G
Monitoring Programme Efficiency	E	C	B	B	B	B
Credibility of Waste Water Sample Analysis	C	C	C	C	C	C
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A	A
Waste Water Quality Compliance	G	G	G	G	G	G
Waste Water Failures Response Management	A	A	A	A	A	A
Waste Water Treatment Works Capacity	E	E	F	C	C	E
Green Drop Score	41%	42%	44%	46%	46%	45%

Green Drop Report Card (Zululand DM 2)

Criteria	Waste Water Treatment Systems					
	Thulasizwe	Ulundi	Ceza Hospital	Nkonjeni Hospital	Edumbe	Emondlo
Process Control, Maintenance & Management Skill	G	G	G	G	G	G
Monitoring Programme Efficiency	B	B	B	B	B	B
Credibility of Waste Water Sample Analysis	C	C	C	C	C	C
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A	A
Waste Water Quality Compliance	G	G	G	G	G	G
Waste Water Failures Response Management	A	A	A	A	A	A
Waste Water Treatment Works Capacity	E	E	E	E	F	F
Green Drop Score	45%	45%	45%	45%	44%	44%

Chapter 5

LIMPOPO Province



Chapter 5 - LIMPOPO Province

Introduction

Most of the municipalities in Limpopo had low scores. The low scoring authorities will be placed under close surveillance with the objective of ensuring improvement.

Water Services Authorities that failed (or was unable) to present the Department with the required information for Green Drop Certification assessment, are:

Responsible Municipality/ Organization & Responsible Authority; Name of WWTW:

- ✍ **Bela Bela LM** - Pienaarsrivier, Warmbath
- ✍ **Greater Sekhukhune DM & Greater Groblersdal LM** - Groblersdal, Roosenekal
- ✍ **Greater Sekhukhune DM & Greater Marble Hall LM** - Elandsdraal, Leeuwfontein, Marble Hall
- ✍ **Greater Sekhukhune DM & Greater Tubatse LM** - Burgersfort, Penge, Steelpoort
- ✍ **Greater Sekhukhune DM & Makhuduthamaga LM** - Jane Furse Oxidation Ponds, Monsterlus
- ✍ **Lephalale LM** - Nelsonskop (Matimba), Paarl, Witpoort, Zongesien
- ✍ **Mogalakwena LM** - Mokopane North, Mokopane South, Mokopane
- ✍ **Mookgophong LM** - Naboomspruit, Thusanang Ponds
- ✍ **Mopani DM & Ba-Phalaborwa LM** - Phalaborwa Mining Company Main Sewerage Plant, Phalaborwa Mining Company Vermiculite Sewerage Plant, Phalaborwa
- ✍ **Mopani DM & Greater Letaba LM** - Ga-Kgapane, Giyani, Modjadjiskloof (Duiwelskloof)
- ✍ **Mopani DM & Greater Tzaneen LM** - Lenyenye, Nkowankowa
- ✍ **Mopani DM & Maruleng LM** – Hoedspruit
- ✍ **Thabazimbi LM** - Northam, Thabazimbi

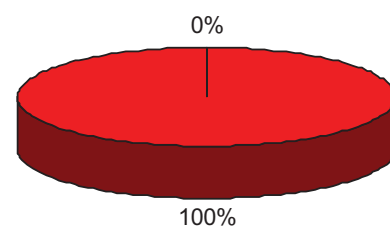
Their failure to adhere to the Green Drop Certification Programme's requirements necessitates that all systems under the jurisdiction of these Authorities be subjected to strict regulatory audits of which the results will be published in due course. As for now the Department is unable to assure the public of the confidence it has in the Waste Water Quality managing abilities of these municipalities, since all of them are classified with **Zero Green Drop scores**.

Green Drop Certification 2009 Summary (Limpopo)

Percentage of Water Service Authorities assessed: **4 of 13 = 31%**

Provincial Average Green Drop Score: **18%**

Limpopo Green Drop Performance (Assessed Waste Water Systems)



■ ≥50% GD Score ■ <50% GD Score

Capricorn District Municipality (WSA)

In the Capricorn District Municipality, the District Municipality was assessed for Green Drop Status under the following local municipality and their WWTWs:

Lepelle-Nkumpi Local Municipality:
Lebowakuomo WWTW

Average Green Drop Score: **10%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing very poor. Generic improvement areas for all the works are compliance in terms of:*
Registration and classification of the works as well as the operating staff
Credibility of the Waste Water Sample Analysis procedures followed,
WWQ compliance,
Management response to waste water failures, and
Management planning relating to the WWTW capacity.

Green Drop Report Card

Criteria	Waste Water Treatment Systems
	Lebowakuomo
Process Control, Maintenance & Management Skill	F
Monitoring Programme Efficiency	G
Credibility of Waste Water Sample Analysis	B
Regular Submission of Waste Water Quality Results to DWA	G
Waste Water Quality Compliance	G
Waste Water Failures Response Management	G
Waste Water Treatment Works Capacity	E
Green Drop Score	10%

The following WWTWs were not assessed

Blouberg LM - Alldays

Modimolle Local Municipality (WSA & WSP)

Average Green Drop Score: **9%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Modimolle Local Municipality, as a whole, is exceptionally poor, with substantial effort required in all the areas.

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	Modimolle	Mabatlane
Process Control, Maintenance & Management Skill	G	G
Monitoring Programme Efficiency	B	E
Credibility of Waste Water Sample Analysis	E	E
Regular Submission of Waste Water Quality Results to DWA	G	G
Waste Water Quality Compliance	G	G
Waste Water Failures Response Management	G	G
Waste Water Treatment Works Capacity	E	G
Green Drop Score	12%	6%

The following WWTW were not assessed

Vaalwater

Polokwane Local Municipality (WSA & WSP)

Average Green Drop Score: **38%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing less than satisfactory. Generic improvement areas for all the works are compliance in terms of:*

- Registration and classification of the works as well as the operating staff*
- Credibility of the Waste Water Sample Analysis procedures followed,*
- WWQ compliance,*
- Management response to waste water failures, and*
- Management planning relating to the WWTW capacity.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems
	<i>Seshego, Polokwane and Monkweg</i>
Process Control, Maintenance & Management Skill	F
Monitoring Programme Efficiency	C
Credibility of Waste Water Sample Analysis	C
Regular Submission of Waste Water Quality Results to DWA	A
Waste Water Quality Compliance	D
Waste Water Failures Response Management	G
Waste Water Treatment Works Capacity	G
Green Drop Score	38%

Vhembe District Municipality (WSA)

In the Vhembe District Municipality, the District Municipality was assessed for Green Drop Status under the following local municipality and their WWTWs:

Makhado LM:

Louis Trichardt WWTW, Makhado Sewage Works , Makhado ponds, Siloam Ponds, Hlanganani Ponds, Lemana ponds, Vleifontein ponds, Vuwani Ponds

Mutale LM:

Mutale Oxidation Ponds

Thulamela LM:

Malamulele, Thohoyandou WWTW, Tshifulananni Oxidation ponds, Tshireke Oxidation ponds, Mhinga maturation ponds, Maunavhathu, Madzivhandila oxidation ponds, Shingwedzi booster pump

In each of the cases, a single mutual assessment form was completed for each of the municipalities. The regulatory impression is thus for the local municipality as whole.

Average Green Drop Score: **16%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, most of the Municipalities are performing very poorly. Generic improvement areas for all the works are compliance in terms of:*

Registration and classification of the works as well as the operating staff,

Credibility of the Waste Water Sample Analysis procedures,

Regular submission of WWQ information to DWA,

WWQ compliance,

Management response to waste water failures, and

Management planning relating to the WWTW capacity.

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Thulamela LM	Mutale LM	Makhado LM
Process Control, Maintenance & Management Skill	C	C	D
Monitoring Programme Efficiency	B	B	G
Credibility of Waste Water Sample Analysis	E	E	E
Regular Submission of Waste Water Quality Results to DWA	G	G	G
Waste Water Quality Compliance	G	G	G
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	C	C	G
Green Drop Score	20%	20%	8%

The following WWTWs were not assessed

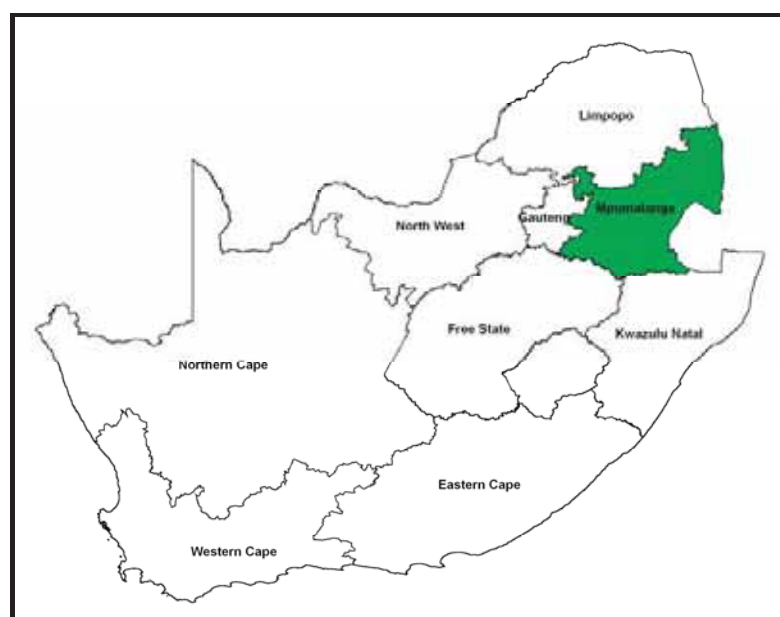
Musina LM - Messina, Nancefield

Thulamela LM - Donald Fraser, Maunavhathu Military Base, Mhinga

Thulamela/Makhado/Mutale LM – Vondo

Chapter 6

MPUMALANGA Province



Chapter 6 - MPUMALANGA Province

Introduction

The municipalities in the Mpumalanga complied rather poorly with the requirements of the Green Drop Certification programme during the assessments and audits. Most of the municipalities had very low scores and in most cases the assessment did not reflect the situation at individual WWTWs. The low scoring authorities will be placed under close surveillance with the objective of ensuring improvement.

Water Services Authorities that failed (or was unable) to present the Department with the required information for Green Drop Certification assessment, are:

Responsible Municipality/ Organization & Responsible Authority; Name of WWTW:

-  **Albert Luthuli LM** – Ekulindeni, Elukwatini, Mpuluzi (Mayflower), Badplaas, Carolina
-  **Lekwa LM** – Sakhile, Standerton, Morgenzon
-  **Mkhondo LM** – Amsterdam, Piet Retief
-  **Msukaligwa LM** – Camden, Ermelo Old, Sheepmore, Breyten, Ermelo New, Lothair, Chrissiesmeer, Davel
-  **Nkomazi LM**
-  **Thaba Chweu LM**
-  **Thembisile Hani LM** – KwaMhlanga Oxidation Ponds, Tweefontein 'K' Works
-  **Umjindi LM**

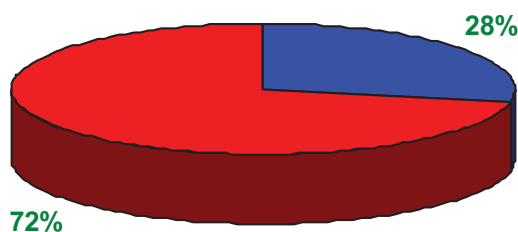
Their failure to adhere to the Green Drop Certification Programme's requirements necessitates that all systems under the jurisdiction of these Authorities be subjected to strict regulatory audits of which the results will be published in due course. As for now the Department is unable to assure the public of the confidence it has in the Waste Water Quality managing abilities of these municipalities, since all of them are classified with **Zero Green Drop scores**.

Green Drop Certification 2009 Summary (Mpumalanga)

Percentage of Water Service Authorities assessed: 10 of 18 = **56%**

Provincial Average Green Drop Score: **30%**

Mpumalanga Green Drop Performance (Assessed Waste Water Systems)



■ ≥50% GD Score ■ <50% GD Score

Percentage of Water Service Authorities assessed: **53%**

Provincial Average Green Drop Score: **33%**

Towns that are to be awarded GREEN DROP status are required to comply with 90% the weighted criteria in a biannual assessment. Evaluation will be per waste water services system (including collection, treatment and discharge) and aggregated for each town. Increasingly comprehensive and stringent criteria (from year 1 to year 3 and ongoing) are applied to facilitate an incremental and continuous improvement approach to waste water management practices.

Delmas Local Municipality (WSA)

ERWAT (WSP)

Average Green Drop Score: **52%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing satisfactory, but further improvement by the WSA and its WSP is required. Generic improvement areas for all the works are compliance in terms of:*

*Registration and classification of the works as well as the operating staff (in process),
WWQ Monitoring Programme efficiency,
Regular submission of WWQ results to DWA (specifically for Botleng),
WWQ compliance, and
Management planning relating to the WWTW capacity.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	<i>Delmas</i>	<i>Botleng</i>
Process Control, Maintenance & Management Skill	B	B
Monitoring Programme Efficiency	B	B
Credibility of Waste Water Sample Analysis	A	A
Regular Submission of Waste Water Quality Results to DWA	A	G
Waste Water Quality Compliance	E	D
Waste Water Failures Response Management	A	A
Waste Water Treatment Works Capacity	C	B
Green Drop Score	50%	54%

Dipaleseng Local Authority (WSA & WSP)

Average Green Drop Score: **8%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Municipality, as a whole, is relatively poor, with substantial improvement effort required in all areas.

Green Drop Report Card

Criteria	Waste Water Treatment Systems			
	Balfour	Greylingstad	Grootvlei Eskom	Grootvlei Mine
Process Control, Maintenance & Management Skill	G	G	G	G
Monitoring Programme Efficiency	B	D	D	E
Credibility of Waste Water Sample Analysis	E	E	E	D
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G
Waste Water Quality Compliance	G	G	G	G
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	G	G	G	G
Green Drop Score	10%	7%	7%	7%

Dr. J. S Moroka Local Municipality (WSA & WSP)

Average Green Drop Score: **34%**

Regulatory Impression: The assessment has shown that the Municipality is on the right track however improvement is required to ensure the improvement of the effluent quality. Overall improvement is required to ensure that waste water services management enhancement lead to the required acceptable effluent quality. It is also expected that detected failures are acted upon according to a Failure Response protocol.

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	Siyabuswa	Mbibane
Process Control, Maintenance & Management Skill	D	E
Monitoring Programme Efficiency	A	E
Credibility of Waste Water Sample Analysis	C	C
Regular Submission of Waste Water Quality Results to DWA	G	G
Waste Water Quality Compliance	E	E
Waste Water Failures Response Management	E	E
Waste Water Treatment Works Capacity	A	C
Green Drop Score	40%	28%

Ehlanzeni District Municipality (WSA & WSP)

In the Ehlanzeni District Municipality, the District Municipality was assessed for Green Drop Status under the following local municipality and its WWTWs:

Bushbuckridge Local Municipality:

Acornhoek, Dwarsloop, Hoxane, Mangwaza, Maviljan, Tintswalo, Mkhuhlu and Thulamahashe WWTWs

Average Green Drop Score: **6%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the District Municipality, as a whole, is relatively poor, with substantial improvement effort required in all areas.

Green Drop Report Card (Ehlanzeni DM 1)

Criteria	Waste Water Treatment Systems			
	Acornhoek	Dwarsloop	Hoxane	Mangwaza
Process Control, Maintenance & Management Skill	E	E	E	E
Monitoring Programme Efficiency	F	F	F	F
Credibility of Waste Water Sample Analysis	G	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G
Waste Water Quality Compliance	G	G	G	G
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	G	F	G	G
Green Drop Score	5%	6%	5%	5%

Green Drop Report Card (Ehlanzeni DM 2)

Criteria	Waste Water Treatment Systems			
	Maviljan	Tintswalo	Mkhuhlu	Thulamahashe
Process Control, Maintenance & Management Skill	E	E	E	B
Monitoring Programme Efficiency	F	F	F	F
Credibility of Waste Water Sample Analysis	G	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G
Waste Water Quality Compliance	G	G	G	G
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	F	F	E	F
Green Drop Score	6%	6%	8%	10.5%

eMalahleni Local Authority (WSA & WSP)

Average Green Drop Score: **18%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Municipality, as a whole, is relatively poor, with substantial improvement effort required in all areas.

Green Drop Report Card (eMalahleni LM 1)

Criteria	Waste Water Treatment Systems			
	Ganala(Kriel)	Klipspruit	Naauwpoort	Phola/Ogies
Process Control, Maintenance & Management Skill	F	G	F	F
Monitoring Programme Efficiency	E	D	D	D
Credibility of Waste Water Sample Analysis	D	D	E	D
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G
Waste Water Quality Compliance	F	G	G	G
Waste Water Failures Response Management	D	B	G	F
Waste Water Treatment Works Capacity	D	C	D	F
Green Drop Score	21%	26%	11.5%	18%

Green Drop Report Card (eMalahleni LM 2)

Criteria	Waste Water Treatment Systems		
	Rietspruit	Riverview	Wilge
Process Control, Maintenance & Management Skill	F	F	G
Monitoring Programme Efficiency	C	C	D
Credibility of Waste Water Sample Analysis	D	D	C
Regular Submission of Waste Water Quality Results to DWA	G	G	G
Waste Water Quality Compliance	F	G	G
Waste Water Failures Response Management	G	G	D
Waste Water Treatment Works Capacity	D	E	E
Green Drop Score	17%	14.5%	16.5%

The following WWTWs were not assessed

Ferrobank, Ganala (Kriel) and Ogies

Emakhazeni (Highlands) Local Authority (WSA & WSP)

Average Green Drop Score: **19%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipalities are performing very poorly. Generic improvement areas for all the works are compliance in terms of:*

- Registration and classification of the works as well as the operating staff,*
- Monitoring Programme Efficiency (in particular the Belfast and Watervalboven WWTWs),*
- Regular submission of WWQ information to DWA,*
- WWQ compliance,*
- Management response to waste water failures, and*
- Management planning relating to the WWTW capacity.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems				
	<i>Belfast</i>	<i>Dullstroom</i>	<i>Emthonjeni</i>	<i>Machadodorp</i>	<i>Watervalboven</i>
Process Control, Maintenance & Management Skill	F	G	F	F	G
Monitoring Programme Efficiency	F	D	D	D	F
Credibility of Waste Water Sample Analysis	G	B	B	B	G
Regular Submission of Waste Water Quality Results to DWA	G	C	G	C	C
Waste Water Quality Compliance	G	G	G	G	G
Waste Water Failures Response Management	F	G	G	G	G
Waste Water Treatment Works Capacity	F	F	F	F	F
Green Drop Score	23%	18%	25%	20%	7.5%

Govan Mbeki Local Municipality (WSA & WSP)

Average Green Drop Score: **57%**

Regulatory Impression: *The municipality is doing very well in getting the right management procedures in place. However significant improvement is required to ensure improvement in effluent quality.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems					
	<i>Bethal</i>	<i>Evander</i>	<i>Trichardt</i>	<i>Kinross</i>	<i>Embalenhle</i>	<i>Leandra</i>
Process Control, Maintenance & Management Skill	A	C	A	C	A	D
Monitoring Programme Efficiency	A	A	A	A	A	A
Credibility of Waste Water Sample Analysis	B	B	B	B	A	A
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G	G	G
Waste Water Quality Compliance	E	E	E	E	E	E
Waste Water Failures Response Management	A	A	A	A	A	A
Waste Water Treatment Works Capacity	C	E	C	E	G	C
Green Drop Score	58.5%	54%	58%	56.5%	57%	56.5%

Mbombela Local Municipality (WSA)

Silulumanzi (WSP)

Average Green Drop Score: **72%**

Regulatory Impression: The municipality, with great support of the Water Services Provider, Silulumanzi, is doing fairly well in managing its waste water services business. The greatest risk remain to be the inadequate process controlling skills at almost all the waste water treatment facilities which could lead to ineffective treatment practices. It is therefore required that sufficient attention should be given to (accredited) training to ensure improvement.

Green Drop Report Card (Mbombela LM 1)

Criteria	Waste Water Treatment Systems			
	Hazyview	Rockydrift	Kanyamazane	Kingstonvale (Nelspruit)
Process Control, Maintenance & Management Skill	C	D	D	D
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	B	C	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	E	C	B	E
Waste Water Failures Response Management	A	E	A	A
Waste Water Treatment Works Capacity	E	B	B	E
Green Drop Score	72%	73%	91% 	71%

Green Drop Report Card (Mbombela LM 2)

Criteria	Waste Water Treatment Systems		
	Kabokweni	Matsulu	White River
Process Control, Maintenance & Management Skill	D	A	D
Monitoring Programme Efficiency	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A
Regular Submission of Waste Water Quality Results to DWA	G	A	A
Waste Water Quality Compliance	E	B	E
Waste Water Failures Response Management	G	A	E
Waste Water Treatment Works Capacity	E	C	E
Green Drop Score	44%	94% 	57%

Pixley Ka Seme Local Authority (WSA & WSP)

Average Green Drop Score: **21%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipalities are performing very poorly. Generic improvement areas for all the works are compliance in terms of:*

Process Controller skills levels,

WWQ compliance,

Management response to waste water failures, and

Management planning relating to the WWTW capacity.

Green Drop Report Card

Criteria	Waste Water Treatment Systems				
	Amersfoort	Perdekop	Volksrust	Vukuzakhe	Wakkerstroom
Process Control, Maintenance & Management Skill	F	F	F	F	G
Monitoring Programme Efficiency	D	D	D	D	D
Credibility of Waste Water Sample Analysis	B	B	B	B	B
Regular Submission of Waste Water Quality Results to DWA	C	A	C	C	C
Waste Water Quality Compliance	G	G	G	G	G
Waste Water Failures Response Management	G	G	G	G	G
Waste Water Treatment Works Capacity	F	F	F	F	F
Green Drop Score	20%	25%	20%	20%	18%

Steve Tshwete Local Authority (WSA & WSP)

Average Green Drop Score: **11%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipalities are performing very poorly. Generic improvement areas for all the works are compliance in terms of:*

Process Controlling Skills levels,

Monitoring Programme Efficiency (Belfast needs only minor improvements),

WWQ compliance,

Management response to waste water failures, and

Management planning relating to the WWTW capacity.

Green Drop Report Card

Criteria	Waste Water Treatment Systems			
	<i>Blinkpan</i>	<i>Boskrans</i>	<i>Komati</i>	<i>Kwazamokuhle</i>
Process Control, Maintenance & Management Skill	G	D	G	G
Monitoring Programme Efficiency	G	B	G	D
Credibility of Waste Water Sample Analysis	C	B	C	C
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G
Waste Water Quality Compliance	G	G	G	G
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	G	G	G	G
Green Drop Score	6%	21.5%	6%	10%

The following WWTWs were not assessed

Kwazamokuhle (Hendrina)

NORTHERN CAPE Province



Chapter 7 - NORTHERN CAPE Province

Introduction

The municipalities in the Northern Cape complied rather poorly with the requirements of the Green Drop Certification programme during assessments and audits. A provincial average score of 29% was recorded. Some of the waste water treatment works managed by the Gamagara, Kamiesberg, Nama Khoi and Siyathemba Local Municipalities scored relatively high and raised the regional average. The low scoring authorities will be placed under close surveillance with the objective of ensuring improvement.

Water Services Authorities that failed (or was unable) to present the Department with the required information for Green Drop Certification assessment, are:

Responsible Municipality/ Organization & Responsible Authority; Name of WWTW:

-  **!Kai! Garib LM** - Keimoes, Kenhardt, Kakamas
-  **!Kheis LM** - Brandboom, Groblershoop
-  **Dikgatlong LM** - Vaal Gamagara, No STW, Delporthoop, Barkly West, Delporthoop, Windsorton
-  **Ga-Segonyana LM** - Kuruman, Mothibistad
-  **Hantam LM** - Brandvlei, Calvinia, Loeriesfontein, Nieuwoudtville
-  **Kareeberg LM** - Carnarvon, Vosburg
-  **Karoo Hoogland LM** - Fraserburg, Sutherland, Williston
-  **Kgalagadi DM** - Hotazel, VanZylsrus
-  **KhGi-Ma LM** - Onseepkans, Pella, Aggeneys, Pofadder
-  **Moshaweng LM**
-  **Namakwa DM**
-  **Richtersveld LM** - Alexander Bay, Port Nolloth
-  **Siyancuma LM** - Douglas, Griekwastad
-  **Sol Plaatjie LM** - Modderivier, Homevale works, Rietvale
-  **Ubuntu LM** - Loxton, Richmond, Victoria West
-  **Umsobomvu LM** - Colesberg, Norvalspont, Noupoot

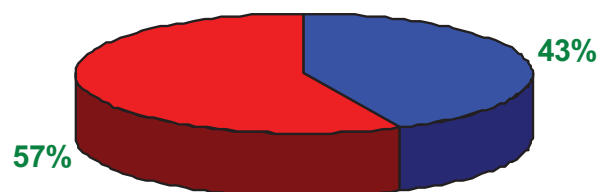
Their failure to adhere to the Green Drop Certification Programme's requirements necessitates that all systems under the jurisdiction of these Authorities be subjected to strict regulatory audits of which the results will be published in due course. As for now the Department is unable to assure the public of the confidence it has in the Waste Water Quality managing abilities of these municipalities, since all of them are classified with **Zero Green Drop scores**.

Green Drop Certification 2009 Summary (Northern Cape)

Percentage of Water Service Authorities assessed: **13 of 29 = 45%**

Provincial Average Green Drop Score: **29%**

Northern Cape Waste Water Performance (Assessed Waste Water Systems)



■ ≥50% GD Score ■ <50% GD Score

//Khara Hais Local Municipality (WSA & WSP)

Average Green Drop Score: **22%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing less than satisfactory in the case of Kameelmond, and very poorly in the case of Louisvale Road WWTW. Generic improvement areas for all the works are compliance in terms of:*

*Registration and classification of the works as well as the operating staff (in case of Louisvale),
WWQ Monitoring Programme Efficiency (Kameelmond and Louisvale),
Regular submission of WWQ information to DWA (both plants),
WWQ compliance (both plants),
Response to Waste Water failures (Louisvale), and
Management planning relating to the WWTW capacity (only Louisvale).*

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	Kameelmond	Louisvale Road
Process Control, Maintenance & Management Skill	B	F
Monitoring Programme Efficiency	G	G
Credibility of Waste Water Sample Analysis	A	B
Regular Submission of Waste Water Quality Results to DWA	G	G
Waste Water Quality Compliance	G	G
Waste Water Failures Response Management	A	G
Waste Water Treatment Works Capacity	C	G
Green Drop Score	35%	8%

The following WWTWs were not assessed

Upington

Emthanjeni Local Municipality (WSA & WSP)

Average Green Drop Score: **10%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing very poorly for all three works assessed with scores ranging between 0 and 31% (achieving an average of 10.3%). All assessment areas require attention and a substantial adjustment by the WSA is required in relation to the above matters before the various works would qualify for Green Drop Status. The 0-score cases of Hanover and Britstown needs urgent intervention.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	<i>De Aar</i>	<i>Hanover</i>	<i>Britstown</i>
Process Control, Maintenance & Management Skill	F	G	G
Monitoring Programme Efficiency	G	G	G
Credibility of Waste Water Sample Analysis	B	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G
Waste Water Quality Compliance	D	G	G
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	F	G	G
Green Drop Score	31%	0%	0%

Gamagara Local Municipality (WSA & WSP)

Average Green Drop Score: **45%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is not performing satisfactory. Most of the works are in need of attention. Of note are the substantially higher scores of Olifantshoek and Dibeng WWTWs. Generic improvement areas for all the works are compliance in terms of:*

*Registration and classification of the works as well as the operating staff,
Credibility of the Waste Water Sample Analysis (Katu & Dingleton),
WWQ Monitoring Programme Efficiency (Katu & Dingleton),
Regular submission of WWQ information to DWA (Katu & Dingleton),
WWQ compliance (Katu & Dingleton), and
Management planning relating to the WWTW capacity (only Klappmuts and Wemmershoek).*

Green Drop Report Card

Criteria	Waste Water Treatment Systems			
	Katu	Dingleton	Dibeng	Olifantshoek
Process Control, Maintenance & Management Skill	E	E	F	F
Monitoring Programme Efficiency	G	G	A	A
Credibility of WW Sample Analysis	E	E	A	A
Regular Submission of WWQ Results to DWA	G	G	A	A
Waste Water Quality Compliance	G	G	A	A
WW Failures Response Management	A	A	G	G
Waste Water Treatment Works Capacity	C	C	G	G
Green Drop Score	23%	23%	66%	66%

Kamiesberg Local Municipality (WSA & WSP)

Average Green Drop Score: **87%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing very well with both the Garies and Kamieskroon WWTWs scoring 87%. The criteria that need attention to raise the Green drop score to above 90% are registration and classification of the works as well as the operating staff.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	Garies	Kamieskroon
Process Control, Maintenance & Management Skill	G	G
Monitoring Programme Efficiency	A	A
Credibility of Waste Water Sample Analysis	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A
Waste Water Quality Compliance	A	A
Waste Water Failures Response Management	A	A
Waste Water Treatment Works Capacity	E	E
Green Drop Score	87%	87%

Kgatelopele Local Municipality (WSA & WSP)

Average Green Drop Score: **3%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing very poorly. The works can be regarded in critical condition and need major intervention to improve on all aspects of the assessment criteria*

Green Drop Report Card

Criteria	Danielskuil
Process Control, Maintenance & Management Skill	E
Monitoring Programme Efficiency	G
Credibility of Waste Water Sample Analysis	G
Regular Submission of Waste Water Quality Results to DWA	G
Waste Water Quality Compliance	G
Waste Water Failures Response Management	G
Waste Water Treatment Works Capacity	G
Green Drop Score	3%

The following WWTWs were not assessed

Lime Acres

Magareng Local Municipality (WSA & WSP)

Average Green Drop Score: **0%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing very poorly. A substantial adjustment by the WSA is required in relation to the above matters before the various works would qualify for Green Drop Status. The works can be regarded in critical condition and need major intervention to improve on all aspects of the assessment criteria.*

Green Drop Report Card

Criteria	Warrenton
Process Control, Maintenance & Management Skill	G
Monitoring Programme Efficiency	G
Credibility of Waste Water Sample Analysis	G
Regular Submission of Waste Water Quality Results to DWA	G
Waste Water Quality Compliance	G
Waste Water Failures Response Management	G
Waste Water Treatment Works Capacity	G
Green Drop Score	0%

Mier Local Municipality (WSA & WSP)

Average Green Drop Score: **13%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing poorly with a 13% score for the Mier WWTW. With the exception of monitoring efficiency and to an extent credibility of the sampling and analysis, all aspects of the Mier plant require attention. A substantial adjustment by the WSA is required in relation to the assessment criteria.*

Green Drop Report Card

Criteria	Mier
Process Control, Maintenance & Management Skill	G
Monitoring Programme Efficiency	A
Credibility of Waste Water Sample Analysis	E
Regular Submission of Waste Water Quality Results to DWA	G
Waste Water Quality Compliance	G
Waste Water Failures Response Management	G
Waste Water Treatment Works Capacity	G
Green Drop Score	13%

Nama Khoi Local Municipality (WSA & WSP)

Average Green Drop Score: **52%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing satisfactory with an average score of 57%. Whilst all the WWTWs obtained scores within the 60's%, the 19% of the Nababeep plant reduce the average to that of 57%. This plant need urgent intervention and cannot be considered to perform satisfactory (19%). Generic improvement areas for the latter works are compliance in terms of:*

*Registration and classification of the works as well as the operating staff,
Credibility of the Waste Water Sample Analysis,
WWQ Monitoring Programme Efficiency,
Regular submission of WWQ information to DWA, WWQ compliance, and
Management planning relating to the WWTW capacity.*

Green Drop Report Card (Nama Khoi LM 1)

Criteria	Waste Water Treatment Systems				
	Steinkopf	Springbok & Fonteintjie	O'Kiep	Nababeep	Kommagas & Buffelsrivier
Process Control, Maintenance & Management Skill	G	G	G	F	G
Monitoring Programme Efficiency	B	B	B	G	B
Credibility of Waste Water Sample Analysis	A	A	A	E	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	G	A
Waste Water Quality Compliance	A	A	A	G	A
Waste Water Failures Response Management	G	G	G	A	G
Waste Water Treatment Works Capacity	G	G	G	F	G
Green Drop Score	62%	62%	62%	19%	62%

Green Drop Report Card (Nama Khoi LM 2)

Criteria	Waste Water Treatment Systems			
	Concordia	Carolusberg	Bulletrap	Bergsig & Matjiesfontein
Process Control, Maintenance & Management Skill	G	F	G	G
Monitoring Programme Efficiency	B	G	B	B
Credibility of Waste Water Sample Analysis	A	E	A	A
Regular Submission of Waste Water Quality Results to DWA	A	G	A	A
Waste Water Quality Compliance	A	G	A	A
Waste Water Failures Response Management	G	B	G	G
Waste Water Treatment Works Capacity	G	F	G	G
Green Drop Score	62%	19%	62%	62%

The following WWTWs were not assessed

Kleinzee

Phokwane Local Municipality (WSA & WSP)

Average Green Drop Score: **7%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing poorly with an average Green Drop score of only 7%. All areas require improvement, with perhaps one exception being the sampling and analysis which are partially on par with expectations. A substantial adjustment by the WSA is required in relation to the above matters before the various works would qualify for the awarding of Green Drop status. These plants require major interventions to bring the plants into operational efficiency.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	Hartswater	Jan Kemp
Process Control, Maintenance & Management Skill	G	G
Monitoring Programme Efficiency	G	G
Credibility of Waste Water Sample Analysis	C	C
Regular Submission of Waste Water Quality Results to DWA	G	G
Waste Water Quality Compliance	G	G
Waste Water Failures Response Management	G	G
Waste Water Treatment Works Capacity	F	F
Green Drop Score	7%	7%

The following WWTWs were not assessed

Pampierstad

Renosterberg Local Municipality (WSA & WSP)

Average Green Drop Score: **1%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing poorly with an average of 1% obtained for the three works. All aspects of the assessment criteria need attention before the municipality can be considered for even average scoring. The municipality requires major intervention to obtain reasonable Green Drop status in future.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Vanderkloof	Petrusville	Phillipstown
Process Control, Maintenance & Management Skill	F	F	F
Monitoring Programme Efficiency	G	G	G
Credibility of Waste Water Sample Analysis	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G
Waste Water Quality Compliance	G	G	G
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	G	G	G
Green Drop Score	1%	1%	1%

Siyathemba Local Municipality (WSA & WSP)

Average Green Drop Score: **67%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing satisfactory. Generic improvement areas for all the works are compliance in terms of registration and classification of the works as well as the operating staff, failure to respond to incidents, and the management planning relating to the WWTW capacity (only Marydale and Niekerkshoop).*

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Marydale	Prieska	Niekerkshoop
Process Control, Maintenance & Management Skill	G	F	G
Monitoring Programme Efficiency	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A
Waste Water Quality Compliance	A	A	A
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	G	A	G
Green Drop Score	65%	71%	65%

Thembelihle Local Municipality (WSA & WSP)

Average Green Drop Score: **52%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing less than satisfactory. The overall percentage is, however, not a true reflection as 1 of the WWTWs, Hopetown, scored substantially lower than Strydenburg (79%). Hopetown scored 25% and all areas needs to be addressed with the exception of credibility of the Waste Water Sample Analysis and failure responses. A substantial adjustment by the WSA is required in relation to the above matters before the Hopetown works would qualify for Green Drop status. In the contrary, Green Drop Status is achievable within the short term for the Strydenburg works if they address capacity and process control issues.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	Hopetown	Strydenburg
Process Control, Maintenance & Management Skill	G	G
Monitoring Programme Efficiency	E	A
Credibility of Waste Water Sample Analysis	B	A
Regular Submission of Waste Water Quality Results to DWA	G	A
Waste Water Quality Compliance	G	A
Waste Water Failures Response Management	A	A
Waste Water Treatment Works Capacity	F	G
Green Drop Score	25%	79%

The following WWTWs were not assessed

Orania

Tsantsabane Local Municipality (WSA & WSP)

Average Green Drop Score: **13%**

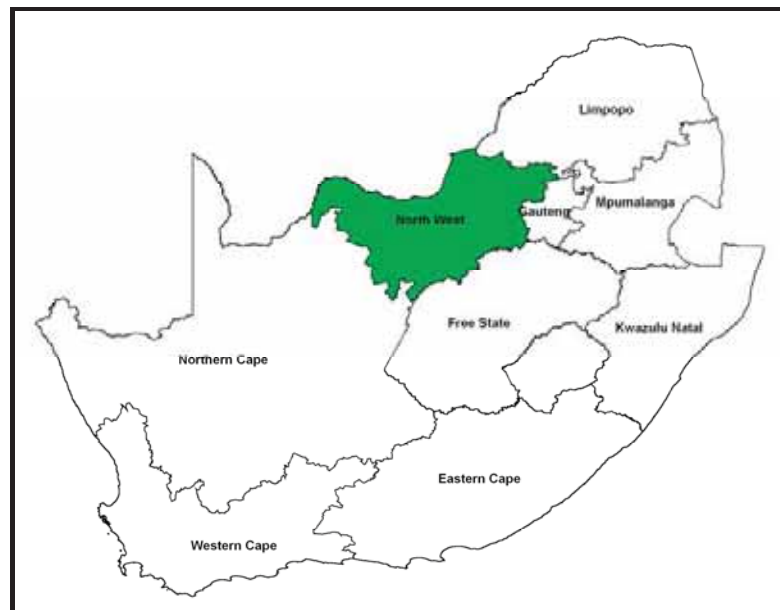
Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing poorly with an average of 13% for both plants. Although all of the works require attention, the generic improvement areas for all the works are compliance in terms of:*

*Registration and classification of the works as well as the operating staff (for Ponds only),
Credibility of the Waste Water Sample Analysis (only the Ponds),
WWQ Monitoring Programme Efficiency (both plants),
Regular submission of WWQ information to DWA (both plants),
WWQ compliance (both plants), and
Management planning relating to the WWTW capacity (both plants).*

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	<i>Postmasburg</i>	<i>Ponds</i>
Process Control, Maintenance & Management Skill	A	F
Monitoring Programme Efficiency	C	G
Credibility of Waste Water Sample Analysis	C	E
Regular Submission of Waste Water Quality Results to DWA	G	G
Waste Water Quality Compliance	G	G
Waste Water Failures Response Management	G	G
Waste Water Treatment Works Capacity	F	F
Green Drop Score	21%	5%

NORTH WEST Province



Chapter 8 - NORTH WEST Province

Introduction

In the North West Province only 8 Local Municipalities, representing nearly a 67% of the WWTWs, participated in the Green Drop Certification programme. Most of the municipalities and their WWTWs had relatively low scores, but this is not necessary reflecting the true situation. A number of works, such as the Rustenburg, Mogwase and Tlokwe WWTWs scored quite high and have a strong potential of earning Green Drop Status. The low scoring authorities will be placed under close surveillance with the objective of ensuring improvement.

Water Services Authorities that failed (or was unable) to present the Department with the required information for Green Drop Certification assessment, are:

Responsible Municipality/ Organization & Responsible Authority; Name of WWTW:

-  **Madibeng LM** – Brits, Lethlabile, Mothutlung, Rietfontein
-  **Maquassi Hills LM** – Leeudoringstad, Makwassie, Wolmaransstad
-  **Matlosana (Klerksdorp) LM** – Klerksdorp, Orkney, Stilfontein, Harbeesfontein
-  **Moretele LM** – Klipgat (Belongs to Tshwane Metro in Gauteng), Swartdam

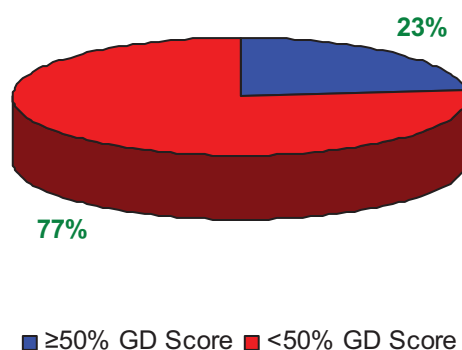
Their failure to adhere to the Green Drop Certification Programme's requirements necessitates that all systems under the jurisdiction of these Authorities be subjected to strict regulatory audits of which the results will be published in due course. As for now the Department is unable to assure the public of the confidence it has in the Waste Water Quality managing abilities of these municipalities, since all of them are classified with **Zero Green Drop scores**.

Green Drop Certification 2009 Summary (North West)

Percentage of Water Service Authorities assessed: **8 of 12 = 67%**

Provincial Average Green Drop Score: **33%**

North West Green Drop Performance (Assessed Waste Water Systems)



Bophirima (Dr. Ruth S Mompoti) District Municipality (WSA & WSP)

In the Dr. Ruth S Mompoti District Municipality, previously named Bophirima DM, the District Municipality was assessed for Green Drop Status under the following local municipalities and their WWTWs:

Naledi Local Municipality:

Vryburg WWTW

Mamusa Local Municipality:

Schweizer Reneke WWTW

Lekwa Teemane Local Municipality:

Bloemhof & Christiana WWTWs

In each of the cases, a single mutual assessment form was completed for each of the municipalities. The regulatory impression is for the District Municipality as a whole.

Average Green Drop Score: **3%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipalities are performing very poorly. Generic improvement areas for all the works are compliance in terms of:*

- Registration and classification of the works as well as the operating staff,*
- Credibility of the Waste Water Sample Analysis procedures,*
- Regular submission of WWQ information to DWA,*
- WWQ compliance,*
- Management response to waste water failures and*
- Management planning relating to the WWTW capacity.*

A substantial adjustment by the WSA is required in relation to the above matters before the various works would qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems			
	Vryburg	Schweizer Reneke	Christiana	Bloemhof
Process Control, Maintenance & Management Skill	G	G	G	G
Monitoring Programme Efficiency	C	G	G	G
Credibility of Waste Water Sample Analysis	G	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G
Waste Water Quality Compliance	E	G	G	G
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	E	E	E	E
Green Drop Score	6%	2%	2%	2%

The following WWTWs were not assessed

Greater Taung LM – Reivilo and Taung Station

Kgetlengrivier Local Municipality (WSA & WSP)

Average Green Drop Score: **22%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Kgetleng Local Municipality, as a whole, is relatively poor, with substantial effort required in all areas.

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	Koster	Swartruggens
Process Control, Maintenance & Management Skill	G	G
Monitoring Programme Efficiency	G	G
Credibility of Waste Water Sample Analysis	E	E
Regular Submission of Waste Water Quality Results to DWA	G	G
Waste Water Quality Compliance	E	C
Waste Water Failures Response Management	G	G
Waste Water Treatment Works Capacity	F	F
Green Drop Score	11%	32%

Merafong Local Municipality (WSA & WSP)

Average Green Drop Score: **44%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing less than satisfactory. Individual WWTWs, such as the Khutsong WWTW is however performing satisfactory, whereas the other 4 WWTWs are performing less well. Generic improvement areas for all the works are compliance in terms of:*

*Registration and classification of the works as well as the operating staff,
WWQ compliance,
Management response to waste water failures (all the works except Khutsong), and
Management planning relating to the WWTW capacity.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems				
	<i>Khutsong</i>	<i>Kokosi</i>	<i>Wedela</i>	<i>Welverdiendt</i>	<i>Oberholzer</i>
Process Control, Maintenance & Management Skill	D	D	D	F	B
Monitoring Programme Efficiency	B	C	B	B	B
Credibility of Waste Water Sample Analysis	B	B	B	B	B
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	E	D	E	E	E
Waste Water Failures Response Management	A	G	G	G	G
Waste Water Treatment Works Capacity	A	C	C	C	A
Green Drop Score	55%	43%	39%	36%	45%

Moses Kotane Local Municipality (WSA & WSP)

Average Green Drop Score: **61%**

Regulatory Impression: In terms of the overall Green Drop Assessment, the Municipality is performing satisfactory and in the case of Mogwase WWTW, quite well. Generic improvement areas for all the works are compliance in terms of:

Registration and classification of the works as well as the operating staff (mainly Madikwe),
Credibility of the Waste Water Sample Analysis procedures (Madikwe),
Management response to waste water failures (both works), and
Management planning relating to the WWTW capacity (Madikwe).

A substantial adjustment by the WSA is required in relation to the above matters, Mogwase WWTW however has the potential of qualifying for Green Drop status once the "response to failure" procedure has been developed.

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	Mogwase	Madikwe
Process Control, Maintenance & Management Skill	D	F
Monitoring Programme Efficiency	C	G
Credibility of Waste Water Sample Analysis	A	G
Regular Submission of Waste Water Quality Results to DWA	A	A
Waste Water Quality Compliance	A	A
Waste Water Failures Response Management	G	G
Waste Water Treatment Works Capacity	A	B
Green Drop Score	70%	51%

Ngaka Modiri Molema (Central) District Municipality (WSA & WSP)

In the Ngaka Modiri Molema District Municipality, previously named the Central DM, the District Municipality was assessed for Green Drop Status under the following local municipalities and their WWTWs:

Mafikeng Local Municipality:
Mafikeng and Mmabatho WWTWs
Ramoshere Moilwa Local Municipality:
Lehurutshe and Zeerust WWTWs

In each of the cases, a single mutual assessment form was completed for each of the municipalities. The regulatory impression is for the District Municipality as a whole.

Average Green Drop Score: **5%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Ngaka Modiri Molema District Municipality, as a whole, is relatively poor, with substantial effort required in all areas.

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Mafikeng & Mmabatho	Lehurutshe	Zeerust
Process Control, Maintenance & Management Skill	F	G	G
Monitoring Programme Efficiency	G	G	G
Credibility of Waste Water Sample Analysis	E	E	E
Regular Submission of Waste Water Quality Results to DWA	G	G	G
Waste Water Quality Compliance	G	G	G
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	A	G	G
Green Drop Score	10%	3%	3%

The following WWTWs were not assessed

Ditsobotla LM – Itsoseng, Lichtenburg

Tswaing LM – Ottosdal, Delareyville, Sannieshof

Rustenburg Local Municipality (WSA & WSP)

Average Green Drop Score: **44%**

Regulatory Impression: In terms of the overall Green Drop Assessment, the Municipality is performing less than satisfactory. Individual WWTWs, such as the Rustenburg WWTW is however performing very well, whereas the remaining 3 WWTWs are performing less well. Generic improvement areas for all the works are compliance in terms of:

Registration and classification of the works as well as the operating staff,
Regular submission of WWQ data to DWA for Lethabong and Monakato WWTWs,
WWQ compliance for Boitekong, Lethabong and Monakato WWTWs,
Management response to waste water failures, and
Management planning relating to the WWTWs capacity.

A fair amount of improvement is required by the WSA in relation to the above matters before all the works will qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems			
	Rustenburg	Boitekong	Lethabong	Monakato
Process Control, Maintenance & Management Skill	D	G	G	G
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	G	G
Waste Water Quality Compliance	A	D	D	D
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	A	B	C	C
Green Drop Score	74%	41%	30%	30%

The following WWTWs were not assessed

Marikana (operated by the mine)

Tlokwe (Potchefstroom) Local Municipality (WSA & WSP)

Average Green Drop Score: **78%**

Regulatory Impression: *The WWQ management performance of the Tlokwe Local Municipality is in most instances very good, but further effort is required to ensure that they are complaint in terms of the WWQ.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems
	<i>Tlokwe WWTW</i>
Process Control, Maintenance & Management Skill	B
Monitoring Programme Efficiency	A
Credibility of Waste Water Sample Analysis	A
Regular Submission of Waste Water Quality Results to DWA	A
Waste Water Quality Compliance	D
Waste Water Failures Response Management	A
Waste Water Treatment Works Capacity	A
Green Drop Score	78%

Ventersdorp Local Municipality (WSA & WSP)

Average Green Drop Score: **6%**

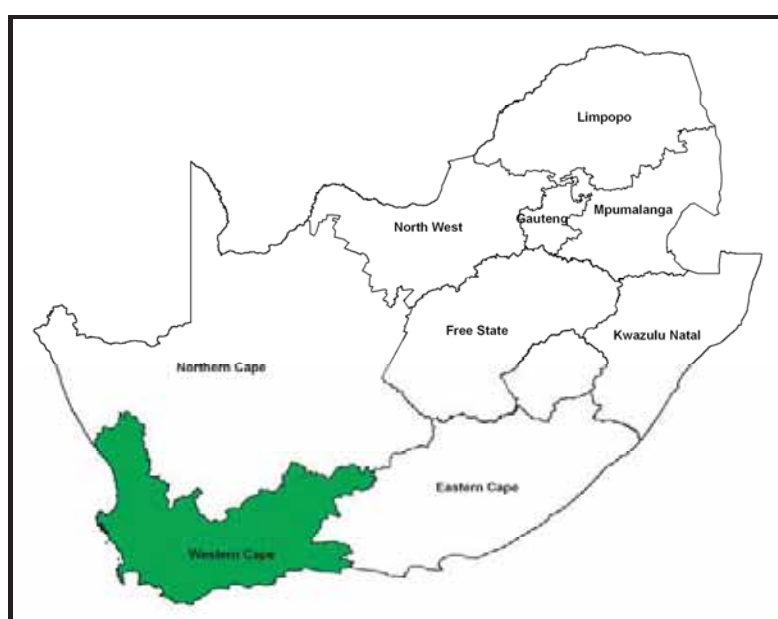
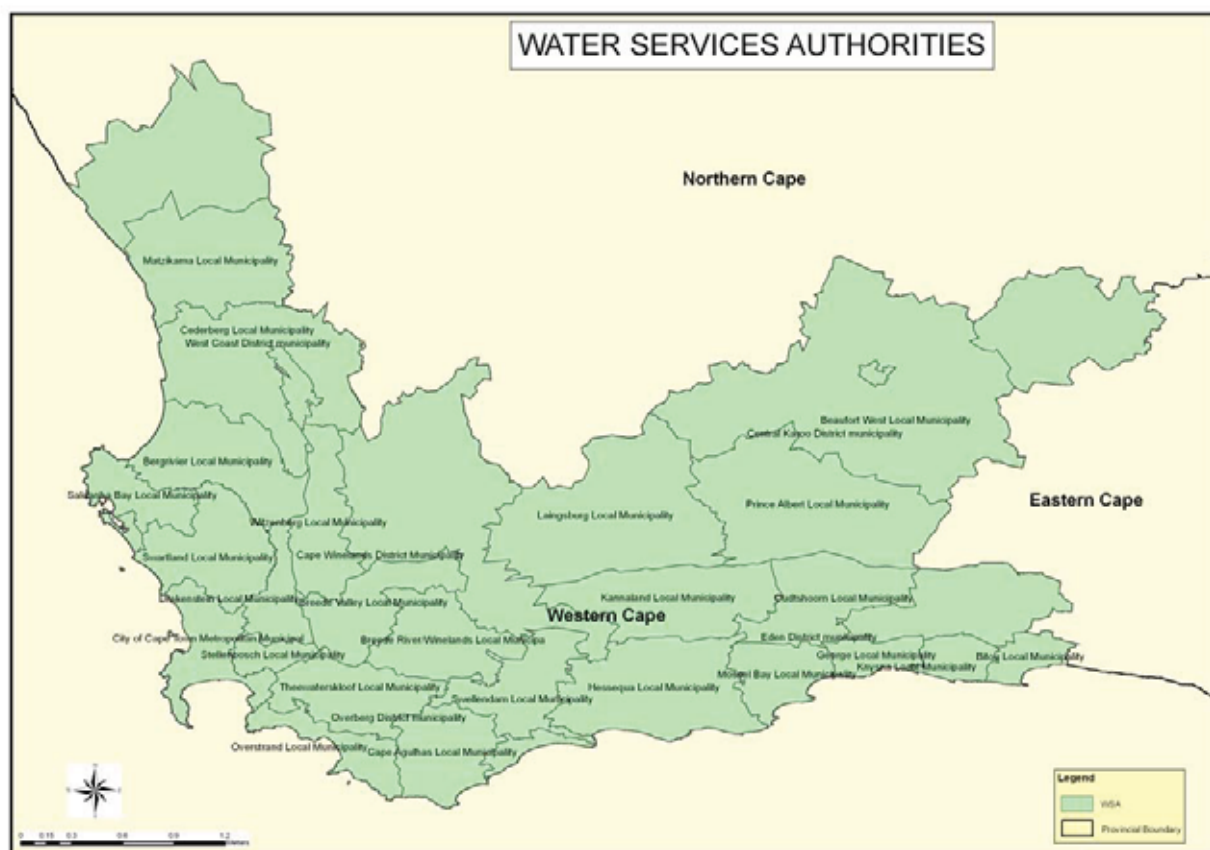
Regulatory Impression: According to the assessment results, the WWQ management performance of the Ventersdorp Local Municipality, as a whole, is relatively poor with substantial effort required in all areas.

Green Drop Report Card

Criteria	Waste Water Treatment Systems
	Ventersdorp
Process Control, Maintenance & Management Skill	E
Monitoring Programme Efficiency	G
Credibility of Waste Water Sample Analysis	E
Regular Submission of Waste Water Quality Results to DWA	G
Waste Water Quality Compliance	G
Waste Water Failures Response Management	G
Waste Water Treatment Works Capacity	G
Green Drop Score	6%

Chapter 9

WESTERN CAPE Province



Chapter 9 - WESTERN CAPE Province

Introduction

In the Western Cape Province, there was a substantial variance in the municipalities and their WWTW scores, with some WSAs (such as City of Cape Town, Overstrand and Knysna) scoring quite high, whilst others such as Cederberg scored very low. The low scoring authorities will be placed under close surveillance with the objective of ensuring improvement.

Water Services Authorities that failed (or was unable) to present the Department with the required information for Green Drop Certification assessment, are:

Responsible Municipality/ Organization & Responsible Authority; Name of WWTW:

-  **Cape Agulhas LM** - Bredasdorp, Napier, Waenhuiskrans, Struisbaai
-  **Cape Winelands DM**
-  **Central Karoo District Management Areas: DMA Murraysburg** - Murraysburg
-  **Drakenstein LM** - Kliprug, Hermon, Gouda, Paarl, Saron, Wellington
-  **Eden DM**
-  **Hessequa LM** - Jongensfontein, Albertina, Gouritzmond, Slangrivier, Witsand, Heidelberg, Melkhoutfontein, Riversdale, Stilbaai
-  **Oudtshoorn LM** - De Rust, Dysselsdorp
-  **Swellendam LM** - Suurbraak, Buffelsjag, Koornlandsrivier, Barrydale, Klipperivier
-  **West Coast DM**

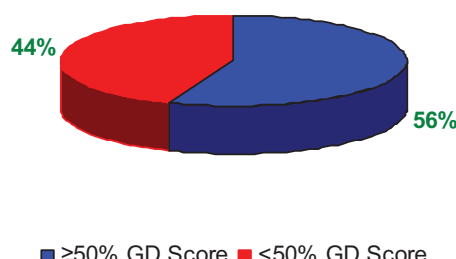
Their failure to adhere to the Green Drop Certification Programme's requirements necessitates that all systems under the jurisdiction of these Authorities be subjected to strict regulatory audits of which the results will be published in due course. As for now the Department is unable to assure the public of the confidence it has in the Waste Water Quality managing abilities of these municipalities, since all of them are classified with **Zero Green Drop scores**.

Green Drop Certification 2009 Summary (Western Cape)

Percentage of Water Service Authorities assessed: 20 of 29 = **69%**

Provincial Average Green Drop Score: **47%**

**Western Cape Green Drop
Performance**
(Assessed Waste Water Systems)



Beaufort West Local Municipality (WSA & WSP)

Average Green Drop Score: **43%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Beaufort West Local Municipality, as a whole, is relatively poor. This however, is not a true reflection as the scores of the Beaufort West WWTWs indicate that it is performing very well. The remainder 2 works, Merweville and Nelspoort are fairly poor, with substantial effort required in most areas. The poor rating could indicate that oxidation ponds are not afforded the same importance as the more “formal” WWTWs discharging effluent into resources. Generic improvement areas for all the works are compliance in terms of:

WWQ Monitoring Programme Efficiency, (Merweville and Nelspoort)
Credibility of the Waste Water Sample Analysis,
Regular submission of WWQ information to DWA, (Merweville and Nelspoort)
WWQ compliance,
Management response to waste water failures, (Merweville) and
Management planning relating to the WWTW capacity (Nelspoort).

It is believed that with some slight adjustments by the WSA, there is a potential for the Beaufort West WWTW to qualify for Green Drop status. A substantial amount of improvement is required by the WSA in relation to the above matters before the two other works would qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Beaufort West	Merweville	Nelspoort
Process Control, Maintenance & Management Skill	A	B	B
Monitoring Programme Efficiency	A	G	G
Credibility of Waste Water Sample Analysis	C	G	G
Regular Submission of Waste Water Quality Results to DWA	A	G	G
Waste Water Quality Compliance	C	E	G
Waste Water Failures Response Management	A	G	A
Waste Water Treatment Works Capacity	A	A	B
Green Drop Score	83%	20%	26%

Bergrivier Local Municipality (WSA & WSP)

Average Green Drop Score: **11%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Bergrivier Local Municipality, as a whole, is very poor. A substantial amount of improvement is required by the WSA before the various works would qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Piketberg	Porterville	Velddrif
Process Control, Maintenance & Management Skill	E	D	F
Monitoring Programme Efficiency	E	E	E
Credibility of Waste Water Sample Analysis	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G
Waste Water Quality Compliance	G	G	G
Waste Water Failures Response Management	G	G	G
Waste Water Treatment Works Capacity	A	A	G
Green Drop Score	11%	16.5%	5%

Bitou Local Municipality (WSA & WSP)

Average Green Drop Score: **78%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing quite well. Most of the works scored well above 70%. The WWTWs still require more improvement in relation to WWQ compliance, Kurland WWTW must improve on Operational Monitoring of WWQ.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems	
	Plettenberg Bay	Kurland
Process Control, Maintenance & Management Skill	A	A
Monitoring Programme Efficiency	A	B
Credibility of Waste Water Sample Analysis	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A
Waste Water Quality Compliance	E	E
Waste Water Failures Response Management	A	A
Waste Water Treatment Works Capacity	A	A
Green Drop Score	79%	77.5%

Breede River Winelands Local Municipality (WSA & WSP)

Average Green Drop Score: **50%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Breede River Winelands Local Municipality, as a whole, is less than satisfactory with substantial effort required in the following areas:

Registration and classification of the works as well as the operating staff,

WWQ Monitoring Programme Efficiency,

Regular submission of WWQ information to DWA,

WWQ compliance,

Management planning relating to the WWTW capacity.

A fair amount of improvement is required by the WSA in relation to the above matters before the various works would qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems				
	Ashton	Bonnievale	McGregor	Montague	Robertson
Process Control, Maintenance & Management Skill	F	F	F	F	F
Monitoring Programme Efficiency	B	B	A	B	B
Credibility of Waste Water Sample Analysis	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G	G
Waste Water Quality Compliance	D	D	D	D	D
Waste Water Failures Response Management	A	A	A	A	A
Waste Water Treatment Works Capacity	E	E	E	E	E
Green Drop Score	49%	49%	52%	49%	49%

Breede Valley Local Municipality (WSA & WSP)

Average Green Drop Score: **33%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing poorly. Generic improvement areas for all the works are compliance in terms of:*
Registration and classification of the works as well as the operating staff,
Credibility of Wastewater Sample Analysis,
WWQ compliance,
Management response to Waste Water Failures (except Worcester).
A substantial adjustment by the WSA is required in relation to the above matters before the various works would qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems			
	<i>De Doorns</i>	<i>Worcester</i>	<i>Rawsonville</i>	<i>Touwsrivier</i>
Process Control, Maintenance & Management Skill	E	D	F	F
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	G	G	G	G
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	G	G	G	G
Waste Water Failures Response Management	G	A	G	G
Waste Water Treatment Works Capacity	A	A	A	A
Green Drop Score	28%	50%	26%	26%

Cederberg Local Municipality (WSA & WSP)

Average Green Drop Score: **3%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Cederberg Local Municipality, as a whole, is very poor. Substantial improvement effort is required in all the areas. DWA acknowledges that most of the systems are oxidation ponds, with only Citrusdal and Clanwilliam discharging effluent to the river.

Green Drop Report Card

Criteria	Waste Water Treatment Systems					
	<i>Elandsbaai</i>	<i>Graafwater</i>	<i>Lamberts-baai</i>	<i>Citrusdal</i>	<i>Clanwilliam</i>	<i>Wupperthal</i>
Process Control, Maintenance & Management Skill	G	G	G	G	G	G
Monitoring Programme Efficiency	G	G	G	G	G	G
Credibility of Waste Water Sample Analysis	E	E	E	E	E	E
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G	G	G
Waste Water Quality Compliance	G	G	G	G	G	G
Waste Water Failures Response Management	G	G	G	G	G	G
Waste Water Treatment Works Capacity	G	G	G	G	G	G
Green Drop Score	3%	3%	3%	3%	3%	3%

City of Cape Town Metropolitan Municipality (WSA & WSP)

The City of Cape Town has 23 WWTWs. The following is a summary of the individual Green Drop Assessments that were undertaken on the WWTWs.

Average Green Drop Score: **82%**

Regulatory Impression: *As can be seen, overall WWQ management performance of the Cape Town Metro Municipality is very good. Of the 23 WWTWs, 8 achieved scores equal or higher than 90%. These were the Cape Flats, Llandudno, Macassar, Melkbosstrand, Mitchellsplain, Oudekraal, Parow and West Fleur WWTWs – these WWTWs qualify for Green Drop Status. It can however, be noted that all of the works, including the above, require further improvement in terms of ensuring that the works are registered and that the relevant document proof is readily available. The remainder of the WWTWs still requires more improvement, specifically in relation to WWQ compliance, and WWTW capacity building and planning.*

Green Drop Report Card (City of Cape Town 1)

Criteria	Waste Water Treatment Systems					
	Athlone	Bellville	Borchards	Cape flats	Campsbay	Gordonsbay
Process Control, Maintenance & Management Skill	G	G	C	C	C	C
Monitoring Programme Efficiency	A	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A	A
Waste Water Quality Compliance	D	D	D	A	D	D
Waste Water Failures Response Management	A	A	A	A	A	A
Waste Water Treatment Works Capacity	A	F	A	A	A	A
Green Drop Score	69%	65%	76%	97%	76%	76%

Green Drop Report Card (City of Cape Town 2)

Criteria	Waste Water Treatment Systems					
	Greenpoint	Houtbay	Klipheuwel	Kraaifontein	Llandudno	Macassar
Process Control, Maintenance & Management Skill	C	C	C	C	C	G
Monitoring Programme Efficiency	A	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A	A
Waste Water Quality Compliance	D	D	D	D	A	A
Waste Water Failures Response Management	A	A	A	A	A	A
Waste Water Treatment Works Capacity	A	C	C	C	A	A
Green Drop Score	76%	74%	74%	74%	97% 🟩	90% 🟩

Green Drop Report Card (City of Cape Town 3)

Criteria	Waste Water Treatment Systems					
	Melkbos-strand	Millers-point	Mitchells-plain	Oude kraal	Parow	Potsdam
Process Control, Maintenance & Management Skill	G	C	C	C	C	C
Monitoring Programme Efficiency	A	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A	A
Waste Water Quality Compliance	A	D	A	A	A	D
Waste Water Failures Response Management	A	A	A	A	A	A
Waste Water Treatment Works Capacity	A	C	A	A	A	A
Green Drop Score	90% 🚰	74%	97% 🚰	97% 🚰	97% 🚰	76%

Green Drop Report Card (City of Cape Town 4)

Criteria	Waste Water Treatment Systems				
	Scottsdene	Simonsdam	West Fleur	Wildevoevllei	Zandvliet
Process Control, Maintenance & Management Skill	C	C	C	C	C
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	D	D	A	D	D
Waste Water Failures Response Management	A	A	A	A	A
Waste Water Treatment Works Capacity	C	A	A	A	A
Green Drop Score	74%	76%	97% 🚰	76%	76%

George Local Municipality (WSA & WSP)

Average Green Drop Score: **94%**

Regulatory Impression: *As can be seen, the overall WWQ management performance of George Municipality is very good. Out of the 3 WWTWs assessed, 2 achieved scores of 100%. These were the Outeniqua and Kleinkrans WWTWs. These WWTWs qualify for Green Drop Status. Gwaing still requires more improvement, specifically in relation to WWQ compliance.*

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	<i>Outeniqua</i>	<i>Gwaing</i>	<i>Kleinkrans</i>
Process Control, Maintenance & Management Skill	A	A	A
Monitoring Programme Efficiency	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A
Waste Water Quality Compliance	A	E	A
Waste Water Failures Response Management	A	A	A
Waste Water Treatment Works Capacity	A	A	A
Green Drop Score	100% 💧	83%	100% 💧

The following WWTWs were not assessed

Pacaltsdorp, Harold's Bay and Uniondale

Kannaland Local Municipality (WSA & WSP)

Average Green Drop Score: **15%**

Regulatory Impression: In terms of the overall Green Drop Assessment, the Municipality is performing poorly. Generic improvement areas for all the works are compliance in terms of:

- Registration and classification of the works as well as the operating staff,
- WWQ Monitoring Programme Efficiency,
- Regular submission of WWQ information to DWA,
- WWQ compliance,
- Management response to Waste Water Failures, and
- Management planning relating to the WWTW capacity.

A substantial adjustment by the WSA is required in relation to the above matters before the various works would qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems			
	Calitzdorp	Ladismith	Zoar	Vanwyksdorp
Process Control, Maintenance & Management Skill	G	D	G	G
Monitoring Programme Efficiency	G	G	G	G
Credibility of Waste Water Sample Analysis	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G
Waste Water Quality Compliance	G	E	E	G
Waste Water Failures Response Management	G	G	G	G
Waste Water Treatment Works Capacity	G	F	F	G
Green Drop Score	10%	23%	18%	10%

Knysna Local Municipality (WSA & WSP)

Average Green Drop Score: **76%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing quite good as most of the works scored well above 70%. Generic improvement areas for all the works are compliance in terms of:*

*Registration and classification of the works,
Registration and classification of operating staff (Rheenendal & Brenton), and
WWQ compliance.*

It is believed that with some slight adjustments by the WSA, in relation to the above matters, there is a potential for the various works to qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems			
	Knysna	Rheenendal	Brenton	Karatara
Process Control, Maintenance & Management Skill	A	E	B	A
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	D	D	D	D
Waste Water Failures Response Management	A	A	A	A
Waste Water Treatment Works Capacity	A	A	A	A
Green Drop Score	79%	70%	75%	77%

Laingsburg Local Municipality (WSA & WSP)

Average Green Drop Score: **77%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing quite well especially if one notes that the relatively high score was achieved at an Oxidation Pond. The site requires improvement in the following areas:*

*Waste Water Quality Monitoring Programme Efficiency,
Credibility of Wastewater Sample Analysis,
Wastewater Quality Compliance, and
Wastewater Treatment Works Capacity.*

It is believed that with some adjustments by the WSA, in relation to the above matters, there is a potential for the works to qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems
	Laingsburg
Process Control, Maintenance & Management Skill	A
Monitoring Programme Efficiency	C
Credibility of Waste Water Sample Analysis	B
Regular Submission of Waste Water Quality Results to DWA	A
Waste Water Quality Compliance	E
Waste Water Failures Response Management	A
Waste Water Treatment Works Capacity	B
Green Drop Score	76.5%

Matzikama Local Municipality (WSA & WSP)

Average Green Drop Score: **0%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Matzikama Local Municipality, as a whole, is very poor. None of the assessment criteria were met. All the WWTWs are in critical status and require a full intervention to address all aspects of waste water management. A substantial amount of improvement is required by the WSA before the various works would qualify for Green Drop status. The fact that most of the systems are oxidation ponds, should not deter the municipality to improve the performance of the systems.

Green Drop Report Card (Matzikama LM 1)

Criteria	Waste Water Treatment Systems				
	Vredendal South	Vredendal North	Strandfontein	Ebeneazer	Lutzville
Process Control, Maintenance & Management Skill	G	G	G	G	G
Monitoring Programme Efficiency	G	G	G	G	G
Credibility of Waste Water Sample Analysis	G	G	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G	G
Waste Water Quality Compliance	G	G	G	G	G
Waste Water Failures Response Management	G	G	G	G	G
Waste Water Treatment Works Capacity	G	G	G	G	G
Green Drop Score	0%	0%	0%	0%	0%

Green Drop Report Card (Matzikama LM 2)

Criteria	Waste Water Treatment Systems				
	Klawer	Doringbaai	Lutzville West	Koekenaap	Van Rhynsdorp
Process Control, Maintenance & Management Skill	G	G	G	G	G
Monitoring Programme Efficiency	G	G	G	G	G
Credibility of Waste Water Sample Analysis	G	G	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G	G
Waste Water Quality Compliance	G	G	G	G	G
Waste Water Failures Response Management	G	G	G	G	G
Waste Water Treatment Works Capacity	G	G	G	G	G
Green Drop Score	0%	0%	0%	0%	0%

Mossel Bay Local Municipality (WSA & WSP)

Average Green Drop Score: **12%**

Regulatory Impression: According to the assessment results, the WWQ management overall performance of the Mosselbay Local Municipality is poor. Although the Regional Mosselbaai WWTW scored an A on the criteria for Process Control, and Pinicle Point, Groot Brak and Fremersheim scored a B on the same criteria, all other criteria had unsatisfactory scores. A substantial amount of improvement is required by the WSA before the various works would qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems					
	Mosselbaai works	Pinicle Point	Groot Brak	Fremersheim	Ruiterbos	Herbetsdale
Process Control, Maintenance & Management Skill	A	B	B	B	E	F
Monitoring Programme Efficiency	E	E	F	G	G	G
Credibility of Waste Water Sample Analysis	G	G	G	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G	G	G	G
Waste Water Quality Compliance	E	E	G	G	G	G
Waste Water Failures Response Management	G	G	G	G	G	G
Waste Water Treatment Works Capacity	F	F	F	G	G	G
Green Drop Score	33%	19%	10.5%	8%	3%	1%

The following WWTWs were not assessed

Brandwag

Overstrand Local Municipality (WSA & WSP)

Average Green Drop Score: **63%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Overstrand Local Municipality, as a whole, is satisfactory. The aspects which required attention is:
Registration and classification of the works as well as the operating staff, and WWQ compliance.
Once these aspects are effectively addressed, there is a potential for the works being awarded Green Drop Status in future.

Green Drop Report Card

Criteria	Waste Water Treatment Systems				
	<i>Gansbaai</i>	<i>Kleinmond</i>	<i>Hawston</i>	<i>Hermanus</i>	<i>Stanford</i>
Process Control, Maintenance & Management Skill	E	E	F	E	D
Monitoring Programme Efficiency	A	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	D	D	E	D	E
Waste Water Failures Response Management	A	A	A	A	A
Waste Water Treatment Works Capacity	A	A	A	A	A
Green Drop Score	66%	66%	57%	66%	61%

Prince Albert Local Municipality (WSA & WSP)

Average Green Drop Score: **18%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Prins Albert Local Municipality, as a whole, is poor. This however is not a true reflection as the score of the Prins Albert WWTW would indicate that performance of the works is less than satisfactory. The remainder 2 works, Klaarstroom and Leeu Gamka are exceptionally poor, with substantial effort required in the all areas. In the case of Prins Albert WWTW, improvement required relates to the following:

Registration and classification of the works as well as the operating staff,
WWQ Monitoring Programme Efficiency,
Credibility of the Waste Water Sample Analysis,
Regular submission of WWQ information to DWA,
WWQ compliance,
Management planning relating to the WWTW capacity.

A substantial amount of improvement is required by the WSA in relation to the above matters, before the various works would qualify for the awarding of Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Prins Albert	Klaarstroom	Leeu Gamka
Process Control, Maintenance & Management Skill	F	G	G
Monitoring Programme Efficiency	G	G	G
Credibility of Waste Water Sample Analysis	G	G	G
Regular Submission of Waste Water Quality Results to DWA	G	G	G
Waste Water Quality Compliance	C	G	G
Waste Water Failures Response Management	A	G	G
Waste Water Treatment Works Capacity	C	G	G
Green Drop Score	53%	0%	0%

Saldanha-Bay Local Municipality (WSA & WSP)

Average Green Drop Score: **59%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing less than satisfactory. All the works require attention. Generic improvement areas are compliance in terms of:*

*Registration and classification of the works as well as the operating staff (Except Saldanha Bay),
WWQ Monitoring Programme Efficiency (Only Paternoster),
Credibility of WW Sample Analysis (Except Saldanha Bay and Shelly Point),
WWQ compliance,
Waste Water Failures Response Management (Except Saldanha Bay and Langebaan), and
Management planning relating to the WWTW capacity (Except Saldanha Bay, Paternoster and Langebaan)*
Saldanha Bay and Langebaan's performances are good and there is potential that the works might be awarded Green Drop status in the near future. A substantial adjustment by the WSA is required on the other works in relation to the above matters before the various works would qualify for Green Drop status.

Green Drop Report Card (Saldana Bay LM 1)

Criteria	Waste Water Treatment Systems			
	Saldanha bay	Vredenburg	Hopefield	St Helena Bay
Process Control, Maintenance & Management Skill	A	B	B	B
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	A	B	B	B
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	E	E	E	E
Waste Water Failures Response Management	A	E	E	E
Waste Water Treatment Works Capacity	A	C	C	C
Green Drop Score	75.5	57%	56%	57%

Green Drop Report Card (Saldana Bay LM 2)

Criteria	Waste Water Treatment Systems		
	Paternoster	Langebaan	Shelly Point
Process Control, Maintenance & Management Skill	C	B	B
Monitoring Programme Efficiency	E	A	A
Credibility of Waste Water Sample Analysis	B	B	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A
Waste Water Quality Compliance	G	E	E
Waste Water Failures Response Management	E	A	E
Waste Water Treatment Works Capacity	A	A	C
Green Drop Score	39.5%	73%	57.5%

Stellenbosch Local Municipality (WSA & WSP)

Average Green Drop Score: **53%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Municipality is performing less than satisfactory. Although most of the works require attention, Wemmershoek WWTW would appear to require more attention than the others. Generic improvement areas for all the works are compliance in terms of:*

Registration and classification of the works as well as the operating staff,

WWQ Monitoring Programme Efficiency,

Regular submission of WWQ information to DWA,

WWQ compliance,

Management planning relating to the WWTW capacity (Klapmuts and Wemmershoek).

A substantial adjustment by the WSA is required in relation to the above matters before the various works would qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems					
	Stellenbosch	Franschoek	Klapmuts	Pniel	Raithby	Wemmershoek
Process Control, Maintenance & Management Skill	E	E	E	E	E	E
Monitoring Programme Efficiency	E	E	G	B	B	E
Credibility of Waste Water Sample Analysis	A	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	G	G	A	G	G	G
Waste Water Quality Compliance	D	D	D	E	E	E
Waste Water Failures Response Management	A	A	A	A	A	A
Waste Water Treatment Works Capacity	A	A	E	A	A	B
Green Drop Score	55%	55%	59%	52%	52%	47%

Swartland Local Municipality (WSA & WSP)

Average Green Drop Score: **75%**

Regulatory Impression: *In terms of the overall Green Drop Assessment, the Swartland Local Municipality is performing quite good and scored well above 70%. Improvement areas include:*

WQ Compliance Monitoring,

Waste Water Sample analysis,

Waste Water Quality compliance, and

Long-term planning to ensure sufficient capacity for collector systems.

It is believed that with some adjustments by the WSA, in relation to the above matters, there is a good potential for the works to qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems		
	Malmesbury	Moreesberg	Darling
Process Control, Maintenance & Management Skill	B	C	C
Monitoring Programme Efficiency	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A
Waste Water Quality Compliance	E	E	E
Waste Water Failures Response Management	A	A	A
Waste Water Treatment Works Capacity	A	C	A
Green Drop Score	77%	73%	75%

The following WWTWs were not assessed

Riebeeck Wes, Koringberg, Chatsworth, Kalbaskraal, Riebeeck and Kasteel

Theewaterskloof Local Municipality (WSA & WSP)

Average Green Drop Score: **30%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Theewaterskloof Local Municipality, as a whole, is poor with substantial effort required in the following areas:

Registration and classification of the works as well as the operating staff,
WWQ Monitoring Programme Efficiency,
WWQ compliance,
Management response to waste water failures and
Management planning relating to the WWTW capacity.

A substantial amount of improvement is required by the WSA in relation to the above matters, before the various works would qualify for Green Drop status.

Green Drop Report Card

Criteria	Waste Water Treatment Systems				
	Grabouw	Botrivier	Villiersdorp	Caledon	Riviers-onderend
Process Control, Maintenance & Management Skill	E	E	E	E	E
Monitoring Programme Efficiency	B	B	B	B	B
Credibility of Waste Water Sample Analysis	A	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A	A
Waste Water Quality Compliance	G	G	G	G	G
Waste Water Failures Response Management	G	G	G	G	G
Waste Water Treatment Works Capacity	G	G	G	G	G
Green Drop Score	30%	30%	30%	30%	30%

The following WWTWs were not assessed

Greyton and Genadendal

Witzenberg Local Municipality (WSA & WSP)

Average Green Drop Score: **67%**

Regulatory Impression: According to the assessment results, the WWQ management performance of the Witzenberg Local Municipality, as a whole, is satisfactory. Performance of the Ceres and Op-die-berg WWTWs are good. Aspects which required attention is:

WWQ compliance,
WW Failure Response Management, and
Medium and long term planning to ensure sufficient capacity.

Green Drop Report Card

Criteria	Waste Water Treatment Systems			
	Ceres	Wolseley	Tulbach	Op-die-berg
Process Control, Maintenance & Management Skill	A	A	A	A
Monitoring Programme Efficiency	A	A	A	A
Credibility of Waste Water Sample Analysis	A	A	A	A
Regular Submission of Waste Water Quality Results to DWA	A	A	A	A
Waste Water Quality Compliance	E	E	E	E
Waste Water Failures Response Management	C	G	G	C
Waste Water Treatment Works Capacity	C	C	C	C
Green Drop Score	74%	60%	60%	74%