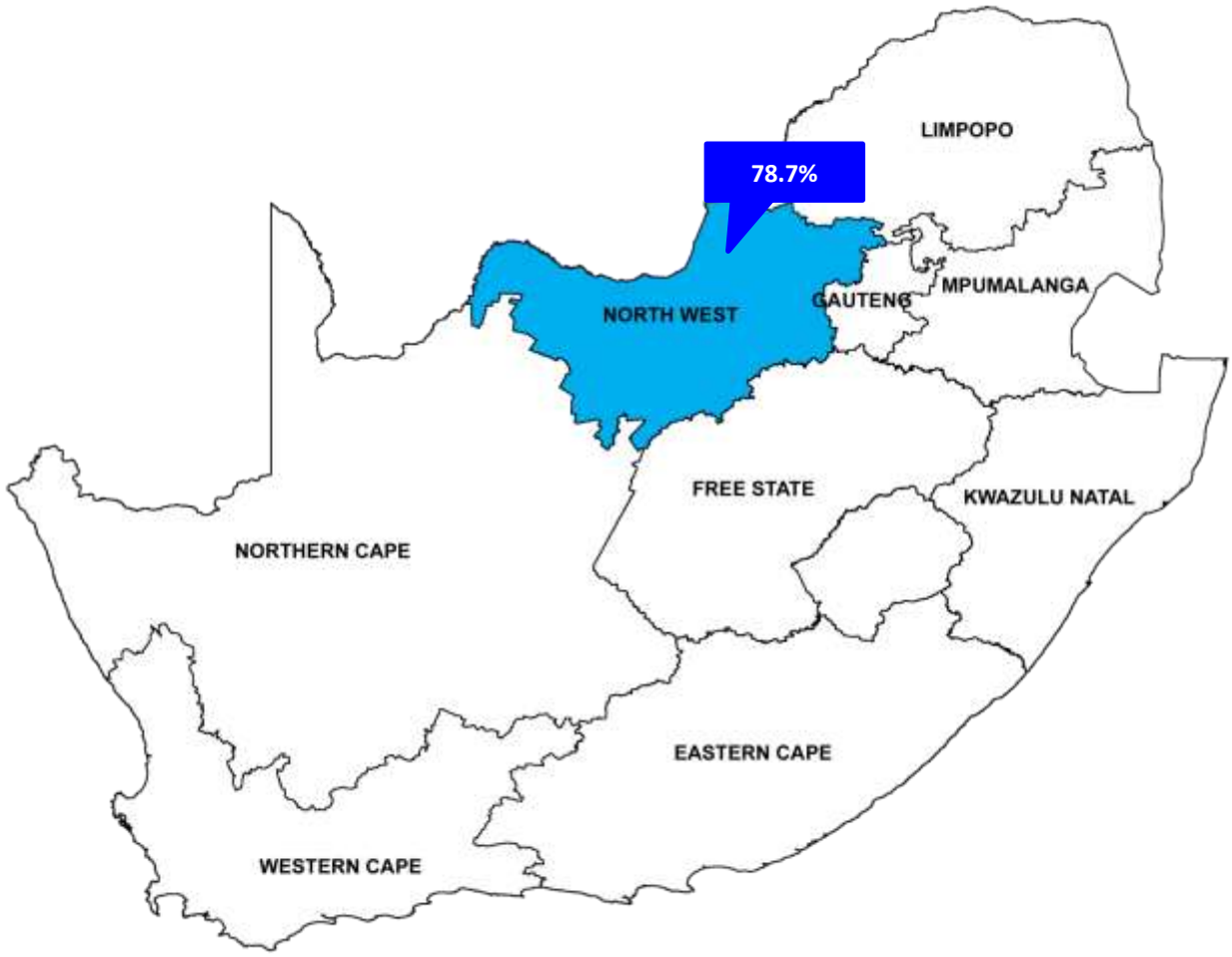


Provincial Best Performer

Tlokwe City Council is the best performing municipality in North West Province with a Municipal Blue Drop Score of **98.45%**. Congratulations!

Blue Drop Provincial Performance Log – North West

Water Services Authority	Provincial Blue Drop Log Position	Blue Drop Score 2012	Blue Drop Score 2011	Blue Drop Score 2010
Tlokwe	1	98.45	96.87	95.11
Matlosana	2	95.35	95.38	59.60
Rustenberg	3	91.55	93.24	95.10
Maquassi Hills	4	75.11	56.75	64.90
Moses Kotane	5	68.59	31.51	48.90
Moretele	6	59.72	33.08	0.00
Madibeng	7	57.93	36.72	4.00
Ventersdorp	8	55.60	34.99	19.00
Dr Ruth Segomotsi	9	52.94	64.16	17.50
Kgetlengrivier	10	48.25	24.67	29.40
Ngaka Modiri Molema	11	40.72	0.66	31.40

Top 3

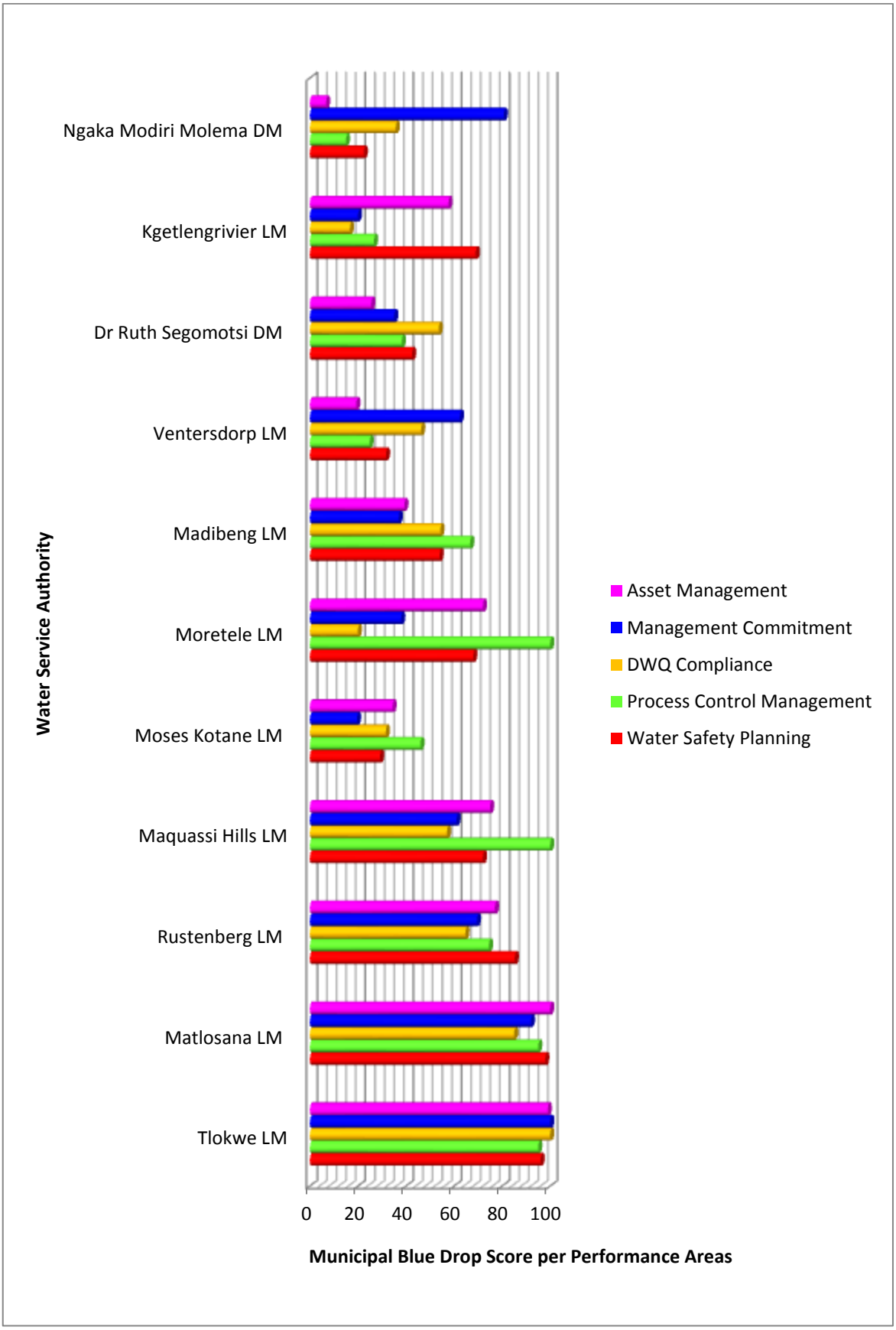
The Department wishes to acknowledge and congratulate Tlokwe Local Municipality for achieving Provincial Top Performer. This municipality equalled their Green Drop provincial performance of 2011 which speaks volumes of the drive and skills of those responsible for drinking water quality and wastewater services within this municipality. Midvaal Water did exceptionally well in supporting the Matlosana Local Municipality towards a second place on the provincial log. This second place is certainly and achievement but the individual scorecard suggest that there is ample room for improvement in spite of this achievement. Rustenberg Local Municipality together with Magalies Water and Rand Water as water services providers did well in claiming a respectable third place.

Most Improved

Moretele Local Municipality is acknowledged for tremendous and consistent improvement in performance over the past 3 years. The municipal score for this water service authority increased from 0% in 2010, to 33.08% in 2011 and an impressive 59.72% in 2012.

Lowest Performer(s)

Ngaka Modiri Molema District Municipality brings the rear in the North West province. Noting the vast area this water services authority is responsible for, it should be a concern that it is found its drinking water quality management abilities are not in line with the Blue Drop expectations as yet.


Ngaka Modiri Molema DM
Kgetlengrivier LM
Dr Ruth Segomotsi DM
Ventersdorp LM
Madibeng LM
Moretele LM
Moses Kotane LM
Maquassi Hills LM
Rustenberg LM
Matlosana LM
Tlokwe LM
Water Service Authority
0
20
40
60
80
100
Municipal Blue Drop Score per Performance Areas
Asset Management
Management Commitment
DWQ Compliance
Process Control Management
Water Safety Planning

Some interesting observations from the Gauteng performance log:

- In this province there is a definite relation between good performance and the presence of a water safety planning process being in place. This proves that preparedness to deal with all possible risks in terms of the risk assessment and management process by means of water safety planning would be one of the key elements to the improvement in the Blue Drop process.
- The comparative graph shows that Kgetleng Rivier is on the right track on should be on the upward curve soon.

BLUE DROP ASSESSMENT ANALYSIS (NORTH WEST)					
Category	**2009**	**2010**	**2011**	**2012**	**Trend**
Number of Municipalities audited	8(13)	11(11)	11(11)	11(11)	(→)
Number of water systems audited	27	28	43	50	(↑)
Number of Blue Drop Awards	1	2	4	9	(↑)
Provincial Blue Drop score	39.97%	66.01%	62.25%	78.7%	(↑)

Blue Drop Certified Systems

Log position	Blue Drop Certified System	Blue Drop Score	Water Services Authority	Water Services Provider
1	**Tlokwe**	**98.45%**	**Tlokwe Local Municipality**	
2	**Matlosana**	**95.35%**	**Matlosana Local Municipality**	**Midvaal Water Company**
3	**Marikana**	**95.14%**	**Rustenburg Local Municipality**	**Rand Water; Magalies Water**

Water Services Authority	**Dr Ruth Segomotsi District Municipality**
Water Services Provider(s)	**Botshelo Water[a]; Sedibeng Water[b]; Phokwane LM[c]; Naledi LM[d]; Mamusa LM[e]; Lekwa Teemane LM[f]**
Municipal Blue Drop Score	**52.94%**

Performance Area	Systems	Naledi Edwin Frylink[b, d]	Pudimore[b]	Majeakgoro[b,c]	Bogosing[b]
Water Safety Planning (35%)		**28**	**58**	**77**	**60**
Treatment Process Management (10%)		**14**	**79**	**75**	**66**
DWQ Compliance (30%)		**40**	**90**	**65**	**25**
Management, Accountability (10%)		**28**	**46**	**69**	**53**
Asset Management (15%)		**6**	**57**	**72**	**53**
Bonus Scores		4.50	0.95	2.55	0.00
Penalties		0.00	0.00	0.00	0.00
Blue Drop Score (2012)		**31.20%** (→)	**69.35%** (↓)	**74.25%** (↑)	**48.43%** (↓)
2011 Blue Drop Score		Not assessed	77.15%	67.44%	76.23%
2010 Blue Drop Score		30.28%	30.28%	Not assessed	49.38%
System Design Capacity (Ml/d)		Not applicable	13	5.14	1.2
Operational Capacity (% ito Design)		Not applicable	No Information	19.46%	8.33%
Population Served		68 000	91 718	24 044	24 405
Average daily Consumption (l/p/d)		14.71	14.17	21.38	4.92
Microbiological Compliance (%)		**61.7%**	**97.9%**	**98.1%**	**96.5%**
Chemical Compliance (%)		**99.9%**	**99.7%**	**99.9%**	**85.4%**

Performance Area	Systems	Taung east[b]	Mamusa[e]	Molopo Boreholes[a]	Kgomotso[b]
Water Safety Planning (35%)		**43**	**20**	**20**	**67**
Treatment Process Management (10%)		**26**	**15**	**15**	**66**
DWQ Compliance (30%)		**55**	**0**	**40**	**90**
Management, Accountability (10%)		**58**	**0**	**16**	**50**
Asset Management (15%)		**37**	**22**	**6**	**28**
Bonus Scores		0.00	0.00	0.00	0.00
Penalties		0.00	0.00	0.00	0.00
Blue Drop Score (2012)		**45.56%** (↑)	**11.80%** (→)	**23.00%** (↑)	**66.10%** (↓)
2011 Score		43.48%	Not assessed	0.00%	82.61%
2010 Score		30.28%	Not assessed	Not assessed	49.38%
System Design Capacity (Ml/d)		Not applicable	6	Not applicable	0.97
Operational Capacity (% ito Design)		Not applicable	16.67%	Not applicable	103.09%
Population Served		50 840	58 000	60 028	230 000
Average daily Consumption (l/p/d)		19.67	17.24	16.66	4.35
Microbiological Compliance (%)		**95.8%**	**82.9%**	**88.0%**	**98.9%**
Chemical Compliance (%)		**99.5%**	**97.1%**	**99.9%**	**99.9%**

Performance Area / Systems	Taung West[b]	Lekwa[f]	Kagisano North[a]
Water Safety Planning (35%)	**55**	**20**	**20**
Treatment Process Management (10%)	**50**	**0**	**15**
DWQ Compliance (30%)	**55**	**90**	**40**
Management, Accountability (10%)	**50**	**0**	**16**
Asset Management (15%)	**0**	**0**	**0**
Bonus Scores	0.00	0.00	0.00
Penalties	0.00	0.00	-1.50
Blue Drop Score (2012)	**50.59%** (→)	**34.90%** (→)	**20.60%** (→)
2011 Score	Not assessed	Not assessed	Not assessed
2010 Score	Not assessed	Not assessed	Not assessed
System Design Capacity (Ml/d)	Not applicable	Not applicable	Not applicable
Operational Capacity (% ito Design)	Not applicable	Not applicable	Not applicable
Population Served	63 840	85 000	24 044
Average daily Consumption (l/p/d)	15.66	11.76	0.00
Microbiological Compliance (%)	**94.2%**	**99.9%**	**82.4%**
Chemical Compliance (%)	**99.5%**	**99.9%**	**99.9%**

Regulatory Impression

There is a slight overall decline in drinking water quality management at the Dr Ruth Segomotsi District Municipality together with Phokwane Local Municipality, Botshelo Water and Sedibeng Water. Although small improvements in Majeakgoro (Sedibeng), Taung West (Sedibeng) (Revilo) and Taung east (Sedibeng) systems were observed. The decline can largely be attributed to the lack of effort from the municipality to address the following key performance areas: water safety planning, treatment process management, drinking water quality compliance and asset management

The Department acknowledges the fact that the process of developing a WSP has been initiated in some of the systems since the previous assessment cycle. However, the development and implementation of a water safety planning process is vital to the other systems as well to ensure that all risks are identified and mitigated.

The key performance indicators under Management Commitment did not score highly due to factors such as the lack of performance agreements addressing drinking water quality management responsibilities and the failure to publish results. Management should show commitment towards implementation by allocating budget accordingly. Co-operative relationships between the DM and the Water Services Providers (WSP) are encouraged to ensure continuous improvement and sustainable DWQ management.

Both the WSA and WSPs should improve DWQ process management and control. This includes classification of treatment systems in terms of Regulation 2834 and process control staff should be linked to the relevant treatment system on the Blue Drop System (BDS). The latter will allow for evaluation of staff compliance. DWA noted that the municipality has commenced registration of treatment systems and staff, but they need to ensure that the DWA is furnished with all the required information to ensure correct classification of all the staff and treatment systems.

On a more positive note, the Department congratulates the WSA and WSPs for ensuring availability of

data to monitor DWQ in each of the supply systems, maintaining chemical and microbiological monitoring for 12 months. The Department urges the Municipality to also conduct a complete SANS 241 analysis in all the systems as part of the risk assessment.

Site Inspection Report

Schweizer- Reneke WTW 81%

The Schweizer-Reneke WTW was visited to verify the Blue Drop findings for the Dr Ruth Segomotsi DM. Overall, the results of the site inspection were good as the plant was neat and clean indicating adequate housekeeping. However there was a serious lack of record-keeping with regards to incidents and maintenance. The lack of log sheets must also be addressed as operational monitoring is vital for effective treatment of raw water to potable standards.

Areas that require improvement at the Schweizer-Reneke WTW include the following:

- There was no plant certificate present on the plant.
- There was no maintenance logbook on the plant and no proof of maintenance.
- The O&M manual was presented at the assessment but was not present at the plant.
- There was no incident management protocol or list of emergency telephone numbers on site.
- Operational monitoring was taking place but there were no formal log sheets, with the readings being noted in the Process controller's diary.
- Basic operational monitoring was taking place for turbidity and chlorine. Operational monitoring must be extended to include all required determinants including problem determinants.
- Jar Tests were not conducted and the coagulant dosage was therefore not optimized.
- The lack of a spare chlorine cylinder on site poses a serious risk to the safety of the final water.
- There was a lack of sludge management, the sludge being sent directly back to the raw water source, thereby presenting a pollution risk to the environment.

Water Services Authority	**Kgetleng River Local Municipality**
Water Services Provider(s)	**Kgetleng River; Magalies Water**
Municipal Blue Drop Score	**48.2%**

Performance Area	Systems	Koster	Swartruggens	Derby
Water Safety Planning (35%)		**72**	**72**	**63**
Treatment Process Management (10%)		**40**	**40**	**0**
DWQ Compliance (30%)		**0**	**50**	**0**
Management, Accountability (10%)		**30**	**15**	**15**
Asset Management (15%)		**58**	**68**	**47**
Bonus Scores		7.50	6.63	7.50
Penalties		-1.50	-1.32	-1.50
Blue Drop Score (2012)		**46.78%** (↑)	**61.08%** (↑)	**36.60%** (↑)
2011 Blue Drop Score		35.53%	30.68%	7.8%
2010 Blue Drop Score		29.44%	29.44%	NA
System Design Capacity (Ml/d)		2	3.5	Not applicable
Operational Capacity (% ito Design)		5.00%	2.86%	Not applicable
Population Served		18 000	18 000	7 000
Average daily Consumption (l/p/d)		5.56	5.56	14.29
Microbiological Compliance (%)		**92.6%**	**99.0%**	**90.9%**
Chemical Compliance (%)		**No Information**	**No Information**	**No Information**

Regulatory Impression

There was a significant improvement in drinking water quality management in the Kgetleng River Local Municipality. The Inspectors were impressed by the preparedness and commitment of the Kgetleng LM during the initial and confirmation assessments "*Well-prepared and knowledgeable presentation by Technical Manager!*". The Department wishes to congratulate the LM on the development of their Water Safety Planning to ensure continuous and sustainable improvement in drinking water quality management. However, there is a need to review and implement the current Water Safety Planning, with the review a risk-based monitoring programme based on a full SANS 241 analysis should be inclueded. A full SANS 241 analysis has still not been conducted. The non-monitoring of chemical determinands is another risk that needs to be addressed as part of the water safety planning process. The review process will greatly improve the drinking water quality management in all the systems.

The Municipality is urged to report the drinking water quality results regularly to the Department of Water Affairs on the Blue Drop System (BDS) to ensure continuous management of information. The LM is encouraged to maintain the momentum which the Inspector panel reported, and ensure greater commitment and support from the Management. The key performance indicators under "Management Commitment" did not score highly due to the lack of information addressing effective drinking water quality operations and management responsibilities such as an approved Water Safety Plan, DWQ monitoring programmes, water treatment plant logbooks, a Water Services Development Plan, publication requirements etc. However, based on the report from the Inspectors, improvement in this regard is anticipated.

Site Inspection Report

Koster 48.6%

The Koster WTW was inspected in order to verify the findings of the Blue Drop Assessment for Kgetleng River LM. The overall impression of the plant was poor. However acknowledgement is given to the recently appointed service provider (Magalies Water) which has begun to implement training and operational monitoring at the plant. The WSA together with Magalies Water are working to improve the current state of water treatment and it is hoped that their efforts will result in improved DWQ compliance of the final water.

Findings of the plant include:

- Absence of a plant registration certificate on site.
- Absence of logbooks for maintenance.
- Lack of an O & M manual on-site.
- There was no incident management protocol on site and no emergency contact numbers.
- There was no Jar testing equipment on site but plans are in place to purchase equipment.
- Operational monitoring equipment has been recently purchased by the service provider and process controllers are undergoing training to use the equipment. However the plant supervisor is performing all the monitoring by himself and all monitoring equipment and log sheets were locked in the supervisor's office during the site visit. Management must ensure that all process controllers are able to perform routine operational monitoring on a daily basis.
- Buildings are in need of repair including offices, change rooms and bathrooms.
- Lack of safety equipment, PPE, emergency showers, and signage on plant.
- There was no information on the chlorination process, as the plant supervisor does not allow process controllers to adjust chlorine dosage. There was also no method of monitoring gas in the cylinder. These factors present a high risk as the continuous dosage of chlorine cannot be guaranteed.

Broken roof in Process controllers change room

Chlorine room has no scale

Water Services Authority	Madibeng Local Municipality
Water Services Provider(s)	Madibeng Local Municipality; Rand Water[a]
Municipal Blue Drop Score	57.90%

Performance Area	Systems	Brits	Hartbeespoort	Rand Water Supplied[a]
Water Safety Planning (35%)		**54**	**38**	**70**
Treatment Process Management (10%)		**65**	**35**	**100**
DWQ Compliance (30%)		**85**	**24**	**54**
Management, Accountability (10%)		**34**	**19**	**58**
Asset Management (15%)		**34**	**26**	**58**
Bonus Scores		3.66	0.00	5.24
Penalties		0.00	0.00	0.00
Blue Drop Score (2012)		**63.04%** (↑)	**29.75%** (↓)	**70.34%** (→)
2011 Blue Drop Score		37.24%	33.66%	Not assessed
2010 Blue Drop Score		3.88%	4.13%	Not assessed
System Design Capacity (Ml/d)		60	10	Not applicable
Operational Capacity (% ito Design)		91.67%	104.00%	Not applicable
Population Served		265 000	40 000	123 852
Average daily Consumption (l/p/d)		22.64	25.00	No Information
Microbiological Compliance (%)		**99.3%**	**94.4%**	**>99.9%**
Chemical Compliance (%)		**>99.9%**	**>99.9%**	**>99.9%**

Regulatory Impression

The Department commends the performance of Madibeng Local Municipality, during this Blue Drop assessment period. There is a significant improvement of the overall Drinking Water Quality Management (DWQM) subsequent to the 2011 assessment. The Department noted a slight decline in the Hartebeespoort system, one of the contributing factors is the Bacteriological compliance and the inadequate submission of results on this system. The increase in registered supply systems (Rand Water Supplied) further imply that the DWA could perform a more focussed, system specific assessment which allows for improved identification of problem areas.

The Full SANS 241 (full) has not been used to identify any risks and therefore there is no Risk defined monitoring program registered on the system. There is room for improvement on the review of water safety planning (including full SANS 241), clearly stating roles and responsibilities, timeframes to implement management actions, and budget as proof of municipal management commitment are some of the other aspects of DWQ management that needs to be addressed by the WSA. According to the BWSA Inspectors most of the information presented was in hard copies, effort should still ensure that all information becomes available on the Blue Drop System (BDS).

Madibeng provided no proof of publication on DWQ performance. Communities have a right to information on the services being rendered by the municipality, part of this communication, which will also prove implementation of the incident management protocol.

Site Inspection Report

Brits WTW: 73.4%

The Brits WTW was visited to verify the findings of the Blue Drop assessment of Madibeng Local Municipality. The overall appearance of the plant was fair with some areas well maintained and other areas currently receiving attention from Magalies Water. This is an encouraging site and the Department hopes that drinking water quality will improve during the next round of assessments.

Areas identified during the site visit which require attention include:

- Classification displayed on the wall is old and not relevant.
- There is no maintenance logbook on site and therefore no method of tracking outstanding issues.
- No O&M manual on site, manual is currently being developed by Magalies Water.
- There is no incident management protocol; a list of contact numbers is displayed on wall.
- Operational monitoring is taking place and recorded in the daily log sheet. Additional monitoring equipment is being purchased (conductivity meter).
- Lack of adequate safety signs, chlorine gas mask and other safety equipment (fire extinguisher).
- Housekeeping at dosing point is fair with loose wires and temporary pipes.
- Overgrown sludge dam; sludge is currently being sent directly to the river! The sludge handling facility must be addressed urgently as this poses a serious risk to the receiving environment.

Loose wires and temporary pipes in dosing room

Overgrown sludge dam: sludge currently sent to river

Water Services Authority	Maquassi Hills Local Municipality
Water Services Provider(s)	Sedibeng Water[a]
Municipal Blue Drop Score	**75.11%**

Performance Area	Systems	The Greater Maquassi Hills LM[a]
Water Safety Planning (35%)		**72**
Treatment Process Management (10%)		**100**
DWQ Compliance (30%)		**57**
Management, Accountability (10%)		**61**
Asset Management (15%)		**75**
Bonus Scores		6.42
Penalties		-0.73
Blue Drop Score (2012)		**75.11%** (→)
2011 Blue Drop Score		Not assessed
2010 Blue Drop Score		Not assessed
System Design Capacity (Ml/d)		360
Operational Capacity (% ito Design)		2.17%
Population Served		98 000
Average daily Consumption (l/p/d)		367.35
Microbiological Compliance (%)		**99.9%**
Chemical Compliance (%)		**99.9%**

Regulatory Impression

This was a first assessment of the combined system, since previously the assessments were conducted separately (Maquassi Hills distribution and Maquassi Bulk) on drinking water quality (DWQ) management business of Maquassi Hills Municipality. The DWA inspectors were impressed with the officials from Sedibeng Water and sadly the same cannot be said about the Maquassi Hills Municipality official's "*status of management commitment and absolute lack of knowledge*". Positive scores obtained in the Maquassi Hills system was mainly due to relatively good performance in the disciplines of DWQ compliance, submission of data and asset management provided by Sedibeng Water. On the negative, a full SANS 241 analyses had not yet been done on all the distribution system to confirm the adequacy of monitoring of both microbiological and chemical constituents.

On a positive note, acknowledgement is given to the recently appointed service provider who has initiated a process of conducting the Water Safety Planning. The WSA together with Sedibeng Water are encouraged to continue working together to improve the current state of water treatment and it is hoped that the effort will result in improved compliance of the final water. .

No data for WSA and that has compromised the overall DWQ compliance. The WSA is encouraged to register on BDS and upload analysis data started in January 2012.

Water Services Authority	Matlosana Local Municipality
Water Services Provider(s)	Midvaal Water Company[a]
Municipal Blue Drop Score:	**95.35%**

Performance Area	Systems	Matlosana[a]
Water Safety Planning (35%)		**98**
Treatment Process Management (10%)		**95**
DWQ Compliance (30%)		**85**
Management, Accountability (10%)		**92**
Asset Management (15%)		**100**
Bonus Scores		1.85
Penalties		0.00
Blue Drop Score (2012)		**95.35%** (↓)
2011 Blue Drop Score		95.38%
2010 Blue Drop Score		59.63%
System Design Capacity (Ml/d)		250
Operational Capacity (% ito Design)		50.00%
Population Served		400 000
Average daily Consumption (l/p/d)		62.50
Microbiological Compliance (%)		**98.2%**
Chemical Compliance (%)		**99.9%**

Regulatory Impression

Once again, an impressive performance by Matlosana Local Municipality together with Midvaal Water Company is revealed by maintaining the Blue Drop certification. This ensured the allocation of Blue Drop certification that both institutions managed to maintain. The Department wish to congratulate Matlosana Local Municipality together with Midvaal Water Company for the excellent performance. It is worth noting that the final water quality compliance percentage was a 60% of the Water Services Provider and a 40% of the Water Services Authority. The several failures of the Microbiological Compliance nearly compromised the Blue Drop Certification. The municipality must give attention to their water quality monitoring programmes and ensure that recurring failures are prevented.

The Department would like to commend the Midvaal Water Company in terms of the comments from the Inspectors quoting *"MDC of a highly organised and efficient company in supplying an excellent quality drinking water from the Vaal River. The river, at the abstraction point, is seriously affected by the activities of upstream users - Vaal Barrage, SASOL effluent, Parys wastewater treatment works as well as many mines and other agricultural activities. The water purification process is like a factory where the product is monitored at every stage of production to ensure that each process is doing its job in purifying the water. It is a most impressive place to visit and to see how water purification can be an art".*

The Matlosana LM officials are highly motivated who have ensured that the WSA can deliver water to its consumers over vast distances. However, senior management is encouraged to give attention towards extending their water quality monitoring programmes to ensure water quality compliance is turned around. The Department wish to encourage both the Midvaal Water Company and The Matlosana LM not to lose the momentum but to continue working together in a healthy relationship to ensure

continuous improvement in pursuing one goal.

Site Inspection Report

Midvaal WTW: 93%

The Midvaal WTW was visited to verify the findings of the Blue Drop Assessment of Matlosana Local Municipality. Midvaal Water Company owns and operates the plant and is the bulk supplier of potable water to the Matlosana Local Municipality. The overall impression of the WTW was very good as it was neat, clean and well–maintained with clearly visible safety signs to warn of the current construction taking place. All record keeping and documentation is in place with continuous operational monitoring undertaken on a regular basis at all unit processes including ozonation.

The SANAS accredited laboratory on site ensures monitoring of all problem determinands at the plant.

There were some areas that required attention such as:

- Large chemical storage vessels are not bunded and can present a risk to the environment if a spillage occurs.
- Although the chemical suppliers is efficient and delivers on time, there is less than 30 days storage of some chemicals (including chlorine) on site. It is recommended that there is 30 days storage of chemical on site to ensure effective treatment takes place at all times.
- The sludge dams require some attention and plans are in place to upgrade the current system with the construction of a wash water plant in 2012.

Clarifier with moving bridge

Example of good signage on site

Water Services Authority	Moretele Local Municipality
Water Services Provider(s)	Magalies Water[a]; City of Tshwane[b]
Municipal Blue Drop Score:	**59.72%**

Performance Area	Systems	Moretele[a,b]
Water Safety Planning (35%)		**68**
Treatment Process Management (10%)		**100**
DWQ Compliance (30%)		**20**
Management, Accountability (10%)		**38**
Asset Management (15%)		**72**
Bonus Scores		6.87
Penalties		-1.377
Blue Drop Score (2012)		**59.72%** (↑)
2011 Blue Drop Score		33.08%
2010 Blue Drop Score		Not assessed
System Design Capacity (Ml/d)		60
Operational Capacity (% ito Design)		25.00%
Population Served		40 000
Average daily Consumption (l/p/d)		375.00
Microbiological Compliance (%)		**75.0%; WSP 77.8 %**
Chemical Compliance (%)		**0.0%; 99.0%**

Regulatory Impression:

Overall, the Moretele Local Municipality together with Magalies Water showed improvement in Blue Drop scores when compared to the 2011 results. Alarmingly, numerous failures of the microbiological water quality compliance and lack of information on the management accountability key performance indicator is a great concern to the Department. The main contributing factor is due to the poor quality of incoming water from the Apies River and has been identified as a high risk in the Water Safety Plan. This is due to non-compliance of an upstream wastewater treatment plant which is operated by City of Tshwane and must be urgently addressed.

The Inspectors were impressed by the preparedness of the Officials of Magalies Water. All relevant information including a detailed risk assessment of the supply system were presented at the assessment. The Municipality however, did not have much information and relies heavily on Magalies Water for undertaking monitoring and maintenance in the reticulation. The WSA is encouraged to develop and implement an Incident Management Protocol for Drinking water failures and work with Magalies Water in implementing control measures to address these failures.

It is acknowledged that, Magalies water is currently installing a pre and post chlorine dioxide dosing for Temba WTW. It is epected that this additional disinfection step will address the microbiological failures at the treatment plant and increase compliance.

Co-operative relationship between the WSA and WSP is imperative to ensure continuous improvement and sustainable DWQ management. The Microbiological Quality of water requires urgent attention since this recorded compliance is far from the standard limits set.

The WSA is urged to develop a Water Safety Plan for the reticulation network and is specific to the supply system and that should include the Incident Management Protocol since it is reported that the Municipality does not record failures in reticulation and has taken no action in response to failures in reticulation. The municipality is required to give special attention to implement an adequate monitoring programme to include all the chemical health determinands listed in SANS 241. It is furthermore required that municipal management provides leadership in the turn-around of this municipal service. Other aspect to improve includes publication of results.

Site Inspection Report

Temba WTW: 89.7%

The Temba WTW was visited to verify the findings of the Blue Drop assessment of Moretele Local Municipality.

The Temba WTW is owned by City of Tshwane, operated by Magalies Water and is the bulk supplier to the Moretele Local Municipality. The overall impression of the plant was good as the plant is clean and well maintained with adequate visible safety signs and equipment. Acknowledgement is given for the knowledgeable process controllers, adequate housekeeping and good record-keeping for maintenance and operational monitoring.

Areas that require improvement at the Temba WTW include:

- Dosing is not taking place at point of highest turbulence and this may lead to ineffective coagulation.
- Ferric chloride dosing area requires housekeeping and repairs to leaking pipes.
- Inadequate storage capacity (<30days) for chlorine gas.
- No standby for saturator on DAF unit; it is required that there is adequate backup for all critical equipment on site to ensure the continuous delivery of safe water at all times.
- Sludge management is inadequate: sludge lagoons are filled with reeds.
- Pressure nozzle is required to adequately clean the walls of the DAF Unit. The current hose does not allow for effective cleaning of the scum from the DAF Unit and this can compromise the final water quality.

Ferric Chloride dosing area required attention

Overall neat and well maintained appearance

Water Services Authority	Moses Kotane Local Municipality
Water Services Provider(s)	Moses Kotane Local Municipality, Magalies Water[a]
Municipal Blue Drop Score	68.59%

Performance Area	Systems	Madikwe	Mmatau	Molatedi	Pella
Water Safety Planning (35%)		20	20	20	20
Treatment Process Management (10%)		75	0	15	40
DWQ Compliance (30%)		10	25	25	38
Management, Accountability (10%)		16	16	8	8
Asset Management (15%)		33	21	32	36
Bonus Scores		3.00	3.00	0.00	3.00
Penalties		0.00	0.00	0.00	0.00
Blue Drop Score (2012)		**26.88%** (↑)	**22.08%** (↑)	**21.43%** (↓)	**31.20%** (↑)
2011 Blue Drop Score		26.29%	7.17%	28.34%	23.62%
2010 Blue Drop Score		47.88%	Not assessed	36.75%	50.63%
System Design Capacity (Ml/d)		2.5	Not applicable	0.6	1.2
Operational Capacity (% ito Design)		80.00%	Not applicable	No information	40.17%
Population Served		24 292	7 713	1 419	13 776
Average daily Consumption (l/p/d)		10.29	No information	42.28	8.71
Microbiological Compliance (%)		**>99.9%**	**>99.9%**	**>99.9%**	**>99.9%**
Chemical Compliance (%)		**No Information**	**No Information**	**No Information**	**No Information**

Performance Area	Systems	Vaalkop Supply[a]
Water Safety Planning (35%)		66
Treatment Process Management (10%)		100
DWQ Compliance (30%)		60
Management, Accountability (10%)		50
Asset Management (15%)		52
Bonus Scores		5.43
Penalties		0.00
Blue Drop Score (2012)		**69.25%** (↑)
2011 Score		31.78%
2010 Score		56.85%
System Design Capacity (Ml/d)		210
Operational Capacity (% ito Design)		85.71%
Population Served		96 000
Average daily Consumption (l/p/d)		218.75
Microbiological Compliance (%)		**92.0%**
Chemical Compliance (%)		**99.9%**

Regulatory Impression

There is great improvement of Drinking Water Quality Management in the Vaalkop supply system as well as the overall DWQ management in Moses Kotane Local Municipality. In terms of the other four systems, the basic risk assessment process plan has not yet been initiated**.** DWA noted that the WSA appointed a service provider to develop a water safety plan for the entire area of supply. To reveal *"No Information"* is a compromising position to be in. The municipality is required to obtain information on important elements such as borehole yields and pumping rates in order to manage their aquifers more effectively. Effort should now ensure completion and implementation of the process which already started with risk identification by the municipality. This process will inevitably result in great improvement across all water supply systems.

The WSA is urged to implement a program of preventative maintenance and ensure adequate reporting and recordkeeping of all maintenance issues. There remains room for improvement with chemical monitoring still lacking in Madikwe, Mmatau Boreholes, Molatedi and Pella supply systems. Municipal Management should show their support to implementation of the programme by making budget available to address risks to be identified in the WSP. Roles and responsibilities, as well as deadlines to implement control measures should be clearly indicated and used as a measure to evaluate execution.

The operation and maintenance manual (O & M) also needs improvement in Molatedi and Vaalkop WTWs, whereas development of the O & M is still required in Madikwe, Mmatau Boreholes and Pella systems. The O & M register lacks key information such as procedures and design capacities as well as maintenance schedules as well as the design parameters for the various process units. This will allow both technical and financial staff to be more proactive regarding O & M management.

There is a need to improve on publication of results to the public as well as the Incident Management Protocol, the Municipality should note that lack of an incident register detailing procedures to address failures, the lack of information to confirm credibility of actual DWQ data, as well as the dismal approach towards asset management further prevents the Department from having confidence that the municipality takes responsibility for DWQ management.

Site Inspection Reporting

Madikwe WTW: 52.6%

The Madikwe WTW was visited to verify the findings of the Blue Drop assessment of Moses Kotane Local Municipality as this plant is owned and operated by the municipality. The site inspection impression of the Madikwe WTW is poor with general lack of housekeeping (dirty dosing areas) and maintenance (broken doors). The lack of daily operational monitoring is of great concern and must be addressed as a matter of urgency. Without daily operational monitoring the treatment process cannot be adjusted to accommodate for changes in incoming raw water and the final water quality will deteriorate.

Areas that require attention include the following:

- Lack of log book to record maintenance. Moses Kotane Staff confirms that most maintenance is only reactive maintenance.
- Lack of comprehensive O&M manual and Incident Management protocol.
- Lack of daily operational monitoring, only three days results presented since September 2011. Monitoring equipment lacks proof of calibration, lacks fresh standards for calibration and the

current vials for testing chlorine must be replaced as it is coloured and can give an incorrect reading.

- Inflow meter not calibrated; it is important to calibrate all flow meters on an annual basis.
- Inadequate dosing of chemicals as no Jar test are performed and actual dosing rate is not known.
- Dosing equipment needs attention: no standby pump, standby pump not connected, several pipes and connections available with one pump operating without being connected.
- HTH dosing room is dirty, no standby mixer and a rake is used to mix the solution which presents a serous OH&S risk to the process controller.
- Poor settling in the clarifier and one of the overflow pipes is broken. This will compromise the quality of the final water with regards to turbidity removal.
- No sludge dams at plant and sludge flows out of the plant towards the dam. This represents a serious pollution risk and must be addressed immediately.

Sludge flowing out of plant

Untidy dosing room with redundant pumps and pipes

Chlorine dosing room required cleaning

Water Services Authority	Ngaka Modiri Molema District Municipality
Water Services Provider(s)	Botshelo Water[a], Tswaing LM[b], Ramotshere LM[c], Ditsobotla LM[d]
Municipal Blue Drop Score	40.72%

Performance Area	Systems	Mafikeng[a]	De Larey[b]	Ottosdal[b]	Sannieshof[b]
Water Safety Planning (35%)		**51**	**16**	**0**	**20**
Treatment Process Management (10%)		**45**	**0**	**0**	**0**
DWQ Compliance (30%)		**45**	**45**	**0**	**0**
Management, Accountability (10%)		**92**	**72**	**61**	**61**
Asset Management (15%)		**8**	**8**	**8**	**8**
Bonus Scores		0.00	0.00	0.00	0.00
Penalties		0.00	0.00	-1.50	-1.50
Blue Drop Score (2012)		**46.00%** (↑)	**27.45%** (→)	**5.73%** (→)	**12.73%** (→)
2011 Blue Drop Score		8.85%	Not assessed	Not assessed	Not assessed
2010 Blue Drop Score		30%	Not assessed	Not assessed	Not assessed
System Design Capacity (Ml/d)		20	No information	No information	No information
Operational Capacity (% ito Design)		35.00%	1.60%	No information	No information
Population Served		140 000	33 000	10 000	8 000
Average daily Consumption (l/p/d)		50.00	48.48	50.00	50.00
Microbiological Compliance (%)		**No information**	**No information**	**No information**	**No information**
Chemical Compliance (%)		**No information**	**No information**	**No information**	**No information**

Performance Area	Systems	Lehurutse[a]	Groot Marico[c]	Itsoseng[d]	Kraaipan[a]
Water Safety Planning (35%)		**34**	**27**	**38**	**12**
Treatment Process Management (10%)		**0**	**0**	**50**	**0**
DWQ Compliance (30%)		**45**	**45**	**95**	**0**
Management, Accountability (10%)		**76**	**77**	**100**	**85**
Asset Management (15%)		**8**	**8**	**8**	**8**
Bonus Scores		0.00	0.00	0.00	0.00
Penalties		0.00	0.00	0.00	-1.50
Blue Drop Score (2012)		**34.04%** (→)	**31.69%** (→)	**57.84%** (↑)	**12.33%** (→)
2011 Score		Not assessed	Not assessed	5.14%	Not assessed
2010 Score		Not assessed	Not assessed	Not assessed	Not assessed
System Design Capacity (Ml/d)		1.2	1.9	10	No information
Operational Capacity (% ito Design)		83.33%	21.05%	No information	No information
Population Served		45 000	10 000	10 000	10 000
Average daily Consumption (l/p/d)		22.22	40.00	380.00	40.00
Microbiological Compliance (%)		**No information**	**No information**	**No information**	**No information**
Chemical Compliance (%)		**No information**	**No information**	**No information**	**No information**

Performance Area	Systems	Madibogo[a]	Madibogopan[a]	Makgabistad[a]	Motswedi + Gopane[a]
Water Safety Planning (35%)		**0**	**20**	**20**	**54**
Treatment Process Management (10%)		**0**	**0**	**0**	**100**
DWQ Compliance (30%)		**0**	**0**	**55**	**40**
Management, Accountability (10%)		**85**	**85**	**85**	**85**
Asset Management (15%)		**8**	**8**	**0**	**0**
Bonus Scores		0.00	0.00	0.00	0.00
Penalties		-1.50	-1.50	-1.50	0.00
Blue Drop Score (2012)		**8.13%** (→)	**15.13%** (→)	**31.63%** (→)	**50.53%** (↑)
2011 Score		Not assessed	Not assessed	Not assessed	8.85%
2010 Score		Not assessed	Not assessed	Not assessed	30
System Design Capacity (Ml/d)		No information	No information	No information	2
Operational Capacity (% ito Design)		No information	No information	No information	100.00%
Population Served		12 000	2 000	15 000	40 000
Average daily Consumption (l/p/d)		50.00	50.00	50.00	50.00
Microbiological Compliance (%)		**No information**	**No information**	**No information**	**70.8%**
Chemical Compliance (%)		**No information**	**95.0%**	**No information**	**No information**

Key Performance Area	Systems	Setlagole[a]
Water Safety Planning (35%)		**0**
Treatment Process Management (10%)		**0**
DWQ Compliance (30%)		**95**
Management, Accountability (10%)		**85**
Asset Management (15%)		**8**
Bonus Scores		0.00
Penalties		-1.50
Blue Drop Score (2012)		**36.63%** (→)
2011 Score		Not assessed
2010 Score		Not assessed
System Design Capacity (Ml/d)		No information
Operational Capacity (% ito Design)		No information
Population Served		7 000
Average daily Consumption (l/p/d)		50.00
Microbiological Compliance (%)		**No information**
Chemical Compliance (%)		**No information**

Regulatory Impression:

There is an improvement of the DWQ management in Ngaka Modiri Local Municipality together with the Water Services Providers as compared to the previous assessment cycle. The overall Municipality compliance has shifted from 0.66% to 40.72%. In a commendable effort, Ngaka Modiri Local Municipality presented 13 water supply systems for the 2012 evaluation compared to the 3 systems assessed in the previous cycle. The increase in registered supply systems allowed for a more focussed, system specific assessment. Additionally, the more focussed approach of the municipality to drinking water quality (DWQ) management per supply system will improve identification of area-specific problems requiring the immediate attention of the municipality.

The effort toward credible DWQ management at the WSA is commendable. According to the DWA Inspectors: *"here is particularly overwhelming commitment from some Municipal Officials, who coordinated with all the key stakeholders and ensured the audit was of a credible nature, including her role as the RPMS coordinator".* The planning and initial Water Safety Plan development since the June 2011 DWQ Conference is a commendable step in the right direction, unfortunately, not all supply systems have been covered, there are gaps in the methodology, and certain aspects still require more attention, e.g. supply specific hazards & risks, identification of adequate critical control measures, in particular, DWQ risk assessment and how this influences the Compliance & Operational monitoring Programmes.

Management commitment toward DWQ is highly commendable. Lab results are received quite late due to distances of the service provider from Mafikeng, this affects reaction to failures detected during analysis. The relationship between the WSA, the local municipalities, and the role of Botshelo Water - the Water Services Provider - should be firmed up with clear roles & responsibilities, particularly where rudimentry systems are supplying the potable water.

It is a concerning factor that the quality of drinking water in most of the supply systems show non-compliance to national legislation (SANS 241) and thereby pose a significant risk of infection. The situation demands the attention of the municipal administration and governance, the Regulator trusts that the risks to public health will motivate the municipality to rectify the non-compliances without further hesitation or excuse.

The Department hereby issues a warning to all residents and visitors to the Ngaka Modiri Molema District Municipality area not to consume the tap water without taking appropriate measures to improve the drinking water quality. This warning is applicable to the towns of Tswaing/DeLarey, Tswaing/Sannieshof, Dinokana+Lehurutse, Kraaipan, Madibogo, Madibogopan, Motswedi+ Gopane and Setlagole.

Poor compliance to maintain monitoring against the required frequency for chemical and microbiological monitoring, also noting the absence of chemical monitoring in the systems, are some of the other factors of concern to the Department.

Technical Inspections Report:

Itsoseng WTW: 95.7%

Mmabatho WTW: 93%

The Itsoseng WTW and the Mmabtho WTW was visited to verify the findings of the Blue Drop

assessment of Ngaka Modiri Molema District Municipality. Both WTW are operated by the service provider, Bothshelo Water who is the bulk supplier for the municipality. The overall impression for both WTW was good with neat surroundings, knowledgeable staff, 24 hours access control and adequate safety signs and equipment. For both WTWs, operational monitoring is taking place with log sheets and adequate monitoring equipment. Record-keeping is acceptable with regards to maintenance logs. However the lack of an Incident management protocol with relevant contact details must be addressed so that process controllers can react accordingly in an unforeseen or emergency situation.

Some areas that require attention at the two WTW are outlined below;

- Calibration certificates for monitoring equipment not on site at Mmabatho WTW.
- Plant certificate of Mmabatho WTW on BDS but no copy displayed on the wall.
- Operations room at Itsoseng WTW is very small.
- As mentioned earlier, for both WTW, there is no incident Management protocol or list of emergency contact numbers.

Spare chlorine cylinders in place with level indicator

Safety signs and equipment at Mmabatho WTW

Water Services Authority	Rustenburg Local Municipality
Water Services Provider(s)	Rustenburg LM; Magalies Water[a]; Rand Water[b]
Municipal Blue Drop Score	91.55%

Performance Area	Systems	Marikana[a]	Rustenburg boreholes	Rustenburg Town[b]	Vaalkop[a]
Water Safety Planning (35%)		97	59	96	89
Treatment Process Management (10%)		100	0	98	100
DWQ Compliance (30%)		94	0	84	81
Management, Accountability (10%)		66	38	78	96
Asset Management (15%)		100	35	100	73
Bonus Scores		1.44	0.00	2.12	2.99
Penalties		0.00	-1.50	0.00	0.00
Blue Drop Score (2012)		**95.14%** (↓)	**28.04%** (↓)	**93.27%** (↑)	**88.75%** (↓)
2011 Blue Drop Score		95.69%	65.62%	90.97%	93.6%
2010 Blue Drop Score		95.1%	95.1%	95.97%	95.1%
System Design Capacity (Ml/d)		4880	No information	12	210
Operational Capacity (% ito Design)		0.02%	No information	131.25%	2.38%
Population Served		15 000	5 000	315 000	102 820
Average daily Consumption (l/p/d)		50.00	50.00	50.00	48.63
Microbiological Compliance (%)		**99.9%**	**No information**	**93.0%**	**98.4%**
Chemical Compliance (%)		**99.9%**	**No information**	**99.0%**	**99.1%**

Regulatory Impression:

The performance of the teams of Rustenburg Local Municipality, Rand Water and Magalies, again remains impressive with a very good effort. The Department wish to congratulate these institutions for maintaining the Blue Drop status for the Marikana system. This is a remarkable effort for the second year in succession. DWA encourages both the WSA and WSPs to keep up the momentum to ensure continuous sustainable excellent improvement on the drinking water quality management.

However, the two systems: Rustenburg Boreholes and Vaalkop scores were compromised due to a decline in compliance and lack of information or evidence presented to the Inspectors. Clearly, the administrative, planning and budgetary requirements that forms an essential part of the entire water services business, are on par with the progressive work taking place on the ground.

From an asset management perspective, the asset register requires improvement to ensure that the municipality is informed on all the crucial elements of infrastructure. The operations and maintenance manuals also requires improvement to ensure that process controllers have access to site specific manuals.

There is a real need to improve the monitoring programmes to include a full SANS 241 in the Rustenburg Borehole system. This should be conducted in line with the risk assessment component of the water safety planning process. Asset management also requires enhancement. The development of the operation and maintenance manual must also be prioritised. In addition to this it is paramount that the municipality ensures that process audits are undertaken to inform geohydrological recommendation in terms of the Aquifer.

Technical Inspection Report:

Bospoort WTW: 92%

The Bospoort WTW was visited to verify the Blue drop findings of the Rustenburg Local municipality. Overall, the impression of the plant was good with well-maintained buildings and garden, visible signage, adequate safety equipment and adequate facilities for process controllers. Document control is good with plant certificate displayed on the wall. O&M manual on site, maintenance log book with all non-conformances and Incident Management control with relevant contact details. Chemical storage and handling is well managed including adequate storage of chlorine gas.

There are a few areas which require attention and these include:

- Calibration of operational monitoring is taking place on a regular basis. However there is some concern over the condition and storage of the pH probes which could influence measurement reliability. There is also concern about the manner in which the reading is taken. It is recommended that standard operating procedures be drawn up for all operational monitoring and training be given to process controllers on conducting operational monitoring.
- Jar Tests are not conducted. The correct coagulant dosage must be applied daily to ensure effective coagulation which will lead to effective removal of turbidity be downstream phase separation processes such as the DAF unit. Jar tests confirm the correct coagulant dosage to be applied and must be conducted on a regular basis especially when incoming raw water quality changes.
- Less than 30 days storage of flocculant on site; this can lead to decreased quality of final water if chemicals are not delivered on time.

Neat chemical dosing room with backup dosing pumps

Water Services Authority	**Tlokwe Local Municipality**
Water Services Provider(s)	**Tlokwe Local Municipality**
Municipal Blue Drop Score	**98.45%**

Performance Area	Systems	Tlokwe
Water Safety Planning (35%)		**96**
Treatment Process Management (10%)		**95**
DWQ Compliance (30%)		**100**
Management, Accountability (10%)		**100**
Asset Management (15%)		**99**
Bonus Scores		0.57
Penalties		0.00
Blue Drop Score (2012)		**98.45%** (↑)
2011 Blue Drop Score		96.87%
2010 Blue Drop Score		95.11%
System Design Capacity (Ml/d)		73.6
Operational Capacity (% ito Design)		40.10%
Population Served		138 872
Average daily Consumption (l/p/d)		70.00
Microbiological Compliance (%)		**99.9%**
Chemical Compliance (%)		**99.9%**

Regulatory Impression

The Tlokwe LM (TLM) must be commended for sustained excellence. The TLM managed to maintain the Blue Drop Status since 2010. This is a remarkable achievement for the third year in succession. This is due to the outstanding attitude and commitment which is evident according to the Inspectors. Blue Water Services Inspectors noted the following during the on-site audit and the confirmation assessment: *"There is fully support for the Blue Services Audit from the Council, Municipal Manager, all senior Staff as well as the Process Controllers on the Water Treatment Plant and they are highly motivated to do the best they can. It is so refreshing to see that water and community health are very high on the AGENDA of the COUNCIL and that all the managers are measured on Blue Water Services as one of their KPA's."*

The Municipal Team responsible for the provision of water to the communities within the Tlokwe LM must be congratulated for their efforts. There are some minor areas where the municipality can improve in terms of the operation and maintenance manual.

Site Inspection Report

Potchefstroom WTW: 92%

The Potchefstroom WTW was visited to verify the findings of the Blue Drop assessment of Tlokwe Local Municipality and it is the only treatment plant which supplies the municipality. The overall impression of the WTW was good as the plant was neat, clean, secured and had adequate safety equipment and signage. There is good documentation as represented by the O&M manual, Incident Protocol, maintenance log book and operational monitoring log sheets. Operational monitoring equipment is

calibrated as required and Jar Tests are performed regularly to optimize the treatment process.

Areas that require attention include the following:

- There is less than 30 days supply of chlorine on site. Although the WTW is close to the gas supplier, it is recommended that there is 30 days storage of all chemicals on site to ensure the delivery of safe drinking water at all times.
- Eyewash and showers are present but not close to chemical storage facility. The eyewash and emergency shower must be easily accessible in the event of an accidental spillage.
- Sludge dams must be cleaned to remove reeds. The overflow from the sludge dams flows into adjacent field; it is best practice to recycle this water to the head of works to reduce water losses.

Clean filter gallery

Neat pump station

Water Services Authority	Ventersdorp Local Municipality
Water Services Provider(s)	Ventersdorp Local Municipality
Municipal Blue Drop Score	55.6%

Performance Area	Systems	Ventersdorp	Boikhutso Village	Boikhutsong village	Gamogopa village
Water Safety Planning (35%)		**30**	**32**	**32**	**32**
Treatment Process Management (10%)		**24**	**25**	**25**	**25**
DWQ Compliance (30%)		**83**	**40**	**27**	**27**
Management, Accountability (10%)		**65**	**62**	**62**	**62**
Asset Management (15%)		**45**	**15**	**15**	**15**
Bonus Scores		7.33	7.50	7.50	7.50
Penalties		-1.47	-1.50	-1.50	-1.50
Blue Drop Score (2012)		**56.98%** (↑)	**40.19%** (↑)	**36.29%** (→)	**36.29%** (→)
2011 Blue Drop Score		34.55%	38.63%	Not assessed	Not assessed
2010 Blue Drop Score		18.5%	19.25%	Not assessed	Not assessed
System Design Capacity (Ml/d)		3.5	26	26	26
Operational Capacity (% ito Design)		120.00%	0.27%	0.12%	0.38%
Population Served		45 000	1 566	650	2 232
Average daily Consumption (l/p/d)		93.33	44.70	46.15	44.80
Microbiological Compliance (%)		**98.1%**	**91.7%**	**99.9%**	**99.9%**
Chemical Compliance (%)		**99.9%**	**99.9%**	**99.9%**	**99.9%**

Performance Area	Systems	Goedgevonden Villag	Tsetse village	Welgevonden village
Water Safety Planning (35%)		**32**	**32**	**32**
Treatment Process Management (10%)		**25**	**25**	**25**
DWQ Compliance (30%)		**37**	**28**	**82**
Management, Accountability (10%)		**62**	**62**	**62**
Asset Management (15%)		**15**	**15**	**15**
Bonus Scores		7.50	7.50	7.50
Penalties		-1.50	-1.50	-1.50
Blue Drop Score (2012)		**39.29%** (↑)	**36.59%** (↑)	**52.79%** (↑)
2011 Score		35.9%	28.88%	36.88%
2010 Score		19.25%	19.25%	19.25%
System Design Capacity (Ml/d)		26	26	26
Operational Capacity (% ito Design)		0.31%	0.15%	0.23%
Population Served		1 600	968	1 200
Average daily Consumption (l/p/d)		50.00	41.32	50.00
Microbiological Compliance (%)		**99.9%**	**87.5%**	**99.9%**
Chemical Compliance (%)		**99.9%**	**99.9%**	**99.9%**

Regulatory Impression:

There was an improvement in drinking water quality (DWQ) management in the Ventersdorp Local Municipality compared to the previous cycle of assessments. The positive attitude and commitment displayed by the WSA to the DWQ management processes was evident and was commended by the inspectors; *"Despite the political landscape, the commitment to provision of compliant potable water is evident. Management commitment is visible, process controller competency and good harmony is also very much in evidence. There's Council and DM commitment for capital projects and other DWQ management processes for the next financial year"*. However the inspectors regarded this as a work-in-progress since there remain various areas where significant improvement is required, especially in terms of microbiological compliance.

Credit is given to the municipality for the efforts they have made to date with the support of the DWA Regional office. Despite the fact that the Ventersdorp LM has been inundated with political controversy, they have still managed to secure council approval for the refurbishment of the Ventersdorp WTW and they are currently awaiting final approval for this from the DWA Region Bulk Water Infrastructure section.

The development of a water safety plan, as well as the registration of process controllers, should be prioritised.

Technical Inspections Report

Ventersdorp WTW: 76%

The Ventersdorp WTW was visited in order to verify the Blue Drop findings of the Ventersdorp Local Municipality. The Ventersdorp WTW uses only pressure filters and disinfection with chlorine gas in the treatment process. The overall impression of the site visit was good as the plant was neat, well maintained and had a fence and locked gate. The filtration and chlorination processes were considered adequate in terms of being capable of producing acceptable final water quality.

However documents such as the maintenance log sheets, operational monitoring log sheets, incident management protocol and operation and maintenance manual were all kept at the municipal offices. There was also no full time process controller on site. The process controller visits the site to backwash filters, check chlorine dosages and conduct some operational monitoring. The current situation is not adequate in ensuring the delivery of safe drinking water to the community. The WSA must ensure that a full time operator is on site at all times as per Regulation 2834 and that all relevant monitoring equipment and log sheets are kept on site.

Below is a summary of all issues which require attention:

- All documentation was kept at the municipal offices and not at the plant
- There was no full time process controller on site
- There were no facilities for eating or washing at the WTW
- The inflow meter was not working. Only the outflow meter was operational and therefore they were not able to determine water losses.