Annual Report

On Water Services in South Africa 2015

The Municipal Benchmarking Initiative

A SALGA led initiative supported by the Water Research Commission "for municipalities, by municipalities, to the benefit of municipalities"

SALGA
South African Local Government Association

WATER RESEARCH COMMISSION

IMESA

Municipal Benchmarking Initiative
water services

Boost Your Performance

Hot tips to Maximise Gain

Using benchmarking to improve performance and meet your targets

1	**My best time for the 100 m is 9.90 seconds. The world record is 9.58 seconds.** Review your water services business - What would you like to do better?
2	**I would like to run the 100 m in 9.55 seconds.** Identify exactly what you want to achieve - Focus closely on the results you would like to see.
3	**If I win the gold medal, I will make my country proud!** Think about your customers - What benefits will participating in benchmarking give your customers?
4	**I can't win a gold medal on my own. I need my coach and support from my family and friends!** Involve others - Will benchmarking improve your ability to work with other municipal departments?
5	**What should I be tracking to monitor my progress?** Review available MBI performance indicators (PIs) - Find the PIs that best suit your objectives.
6	**What are the most important measures that the best sprinters in the world are monitoring?** Consider the PIs and make your choice - start simple and consider a "less is more" approach.
7	**I have set my goals and now I need to practice, practice, and practice!** Implement your selected PIs - Make sure you are monitoring the necessary parameters
8	**I am still 0.2 seconds behind the world record!** Review and improve your performance - Develop improvement plans and review your progress.
9	**Do I understand what my competitors are doing? Maybe they have improved even further?** Check what other municipalities are doing - How do you compare with your peers?
10	**I have done it!! 9.54 seconds and a gold medal!!!** Tell the world - Make sure your customers, the Regulator and other stakeholders know you are participating in the MBI and what you are achieving.

I remember once, actually the first race I ran, I fell.

Usain Bolt

Good performance management by WSAs is crucial to both maintaining, improving and extending municipal water services delivery in South Africa. Better performance measurement is crucial, and municipal services benchmarking can take the sector forward towards achieving this.

Effective benchmarking is a key tool to improve service quality, expand service networks and optimise operations. The Municipal Benchmarking Initiative (MBI), a voluntary programme initiated in 2011 by the South African Local Government Association (SALGA) in partnership with the Water Research Commission (WRC), and in association with the Institution of Municipal Engineering of Southern Africa (IMESA), has made significant strides towards improving water services performance measurement and management. Globally, benchmarking is recognised as a tool to guide and support effective performance assessment and continuous performance improvement. Specific progress has been made through the initiative in:

- Module and material development
  - Six (6) modules including: (1) Water Conservation and Demand Management, (2) Human resources and Skills Development, (3) Service Delivery and Backlogs, (4) Operations and Maintenance, (5) Product Quality, and (6) Financial Management.
- Municipal engagement, support and events/forums
  - Water Services Master Classes
  - Cities Working Groups
  - Annual MBI Conference/ Workshop
- Development of a database and Web tool
  - Munibench (www.munibench.co.za) allowing data capture, tracking of internal performance and comparison to peers.
- Business analysis/intelligence
  - Municipal scorecards with comparison to performance nationally, provincially and other municipal peers
  - Annual MBI report showcasing progress with process and metric benchmarking
- Business management and leadership
  - Highlights (1) improvement mechanisms to weaker municipalities and encourages them to realise that they can improve, and (2) showcases municipalities that are doing well to which weaker municipalities can turn to for ideas and assistance,
  - Gives citizens and other water users a better idea of how well their municipality is doing and where improvement is required.

Water Services Master Classes have been established as peer-learning exchanges designed to bring together senior technical and management staff, experts and professionals on key areas of the water service business. The exchanges are based on a blended learning approach that prioritises interactive discussions and cross-pollination of information and experiences. In order to structure peer learning around a specific topic the establishment of various Working Groups has been encouraged.

Performance Indicators (PIs) have been developed across all six modules and are categorised as basic, intermediate and advanced. Municipalities are free to choose from this “shopping list” of PIs, and the MBI team guide annual data collection for chosen core set of PIs. Data is used to develop municipal specific scorecards, and verified data is used to develop the annual report. A critical aspect of the current MBI is its ‘less is more’ approach to benchmarking data collection. Wherever possible, performance indicators do not duplicate information being reported elsewhere against national sectoral objectives. Rather, the benchmarking focuses on core organisational and operational management parameters that are essential for good, sustainable services delivery, while building awareness within municipalities of why they matter.

Currently there is a growing level of participation, enthusiasm and interest that will expand over the next five years that will improve the performance of the water services sector.

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Municipal Benchmarking Initiative

Supporting Water Services Performance Measurement and Improvement

	Module	PI Name	Performance in relation to 2013	Module	PI Name	Performance in relation to 2013
Municipal Category: A	WCDM	Non-revenue water (by volume)	-	SDB	Access to water	-
		Number of connections that are metered			Access to sanitation	-
		System input volume (population)			Water services vulnerability index	
		System input volume (households)			Water services planning health check	
		Water resource management health check			Organisational performance monitoring health check	
		Water conservation and demand management health check			Water service quality health check	
	HR	Number of water services staff			Customer care health check	
		Technical management skill level health check			Water and Sanitation Protests	New PI
		Technical staff skill level health check		FM	Municipal current ratio	
		Number of water services registered professional engineers	-		Cost of salaries	
		Number of water services technicians	-		Water services income	
		Technical staff numbers health check			Revenue (water) / Household	New PI
	O&M	Water services capital investment			Revenue (wastewater) / Household	New PI
		Infrastructure asset management health check			Financial management health check	
		Operations and maintenance of assets health check			Revenue collection health check	
	PQ	Drinking water compliance (E.coli / Faecal coliforms)	New PI		Capital Expenditure to Total Expenditure (water)	New PI
		Drinking water quality health check			Capital Expenditure to Total Expenditure (wastewater)	New PI
		Wastewater and environmental safety health check			Net Surplus / Deficit (water)	New PI
					Net Surplus / Deficit (wastewater)	New PI
Municipal Category: B1	WCDM	Non-revenue water (by volume)		SDB	Access to water	-
		Number of connections that are metered	-		Access to sanitation	-
		System input volume (population)			Water services vulnerability index	
		System input volume (households)			Water services planning health check	
		Water resource management health check			Organisational performance monitoring health check	
		Water conservation and demand management health check			Water service quality health check	
	HR	Number of water services staff			Customer care health check	
		Technical management skill level health check			Water and Sanitation Protests	New PI
		Technical staff skill level health check		FM	Municipal current ratio	
		Number of water services registered professional engineers			Cost of salaries	
		Number of water services technicians	-		Water services income	
		Technical staff numbers health check			Revenue (water) / Household	New PI
	O&M	Water services capital investment			Revenue (wastewater) / Household	New PI
		Infrastructure asset management health check			Financial management health check	
		Operations and maintenance of assets health check			Revenue collection health check	
	PQ	Drinking water compliance (E.coli / Faecal coliforms)	New PI		Capital Expenditure to Total Expenditure (water)	New PI
		Drinking water quality health check			Capital Expenditure to Total Expenditure (wastewater)	New PI
		Wastewater and environmental safety health check			Net Surplus / Deficit (water)	New PI
					Net Surplus / Deficit (wastewater)	New PI

	Module	PI Name	Performance in relation to 2013	Module	PI Name	Performance in relation to 2013
Municipal Category: B2	WCDM	Non-revenue water (by volume)		SDB	Access to water	-
		Number of connections that are metered			Access to sanitation	-
		System input volume (population)			Water services vulnerability index	
		System input volume (households)			Water services planning health check	
		Water resource management health check			Organisational performance monitoring health check	
		Water conservation and demand management health check			Water service quality health check	-
	HR	Number of water services staff			Customer care health check	
		Technical management skill level health check			Water and Sanitation Protests	New PI
		Technical staff skill level health check		FM	Municipal current ratio	
		Number of water services registered professional engineers			Cost of salaries	
		Number of water services technicians			Water services income	
		Technical staff numbers health check			Revenue (water) / Household	New PI
	O&M	Water services capital investment			Revenue (wastewater) / Household	New PI
		Infrastructure asset management health check			Financial management health check	
		Operations and maintenance of assets health check			Revenue collection health check	-
	PQ	Drinking water compliance (E.coli / Faecal coliforms)	New PI		Capital Expenditure to Total Expenditure (water)	New PI
		Drinking water quality health check			Capital Expenditure to Total Expenditure (wastewater)	New PI
		Wastewater and environmental safety health check			Net Surplus / Deficit (water)	New PI
					Net Surplus / Deficit (wastewater)	New PI
Municipal Category: B3	WCDM	Non-revenue water (by volume)	-	SDB	Access to water	-
		Number of connections that are metered	-		Access to sanitation	-
		System input volume (population)			Water services vulnerability index	
		System input volume (households)	-		Water services planning health check	
		Water resource management health check			Organisational performance monitoring health check	
		Water conservation and demand management health check			Water service quality health check	
	HR	Number of water services staff			Customer care health check	
		Technical management skill level health check			Water and Sanitation Protests	New PI
		Technical staff skill level health check		FM	Municipal current ratio	
		Number of water services registered professional engineers			Cost of salaries	
		Number of water services technicians			Water services income	
		Technical staff numbers health check			Revenue (water) / Household	New PI
	O&M	Water services capital investment			Revenue (wastewater) / Household	New PI
		Infrastructure asset management health check			Financial management health check	
		Operations and maintenance of assets health check			Revenue collection health check	
	PQ	Drinking water compliance (E.coli / Faecal coliforms)	New PI		Capital Expenditure to Total Expenditure (water)	New PI
		Drinking water quality health check			Capital Expenditure to Total Expenditure (wastewater)	New PI
		Wastewater and environmental safety health check			Net Surplus / Deficit (water)	New PI
					Net Surplus / Deficit (wastewater)	New PI

	Module	PI Name	Performance in relation to 2013	Module	PI Name	Performance in relation to 2013
Municipal Category: B4	WCDM	Non-revenue water (by volume)	-	SDB	Access to water	-
		Number of connections that are metered	-		Access to sanitation	-
		System input volume (population)			Water services vulnerability index	
		System input volume (households)			Water services planning health check	
		Water resource management health check			Organisational performance monitoring health check	
		Water conservation and demand management health check			Water service quality health check	
	HR	Number of water services staff			Customer care health check	
		Technical management skill level health check			Water and Sanitation Protests	New PI
		Technical staff skill level health check		FM	Municipal current ratio	
		Number of water services registered professional engineers			Cost of salaries	
		Number of water services technicians			Water services income	
		Technical staff numbers health check	-		Revenue (water) / Household	New PI
	O&M	Water services capital investment			Revenue (wastewater) / Household	New PI
		Infrastructure asset management health check			Financial management health check	
		Operations and maintenance of assets health check			Revenue collection health check	
	PQ	Drinking water compliance (E.coli / Faecal coliforms)	New PI		Capital Expenditure to Total Expenditure (water)	New PI
		Drinking water quality health check	-		Capital Expenditure to Total Expenditure (wastewater)	New PI
		Wastewater and environmental safety health check			Net Surplus / Deficit (water)	New PI
					Net Surplus / Deficit (wastewater)	New PI
Municipal Category: C2	WCDM	Non-revenue water (by volume)		SDB	Access to water	-
		Number of connections that are metered	-		Access to sanitation	-
		System input volume (population)			Water services vulnerability index	
		System input volume (households)			Water services planning health check	
		Water resource management health check			Organisational performance monitoring health check	-
		Water conservation and demand management health check	-		Water service quality health check	
	HR	Number of water services staff			Customer care health check	
		Technical management skill level health check			Water and Sanitation Protests	New PI
		Technical staff skill level health check		FM	Municipal current ratio	
		Number of water services registered professional engineers			Cost of salaries	
		Number of water services technicians			Water services income	
		Technical staff numbers health check			Revenue (water) / Household	New PI
	O&M	Water services capital investment			Revenue (wastewater) / Household	New PI
		Infrastructure asset management health check			Financial management health check	
		Operations and maintenance of assets health check			Revenue collection health check	
	PQ	Drinking water compliance (E.coli / Faecal coliforms)	New PI		Capital Expenditure to Total Expenditure (water)	New PI
		Drinking water quality health check			Capital Expenditure to Total Expenditure (wastewater)	New PI
		Wastewater and environmental safety health check			Net Surplus / Deficit (water)	New PI
					Net Surplus / Deficit (wastewater)	New PI

Foreword by the CEO of SALGA

"Sustainability through benchmarking and operational performance"

One of the marks of successful service delivery benchmarking, is how well it informs senior leadership about strategic opportunities, challenges in delivery, and solutions that work.
In 2014, through the launch of the municipal benchmarking report, we planted the benchmarking seed and set standards for benchmarking water services. We highlighted the importance of benchmarking within municipal spaces and the need to build upon experiences and lessons. This benchmarking initiative is not a once off event, it is an ongoing process where we monitor progress year on year towards ensuring incremental and ongoing improvement.

2015 marks 15 years of democratic local government. The benchmarking programme is a valuable measurement tool for incoming Councils in pursuit of improving service delivery. Further it is our hope that this tool will assist local government to restore public confidence in municipal performance and define a paradigm shift in service delivery – being a shift to sustainable service delivery and sustainable use of water resources.

This year's national benchmarking report highlights progress in terms of best practices and performance. A personalized Annual MBI Scorecard has been developed for each Water Services Authority which can be updated at any time on the Munibench web-based tool.

The national report also provides an executive summary on the Water Services Authority (WSA) League, which is a performance ranking of all 152 Water Services Authorities. The League reveals interesting trends, relationships, and results which provide the basis for identifying WSA support requirements and future investment needs of the sector. The League clearly illustrates consistently strong and weak performers, as well as the underlying reasons for good and poor performance. The benchmarking initiative gives special attention to lessons learnt, sharing best practices, and systemic challenges that may need to be addressed in the next cycle.

Lastly, a common vision of the challenges, effective co-ordination, and the development of joint strategies and plans between key players such as the Departments of Water and Sanitation, Cooperative Governance and Traditional Affairs and National Treasury is vital to achieve greater strategic alignment as we move forward into the 2016-2021 Councils term of office.

We will also measure operational performance in line with the Back to Basics (B2B) programme to ensure achievement of the overall B2B objectives and to focus our efforts and resources on tailored solutions. I encourage all WSAs to learn from and use this initiative to define your domain of action in delivering quality, sustainable services. Let us set an example in the water and sanitation sector where we not only achieve the 2014-2019 Medium Term Strategic Framework goals but also the ambitions outlined in the recently agreed Sustainable Development Goals.

Xolile George
Chief Executive Officer of SALGA

Contents

Acronyms

CWG	Cities Working Group
DCOG	Department of Cooperative Governance
DM	District Municipality
DWA	Department of Water Affairs
FM	Financial Management
HRSD	Human Resources and Skills Development
IMESA	Institute of Municipal Engineering of Southern Africa
IWA	International Water Association
LM	Local Municipality
MBI	Municipal Benchmarking Initiative
MuSSA	Municipal Strategic Self-Assessment
NT	National Treasury
NRW	Non-Revenue Water
O&M	Operations and Maintenance
PI	Performance Indicator
PQ	Product Quality
SALGA	South African Local Government Association
SD&B	Service Delivery and Backlogs
StatsSA	Statistics South Africa
WRC	Water Research Commission
WSA	Water Services Authority
WSDP	Water Services Development Plan
WCDM	Water Conservation and Demand Management
WSMC	Water Services Master Class

Measurement Units and Symbols

F.T.E.	full time equivalent
km	kilometre
l/c/d	litre per capita per day
m	meter
m3	cubic metre
p.e.	population equivalent
R	Rand
%	percentage
No.	number

Definitions

Billed Metered Consumption Total amount of billed metered authorised consumption (including exported water) during the assessment period. This input data results from the sum of customer meter readings. As in general readings dates do not refer to the exact assessment period, interpolations will be required to have the best possible estimate of the true value.

Billed Unmetered Consumption Total amount of billed unmetered authorised consumption (including exported water) during the assessment period. This input data is the best available estimate, based on surveys or any other forms of assessment the water undertaking can make use of.

Capital investment in water infrastructure Capital invested/used for water infrastructure by the municipality, during the assessment period.

Capital investment in wastewater infrastructure Capital invested/used for wastewater infrastructure by the municipality, during the assessment period.

Capital investment in water and wastewater infrastructure Total sum of the capital invested/used for water and wastewater infrastructure by the municipality, during the assessment period.

Connections - metered Total number of service connections that are metered, at the reference date. Metered services allow the municipality to determine the volume of water used by a customer and therefore bill accordingly. Ideally all connections should be metered.

Connections - unmetered Total number of service connections that are unmetered, at the reference date. Where services are unmetered, the municipality is unable to determine the volume of water used by a customer and needs to estimate volumes accordingly.

Cost of salaries Total cost of salaries paid for employees of the municipality (internal manpower costs), during the assessment period.

Income from water services Income generated from water and wastewater services, during the assessment period.

Length of mains Total transmission and distribution mains length (service connections not included), at the reference date. Mains that are not yet in use or have been put out of service on a permanent basis shall not be accounted for.

Non-Revenue Water Difference between the system input volume and the billed authorised consumption (including exported water) during the assessment period. Non-revenue water includes not only the real and apparent losses but also the unbilled authorised consumption. It is recommended that the term unaccounted-for water (UFW) is not used.

Operating Expenditure Total operations and maintenance costs and internal manpower costs for water and wastewater services, during the assessment period.

Revenue Water Total amount of billed authorised consumption (including exported water) during the assessment period. The same as IWA A10 - Billed authorised consumption.

System Input Volume The water volume input of the global system during the assessment period. System input should include water abstracted and all imported water (raw and treated).

Total Current Assets Current Assets for Municipalities include cash at bank and in hand, accounts receivable for the municipality, inventories and prepaid expenses, at the reference date.

Total Current Liabilities Current Liabilities for Municipalities include accounts payable, current portion of long term debt and miscellaneous current liabilities for the municipality, at the reference date.

Total Households Number of households within the supply area.

Total Population Resident population within the supply area.

Water Services – Registered professional engineers Total number of registered professional engineers in water services within the municipality, at the reference date.

Water Services – Technicians Total number of technicians in water services within the municipality, at the reference date.

Water Services - Staff Total number of staff (excluding service providers) in water services within the municipality, at the reference date.

What is Benchmarking?

What is Benchmarking?

As a society, we constantly compare and learn from the behaviour and practices of others. Most of us therefore unconsciously do some form of benchmarking at work and in our home life. At home we learn how to cook a meal, play a sport or use the latest mobile phone application.

In the work context, most learning comes from talking to work colleagues and learning from their experience (e.g. during coffee breaks and team meetings), consulting with experts (e.g. professional service providers), networking (e.g. at conferences and workshops), and conducting research (e.g. review of publications and web sites).

Benchmarking in sport is similar to that in business. The difference is that the benchmark is usually easier to identify. World records, Olympic records, national records and personal best times are generally known by all the athletes in their individual events. In sports even the smallest time or distance between athletes can mean the difference between a gold medal and not standing on the podium. Athletes and their coaches use established frameworks for practise sessions and measuring progress, with a strong emphasis on continual improvement. Techniques used include review of current performance versus those of competitors or established records (benchmarks), and measuring performance during the actual event or game. By way of example, in a soccer match, a coach would measure performance indicators such as the number of corner and free kicks, the amount of time spent in attack or defence, ball possession, and use this information during the game to immediately adjust the team strategy and overcome the opposition.

Being the best doesn't happen overnight or by accident, and takes effort, dedication and hard work. In a similar way, Water Services Authorities in South Africa are encouraged to continue to participate in the MBI, measure and track their performance, and set targets demonstrating continuous improvement.

Process (or Best Practice) Benchmarking is where municipalities search for and study other municipalities, utilities or organisations that are high performers in particular areas of interest. The actual processes, practices and procedures themselves of these organisations are studied rather than just the associated performance levels. Knowledge gained is taken back to the municipality and where feasible and appropriate, these good practices are ADAPTED and incorporated into the municipality's own processes. Process benchmarking therefore allows municipalities to understand why another municipality is performing better.

Metric (or Performance) Benchmarking involves comparing the performance levels of municipalities (often using Performance Indicators (PIs)) for a specific process (e.g. Water Conservation and Demand Management). This information can then be used for identifying opportunities for improvement, setting performance targets and understanding relative positioning in comparison to other municipalities. The ideal benchmark is one that originates from a municipality recognised as being a leader in the related area. Metric benchmarking therefore allows municipalities to assess the performance of various aspects of their business processes and systems and determine which of its activities are weak or strong, and how much improvement can be made.

How can the MBI help?

Participation in the MBI is voluntary. The MBI aims to simplify benchmarking so that all municipalities regardless of size and resource level can benefit from "learning from the experience of others".

In addition to Emanti Management, PDG and Maluti GSM staff, the MBI team includes a steering committee of distinguished professionals from municipalities, SALGA and WRC. These advisors guide the scope of the MBI and evaluate the findings for accuracy and effectiveness.

Municipalities are constantly looking for new ways and methodologies to improve their performance. As they seek improvements to their own processes, many municipalities recognise the importance of learning from best practices that have been achieved by other municipalities. By removing the need to 'reinvent the wheel' and providing the potential to adopt proven practices, benchmarking has become an important methodology in municipal development and serves as a vehicle for 'out-the-box' breakthrough thinking.

The MBI will assist you in:

Finding suitable benchmarking peers to learn from and adopt or adapt processes to suit your needs,

Measuring and reporting performance (via the Munibench and associated Municipal Scorecards),

Sharing new sector innovations, good ideas and best practices from leading municipalities through peer networking events and associated case studies (e.g. Water Services Master Classes),

Forcing organisations to examine current processes, which can often lead to improvement in itself,

Accelerating change and restructuring by using tested and proven methods and creating a sense of urgency when gaps are identified,

Allowing the organisation to focus externally and constantly capture opportunities and counter potential threats,

Helping prevent complacency and inertia within the organisation and its people by setting stretch goals and stimulating new ways to plan for the future,

Promoting the emergence and evolution of a 'learning culture' throughout the organisation,

Promoting the development of a customer-centric culture by constantly reminding people of the customer and focusing on critical processes that add value,

Overcoming the 'not-invented-here' mind-set by offering evidence that ideas invented outside the organisation can and do work.

The MBI partners and team are confident that your participation in the MBI will help you to improve your municipality's performance and improve service delivery to your communities.

Using This Report

The MBI report is intended as a resource for municipal officials, elected officials (councillors), other government officials, the public and civil society, researchers, and the media searching for comparable data and means to measure progress.

We encourage you to search this report and see how you compare to others. To make data easy to find, this report orders data tables and graphs by municipality type and associated MBI module in order to most clearly see how municipalities compare with each other. Here are some other tips for using this report:

See where you measure up: Review the report and compare the findings with the results presented in your individual Municipal Scorecard to see how you compare to others. Are you below or above the average for other municipalities? Note where you are leading and where you are behind.

Evaluate your efforts: Think about where you have been focusing your efforts toward improving water services. Are these efforts working? Look for trends in the data in this report. Look for benchmarks set by municipalities that are leading in the issues that concern you.

Set new goals: Use the data in this report to set new goals and refocus your efforts if needed. Which municipalities are leading in, for example, non-revenue water management, staffing, revenue collection, and other areas and you will also see the national average and averages for different municipal types. Use these benchmarks to set goals for your municipality.

Use it as a reference book: The MBI team has heard from a number of government officials and advocates that the *MBI National Annual Report* is a publication they reference frequently in their work. Keep this report and your associated Municipal Scorecard on your office bookshelf in an accessible location or digital format. Use it when you are contacted by the government departments and/or the media for statistics in your municipality, or when you need facts for a presentation or paper you are preparing. Use these data to support your work promoting improved water services in your municipality.

Share it: Provide hard copies of the report to your local elected officials and organization leaders. The report can be start a conversation about the current status of water services, and improvements you can mutually strive for. The report can also be downloaded from the SALGA, WRC and/or Munibench websites. Share the link with officials, partners and funders.

Connect with the media: Consider issuing a press release or talking with the media about this report. Discuss how your municipality compares to others in water services delivery, efficiency, revenue collection, funding, etc. Highlight any areas where you are leading and opportunities for improvement. Use the data to support the work you are doing to improve water services.

Risk management forces you as a team to decide what the things are you should be worry about. Either you accept the risk ***OR*** *you do something to sort it out."*

Message from the SALGA Project Manager

Our benchmarking programme and the operational performance indicators (water services league) are giving us an in-depth understanding of our municipality's service delivery imperatives. Today we are better equipped. We are able to confidentially identify municipalities that are making strides in service delivery and those that require support to progressively improve.

This year's national Municipal Benchmarking Initiative report is unique in that it highlights municipal ranking based on operational challenges and year on year performance comparison. The benchmarking and league provide us with the intelligence of acknowledging and recognising the significance of operational and systemic challenges faced by municipalities on a day to day basis. Municipal peer to peer comparison based on the six benchmarking modules and water services league operational parameters is aiding us to track progress and trends in service delivery and most importantly understand why certain municipalities perform better than others.

As we move forward, the intelligence from this report will assist in defining a coherent engagement with the Back to Basics programme. Further, our data confidence levels are incrementally improving over time with the support of various key municipal services stakeholders. Of critical importance going forward is ensuring improvement in both the quality of municipal data and the breadth of gathered data on the prioritised performance indicators. Such will facilitate better decision making and enhancement of service delivery. Importantly, all 152 Water Services Authorities each receive an annual personalised MBI Scorecard showing their specific status and which can be updated at any time on-line via the Munibench tool.

Finally, our sincere thanks to the Water Research Commission, Institute of Municipal Engineering of Southern Africa, eThekwini Metro and the Municipal Benchmarking Team for the continuous support in accomplishing the goals we set ourselves. With your support we anticipate further raising of the bar in each next report.

William Moraka
SALGA

Message from the President of IMESA

INSTITUTION OF MUNICIPAL ENGINEERING OF SOUTHERN AFRICA

The Institute of Municipal Engineering of Southern Africa (IMESA) has been promoting excellence in the engineering profession for the benefit of municipalities and their communities since 1961. IMESA plays a significant regional role in municipal engineering, and the support of best practices in local government municipalities, via providing a platform for the exchange of ideas, the sharing of knowledge, and contributing towards the development of appropriate new initiatives. The Municipal Benchmarking Initiative (MBI) is an initiative of which IMESA is very proud to be an active team member.

Globally, benchmarking is recognised as a best practice and practical tool for the guiding and supporting of effective performance assessment and continuous performance improvement – both within the private and public sector.

Through benchmarking, an organisation uncovers gaps in its performance, areas to target for improvement, and provides external examples for success. It helps to ensure that the organisation strives for excellence.

South Africa's MBI supports improved efficiency and effectiveness in water services delivery through:

- Providing municipalities with a sense of how they are performing relative to others,
- Facilitating information sharing sessions which assess the reasons for differences,
- Supporting of "peer to peer" sharing of the steps necessary for adaptation of leading practices.

Additionally, in the last year:

- The MBI has proved to be a useful contributor to the Asset Management process, as one can now compare oneself to other LMs.
- Through the ever popular Masterclass workshops the MBI has facilitated engagement between technical municipal and Chief Financial Officers (CFO's) nationally. This has resulted in better understanding and alignment with each other's responsibilities.
- The exchange of information during Masterclass sessions has proven to be of value to both large and smaller municipalities. Many lessons have been learnt from each other.
- The MBI process outcomes have been useful during IMESA's ongoing commitment to the professional development of its members.

The MBI has made excellent progress since its commencement in April 2011, and is currently well set to keep growing in its positive contribution towards performance improvement within local government water services provision; be it at a city, rural district municipality or local municipality level.

International experience has shown that water utility benchmarking takes at least 10 years to reach maturity; so please all join SALGA, WRC, the MBI team and IMESA in your proactive involvement towards better water services delivery and more efficient operational management.

Duncan Daries,
IMESA President

Message from the eThekwini Municipality: Head of Water and Sanitation

A plan is not worth the piece of paper it is written on unless it is implemented. This is the reason a strategic plan like a municipality's IDP has to be translated into a more operational plan like the SDBIP. If the KPIs and targets in the SDBIP are fully aligned with the IDP, there is a good chance the municipality will achieve its IDP objectives.

The MBI is a powerful tool in that enables municipalities to not only monitor their performance against their own performance targets but also against targets agreed to with other municipalities. I think this is possible because municipalities in South Africa face similar challenges. Most are grappling with challenges of high non-revenue water, aging infrastructure, aging workforce, vandalism, migration, etc. Through the MBI municipalities are able to compare notes and learn from each other.

The wave of service delivery protests that has been witnessed in some municipalities in recent months suggests there is still room for improvement in the manner in which water services institutions do their work. This, of course, cannot be divorced from the need for increased resource allocation (financial and human), innovation and continuous improvement.

There is a wealth of experience in the water sector. Ways and mechanisms need to be found to harness this experience which we risk losing as a result of people retiring. The MBI is one such mechanism to record performance information across all municipalities for the purposes of making decisions now and in future. The eThekwini Municipality fully supports this initiative and believes it will go a long way in improving the lives of our customers.

Ednick Msweli,
Head : Water & Sanitation,
eThekwini Municipality



Message from a Benchmarking Ambassador

Now that I am working internationally, I am in contact with many water services providers (WSP's) who share a common desire to compare their performance with other similar utilities and in doing so, learn from them. This is a step up from WSP's that compare their own performance with that of previous years, but I have come to realise that our ultimate goal must be to compare ourselves with organisations (both locally and internationally) who perform functions similar to ours.

This may mean we have to aim to compare the performance of our vehicle fleets with private logistic companies or the amount of time our staff spend providing services directly to customers (and not sitting in the yard or driving somewhere), with large private plumbing companies.

My sense is that as WSP's and WSA's we are just starting to feel comfortable about our performance information being published together with our municipality's name. The next logical step is for other municipalities to ask to visit to see for themselves why it is that we perform well in a certain aspect of our work. This will have unintended benefits for our benchmarking initiative – our problems and faults will be noticed, as well as what we do well. Any discrepancies in our data will also become evident. Going to a municipality that claims to have 15% non-revenue water, but seeing there are only a few water meters and water running in the streets, is bound to raise some awkward questions.

My experience is that the sharing of information and experiences is invaluable and results naturally in improved performance and the introduction of new ideas and processes. It also keeps us honest and humble, as no municipality can claim to be perfect and with no service delivery problems.

As the NBI progresses and our confidence in our data improves, as well as the number of indicators that we are able to measure, the value of this initiative will increase. Continuing to meet in focus groups as well as the annual feedback meeting is essential for our growth as services providers. In fact it remains my view that we are now at the point where all participating municipalities should be paying to be part of this venture. That is the case elsewhere in the world and it should be no different here.

Neil Macleod

Benchmarking Types

Process Benchmarking

The current focus areas are:

- Water Services Master Classes
- Peer Groups (incl. Cities Working Groups)
- Annual National Benchmarking Workshop

Water Services Master Classes

Water Services Master Classes (WSMC) have been established as peer-learning exchanges designed to bring together senior technical and management staff, experts and professionals on key areas of the water services business. The exchanges are based on a blended learning approach that prioritises interactive discussions and cross-pollination of information and experiences. The emphasis is on "practitioner to practitioner" exchanges. The classes draw from local case studies and better practices which are shared through presentations and deepened through group conversations. The WSMC is part of the peer-to-peer knowledge sharing that aims to provide access to a support network of peers and dedicated professionals where common experiences, achievements and challenges can be shared.

- FREE participation by ALL
- Technical overviews
- Case studies
- Best practices
- Share common issues/challenges faced
- How did they do that??
- Performance measurement (PIs)
- Networking

Peer Working Groups

In order to structure peer learning around a specific topic, the establishment of various Working Groups is supported by the MBI team (e.g. City Working Groups (CWGs)). The Working Groups are meetings of specialist practitioners, aimed at discussing performance as assessed by the PIs associated with the module, and sharing knowledge and best practice.

- Established for each module
- How are issues addressed?
- Specific topics
- Track PIs and discuss drivers of performance

"Don't just make a difference, BE the difference!"

National MBI Workshop

The aim of the annual benchmarking workshop is to discuss project progress, current status and performance via PIs, to draw from local case studies and better practices, with an emphasis on "practitioner to practitioner" exchange, encourage networking, peer group interactions, and agree on appropriate way forward actions to address challenges.

The National MBI Annual Workshop 2013 was again aligned with the annual IMESA conference as a day and a half municipal benchmarking event from 21st – 22nd October 2013, at the Boardwalk Hotel and Conference Centre in Port Elizabeth. All municipalities (regardless of maturity of participation level) were invited to attend this benchmarking event. The primary target audience was Senior Water Services Technical and Management Staff. Seventy-Three (73) persons attended of which municipal participation was 71% of total attendance, with a good distribution of metros, district municipalities and local municipalities. All six benchmarking modules were covered in the workshop with invited speakers on specific topics followed by MBI benchmarking outputs.

In general, municipal feedback was that workshop was worthwhile and enjoyable. In particular comment was made that the topic experts set the scene well, and that the municipal led case studies were important (i.e. hearing from municipal peers as to how municipalities deal with challenges and issues). Municipalities showed an eagerness and enthusiasm for benchmarking and there was a general expression for enthusiasm to become more involved going forward. Furthermore, discussion regarding draft MBI Scorecard results (as illustrated by PIs) was generally positive. The feedback obtained showed that the general sentiment from municipal participants was overwhelming positive in terms of workshop content, professional development, presenter quality and networking opportunities. The project team aims to build on this success and continue to produce MBI events that both interest municipalities, and help them improve performance.

Metric Benchmarking

A key principle of the MBI is that municipalities are encouraged to start basic (less is more), entrench basic participation, and then expand participation as most appropriately suites themselves.

To encourage such participation, the MBI team's tactical approach has stressed the strategic importance of the MBI team sourcing / obtaining / utilising existing municipal data and pre-populating the Munibench system with such existing data – as far as is so possible – and thereby avoid duplication of municipal effort. It has variously been noted – and emphasised by the Steering Committee – that a reliance on municipal provision of already provided data is likely to be seen as a frustrating extra burden to participating municipalities. By contrast, successes in securing and harnessing already provided municipal data by the MBI team would be well received by municipalities and would help ensure that there is no duplication in municipal effort, with municipalities only having to fill in the gaps. Considering this, the MBI team has utilised a two-pronged approach to data collection, namely:

- Accessing municipal data already provided to existing processes (e.g. DWA, NT, StatsSA), and
- Allowing municipalities to capture water services data of importance/relevance to improve performance (and establish benchmarking/peer networks).

Data gathering through the CWGs has been very successful, where the peer group agrees to measuring certain PIs and reporting against these. As similar structures are not yet up and running for DMs/LMs, the DM and LM response to requests for data submission for metric benchmarking has to-date been very poor. According to MBI Ambassadors from DMs and LMs this is mainly due to not having staff available for data gathering and loading. Nevertheless, benchmarking scorecards were developed that included context data and 37 PIs (covering all MBI modules) for all 152 WSAs. These draft scorecards allowed municipalities the opportunity to view their performance versus peers, and correct data issues (i.e. incorrect data, no data). Data contained within these scorecards was used to generate this National MBI Report.

Data Sources

The MBI team identified uniform national data sources from government departments and organizations whenever possible. Sources are identified throughout the text and with tables and graphics. In some cases, data in this report come from individual municipalities. The following other data sources are noted:

- Department of Water and Sanitation
- National Treasury
- StatsSA
- Water Research Commission
- Demarcation Board

Data Accuracy and Reliability

The data for the PIs presented in this National MBI Report has been drawn from Department of Water and Sanitation, National Treasury, Demarcation Board, StatsSA, Water Research Commission and Municipalities themselves.

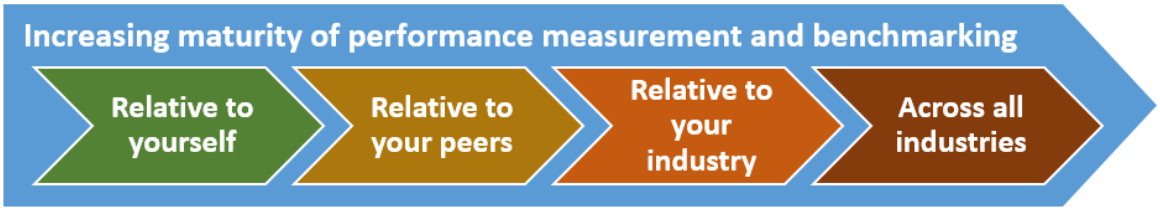
Despite the data being obtained from other sources, some data errors were noted and either corrected, or omitted. Using this data, a draft Municipal Scorecard was developed for each Water Services Authority (WSA) and communicated to the Municipal Manager and Technical Manager of each WSA. This Draft Scorecard presented the performance of the particular municipality, and compared this to:

- National performance
- Municipal sub-category performance
- Provincial performance

Municipalities were given an opportunity to review the presented data, and update (as necessary). Data arising following this round of verification has been used to generate this National MBI report. This data has also been entered into the web-based benchmarking system, Munibench (www.munibench.co.za), and can be updated by municipalities at any stage.

All data presented is for the period 1 July 2013 to 30 June 2014 as obtained from 3rd party sources with time allowed for review and correction by municipalities. Following this review period, data was downloaded from Munibench and used to generate the graphs in the sections that follow.

Disclaimer: The MBI National Report is prepared from sources and data which we believe to be reliable, but we make no representation as to its accuracy or completeness. The report is provided solely for informational purposes and is not to be construed as providing advice, recommendations, endorsements, representations or warranties of any kind whatsoever. The opinions expressed within this publication are not necessarily those of the Municipal Benchmarking Initiative, the South African Local Government Association and/or Water Research Commission. No liability can be accepted for any inaccuracies or omissions. Opinions and information provided are made as of the date of the report issue and are subject to change without notice.



"The water sector stakeholders (municipalities, DWS, COGTA, SALGA, etc.) are all interdependent. We rely on each other to perform as a whole. We need to break down any silos that exist and work as a team"

How to Read the Graphs

The performance of municipal WSAs within South Africa is captured in the sections that follow:

To allow valid comparisons of similar municipalities, performance is indicated per municipal sub-category. The municipal sub-categories used for the WSAs are as follows:

- A = Metropolitan municipalities
- B1 = Local municipalities with a large town or city as its urban core
- B2 = Local municipality with a medium town or towns as its urban core
- B3 = Local municipality with a small town or towns as its urban core
- B4 = Local municipality with no urban core
- C2 = District municipality

With regards to Context Information

- Each graph represents water services related context information used to compare municipalities and acknowledging their differing operating environments.
- Each graph depicts the average performance of all of the participating municipalities in a specific performance area.

With regards to Performance Indicators

- Each graph represents a water services performance indicator (PI). The performance indicator forms the title of each graph.
- Each graph depicts the minimum, maximum and average performance of all of the participating municipalities in a specific performance area.

To simplify navigation within the numerous graphs, icons/colour coding are/is provided to depict the specific MBI performance area.

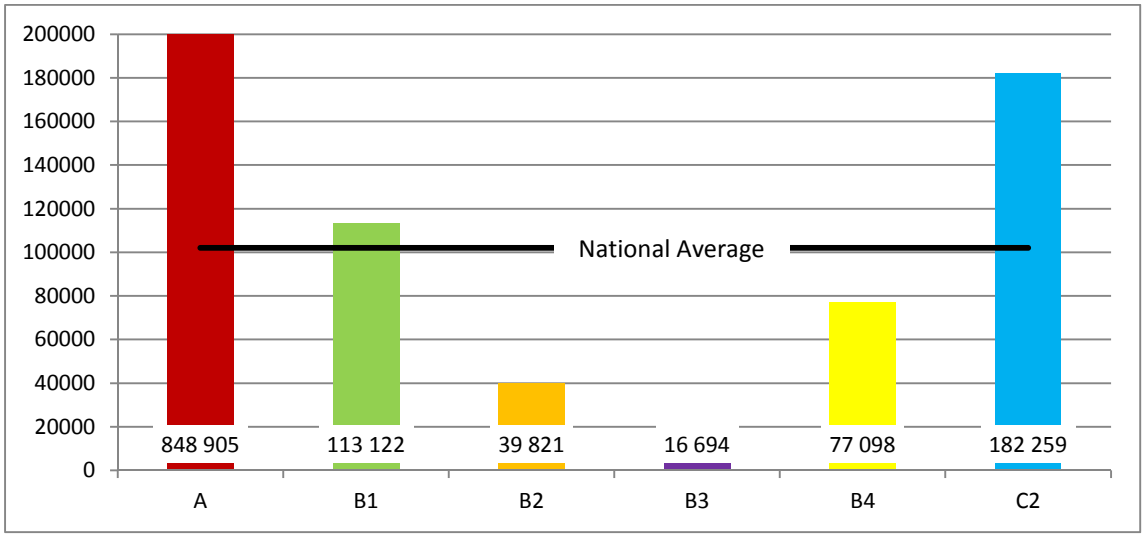
Please note that the graphs selected for this report represent the majority, but not all, of the data collected through the MBI. Some data has been omitted due to (i) incomplete datasets, (ii) limited data availability, or (iii) lack of data confidence.

Context Information

Some contextual data is presented in this section to provide an indication of the scale of operations, the relevance of comparing performance between municipalities, and to set the scene for the performance indicators that will follow.

Name	Source	Units	Number of WSAs for which context data was obtained (out of 152)
Households	DWS/StatsSA	No.	152 (100%)
Connections	DWS/StatsSA	No.	142 (93%)
Length of mains (water)	DWS/WRC	km	144 (95%)
Number of households per connection	DWS	No.	142 (93%)
Number of connections per km of mains	DWS/WRC	No. / km	140 (92%)
Water Tariff for 9 kL / month	DWS	R	147 (97%)
Water Tariff for 25 kL / month	DWS	R	147 (97%)
Water Tariff for 35 kL / month	DWS	R	147 (97%)

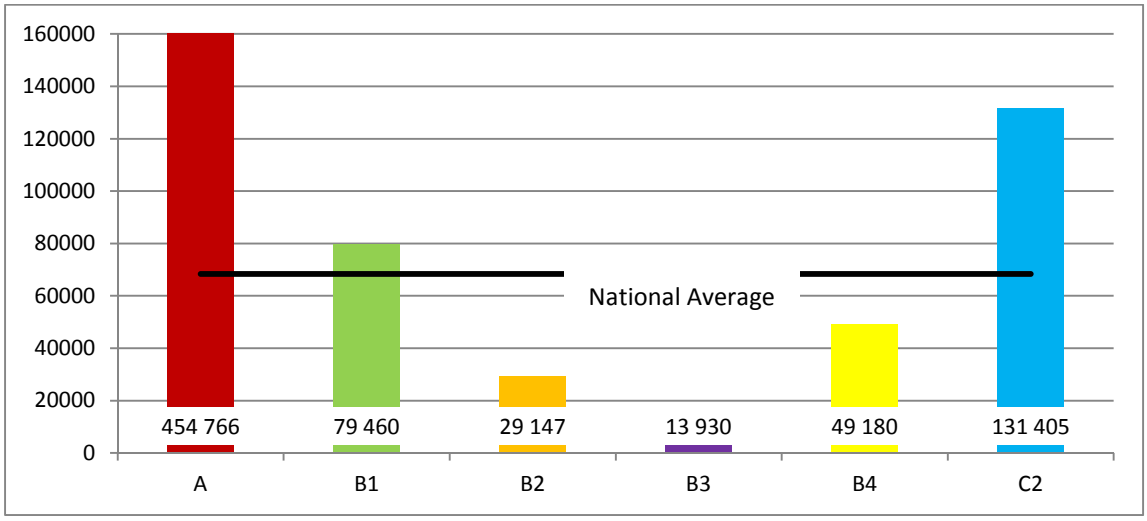
Average number of households (No.)



The data is based on 152 datasets (100% of WSAs) and indicates the number of households within the supply area, highlighting the vast differences between metros, districts and local municipalities.

- Know your root question before you search for PIs (i.e. what do I want to achieve?)
- Gather additional data for other relevant measures that improve your understanding of the root question (i.e. cause-effect analysis)
- Focus on making things better (i.e. improve water services), and not measuring people (i.e. take fear and defensiveness out of the equation)

Average number of connections (water) (No.)



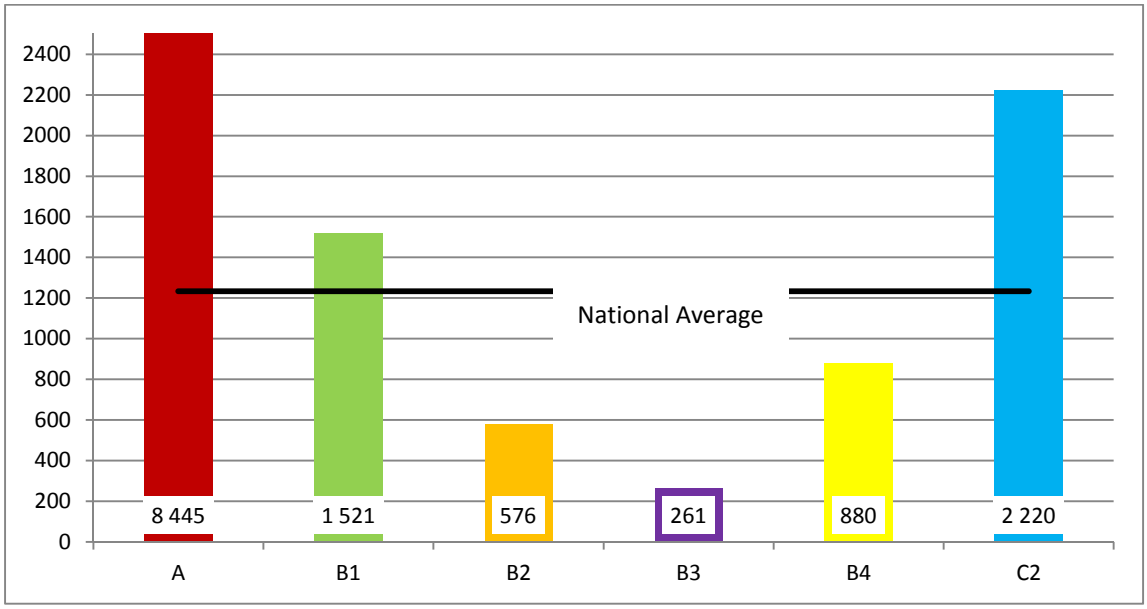
The data is based on 142 datasets (93% of WSAs) and indicates the number of service connections within the supply area, and is defined as the authorised pipe connecting the main to the measurement point or to the customer stop-valve, as applicable. Where several registered customers or individually occupied premises share a physical connection or tapping off the main (e.g. apartment buildings), this will still be regarded as the one connection for the purposes of the applicable PI, irrespective of the configuration and number of customers or premises. All active service connections should be accounted for: connections to registered customers (residential and non-residential, temporary connections included), irrigation and fire hydrants, public taps or any other authorised consumption points not directly connected to the mains. Inactive connections to vacant buildings should not be accounted for. The data highlights that in addition to metros, districts municipalities are responsible for operations of significant size and scale, and a potential significant challenge is faced by districts in maintaining effective and sustainable water services in rural environments.

Benchmarking Checklist

Do you follow these benchmarking rules.....?

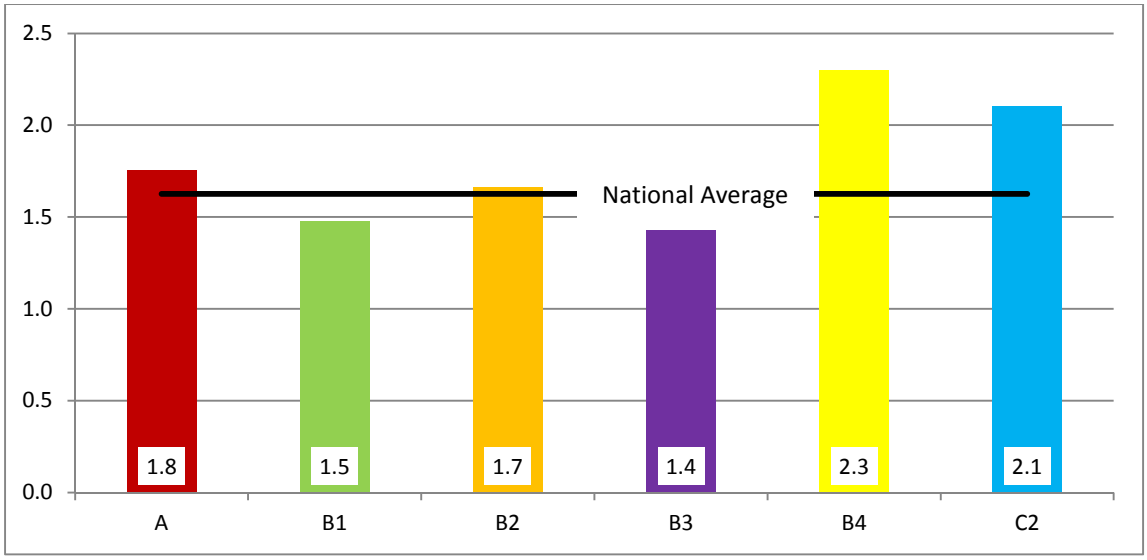
- Don't reinvent the wheel – use what works
- Adapt practices to meet your needs
- Learn from others
- Network with your peers
- Start basic, entrench participation and expand
- Consider benchmarking as a journey...and not an event. Focus on quick wins
- Less is more – don't ask for too much
- Obtain leadership commitment
- Obtain buy-in at all levels
- Turn plans into action
- Spread the load...don't rely on a single champion
- Embed performance management within all processes

Average length of mains (water) (km)



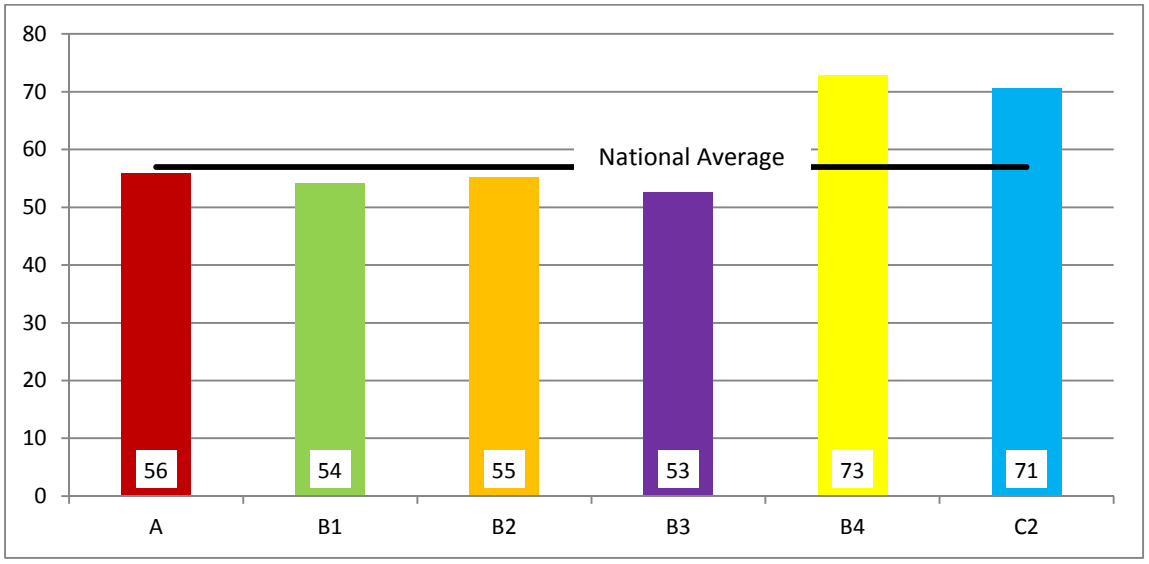
The data is based on 144 datasets (95% of WSAs), considers the transmission and distribution mains length (service connections excluded), and indicates that some municipalities have distribution networks of significant size. The average age of these assets would be useful to measure and track, as this provides an indication of the likely condition of the asset, and in combination with the network length, provides a good indication of the required on-going maintenance/rehabilitation/ replacement cost needs.

Average number of households per connection (No.)



The data is based on 142 datasets (93% of WSAs) and shows that a higher number of households per connection often indicates the occurrence of shared water points (e.g. standpipes in informal settlements).

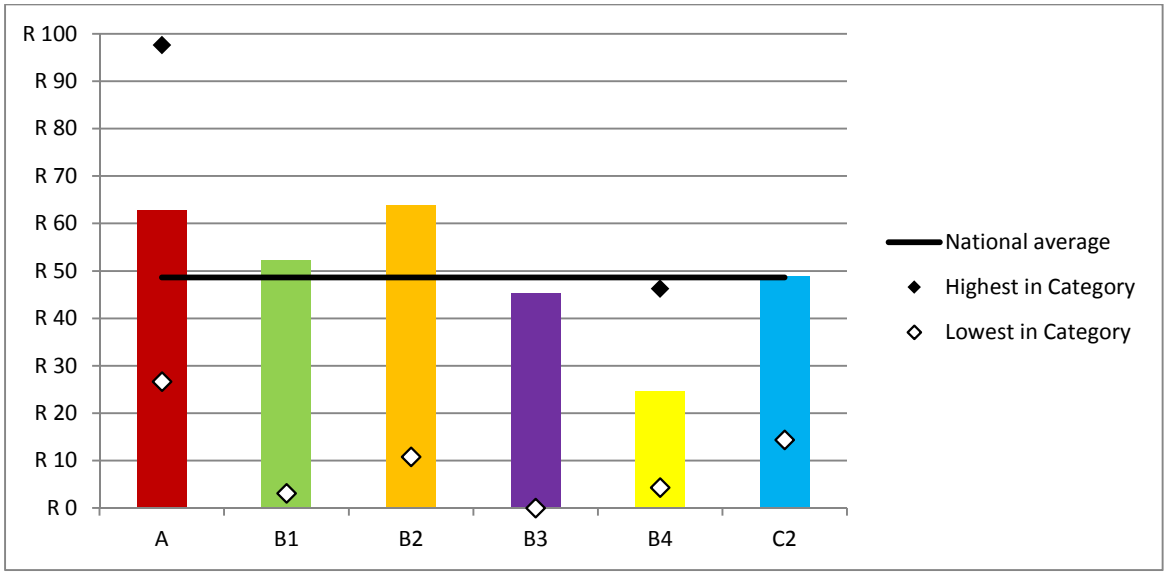
Average number of connections per km of water mains (No./km)



The data is based on 140 datasets (92% of WSAs). IWA notes that typically only bulk supply systems and perhaps very rural supply systems might have a service connection density < 20 / km of mains. Higher service connection densities are often associated with a more formalized supply system, where high density areas (with small erf sizes) could be present. The high service connection density noted in the more rural B4 and C2 municipalities indicates that bulk supply systems do not necessarily dominate in these areas.

Water Tariff for 9 kL / month

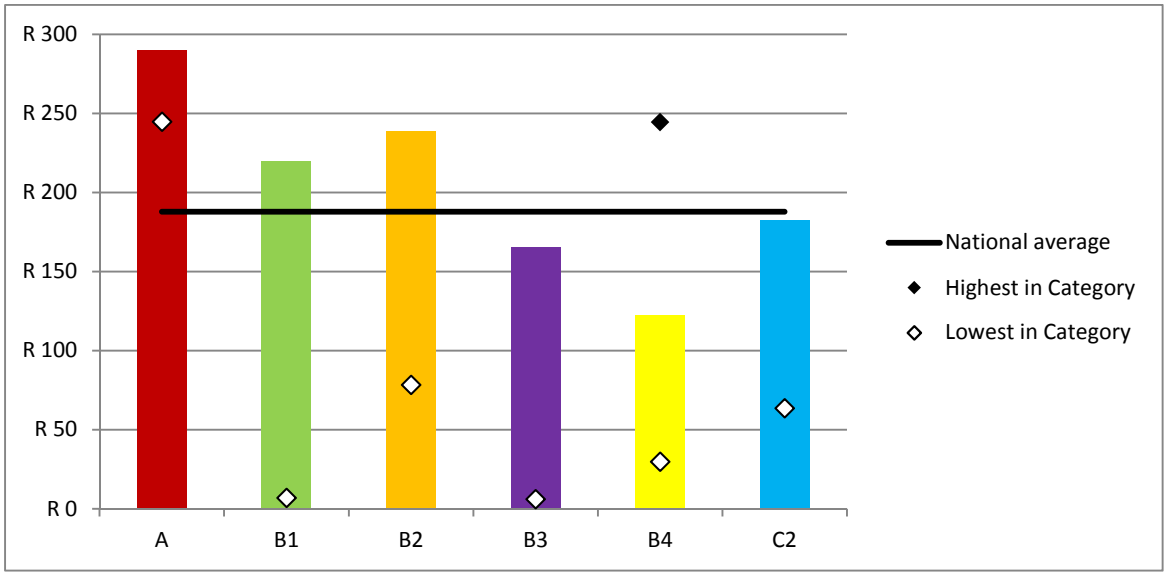
The total cost to the consumer (user of the services) if 9 kL of water is consumed in a month.



The national average is R49 (based on 147 datasets – 97% of WSAs).

Water Tariff for 25 kL / month

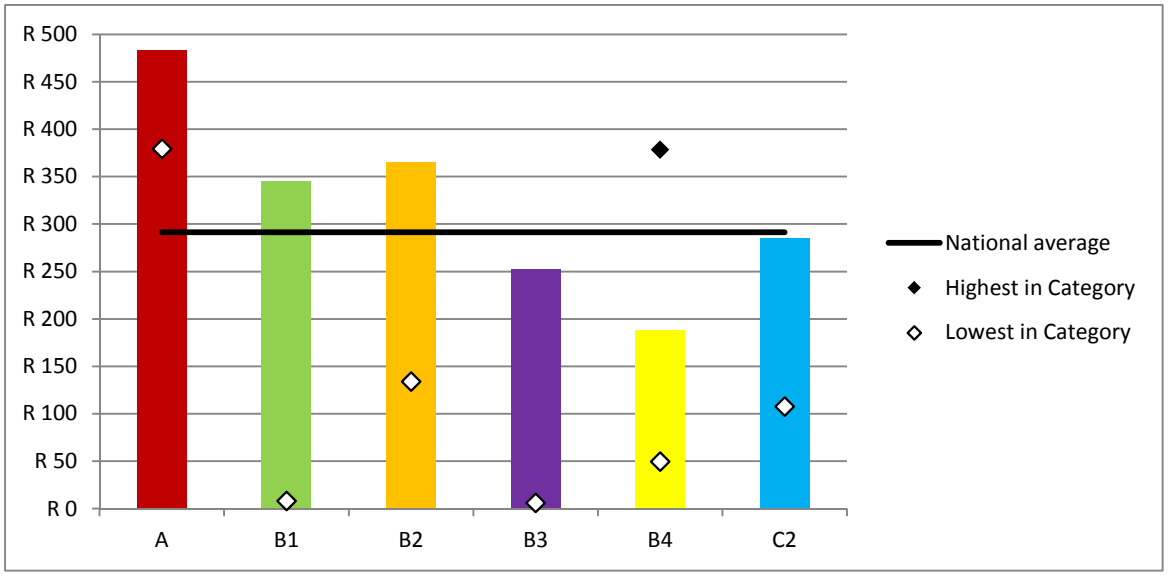
The total cost to the consumer (user of the services) if 25 kL of water is consumed in a month.



The national average is R188 (based on 147 datasets – 97% of WSAs).

Water Tariff for 35 kL / month

The total cost to the consumer (user of the services) if 35 kL of water is consumed in a month.



The national average is R292 (based on 147 datasets – 97% of WSAs).

Performance Indicators (PI) 2014

The current six MBI performance areas

1. Water conservation and demand management
2. Human resources and skills development
3. Service delivery and backlogs
4. Operations and maintenance
5. Product quality
6. Financial management

Aspects of asset management, a current national priority, are noted in each of the focus areas. Progress has been made in each of the aforementioned six modules, with 37 PIs calculated nationally for 2014.

The following table summarises the PIs calculated per module.

	Module	PIs (2014)	PI Trend (Compared to 2013)
1	Water Conservation and Demand Management	6 (16%)	
2	Human Resources and Skills Development	6 (16%)	
3	Service Delivery and Backlogs	8 (22%)	
4	Operations and Maintenance	3 (8%)	
5	Product Quality	3 (8%)	
6	Financial Management	11 (30%)	
	Total	**37 (100%)**	

The noted performance will be presented in the sections that follow.

eThekwini Water and Sanitation Key Business Processes

1. Strategic planning
2. 3 Key Performance Indicators (KPIs) monthly per manager
3. Independent market surveys (are our customers satisfied)
4. Encourage innovation and allow mistakes (but don't repeat mistakes)
5. Ring-fenced, audited accounts with tariffs set to cover both operating and capital costs
6. Relative to yourself
7. Relative to peers
8. Relative to your industry

Water Conservation and Demand Management

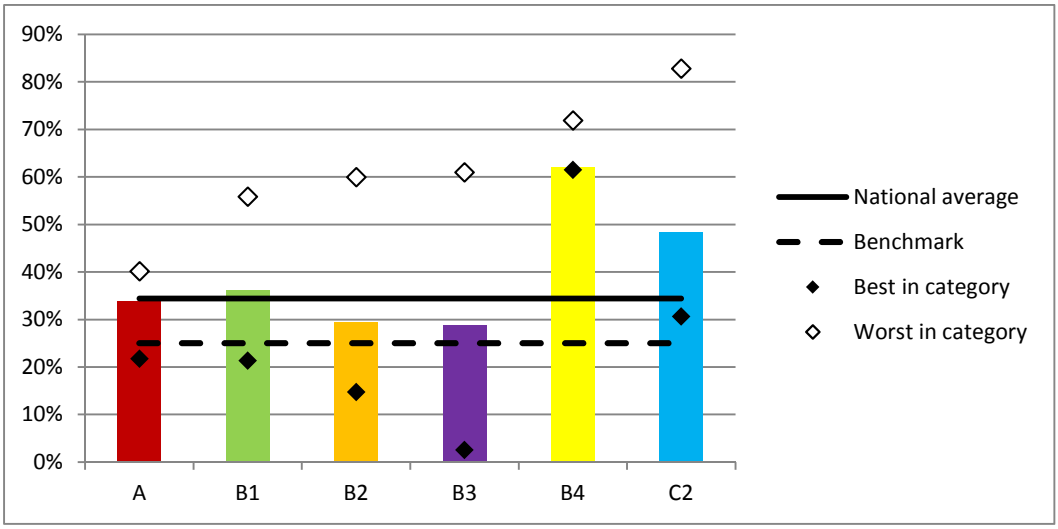
South Africa's water resources are limited and scarce. The situation is worsened by the occurrence of droughts and the increasing demand associated with population growth and a developing economy.

In particular, the increased percentage of the population with access to water services (as the current backlog is addressed), and the expected improvement in the standard of living, is likely to result in a greater per capita water consumption. New water augmentation schemes will also be costly and are likely to be detrimental to the environment. Effective water conservation and demand management brings about the required change to our water use management practices, and there are opportunities to increase water use efficiency in all water use sectors. There are many examples of successful water loss management projects in South Africa. These projects bring strong financial benefits. The advanced pressure management project in Sebokeng and Evaton in Emfuleni Local Municipality cost R10 million to construct and operate over a 5 year period during which it achieved water savings of 50 million m^3. This translates to R150 million in reduced water purchases: a pay-back period of 2 months!

	Name	Code	Data source	Average 2014 (number of datasets out of 152)	Average 2013 (number of datasets out of 152)	Trend
1	Non-revenue water (by volume)	NRW	DWS/WRC	34% 99 (65%)	33% 92 (61%)	
2	Number of connections that are metered	Metering (%)	DWS/WRC	84% 142 (93%)	84% 139 (91%)	-
3	System input volume (population)	Input (capita)	DWS/StatsSA	199 L/capita/day 101 (66%)	196 L/capita/day 96 (63%)	
4	System input volume (households)	Input (household)	DWS/StatsSA	21 m^3/household/month 101 (66%)	21 m^3/household/month 96 (63%)	-
5	Water resource management health check	WRM	DWS	57% 152 (100%)	59% 152 (100%)	
6	Water conservation and demand management health check	WDM1	DWS	55% 152 (100%)	53% 152 (100%)	

Non-revenue water (by volume)

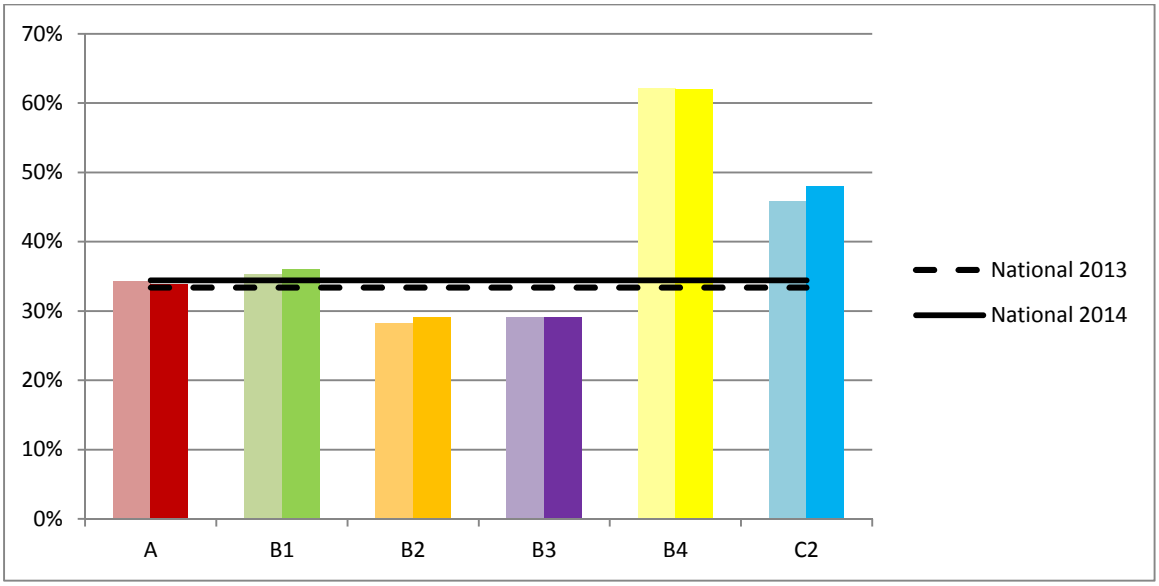
Formula: Non-revenue water / system input volume, during the assessment period.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
25%	City of Cape Town (WC) 21.8%	Stellenbosch (WC) 21.4%	Saldanha Bay (WC) 14.8%	Ubuntu (NC) 2.6%	Joe Morolong (NC) 61.6%	Ugu (KZN) 30.7%

The national NRW average is 34% (based on 99 datasets – 65% of WSAs). Accordingly, a benchmark of 25% is proposed. Some municipalities indicate remarkable performance that should be showcased if the results are confirmed as accurate via DWA's No Drop certification process. The limitations of NRW as a PI are acknowledged, and it is anticipated that with time and the introduction of DWA's No Drop Certification, that additional PIs providing a more comprehensive view of water use efficiency can be calculated (e.g. Infrastructure Leakage Index (ILI)). In his 2010 State of the Nation Address, His Excellency JG Zuma, President of the Republic of South Africa stated: *"We are not a water rich country. Yet we still lose a lot of water through leaking pipes and inadequate infrastructure. We will be putting in place measures to reduce our water loss by half by 2014".* Although the exact background to the Presidential target is unclear or whether NRW is even considered, it is clear that the Presidential target to halve water losses by 2014 will not be met.

Comparison Graphs - 2013 VS 2014: WCDM % NRW



Career Profile

Allestair Wensley is a registered Professional Civil Engineer who has more than 30 years' experience in the water industry. He is a Chief Engineer in the Water Services Macro Planning unit at the Department of Water and Sanitation. He is a member of the Engineering Council of South Africa and is also a member of the British Institute of Civil Engineers (UK) and a registered Chartered Engineer. Allestair also has a Post Graduate Diploma in Strategic Marketing Management and is a member of the Water Institute of Southern Africa.

Allestair has significant expertise in all aspects community water supply and sanitation, associated information management systems, knowledge management and decision support tools. He has presented many papers at both local and international water conferences and summits and has co-authored a number of papers on Municipal Water Services Vulnerability and Non-Revenue Water.

How did you get to where you are?

I am committed to making a difference in South Africa, especially within water services. This is reflected in my work. By associating with like-minded committed professionals, and by always listening to other points of view, I continually strive to increase my knowledge. I believe it is also important to be willing to take criticism and accept that you can't always be right/there are other points of view. One must remain innovative and creative as an individual as well as being able to use these qualities in a team/corporate environment.

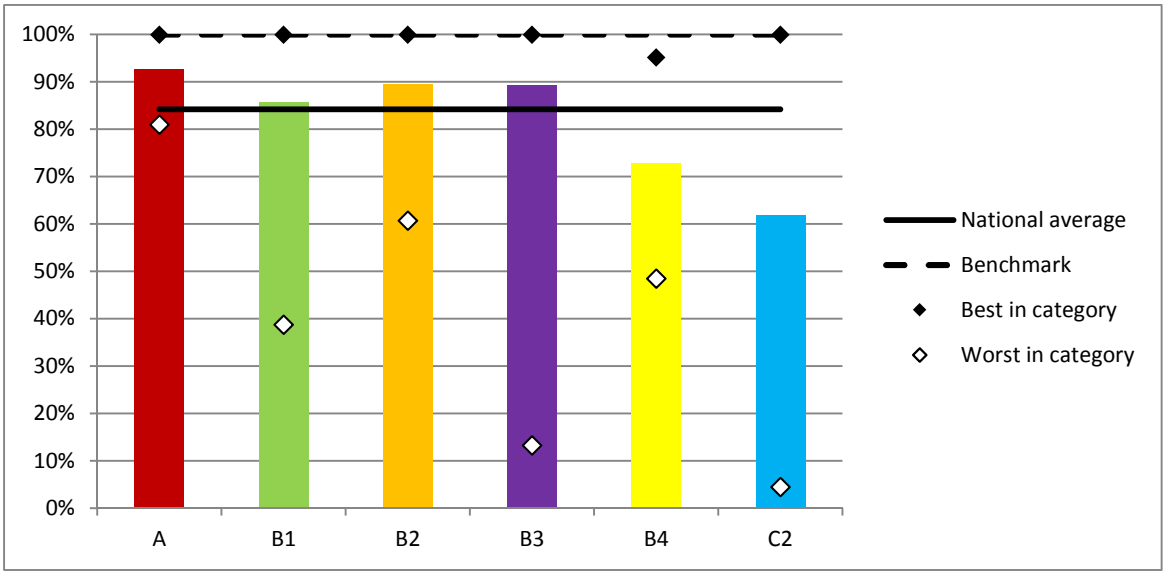
Be passionate, strive to go the extra mile and never give up. These are the qualities that have brought me to where I am today.

What advice can you give others (especially young water professionals)?

Become a specialist within your field of study. Make yourself indispensable. Never be afraid to get your hands dirty – learn by doing and always continue to learn. You can never know enough or know it all. Be humble at all times and always give credit where credit is due. Always be willing to mentor and impart knowledge to others.

Number of connections that are metered

Formula: Number of service connections metered / total number of service connections (i.e. sum of metered connections and unmetered connections), at the end of the assessment period x 100.



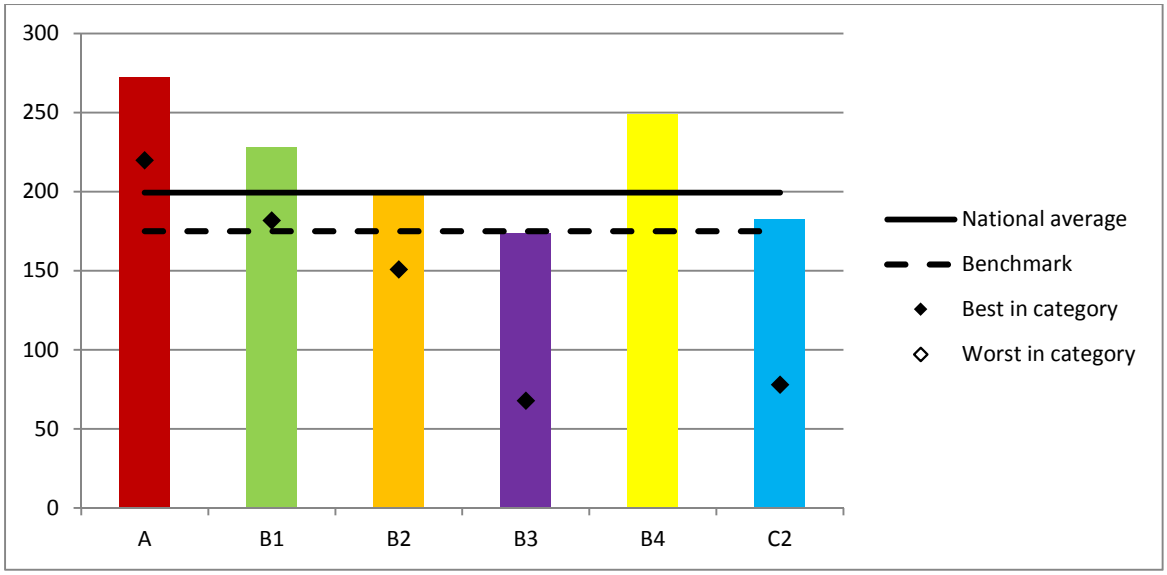
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Ethekwini (KZN), Mangaung (FS) 100%	City of uMhlathuze (KZN), Msunduzi (KZN) 100%	Overstrand (WC), Saldanha Bay (WC) 100%	Cape Agulhas (WC), Emthanjeni (NC), Hantam (NC), Hessequa (WC), Karoo Hoogland (NC), Siyathemba (NC), Swartland (WC), Ubuntu (NC), Umjindi (MP) 100%	Joe Morolong (NC) 95.2%	Ilembe (KZN) 100%

The national metering average indicates that 84% of connections are metered (based on 142 datasets – 93% of WSAs). Ideally, all connections should be metered and therefore a benchmark of 100% is proposed. Accurate meter readings at the appropriate frequency are vital to understand and develop your water balance, and subsequently manage water use efficiency. Regular meter calibration and meter age analysis (with subsequent replacement of older meters) are required essential actions. Again, these requirements form part of DWA's No Drop Certification programme.

"Show the benefits of your request. If you will be increasing revenue or decreasing costs, your CFO will be interested."

System input volume (population)

Formula: System input volume / population served, during the assessment period.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
175 L / capita / day	City of Cape Town (WC) 220 L / capita / day	Steve Tshwete (MP) 182 L / capita / day	Randfontein (GP) 151 L / capita / day	Karoo Hoogland (NC) 68 L / capita / day	Joe Morolong (NC) 485 L / capita / day	Umzinyathi (KZN) 78 L / capita / day

The national system input volume average (based on population) is 199 L/capita/day (based on 101 datasets – 66% of WSAs). As South Africa is a water scare country, a benchmark of 175 L/capita/day is proposed. The DWA has undertaken strategic water resource assessments and supply and demand reconciliation studies for municipalities across the country. The water demand targets set in the various reconciliation strategies are targeted at reducing the system input volume of the IWA water balance. The input volume can only be reduced by increasing efficiency (reducing authorised consumption) and reducing water losses (commercial and physical losses).

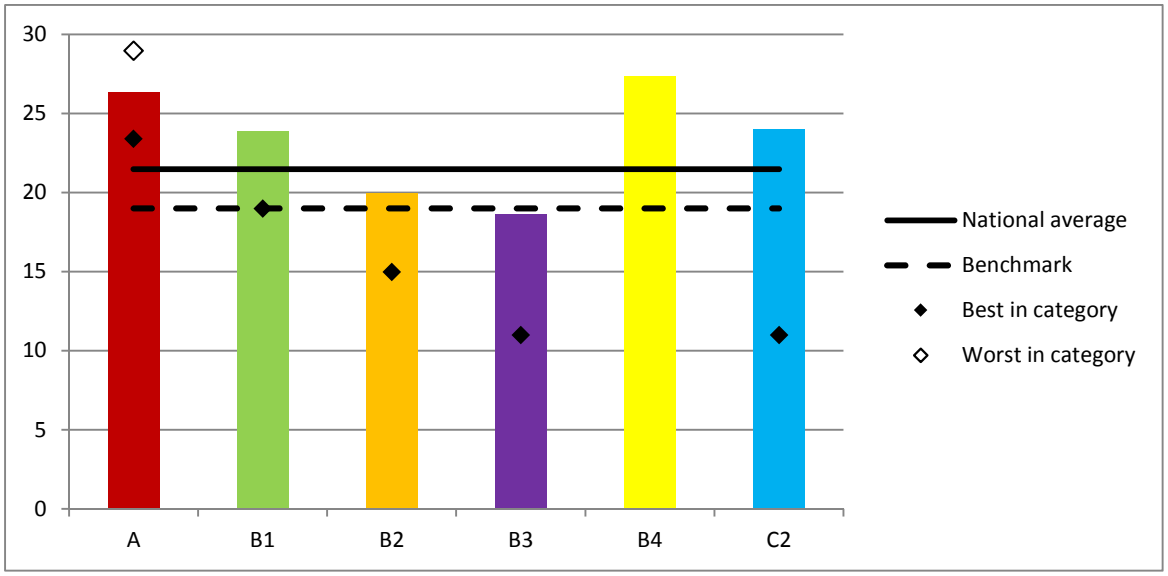
Common Benchmarking Challenges

There are several main issues that both inhibit municipalities actively involved in benchmarking and prevent other municipalities from attempting active involvement. These difficulties include:

- Resource constraints (time, finance and expertise)
- Staff resistance and/or ignorance (e.g. too much effort, feel it's not appropriate)
- Difficulties in comparing data (differing context)
- Finding suitable peers or partners with similar goals

System input volume (households)

Formula: System input volume / number of households, during the assessment period.



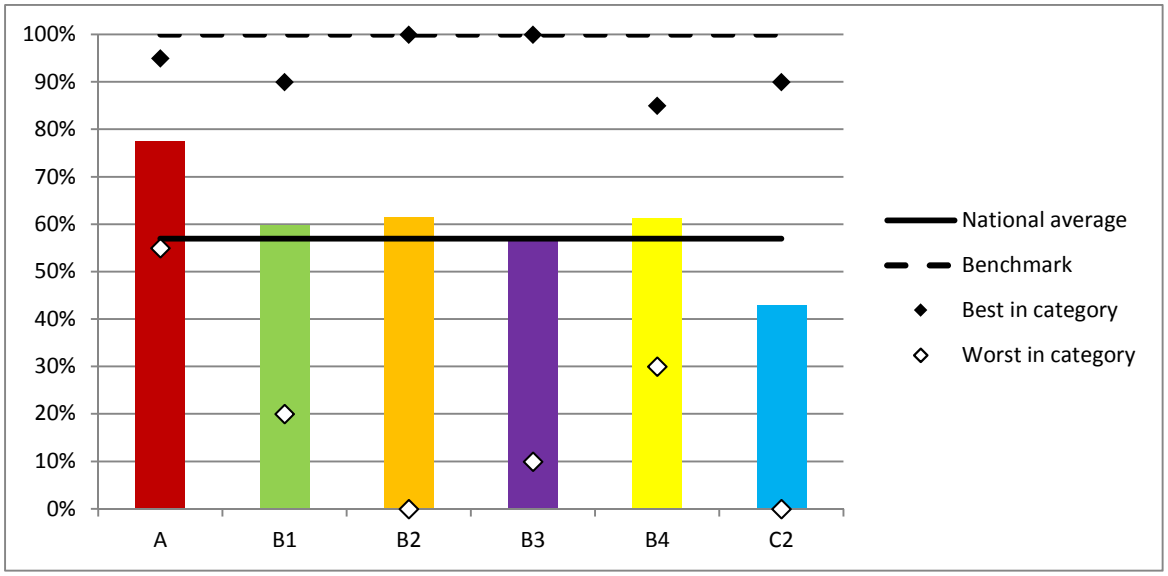
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
19 m^3 / household / month	City of Cape Town (WC) 23 m^3 / household / month	Steve Tshwete (MP) 19 m^3 / household / month	Randfontein (GP) 15 m^3 / household / month	Hantam (NC) 11 m^3 / household / month	Joe Morolong (NC) 55 m^3 / household / month	Umzinyathi (KZN) 11 m^3 / household / month

The national system input volume average (based on population) is 21 m^3 / household / month (based on 101 datasets – 66% of WSAs). A benchmark of 19 m^3 / household / month is proposed. Despite many municipalities noting that they have a water shortage problem, many of these municipalities have a very limited knowledge of their water use and associated water losses. Development of a water balance is therefore an essential first step prior to consideration of additional water resource development.

South Africa faces significant service delivery challenges. Importantly the provision of Water and Sanitation services to all consumers varies from municipality to municipality. The Municipal Benchmarking Initiative (MBI) of SALGA/WRC provides a much needed platform to measure and compare like municipalities as to what they are doing well and where challenges are encountered that will need intervention. By identifying municipalities that are performing best practices the MBI creates a conducive environment to share these great efforts and engage with peer municipalities to improve Water and Sanitation delivery to all consumers in an affordable, safe and sustainable manner.

Water resource management health check

Formula: Water resource management health determined from assessment of 5 key vulnerability attributes.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Buffalo City (EC) 95%	Stellenbosch (WC) 90%	Randfontein (GP) 100%	Emthanjeni (NC), Hessequa (WC), Kgatelopele (NC), Thaba Chweu (MP), Tokologo (FS), Witzenberg (WC) 100%	Thembisile (MP) 85%	Harry Gwala (KZN) 90%

Although the national average is 57% (based on 152 datasets – 100% of WSAs), the benchmark for this PI is 100% as ideally the municipality should have no key vulnerabilities related to water resource management. Of importance to note for municipalities with a Water Board as a service provider is that water resource availability to the Water Board has a direct impact on water supply to the municipality, and therefore on-going discussion with the Water Board is essential to ensure sufficient future allocation and that on-going needs can be met.

"Customers phone our call center toll free – we pay for the calls. We get the money back easily if customers report leaks early, so it makes business sense."

REPORT ON THE KWAZULU NATAL WATER CONSERVATION AND WATER DEMAND MANAGEMENT PROGRAMME

PURPOSE

KwaZulu-Natal (KZN) has decided on the strategic approach, as facilitated by the Department of Water and Sanitation (DWS), to develop and implement Water Conservation and Water Demand Management Programme and Projects. This article will reflect on the Water Conservation and Water Demand Management (WC/WDM) approach adopted and projects implemented under the Accelerated Community Infrastructure Programme (ACIP) in the KZN Region in the 2014/2015 financial year.

BACKGROUND AND DISCUSSION

Through initiative the DWS-KZN the KZN Province has a well-functioning KZN WC/WDM Forum (focused on potable water use). The Forum meets regularly on a quarterly basis. This Forum was used to canvas the needs of the Water Services Authorities (WSAs), and to determine the approach toward developing and implementing WC/WDM.

Through active WSA interaction, a strategic approach was adopted for KZN. Basically it was agreed:

1. Given the current status at the time, and the gaps that existed within WSAs – to prioritise and analyse what the actual baseline conditions were, so that
2. a WC/WDM Programme could be developed for each WSA (5-Year WC/WDM Strategy); and based on the outcomes to;
3. attempt to secure and commit funding for the implementation of WC/WDM Projects to address water loss and other key WC/WDM indicators; and
4. prepare KZN WSAs for compliance with the new DWS regulatory No Drop assessments.

In 2014/2015 national financial year, DWS funded WC/WDM initiative under ACIP in order to assist Water Services Authorities (WSAs) to initiate a structured approach to dealing with water losses in their distribution systems. The outcomes of the analysis of the baseline conditions, using the 2013/2014 financial year, confirmed there are serious challenges in KZN regarding Water Loss specifically and WC/WDM generally.

Some of the key findings were:

- Total Length of Mains in KZN: 34 683km
- The KZN average for Non-Revenue Water (NRW) is much higher than the national average, and the average is even higher when the EWS figures are excluded. This is a matter of concern, particularly from financial sustainability point of view.
  - National average 37.2% (2012)
  - KZN average 46.0%
  - KZN average 53.1%, (excl. EThekwini Water and Sanitation (EWS)
- The Inefficiency of Use (IoU) for KZN is higher than the national figure, indicating higher real water losses in KZN.
  - Inefficiency of Use National: 25.4%
  - Inefficiency of Use KZN: 30.3%
- Both the average Water and Real Losses are high. This area has the greatest potential for intervention and positive outcomes.
  - Average Water Losses/connection: 801
  - Average Real Losses/connection: 617
- The average per capita (per person) per day in KZN is much less than the national average.
  - National Average: 235 litres/person/day
  - KZN Average: 172 litres/person/day

Annual cost / financial implications for water supply in KZN:

- The annual total cost to purchase water (based on a conservative low cost) is R2 939 225 069,
- The annual cost of Non-Revenue Water is R1 361 640 779, that is 46.3% of the total cost of water supply,
- The annual cost for Real Losses is R892 988 677, that is 30.4% of the total cost of water supply.

As part of the Programme, two scenarios were considered (1) to intervene or (2) do nothing:

- Non-Revenue Water
  - KZN Baseline NRW: 46.0%
  - KZN Projected NRW (do nothing): 50.4%
  - KZN Projected NRW (with intervention): 29.6%
- Water Projections
  - KZN Baseline Water Supplied: 1 778 Ml/day
  - KZN Projected Water Supplied (do nothing): 2 015 Ml/day
  - KZN Projected Water Supplied (with intervention): 1 830 Ml/day

ACIP (2014/15) funded KZN WC/WDM Programme

The following KZN WSAs were supported to approximate value of R26 million Amajuba, Newcastle, Zululand, UThukela DM, Ugu DM, Umgugundlovu DM, UMkhanyakude DM, ILembe DM, Harry Gwala DM, UMzinyathi DM, UThungulu DM, and Ethekwini Metro.

The funded scope for was as follows:

- Identifying bulk water meter assets, auditing them and creating an asset register of the bulk water meters
- Identifying the need for additional bulk meters and repair or rehabilitate existing bulk meters
- Creating layout drawings for each water supply scheme and respective meter hierarchy diagrams
- Installing bulk meters from available funds
- Developing five year master plans for water use efficiency and WC/WDM strategy (pilot).

The WC/WDM initiative was planned to be rolled out in a period of three years under the ACIP starting in 2014/2015 depending on availability of funds. Due to insufficient funding received in 2014/2015 the first financial year), projects which could have resulted in tangible outcomes (real water loss reduction), could not be planned for and implemented. The funds were then used to set up systems which would enable WSAs to identify areas which need to be prioritized for water loss reduction interventions. The WSAs were then advised to prioritise water loss reduction projects under the Municipal Water Infrastructure Grant (MWIG) as the ACIP funding is very limited.

The following are the outcomes of the implemented scope of work:

- The customer care pilot facility installed at Amajuba DM will improve communication between the WSA and its customers such that leaks and pipe bursts will be reported timeously.
- The master plans will enable the WSAs to plan their interventions to water losses logically to achieve maximum impact.
- The meter audits have enabled the WSAs to identify meters that are faulty and required repairs or replacement, and to know where to install new bulk meters.
- The installation of new bulk meters and replacement or repairs to faulty meters will help in improving water balance information.

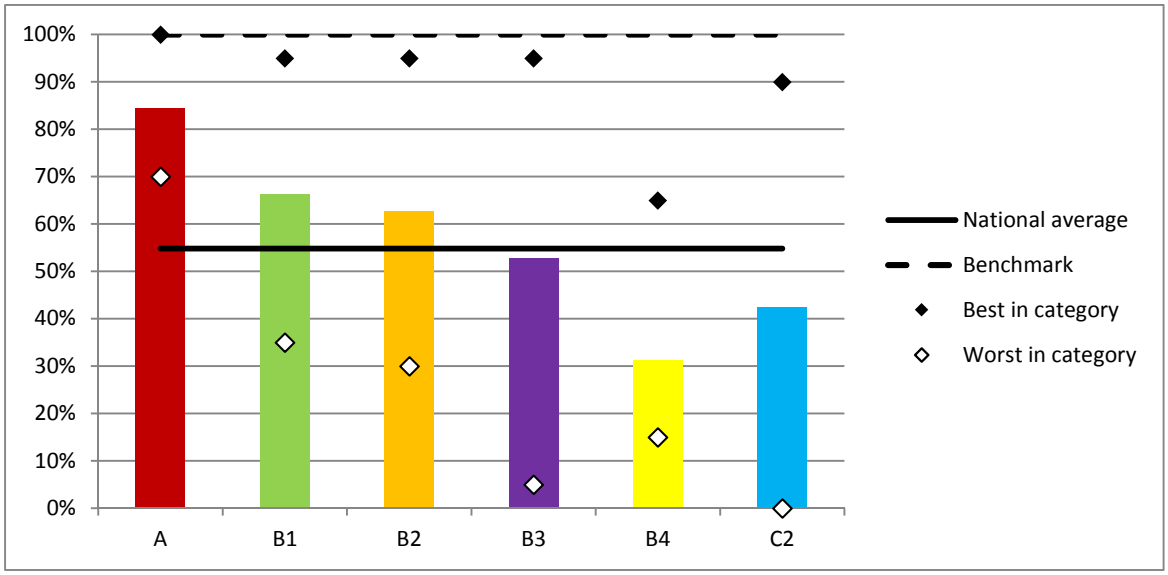
Part of the KZN Strategy is, once the potential intervention has been identified, we assist and support the KZN WSAs to secure funding for their WC/WDM Projects. Grant funding to implement WC/WDM Projects is limited to ACIP and Municipal Water Infrastructure Grants (MWIG).

Conclusion

KZN is already experiencing water supply challenges, with the Reconciliation and All Town Studies confirming that several water supply systems cannot meet demand. Developing additional new water resources will have to be done at very significant costs. The current annual total supply is 1 778 Ml/day, and if the “Do Nothing” option is allowed, the annual total supply required will increase to 2 015 Ml/day as opposed to implementing the “With Intervention” option which will reduce the annual total demand to 1 830 Ml/day. In effect there will be a 13.3% growth in Water Supplied if unconstrained, and a 2.9% growth in Water Supplied if managed. Given the current constraints of water availability and associated high cost to develop these resources, it is clear that WC/WDM interventions have to be supported to reduce Real Water Loss and NRW.

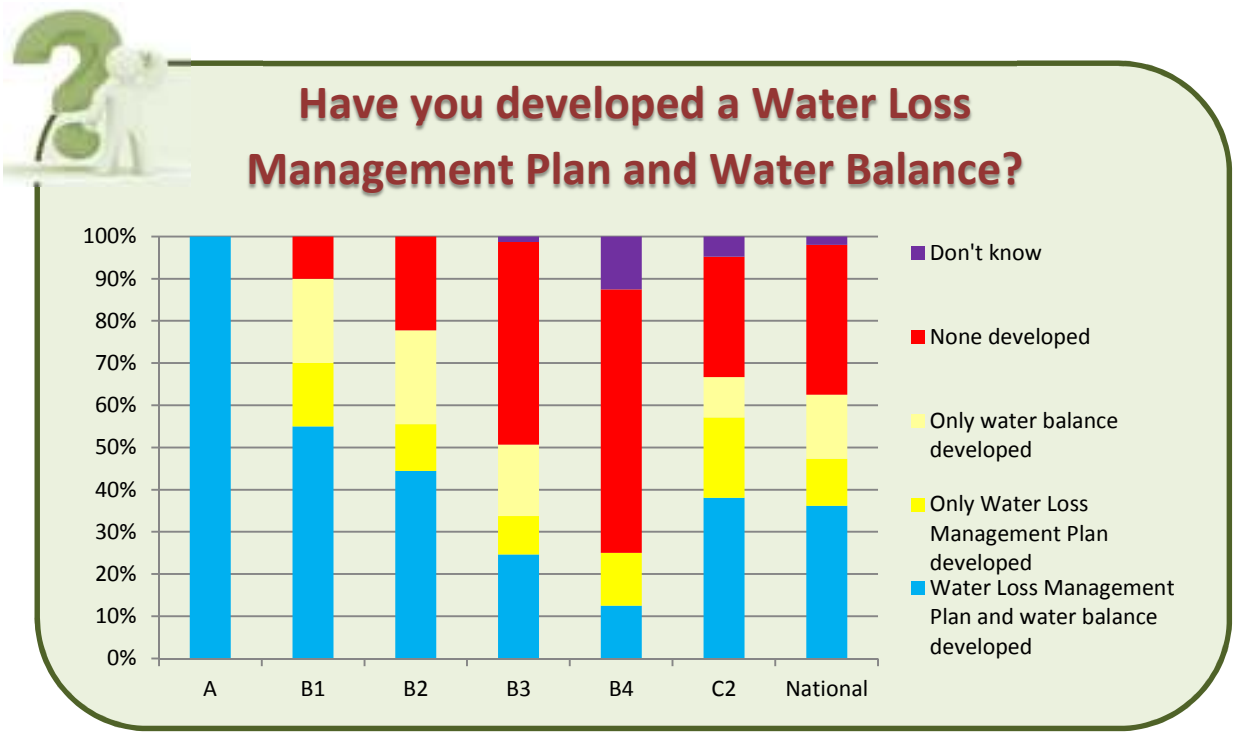
Water conservation & demand management health check

Formula: Water conservation and demand management health determined from assessment of 5 key vulnerability attributes.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	City of Cape Town (WC) 100%	Drakenstein (WC) 95%	Overstrand (WC) 95%	Baviaans (EC), Witzenberg (WC) 95%	Dr J S Moroka (MP) 65%	Ugu (KZN) 90%

The national average of 55% (based on 152 datasets – 100% of WSAs) indicates that many municipalities do not have the appropriate water conservation and demand management processes/systems in place. The benchmark of 100% ensures no key water conservation and demand management vulnerabilities exist. By way of example, the figure below indicates that many municipalities have not yet developed a Water Loss Management Plan and associated standard water balance, the first step in identifying and addressing water loss challenges.



No Drop Certification

DWS has introduced the No Drop Certification programme for Water Use Efficiency and Water Loss Management.

The assessment and evaluation process aims to provide focus points, channel effort and energy to build competencies and positively impact on current water efficiency performance. The No Drop criteria includes (to be introduced in a phased manner):

1. Strategy, planning and implementation (e.g. water resource balance diagram, water balance, WDM strategy and business plan)
2. Asset management (e.g. asset register, mains replacement programme, O&M budgets and expenditure)
3. Technical skills (e.g. availability and competence of team, training and capacity building)
4. Credibility (e.g. meter readings and billing system, record keeping, audit)
5. Compliance and performance (e.g. repairs of reticulation leaks, water losses, NRW)
6. Local Regulation (e.g. metering, billing and credit control policy, bylaws)
7. Customer care (e.g. customer charter, customer care centre, awareness campaigns)

WSAs that score 90% or more will be awarded No Drop status. As the MBI is closely aligned to No Drop Certification requirements, active participation in MBI will assist with achieving No Drop status.

Insights from Metro's CWG

Unpacking pipe bursts

The Cities Working Group on Service Delivery and Backlogs met for the third time in Cape Town on 12 May 2015. A key topic of discussion was pipe bursts, and what drives these.

It was noted in particular that the way in which pipe networks are operated affects the Estimated Useful Life of the pipe assets. In particular, the manner in which the system is shut down and restarted in order to repair a pipe burst is critical. A key factor in operational methodology is whether the system is shut down and recharged by a different team to the one that actually conducts the repairs. Best practice is to separate these tasks. Pressure control is another aspect of operational methodology that has an impact on pipe bursts.

A sound operational methodology can extend the useful life of pipes and avoid pipe bursts and the need for replacement.

It was noted by a delegate at the meetings that, within this framework, pipe bursts can be classified as 'real bursts' (bursts due to pipe failure due to age), 'consequential bursts' (bursts due to poor operational methodology), and 'imaginary bursts' (pipes repaired when they have not in fact burst).

Human Resources and Skills Development

Being able to provide a service efficiently and effectively requires having people with the right technical and other skills.

Key Human Resources functions include recruiting people, training them, conducting performance appraisals, motivating employees and maintaining a good work atmosphere, managing disputes, facilitating workplace communication and developing public relations, workplace safety. Importantly, HR should encourage the people working in the municipality to work according to their potential to accomplish organizational goals and give them suggestions that can help the municipal staff to bring about improvement in it. Many municipalities, however, either don't have sufficient staff capacity (numbers) or staff with necessary skills/qualifications/experience. Municipalities should put programmes in place to assist them in dealing with these challenges, including introduction of scarce skills policies, engineering capacitation programmes, bursary schemes, specialist career pathing and succession planning.

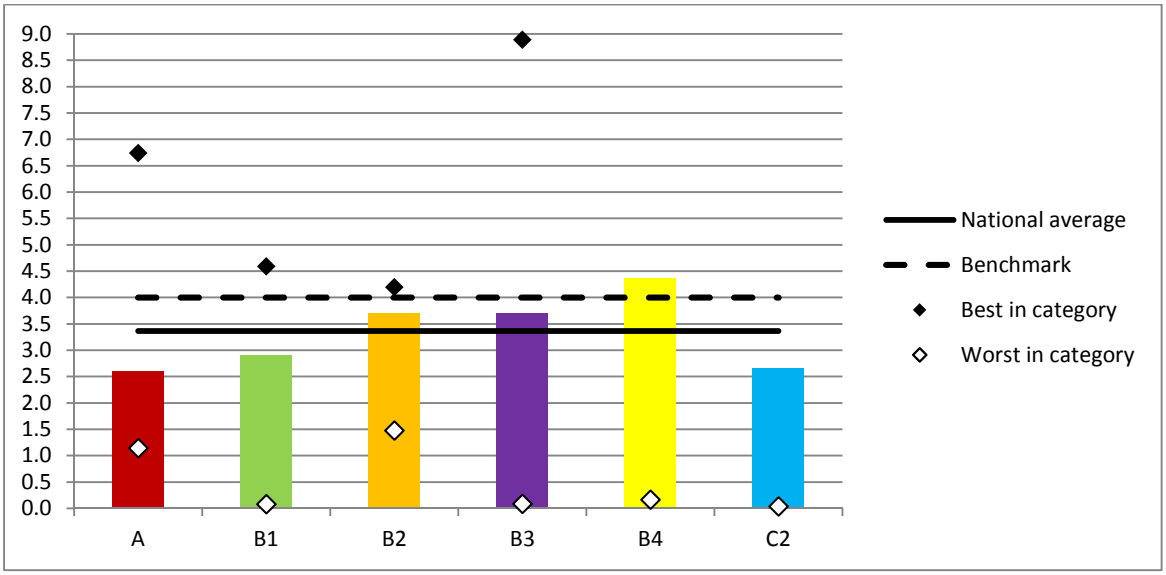
	Name	Code	Data source	Average 2014 (number of datasets out of 152)	Average 2013 (number of datasets out of 152)	Trend
1	Number of water services staff	Staffing	DB/DWS/WRC	3.4 staff per 1000 connections 120 (79%)	3.2 staff per 1000 connections 110 (72%)	
2	Technical management skill level health check	HR1	DWS	58% 152 (100%)	54% 152 (100%)	
3	Technical staff skill level health check	HR2	DWS	51% 152 (100%)	53% 152 (100%)	
4	Number of water services registered professional engineers	PrEng	DB/StatsSA	0.4 engineers per 100,000 capita 122 (80%)	0.26 engineers per 100,000 capita 118 (78%)	
5	Number of water services technicians	Tech	DB/StatsSA	1.87 technicians per 100,000 capita 123 (81%)	1.6 technicians per 100,000 capita 119 (78%)	
6	Technical staff numbers health check	HR3	DWS	49% 152 (100%)	49% 152 (100%)	-

"Some 15 years of involvement in the use of KPI's, Performance Management and benchmarking has fundamentally changed the culture of the Water and Sanitation Service insofar as the value of measurement and the interpretation of what it means for the business. It is now not seen as an additional task that one is forced to do after the real work is finished, but as a valuable part of the task itself, in that its outcome can change the approach, scope and focus for a better result. The practice of keeping auditable proof of any measurement or outcome has also become the norm, improving the ability to analyse what has been done, seek improvements or simply to prove a claimed milestone."

Peter Flower, Director: Water & Sanitation, City of Cape Town

Number of water services staff

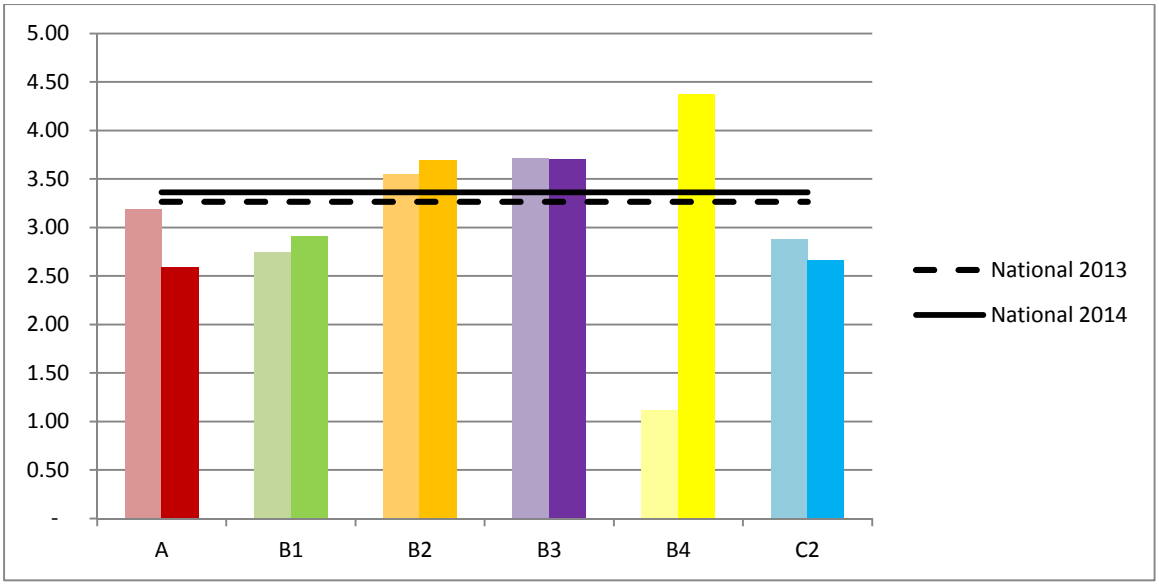
Formula: Total number of water services staff within the Water Services Authority per 1000 service connections, at the end of the assessment period.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
4.0 Staff per 1000 connections	eThekwini (KZN) 6.7 Staff per 1000 connections	Stellenbosch (WC) 4.6 Staff per 1000 connections	Overstrand (WC) 4.2 Staff per 1000 connections	Siyathemba (NC) 8.9 Staff per 1000 connections	Joe Morolong (NC) 17.4 Staff per 1000 connections	Ugu (KZN) 12.8 Staff per 1000 connections

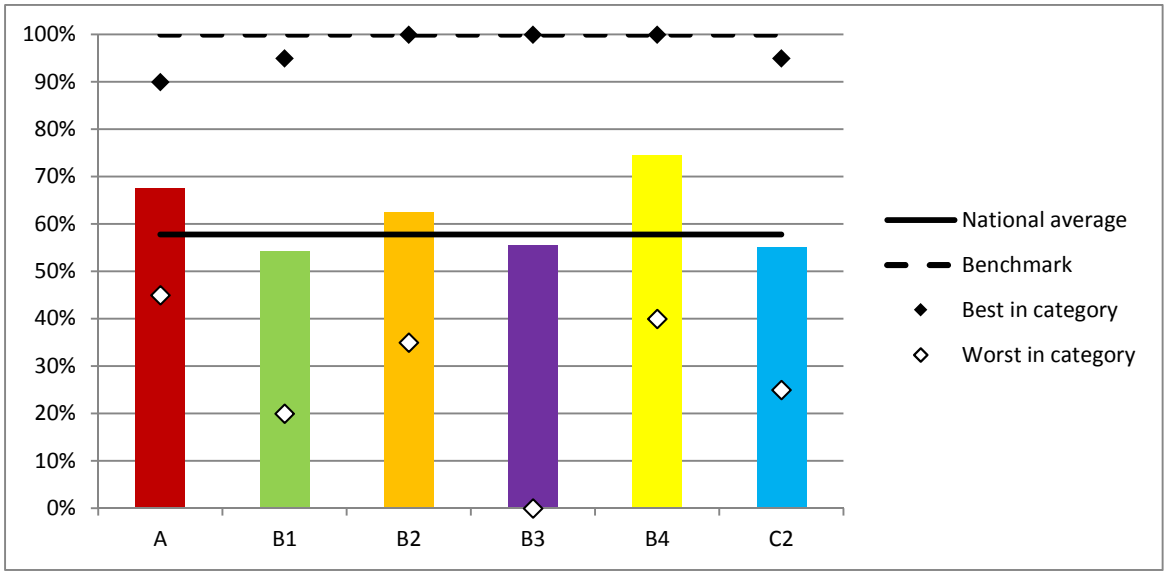
The national average is 3.4 water services staff per 1000 connections (based on 120 datasets – 79% of WSAs). Although more detailed investigations are necessary to identify the optimal staffing levels for each municipality (and develop an appropriate benchmark), a benchmark of 4.0 is suggested as a starting point, with municipalities having a result of less than 3 staff per 1000 connections probably indicating that the municipality is understaffed.

Comparison Graphs - 2013 VS 2014: Number of Water Services Staff



Technical management skill level health check

Formula: Technical management skill level health determined from assessment of 5 key vulnerability attributes.



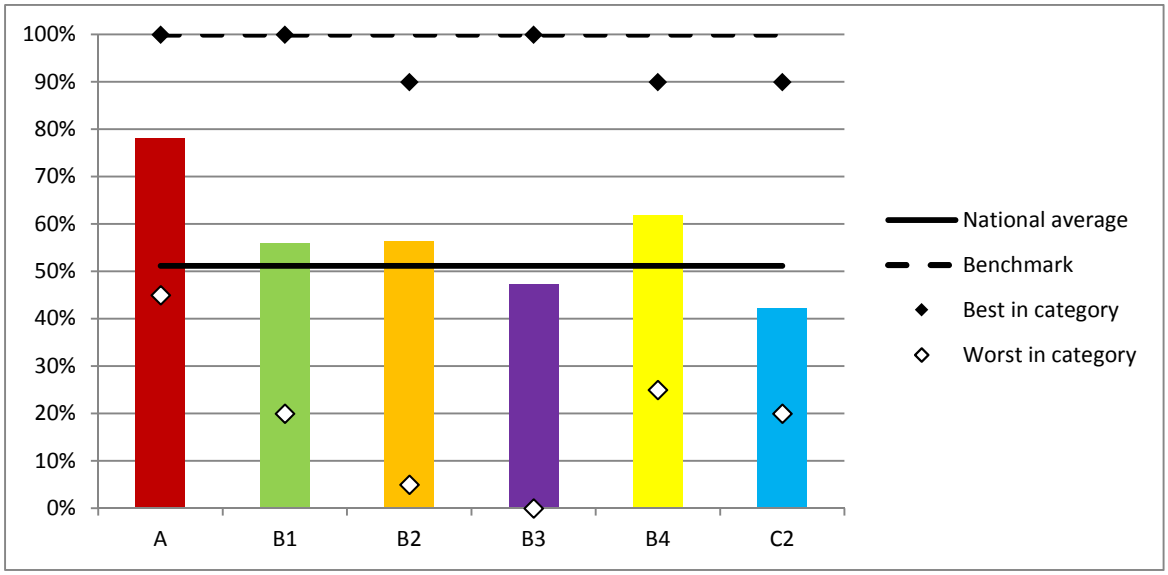
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	eThekwini (KZN) 90%	Stellenbosch (WC) 95%	Overstrand (WC) 100%	Lesedi (GP), Ndlambe (EC), Witzenberg (WC) 100%	Albert Luthuli (MP) 100%	Dr Ruth S Mompati DM (EC) 95%

The national average of 58% (based on 152 datasets – 100% of WSAs) indicates that many municipalities do not have senior technical management with the appropriate skills. The benchmark of 100% ensures no key technical management skill level vulnerabilities exist. If efficient and sustainable operations are to be achieved and/or maintained, appropriate indicators need to be included within water services management contracts and associated performance tracked.

With acknowledgement: Mr Neil Macleod

Technical staff skill level health check

Formula: Technical staff skill level health determined from assessment of 5 key vulnerability attributes.

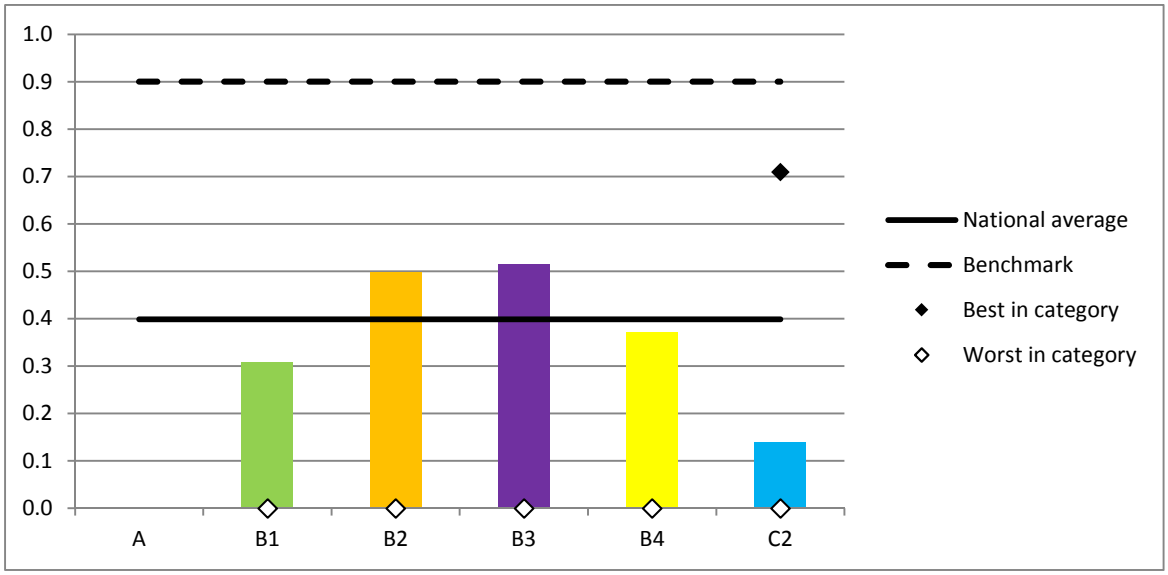


	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Buffalo City (EC) 100%	Steve Tshwete (MP) 100%	//Khara Hais (NC), Randfontein (GP) 90%	Umjindi (MP) 100%	Moretele (NW) 90%	Harry Gwala (KZN) 90%

The national average of 51% (based on 152 datasets – 100% of WSAs) indicates that many municipalities do not have adequate senior technical management with the appropriate skills. The benchmark of 100% ensures no key technical staff skill level vulnerabilities exist. The importance of on-going capacity building is stressed if efficient and sustainable operations are to be achieved and/or maintained.

Number of water services registered professional engineers

Formula: Total number of water services registered professional engineers within the Water Services Authority / population served, at the end of the assessment period.



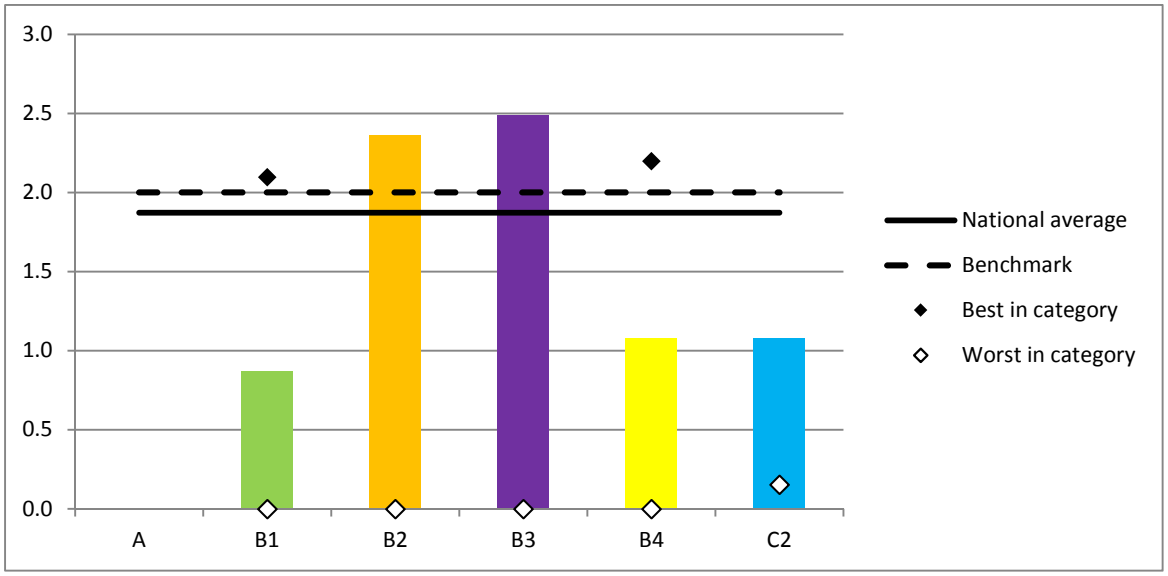
		Best In Category				
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
0.9 Engineers per 100 000 capita	*	Stellenbosch (WC) 1.2 Engineers per 100 000 capita	Overstrand (WC) 3.5 Engineers per 100 000 capita	Laingsburg (WC) 11.5 Engineers per 100 000 capita	*	Amajuba (KZN) 0.71 Engineers per 100 000 capita

The national average is 0.4 engineers per 100 000 capita (based on 122 datasets – 80% of WSAs) and reiterates the acknowledged chronic shortage of municipal engineers in South Africa. Of great concern is that most municipalities have a significant infrastructure asset value, but do not have the engineering capacity to manage these assets. In the South African Institution of Civil Engineering's (SAICE) publication "*Numbers & Needs in Local Government: Civil Engineering the Critical Profession for Service Delivery*" by Allyson Lawless, it is noted that ideally at least one civil engineering professional is needed for every 4 000 to 5 000 households (or approximately 5 engineers per 100 000 capita), thus implying that a significant gap currently exists and could explain the present-day reliance by many municipalities on consulting engineers. Although far from ideal, an initial benchmark of 0.9 engineers per 100 000 capita is proposed.

"In order to enhance interactions with Finance, Technical Services should learn the language of finance and constantly communicate."

Number of water services technicians

Formula: Total number of water services technicians within the Water Services Authority / population served, at the end of the assessment period.



		Best In Category				
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
2.0 Technicians per 100 000 capita	*	Mbombela (MP) 2.1 Technicians per 100 000 capita	Overstrand (WC) 8.3 Technicians per 100 000 capita	Laingsburg (WC) 11.5 Technicians per 100 000 capita	Joe Morolong (NC) 2.2 Technicians per 100 000 capita	Chris Hani (EC) 4.7 Technicians per 100 000 capita

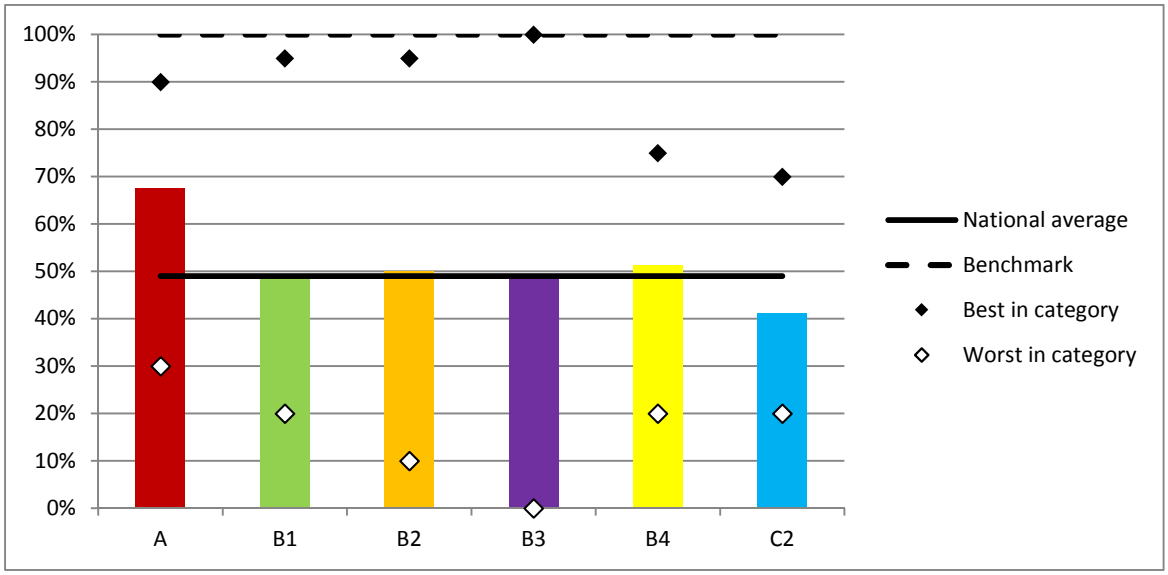
The national average is 1.87 technicians per 100 000 capita (based on 123 datasets – 81% of WSAs). Although far from ideal, an initial benchmark of 2 technicians per 100 000 capita is proposed. Considering the aforementioned chronic shortage of municipal engineers in South Africa, the shortage of water services technicians is also of great concern. Even when the numbers of engineers and technicians are combined, the national average is only 1.9 engineers+technicians per 100 000 capita (which is still far below the suggested "5 engineers per 100 000 capita"), thus emphasising the significant technical staffing gap that currently exists.

It is important to select PIs that give us different perspectives which make up a complete picture of the status of water services. We should therefore consider:

- Quantitative and qualitative PIs
- Lead (proactive) and lag (reactive) PIs
- Different methods to look at the data from different angles
- Different stakeholders views (e.g. DWA, National Treasury, consumers, municipal staff)

Technical staff numbers health check

Formula: Technical staff numbers health determined from assessment of 5 key vulnerability attributes.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	eThekwini (KZN) 90%	Steve Tshwete (MP) 95%	//Khara Hais (NC) 95%	Ndlambe (EC) 100%	Thembisile (MP) 75%	Ilembe (KZN), Ugu (KZN) 70%

The national average of 49% (based on 152 datasets – 100% of WSAs) indicates that many municipalities do not have the appropriate number of staff, therefore implying that either many posts in the organogram remain vacant or that the organogram is not appropriate and requires revision. In many instances municipalities note that it is often difficult to recruit appropriate staff to their municipalities, as they sometimes cannot compete with private employers. To negate this, some municipalities are considering the introduction of a scarce skills allowance to both attract and retain appropriate staff. The benchmark of 100% ensures no key vulnerabilities related to technical staff numbers exist.

"Take your CFO and finances team to your water and wastewater treatment works so that they understand your challenge. They don't know these things, so show them."

Insights from Metro's CWG

Estimating backlogs between Census years

Municipalities are often asked to report on the size of their backlogs. However, it was noted at the Cities Working Group on Service Delivery and Backlogs, which met for the third time in Cape Town on 12 May 2015, that there is not a consistent approach to estimating backlogs between StatsSA Census years.

Some municipalities appear to take the backlog from the last Census year (currently 2011) and reduce it by the number of new connections provided since then.

> *Worked example: Let's consider a municipality called MyMunic municipality that 200 000 households in 2011. 180 000 of these have metered water connections and hold accounts. The remaining 20 000 households had inadequate water supply according to StatsSA Census2011.*
>
> *MyMunic has provided 5 000 water connections since 2011. It might thus estimate that the backlog is now **15 000** households (the 20 000 backlog in 2011, less the 5 000 connections provided since then).*

Others try to estimate the impact that household growth since the last Census year will have had on the backlog. Different assumptions are made about household growth, and about how this applies to backlogs.

> *Worked example: Perhaps MyMunic knows that the average annual household growth rate in the municipality between Census 2001 and Census 2011 was 1%.*
>
> *It might then estimate that the backlog had grown by 1% each year in the four years since 2011, and would thus have been 20 812 had there been no further connections provided. There have been 5 000 new connections provided, and so the backlog in 2015 is now **15 812**.*
>
> *But there might be a different approach here. Perhaps MyMunic knows that the number of account holders in 2015 is 191 000. The number of account holders has grown by 11 000 since 2011. 5 000 of these are the new connections that have been provided, so there are 6 000 new account holders due to growth. But the household growth rate has been estimated to be 1% per annum, so there are 8 121 new households in the municipality in total since 2011. There must be 2 121 new households in the municipality that are not account holders (8 121 new households less the 6 000 new account holders). This means that the backlog would have been 22 121 households had there been no further connections provided. There have been 5 000 new connections provided, and so the backlog in 2015 is now **17 121**.*

Still other municipalities might try to use surveys of some sort to estimate backlogs between Census years, and there are different approaches to how often these surveys are undertaken.

> *Worked example: MyMunic undertakes a door count survey of informal settlements every 3 years. Such a survey was undertaken in 2015, and it found that the number of dwellings in the informal settlement in that year was 16 000. MyMunic assumes that one household lives in each dwelling, and thus decides to report the backlog to be **16 000** households.*

All of these methods will result in different estimates of the size of the backlog.

> *Worked example: Wow, I have lost track! Is the backlog 15 000, 15 812, 17 121 or 16 000???*
>
> *It depends on the approach used to estimate it.*

The size of backlogs is often used as an assessment of performance of municipalities, and the size of backlogs in different municipalities is frequently compared. It is important to agree on a consistent approach to estimating backlogs between Census years in order to ensure that we are in fact comparing apples with apples. The Cities Working Group on Service Delivery and Backlogs has agreed to gather information on the different approaches that the cities are currently applying, and to try to come to an agreement about a common approach going forward.

Watch this space in next year's MBI National Benchmarking Report for an update!

Service Delivery and Backlogs

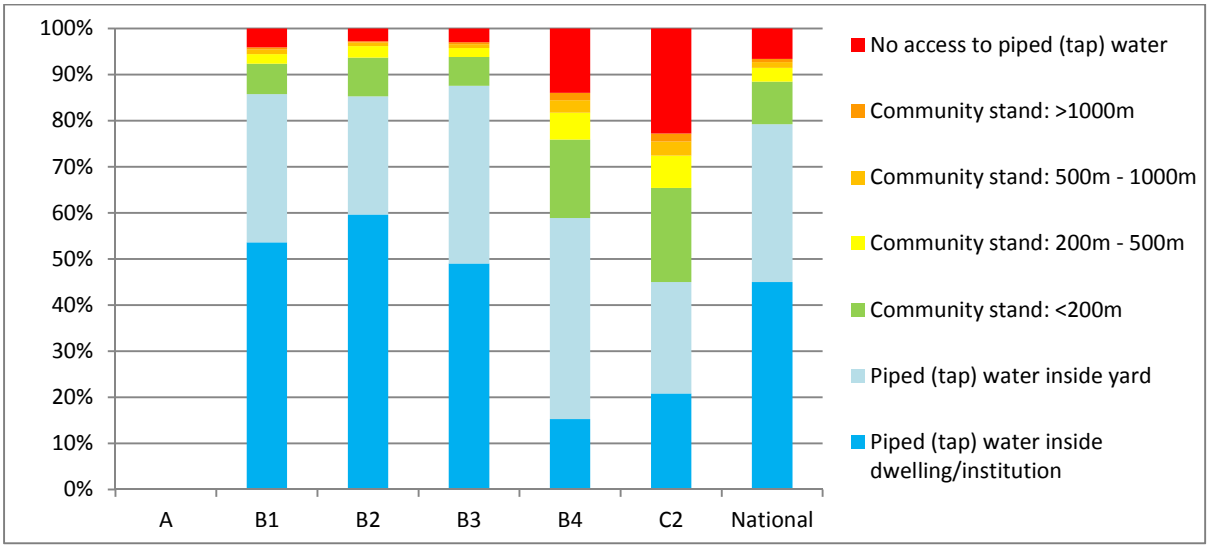
Water services provision in South Africa is the responsibility of municipal Water Services Authorities (WSAs).

If the water that is provided is of a poor quality, it will contribute to the creation of unhealthy and unsafe living environments. Poor services can therefore make it difficult to attract business or industry to an area and will limit job opportunities for residents. Municipalities face significant challenges as they strive to increase the quality and manage the costs of services to their customers, including: (1) Increased customer demands for improved levels of service, (2) Financial constraints, (3) Ageing infrastructure and lack of adequate asset management, (4) Rapid urbanisation and growth, (5) More strict regulatory environment, (6) Capacity and skills shortages, and (7) Climate change (increase in droughts/floods). Service delivery protests have become a regular feature of South African life, appearing in newspaper headlines around the country. Protest and unrest is bad for the local economy, leading to perceptions of instability. Resolving service delivery challenges thus brings direct economic benefits to a municipality.

	Name	Code	Data source	Average 2014 (number of datasets out of 152)	Average 2013 (number of datasets out of 152)	Trend
1	Access to water	Access to water	StatsSA	88.5% 144 (95%)	88.5% 144 (95%)	-
2	Access to sanitation	Access to sanitation	StatsSA	73.5% 144 (95%)	73.5% 144 (95%)	-
3	Water services vulnerability index	VI	DWS	0.67 152 (100%)	0.69 152 (100%)	
4	Water services planning health check	SD1	DWS	56% 152 (100%)	57% 152 (100%)	
5	Organisational performance monitoring health check	M&E	DWS	69% 152 (100%)	61% 152 (100%)	
6	Water service quality health check	SD2	DWS	68% 152 (100%)	67% 152 (100%)	
7	Customer care health check	SD3	DWS	64% 152 (100%)	60% 152 (100%)	
8	Water and Sanitation Protests	-	DWS	0.19 per 100 000 capita 152 (100%)	-	-

Access to water

Formula: The percentage of households with access to water (with varying levels of service), at the end of the assessment period.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	*	Drakenstein (WC) 98.6%	Saldanha Bay (WC) 99.2%	Swartland (WC) 99.1%	Thembisile (MP) 93.3%	Amajuba (KZN) 87.7%

***NOTE:** Metros (Category A) have indicated that "Access to Water" data that they utilise is generally more accurate than data available via StatsSA. Metros have therefore been removed from the above analysis. Despite the limitations of the StatsSA data, many municipalities do not have a better "Access to Water" dataset, and therefore regularly utilise StatsSA data for these purposes.*

The benchmark of 100% considers all households having at least access to water via a community stand of distance less than 200m from dwelling/institution or higher level of service (i.e. piped (tap) water). The national average is 88.5% (based on 144 datasets – 95% of WSAs). The Millennium Development Goals (MDGs) Country Report 2013 (October 2013) notes that the MDG for access to water (i.e. halve, by 2015, the proportion of people without sustainable access to safe drinking water) has already been met.

"Customers want choice! People don't want 1 size Coke…they want 200 mL, 330 mL, 1 L, 2 L, etc. So present them options regarding levels of service delivery and let them know the implications."

Career Profile

Melissa De Sousa-Alves works in the Integrated Planning, Strategy and Information Management Unit (IPSIM) unit at the City of Cape Town. The unit is the central hub for managing Water and Sanitation Department information, as well as the development, updating and maintaining of the City's Water and Sanitation Integrated Master Plan.

Melissa has a number of responsibilities within the department. These include updating, maintaining and managing the City's Water Model, analysing the impact of development applications, and research into new technologies and best practices. Recent research initiatives that have been undertaken include a consumption survey as well as the analysis of flow data for a better understanding of losses and consumption patterns.

How did you get to where you are?

I studied chemical engineering at the Cape Peninsula University of Technology. I also spent a year studying project management and am currently registered for a Masters in Science in Civil Engineering at the University of Cape Town. My research is focussed on the impact of pressure on consumer demand.

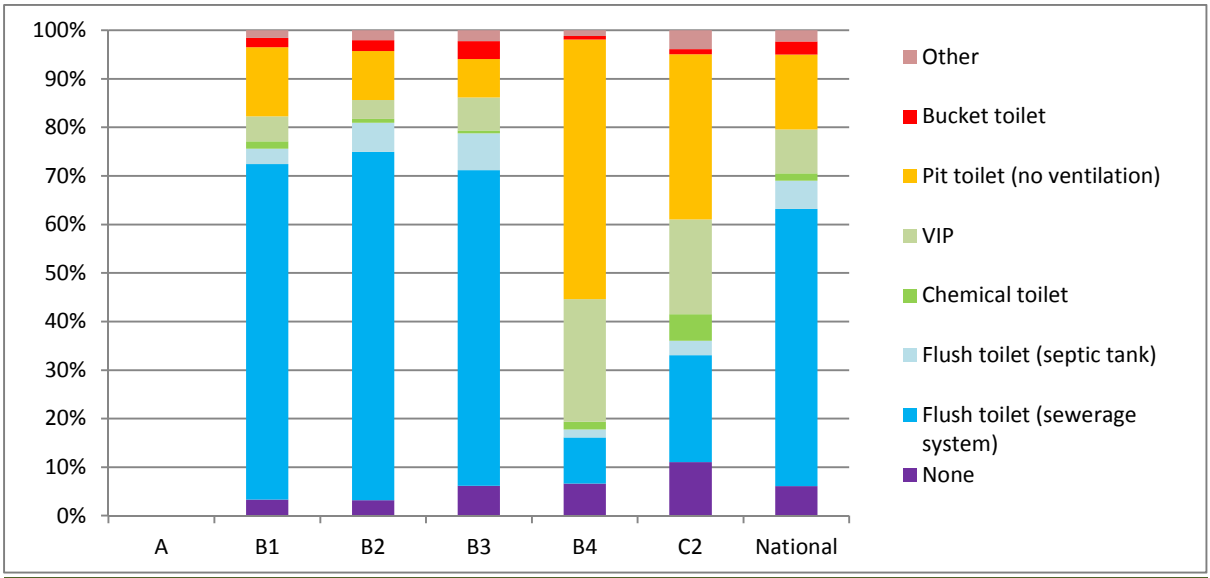
In 2009 I began working as a laboratory technician responsible for the testing of the final product in the cement manufacturing industry. I later joined the City of Cape Town as an assistant water pollution control inspector and was then afforded the opportunity to move to a new unit called the Integrated Planning, Strategy and Information Management Unit.

What advice can you give others (especially young water professionals)?

The work you do today as water professional cannot be taken lightly. Be relentless in your pursuit of knowledge, be fearless when stepping onto new ground. Always allow yourself the space to learn and never forget the impact you are making on a daily basis.

Access to sanitation

Formula: The percentage of households with access to sanitation (with varying levels of service), at the end of the assessment period.



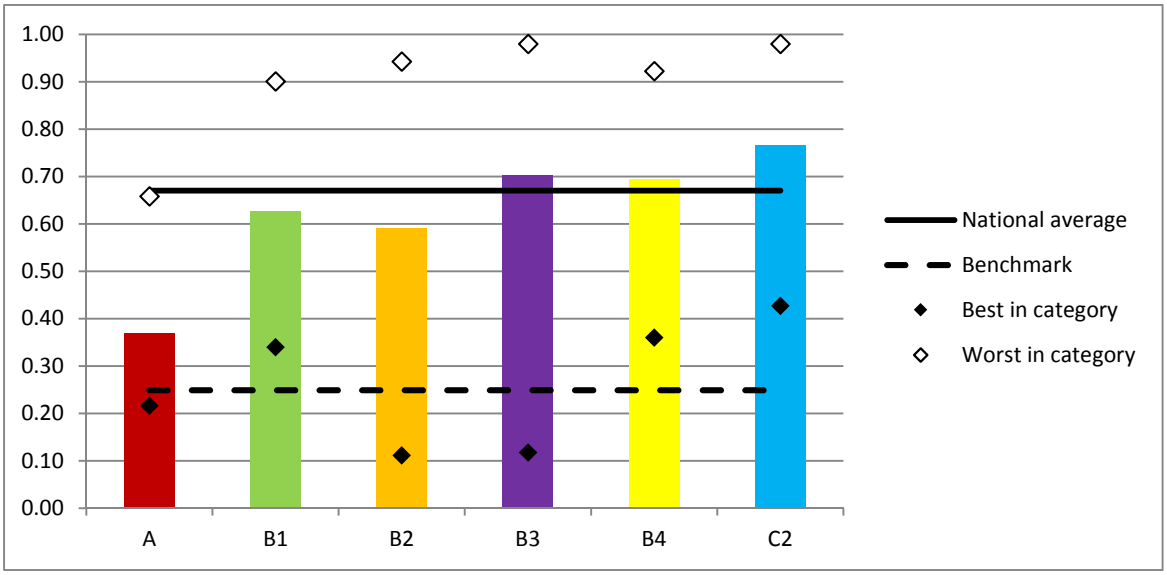
Benchmark	A	Best In Category B1	B2	B3	B4	C2
100%	*	Matlosana City Council (NW) 94.8%	Saldanha Bay (WC) 96.4%	Beaufort West (WC) 95.4%	Albert Luthuli (MP) 60.7%	Umgungundlovu (KZN) 74.4%

***NOTE:** Metros (Category A) have indicated that "Access to Sanitation" data that they utilise is generally more accurate than data available via StatsSA. Metros have therefore been removed from the above analysis. Despite the limitations of the StatsSA data, many municipalities do not have a better "Access to Water" dataset, and therefore regularly utilise StatsSA data for these purposes.*

The benchmark of 100% considers all households having at least a pit toilet with ventilation (VIP) or higher level of service. The national average is 73.5% (based on 144 datasets – 95% of WSAs). The Millennium Development Goals (MDGs) Country Report 2013 (October 2013) notes that the MDG for access to sanitation (i.e. halve, by 2015, the proportion of people without sustainable access to basic sanitation) is likely to be met.

Water services Vulnerability Index

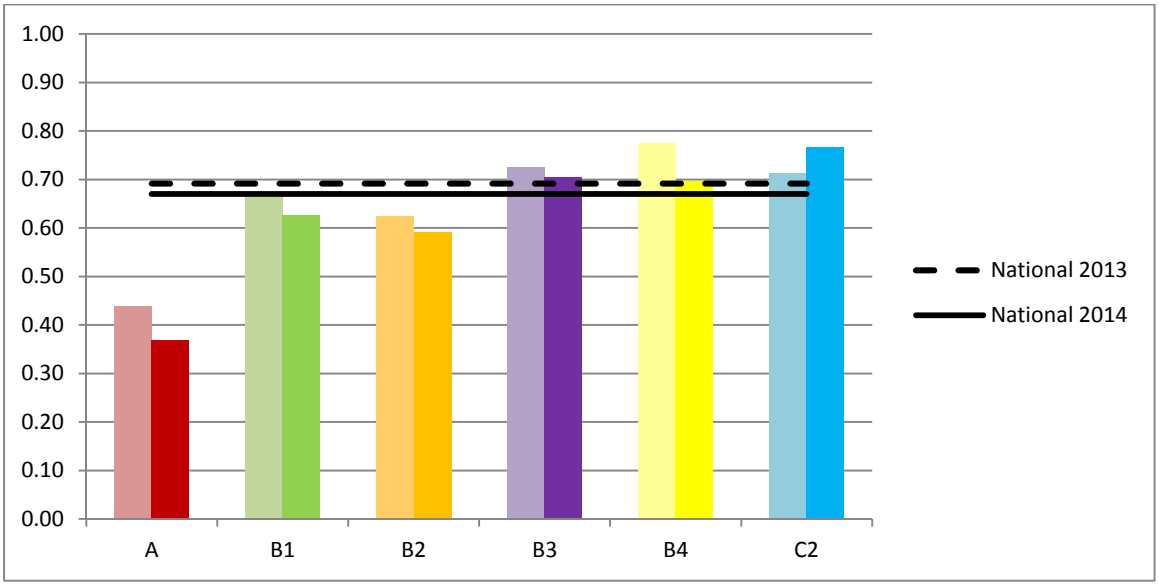
Formula: Water services Vulnerability Index (VI) determined from assessment of 16 Key Water Services Functional Business Attributes at a strategic level and indicates overall water services Business Health of a municipality.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
0.25	eThekwini (KZN) 0.22	Steve Tshwete (MP) 0.34	//Khara Hais (NC) 0.11	Witzenberg (WC) 0.12	Dr J S Moroka (MP) 0.36	Zululand (KZN) 0.43

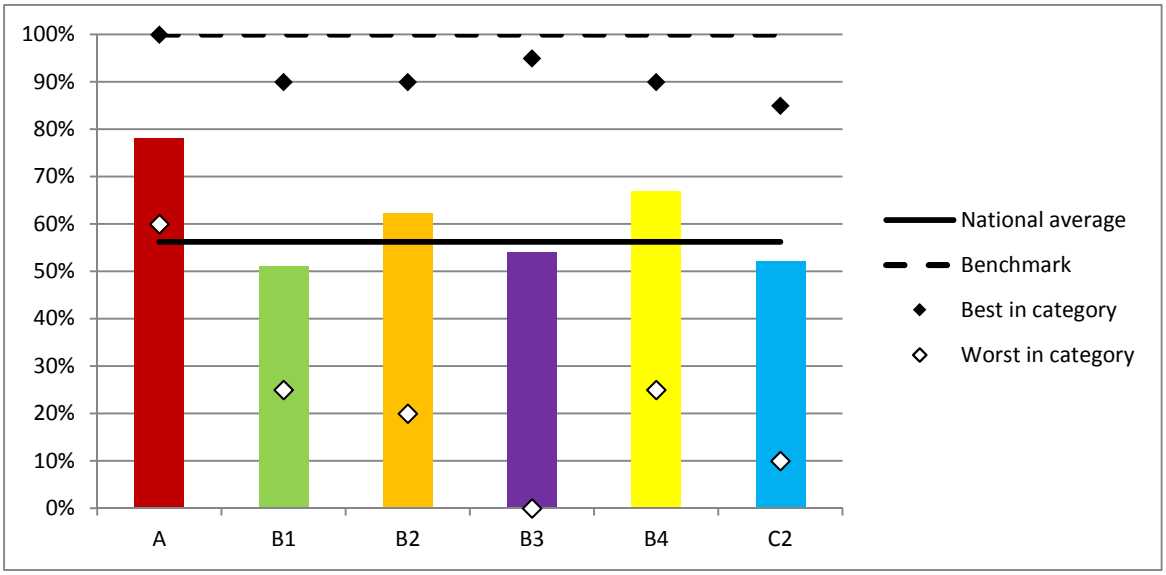
The water services Vulnerability Index (VI) is a good indicator of the readiness or ability of the municipality to perform (and not a direct indicator of the actual performance). Higher VIs (approaching 1.0) indicate that several of the 16 Key Water Services Functional Business Attributes are vulnerable, thus potentially resulting in water services failure. The national average is 0.67 (based on 152 datasets – 100% of WSAs). Of great concern is that 70 municipalities (46% of WSAs) have a very high VI (> 0.75), while a further 50 municipalities (33% of WSAs) have a high VI (> 0.50). The benchmark of 0.25 ensures no key water services vulnerabilities exist.

Comparison Graphs - 2013 VS 2014: SDB Vulnerability Index



Water services planning health check

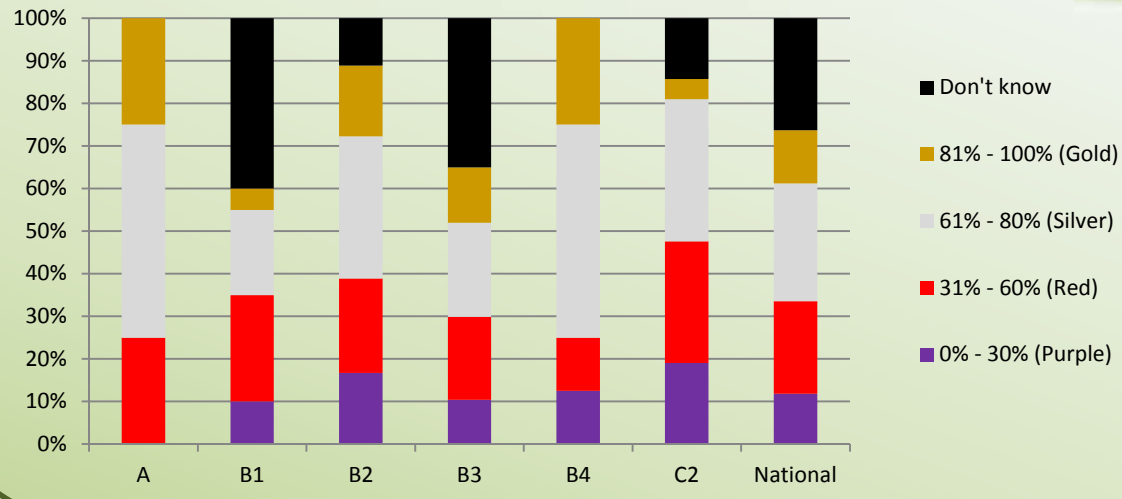
Formula: Water services planning health determined from assessment of 5 key vulnerability attributes.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	eThekwini (KZN) 100%	George (WC) 90%	Overstrand (WC), Saldanha Bay (WC) 90%	Ndlambe (EC) 95%	Albert Luthuli (MP), Nkomazi (MP) 90%	Ugu (KZN), Umzinyathi (KZN), uThungulu (KZN) 85%

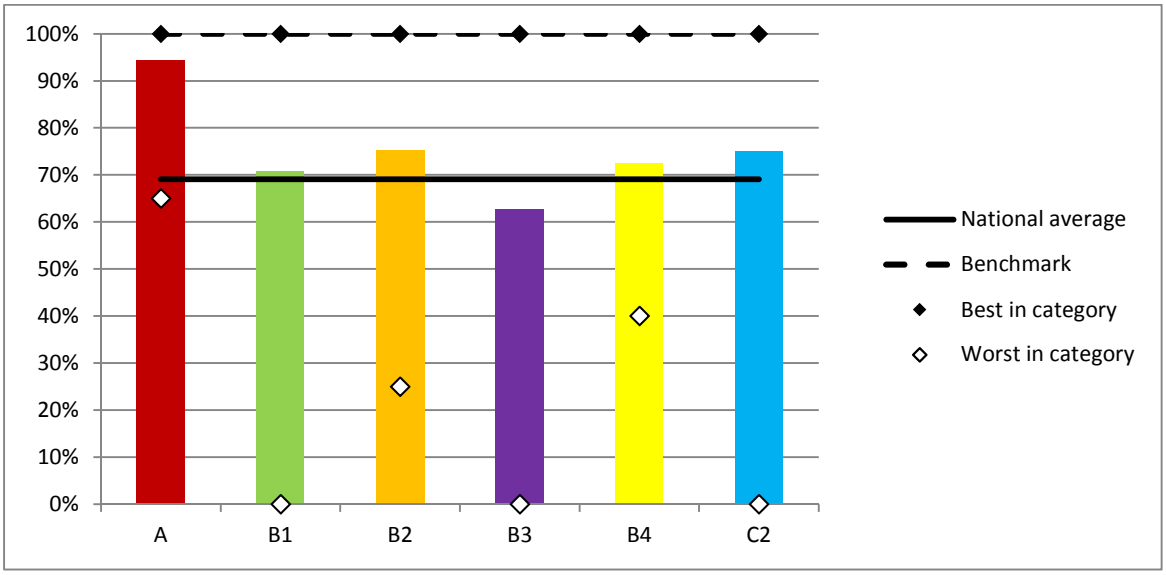
The national average of 56% (based on 152 datasets – 100% of WSAs) indicates that many municipalities do not have the appropriate water services planning processes/systems in place. The benchmark of 100% ensures no key water services planning vulnerabilities exist. By way of example, the figure below indicates that few municipalities score high on their WSDP Status Quo Knowledge Interpretation Score (i.e. Gold, and indicating a well completed WSDP), while many municipalities either score poorly or don't even know their score.

What is the WSDP Status Quo Knowledge Interpretation Score?



Organisational performance monitoring health check

Formula: Organisational performance monitoring health determined from assessment of 5 key vulnerability attributes.



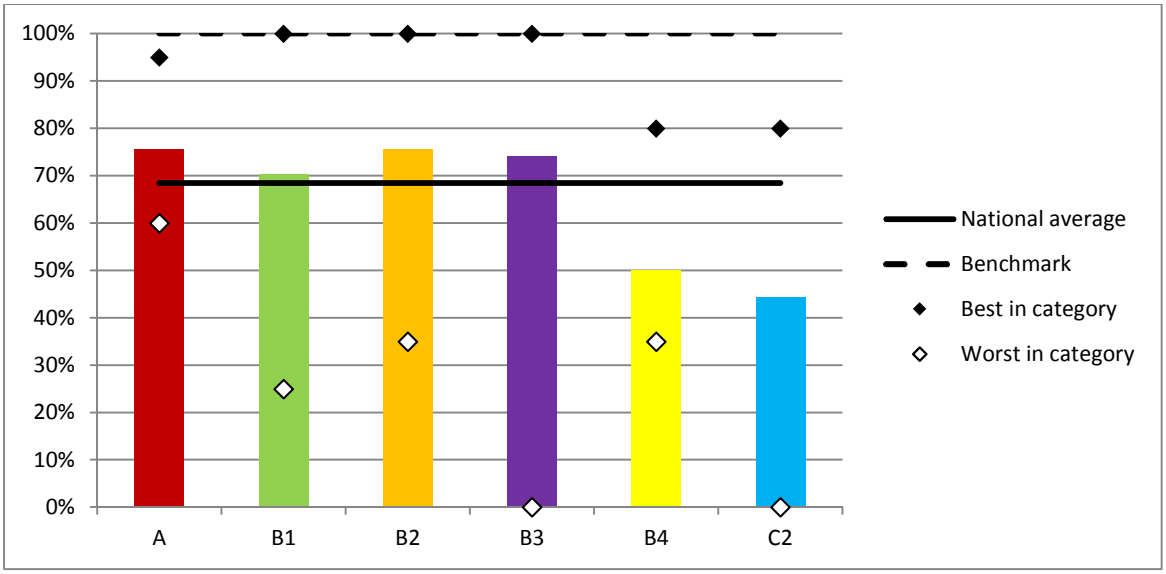
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Buffalo City (EC), City of Johannesburg (GP), eThekwini (KZN), Mangaung (FS), Nelson Mandela Bay (EC) 100%	George (WC), Madibeng (NW), Newcastle (KZN), Stellenbosch (WC) 100%	//Khara Hais (NC), Makana (EC), Mogalakwena (LP) 100%	Hessequa (WC), Lesedi (GP), Ndlambe (EC), Setsoto (FS), Swartland (WC), Thabazimbi (LP) 100%	Albert Luthuli (MP), Bushbuckridge (MP), Nkomazi (MP) 100%	Harry Gwala (KZN), Umkhanyakude (KZN), Umzinyathi (KZN), uThungulu (KZN), Zululand (KZN) 100%

The national average of 69% (based on 152 datasets – 100% of WSAs) indicates that performance monitoring may not be ideal, and therefore could explain the often lack of data required for performance assessment and benchmarking. Monitoring performance regularly through appropriate management information systems is crucial. Munibench (www.munibench.co.za) has been developed by the MBI to assist municipalities with performance assessment. The benchmark of 100% ensures that organizational performance monitoring is optimised and that no key vulnerabilities exist.

"The public complain at the place they pay (so inform Finance if there a no supply, major breakdown, etc)."

Water service quality health check

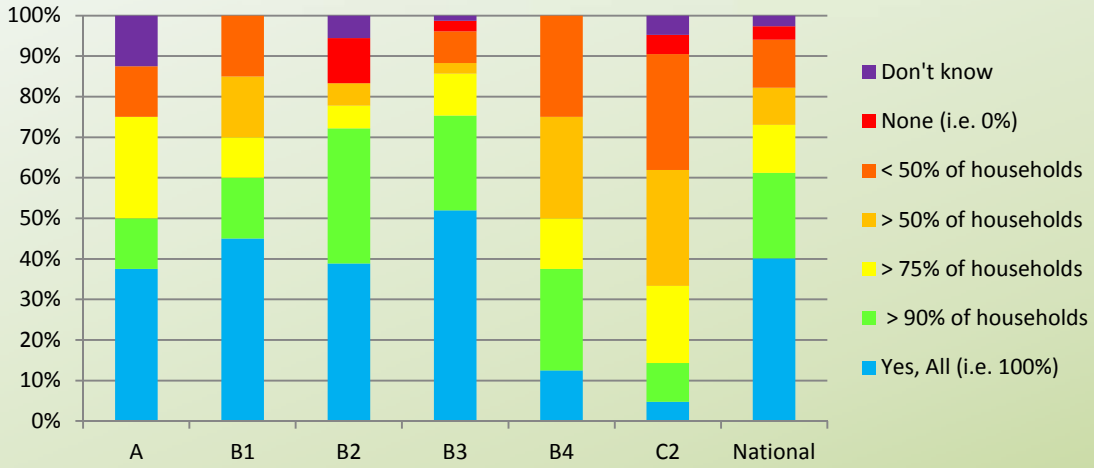
Formula: Water service quality health determined from assessment of 5 key vulnerability attributes.



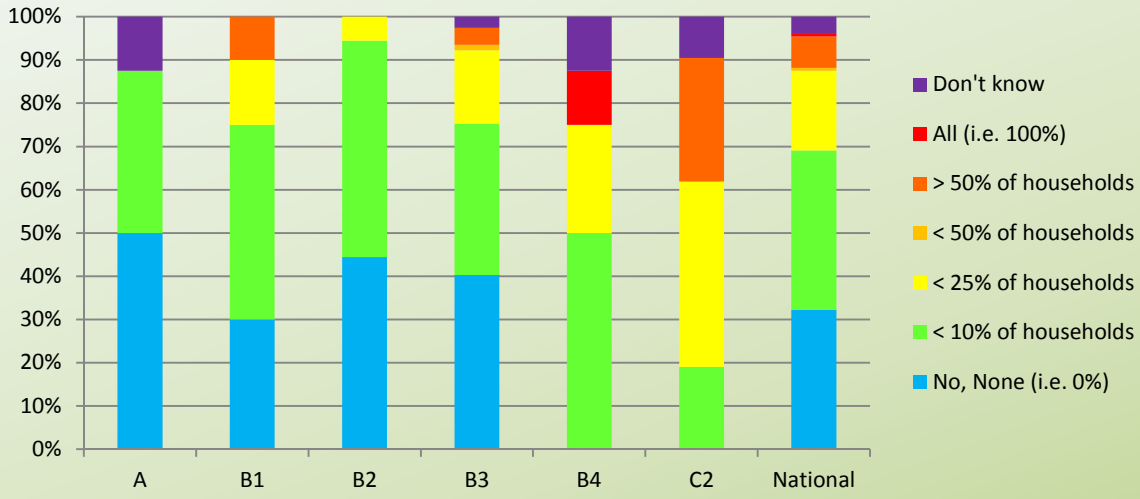
Benchmark	Best In Category					
	A	B1	B2	B3	B4	C2
100%	City of Cape Town (WC) 95%	Newcastle (KZN), Stellenbosch (WC) 100%	Westonaria (GP) 100%	Khai-Ma (NC), Matzikama (WC), Swartland (WC), Tokologo (FS), Witzenberg (WC) 100%	Dr JS Moroka (MP) 80%	Umkhanyakude (KZN) 80%

The national average of 68% (based on 152 datasets – 100% of WSAs) indicates that most customers have adequate access to water and sanitation, and that service interruptions are minimised. The benchmark of 100% ensures that no key water service quality vulnerabilities exist. By way of example, the figures below indicate that most customers do not experience extended interruptions or water pressure problems.

Do customers experience acceptable service interruptions (i.e. <48 hours per event, cumulative <15 days per year)?

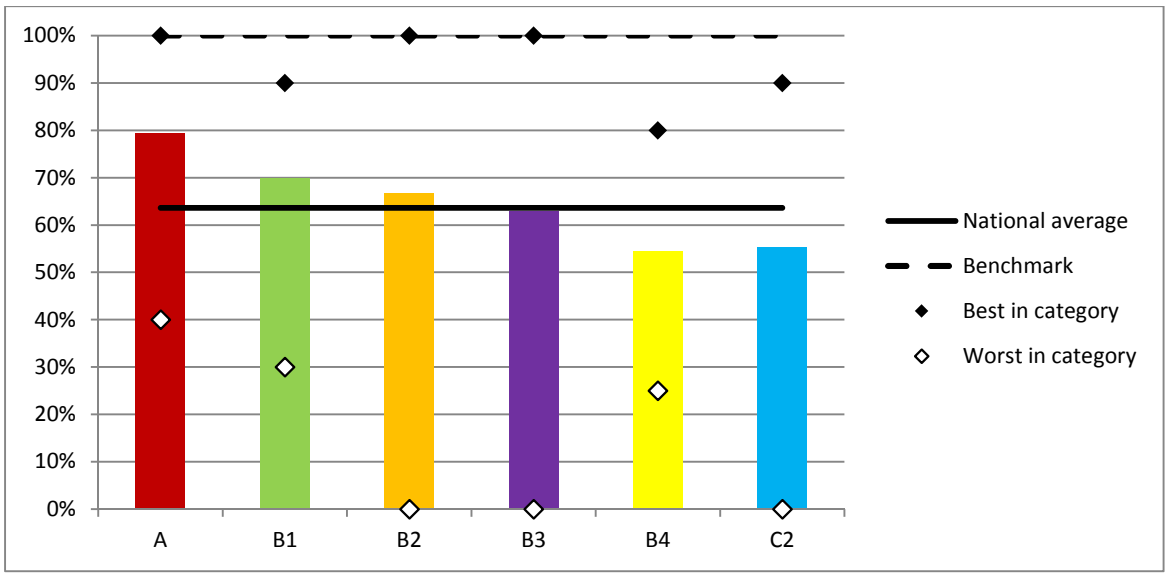


Do customers experience water pressure problems (i.e. no flow/partial flow <10 L/min)?



Customer care health check

Formula: Customer care health determined from assessment of 5 key vulnerability attributes.



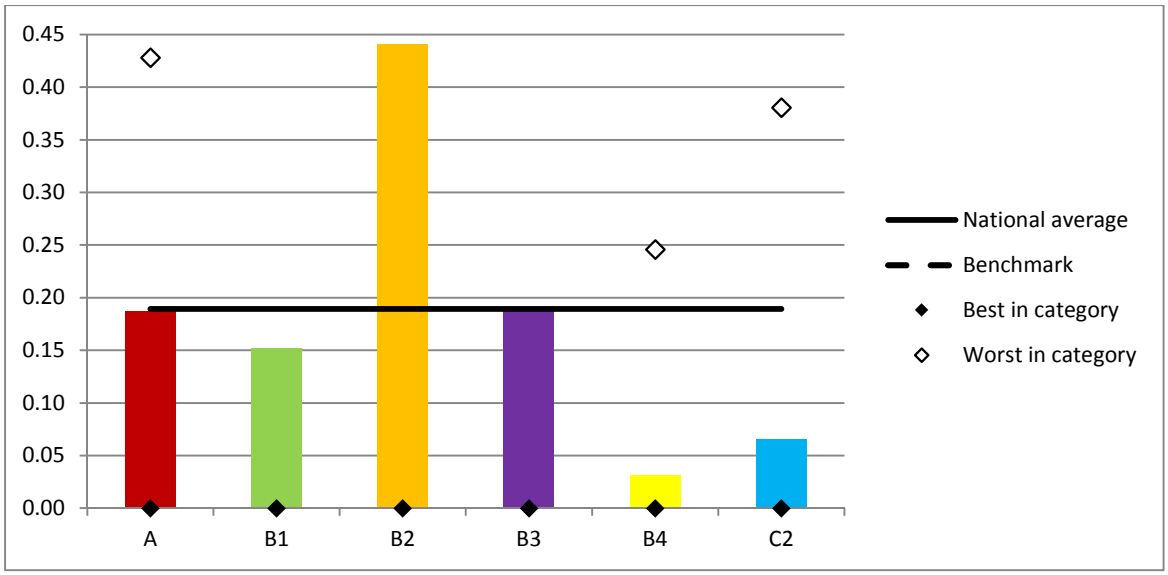
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Nelson Mandela Bay 100%	Emfuleni (GP), Newcastle (KZN), Steve Tshwete (MP), Tlokwe (NW) 90%	Overstrand (WC), Saldanha Bay (WC), Westonaria (GP) 100%	Swartland (WC), Ndlambe (EC), Tswelopele (FS), 100%	Joe Morolong (NC) 80%	Chris Hani (EC), O R Tambo (EC) 90%

The national average is 64% (based on 152 datasets – 100% of WSAs). The benchmark of 100% ensures that no key customer care vulnerabilities exist (i.e. functional customer care system, timeously respond to complaints, customer awareness campaigns). By way of example, the figures below indicate that although most water and sanitation complaints appear to be responded to within 24 hours, few municipalities are able to respond to all complaints within 24 hours.

"In order for a municipality to work, you need mutual respect from all departments."

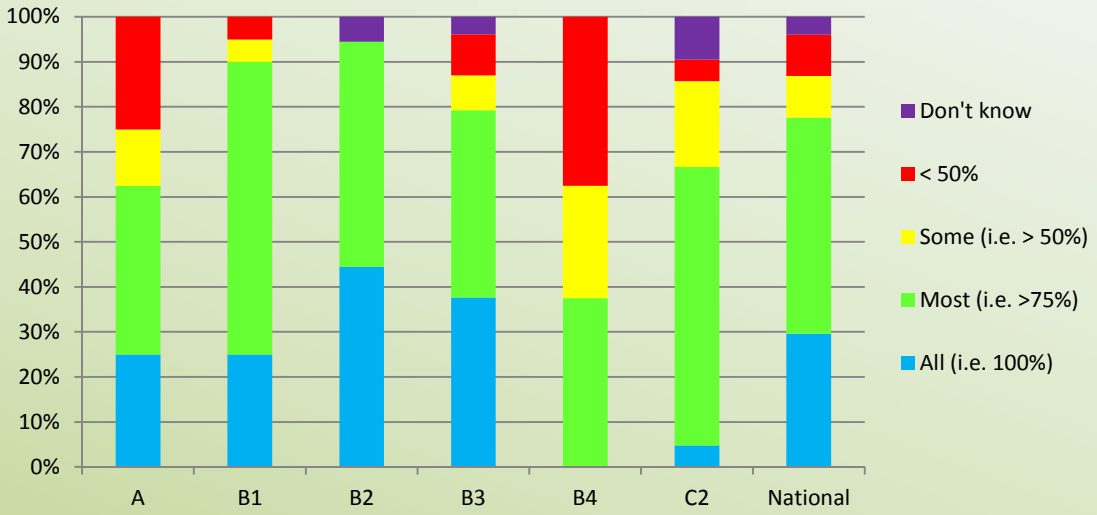
Water and Sanitation Protests

Number of public protests in terms of water and sanitation issues.

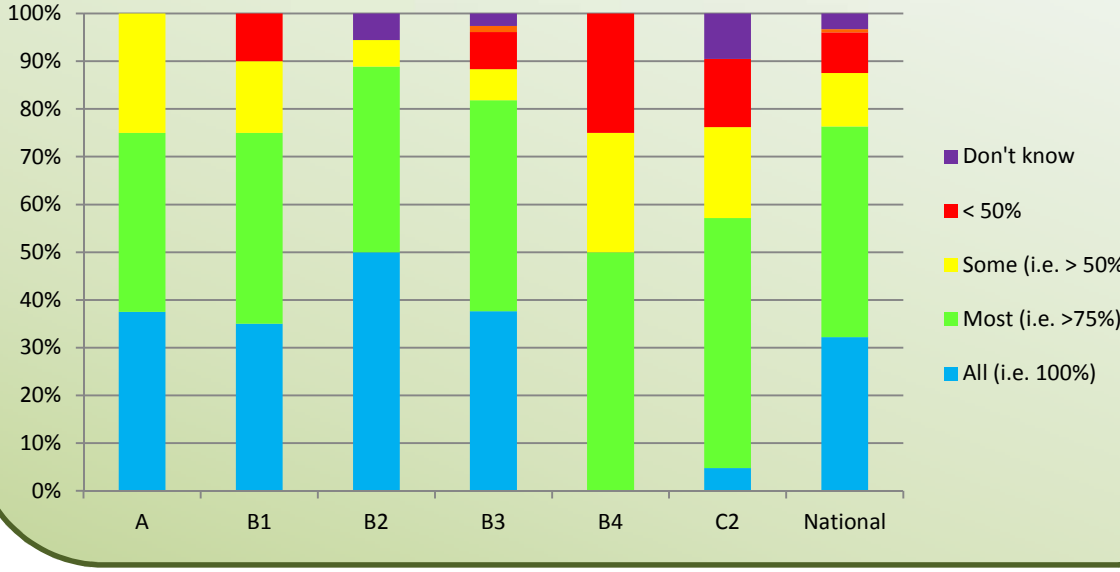


The national average is 0.19 No. / 100 000 of capita (based on 152 datasets – 100% of WSAs).

How many water complaints/callouts are responded to within 24 hrs?



How many sewage complaints/callouts are responded to within 24 hrs?



Insights from Metro's CWG

Retrofitting or leak repair programmes in the cities

At the fourth meeting of Water Conservation and Demand Management Cities Working Group, held in Ekurhuleni in March 2015, Ekurhuleni municipality, eThekwini municipality and Johannesburg Water shared information on their retrofitting or forced repair programmes.

Ekurhuleni has recently embarked on a leak fixing project in Tsakane/Langaville/Geluksdal. This area was selected as it has a very high level of Non-Revenue Water. The project is being implemented in partnership with the Department of Water and Sanitation and Rand Water. Community buy-in was identified as key for success, and there has been extensive public education and awareness building. The focus has been on using local labour, CLOs and SMMEs. To date, 9 472 meters have been counted. Consumption on these meters has reduced from 40kl/household/month to 20kl/household/month. This is before billing has commenced. The project is still in its early stages, and will continue until October 2016.

In eThekwini, any metered household that has arrears of greater than 60 days, a property value of greater than R250 000 and an average daily demand of higher than 1.2kl per month is flagged in the system and qualifies for a forced repair. Plumbers are dispatched to do the repair, and the household is charged R350 per day for the work, in accordance with a formal tariff. This is supported by a Council approved policy (part of the larger Water Policy) and by the water by-laws, which specify that the municipality has authority to cut off water or implement a forced repair at the cost of the household. A key success area for this programme is that the customer pays for the repair.

Johannesburg Water has a long-running retrofitting project in Soweto. The project was suspended for a time due to a legal challenge to the installation of prepaid meters, but is now running again. Leaks are identified by active leak detection teams, supported by Metro police. This is supported by extensive consultation and communication at ward level. There is political buy-in at the highest level, as this is a flagship project for the Mayor, and this is key to success. Another key success factor is that prepaid meters mean that they don't have credit control issues afterwards. Customers immediately have to pay and so take responsibility for future leaks.

In looking at all three programmes, the cities agree that the sustainability of retrofitting or leak repair programmes requires that the household takes responsibility for ensuring that leaks do not re-occur. If they have not paid for the repair, this accountability might not be in place. Households should ideally pay for the repair and must have to pay for the water that they consume after the repair. This requires firm credit control.

Please contact Dumisani Gubuza at Ekurhuleni, Simon Scruton at eThekwini or Mbalie Matiwane at Johannesburg Water for further information about the programmes mentioned here.

Operations and Maintenance

Operations and maintenance typically includes the day-to-day activities necessary for the water services system infrastructure and equipment to perform their intended function.

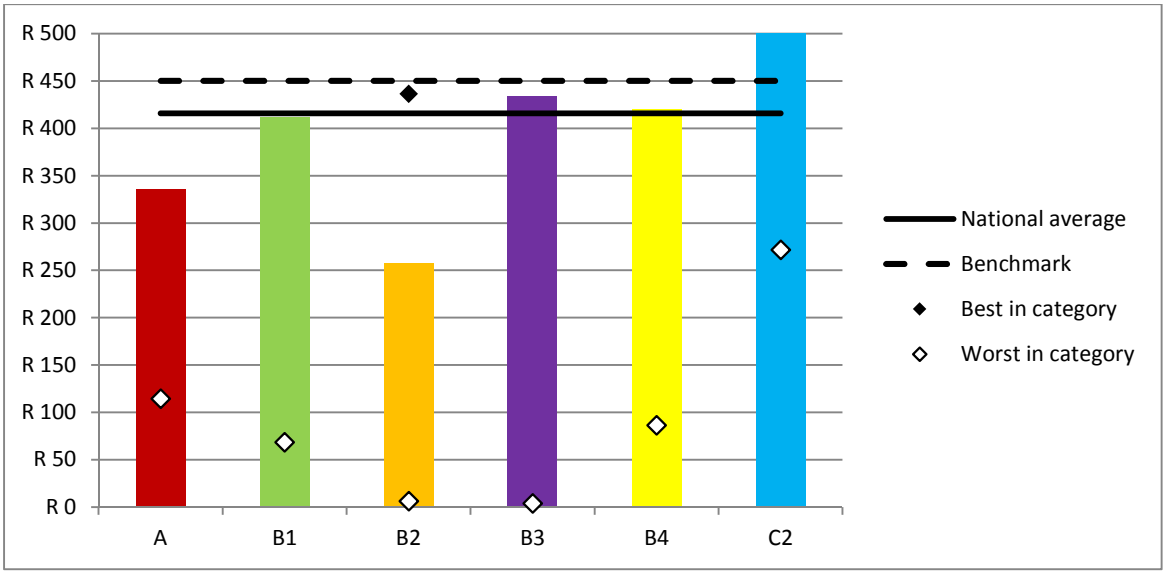
To accomplish this, the municipality must operate the systems and equipment responsibly and maintain them properly. Maintaining infrastructure in sound condition is a key element of providing sustainable municipal services. If a poor maintenance regime is followed, an asset may not reach its design life and will have to be replaced early. Development and implementation of water and sanitation projects around the world has shown that newly built infrastructure often deteriorates after the project's termination. Through short daily inspections, cleaning, lubricating, and making minor adjustments, minor problems can be detected and corrected before they become a major problem.

NOTE: *Although a vital component of water services delivery, this module is the poorest populated within the MBI, and the status of data collection and measuring these operations and maintenance aspects by municipalities is therefore brought into question.*

	Name	Code	Data source	Average 2014 (number of datasets out of 152)	Average 2013 (number of datasets out of 152)	Trend
1	Water services capital investment	Capital	NT/StatsSA	R416 per capita per annum 121 (80%)	R360 per capita per annum 132 (87%)	
2	Infrastructure asset management health check	OM1	DWS	59% 152 (100%)	51% 152 (100%)	
3	Operations and maintenance of assets health check	OM2	DWS	51% 152 (100%)	51% 152 (100%)	-

Water services capital investment

Formula: Total capital investment in water services (water and wastewater) / resident population, during the assessment period.



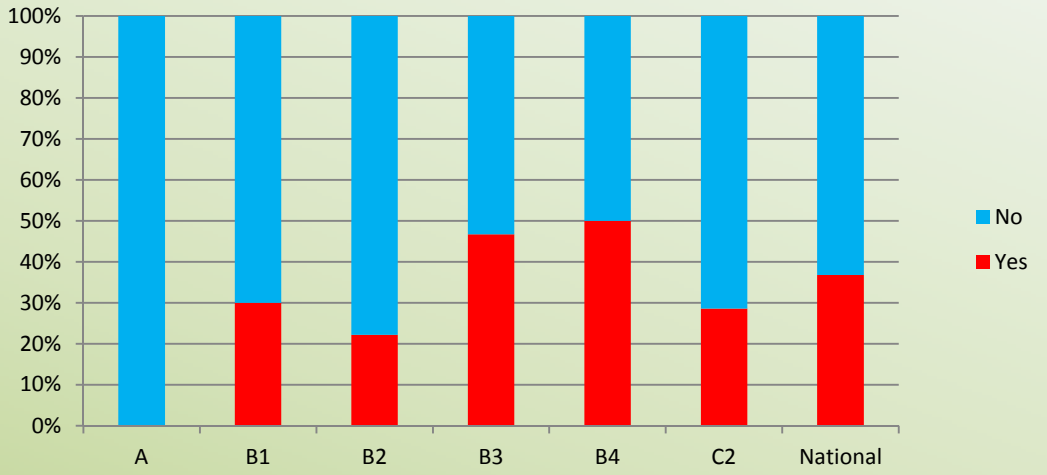
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
R450 per capita per annum	Mangaung (FS) R653 per capita per annum	Letsemeng (FS) R3 689 per capita per annum	Makana (EC) R436 per capita per annum	Thabazimbi (LP) R3 161 per capita per annum	Joe Morolong (NC) R1 093 per capita per annum	uThungulu (KZN) R1 973 per capita per annum

The national average is R416 per capita per annum (based on 121 datasets – 80% of WSAs). The higher capital investment noted in some municipalities is probably attributed to elimination of the services backlog and this high level of capital investment is not sustainable in the long term. While each municipality has its own specific circumstance and should set its own targets, a benchmark of water services (water and sanitation) capital investment of R450 per capita per annum is proposed. Care should be taken to ensure that adequate budget is available for on-going optimal operation and maintenance of the newly developed assets. In addition to the above, it is also important to note that in many municipalities there is a persistent capital under spending, as indicated in the figure overleaf.

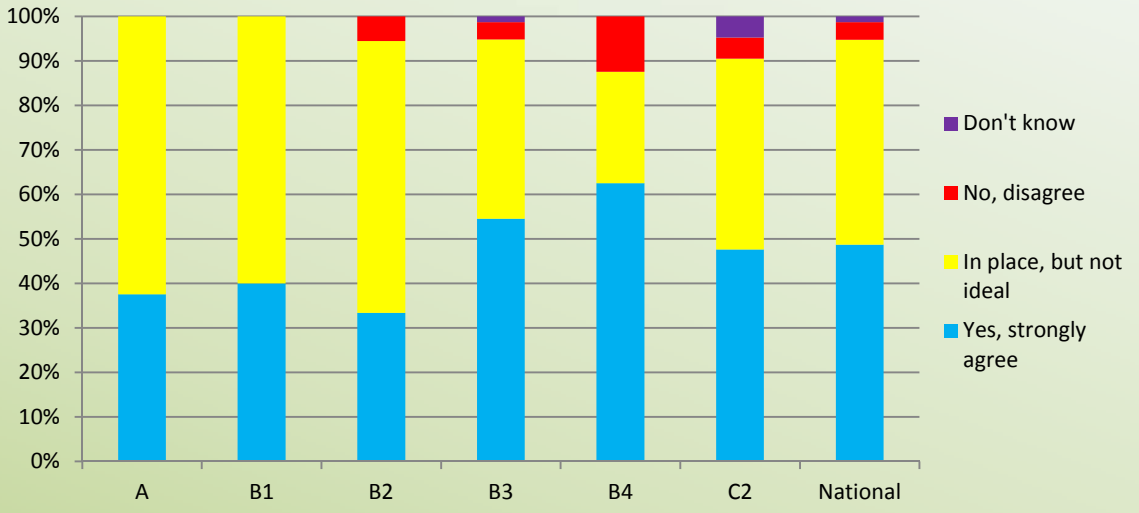
"If you don't measure, you don't know.

If you don't know, you can't manage."

Do you have persistent capital under spending (2011 – 2013)?



Do you have an appropriate water services asset register?



Career Profile

Dr Marlene van der Merwe-Botha is a Professional Scientist and has 20 years' experience in the water industry. She is CEO of Water Group Holdings and a member of the South African Council for Natural Scientific Professions. She is a Senior Fellow with the Water Institute of Southern Africa, as well as Past President of the Water Institute.

Marlene obtained her Doctorate in the field of 'environmental microbiology' from the University of the Free State in Bloemfontein, through her research focus on industrial effluent treatment. She has several publications and books to her credit and has been involved with the risk assessment, feasibility studies, process management, water quality analysis and operation of a number of wastewater infrastructure projects. She is an accredited Green Drop Auditor with the Department of Water and Sanitation.

How did you get to where you are?

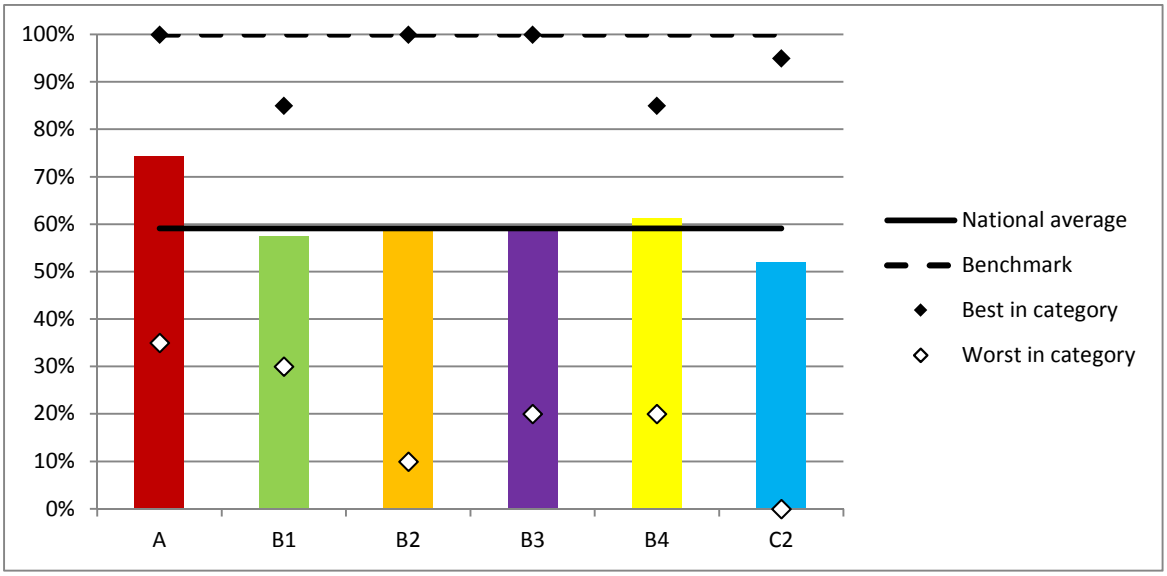
I work hard and with intensity. I like to think I have strong focus. I enjoy every minute of what I do. I love my field, I respect and invest in the people who I working with, I read a lot, and I try to exercise my belief in the quantum of positive contemplation, thinking and doing. I'm driven by excellence and passion. I believe in delivering more than what is expected. I have been more successful in environments that demanded fast but high quality delivery, where highly competent persons and young learners are involved. When setting up teams, this is the combination that produces the best results.

What advice can you give others (especially young water professionals)?

Choose a field that you truly LIKE and ENJOY, build and increase your knowledge by reading and working and observing, set your aim to be 'the best' in this field. Be as competitive as you can! Do not stop at one degree, continue your studies as far as possible. Couple this professional growth path by choosing a personal growth and make a deliberate choice towards a 'culture of character' – develop your traits in integrity, honesty, modesty. Never ever work for money! Give yourself time to grow knowledgeable and wise and learn from the best. Money will come by inevitably if you are the best in what you do, and your personal traits will sustain you.

Infrastructure asset management health check

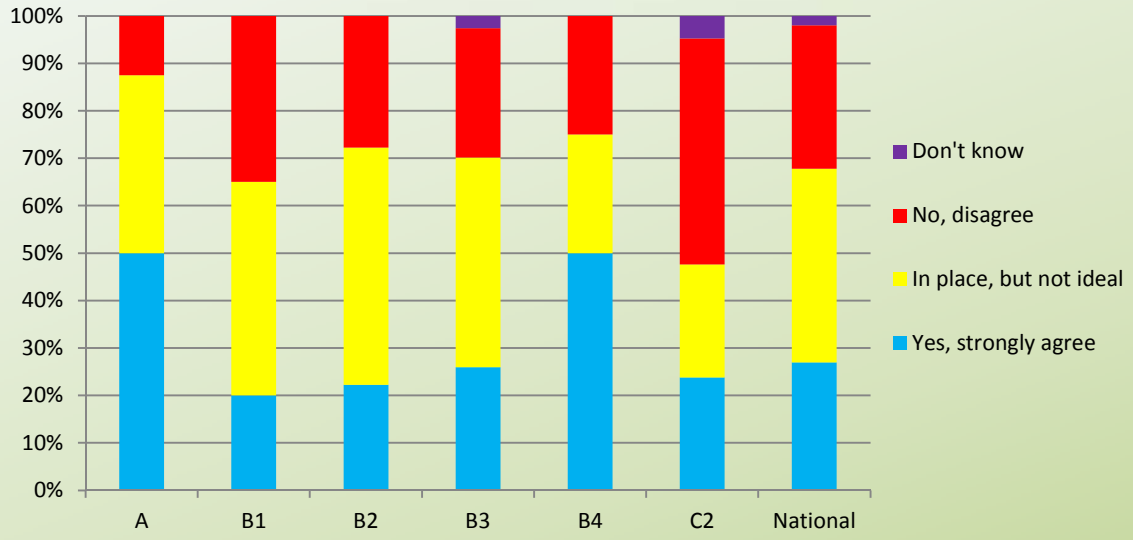
Formula: Infrastructure asset management health determined from assessment of 5 key vulnerability attributes.



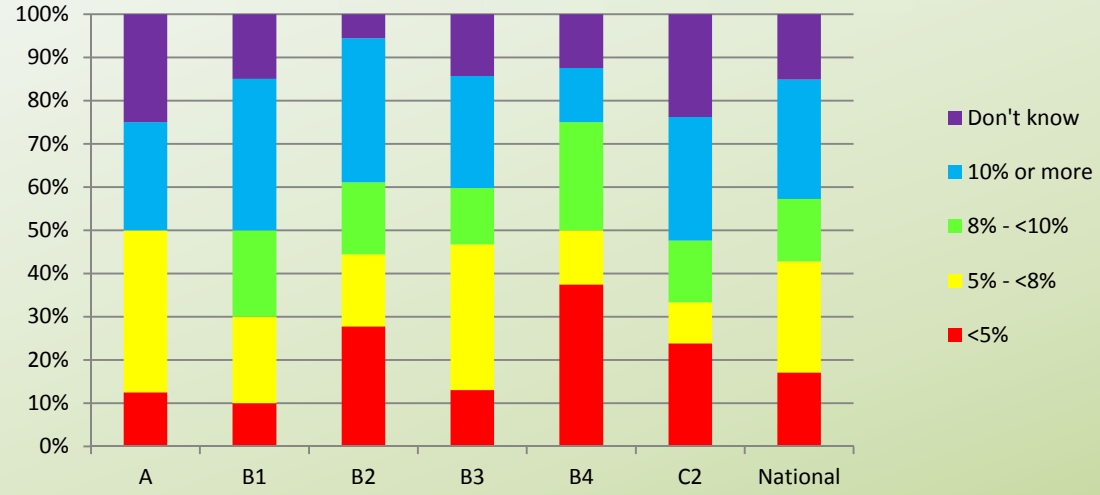
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	City of Johannesburg (GP) 100%	Steve Tshwete (MP) 85%	//Khara Hais (NC), Saldanha Bay (WC) 100%	Cederberg (WC), Hessequa (WC), Swartland (WC), 100%	Bushbuckridge (MP), Nkomazi (MP) 85%	Zululand (KZN) 95%

The national average of 59% (based on 152 datasets – 100% of WSAs) indicates that many municipalities do not have the appropriate infrastructure asset management processes/systems in place including adequate asset registers, asset management plans, budget and associated implementation thereof, etc. By way of example, the figures overleaf indicate that although most municipalities have an asset register in place, it is not ideal (i.e. partially complete) and that many municipalities have not yet developed an appropriate infrastructure asset management plan. The benchmark of 100% ensures no key vulnerabilities related to infrastructure asset management exist.

Do you have an appropriate Infrastructure Asset Management Plan?

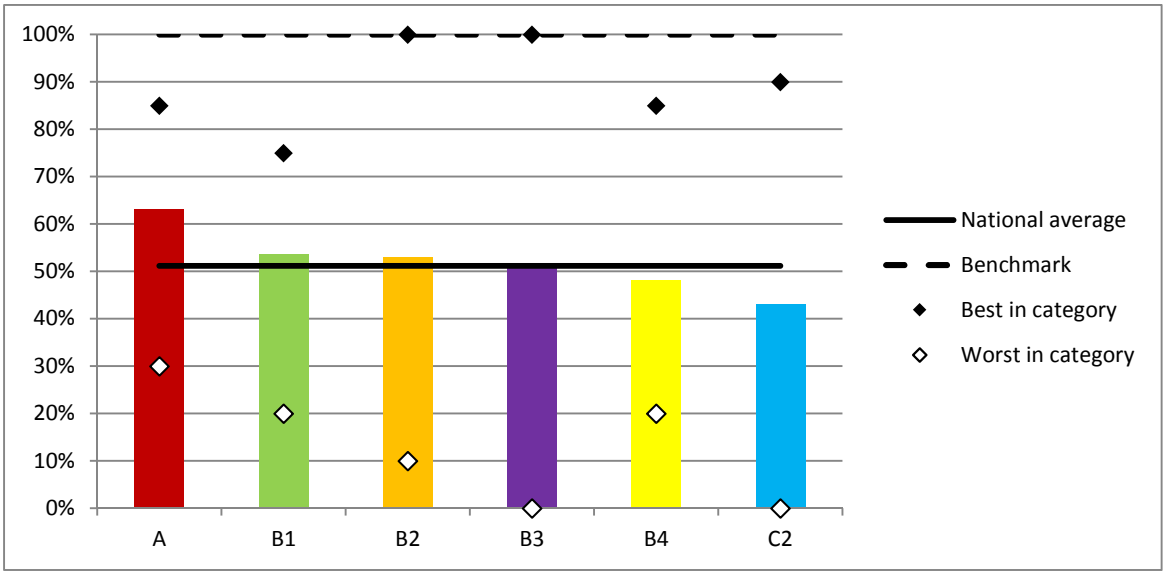


What are your Infrastructure maintenance costs/total operating costs (%)?



Operations and maintenance of assets health check

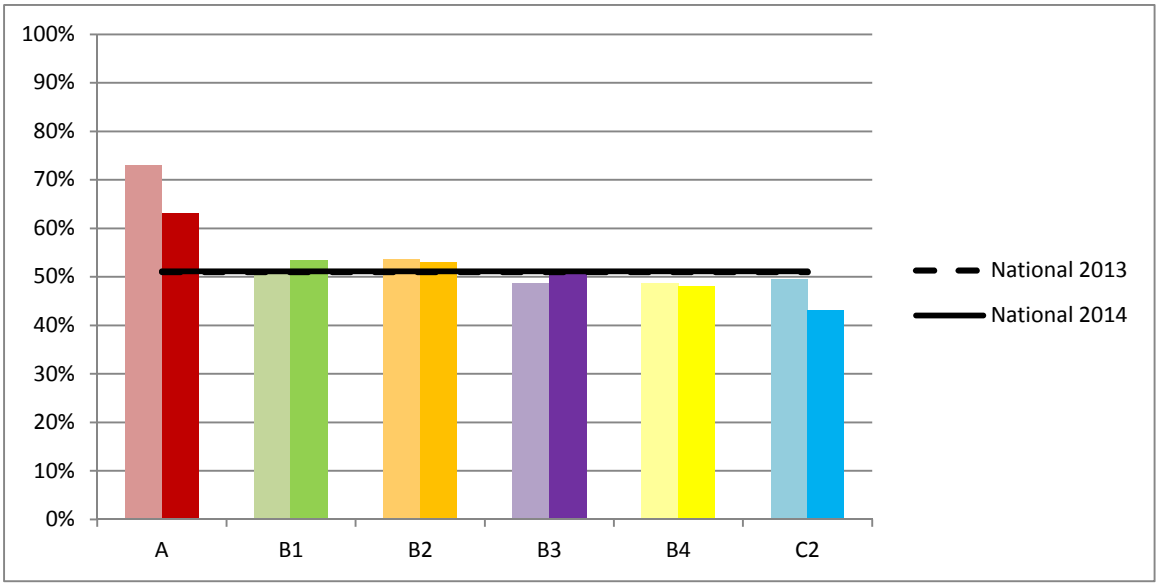
Formula: Operations and maintenance of assets health determined from assessment of 5 key vulnerability attributes.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	eThekwini (KZN) 85%	Newcastle (KZN) 75%	//Khara Hais (NC) 100%	Ndlambe (EC) 100%	Dr JS Moroka (MP) 85%	Umzinyathi (KZN) 90%

The national average of 51% (based on 152 datasets – 100% of WSAs) indicates that many municipalities do not have the appropriate operations and maintenance in place to support effective asset management. Issues of concern would include the availability of an effective maintenance team, a well-resourced workshop and the ability to perform proactive (planned/preventative) maintenance of key infrastructure. The figure overleaf indicates the maintenance cost as a function of the total operating costs, and indicates that some municipalities are under-spending on asset maintenance. The benchmark of 100% ensures no key vulnerabilities related to operations and maintenance of assets exists.

Comparison Graphs - 2013 VS 2014: O&M health check



Perspectives from a Young Water Professional

As a DWS Graduate Trainee Intern in the water services field, I've been fortunate to work with a number of municipalities across the country. Despite the complexities that influence effective municipal performance, it is clear when something works. The Municipal Benchmarking Initiative (MBI) methodology proves to be one of those things. It allows municipalities to be reflective, using information to contextualise where they stand in terms of performance, and to collaborate with peers in the field through discussing their challenges and successes.

My work at DWS with the Municipal Infrastructure Grant (MIG) has assisted me in observing some of the challenges municipalities face in addressing backlogs. Despite the technical limitations it is clear that sharing experience, expertise and information is key. I've continued working with municipalities during my secondment at Emanti Management as part of my continued development. Through this experience it is remarkable to see how the Municipal Strategic Self-Assessment (MuSSA) and Municipal Priority Action Plans (MPAP) workshops unlock 'hidden' knowledge and resources, and how these are turned into ambitious yet attainable goals. The same is true for the MBI, the structured honest discussion allows opportunity for municipalities to monitor their performance, support the drive within their municipality and innovate with other municipalities to improve performance.

Rivonia Pillay

DWS Graduate Trainee Intern (2015)

Product Quality

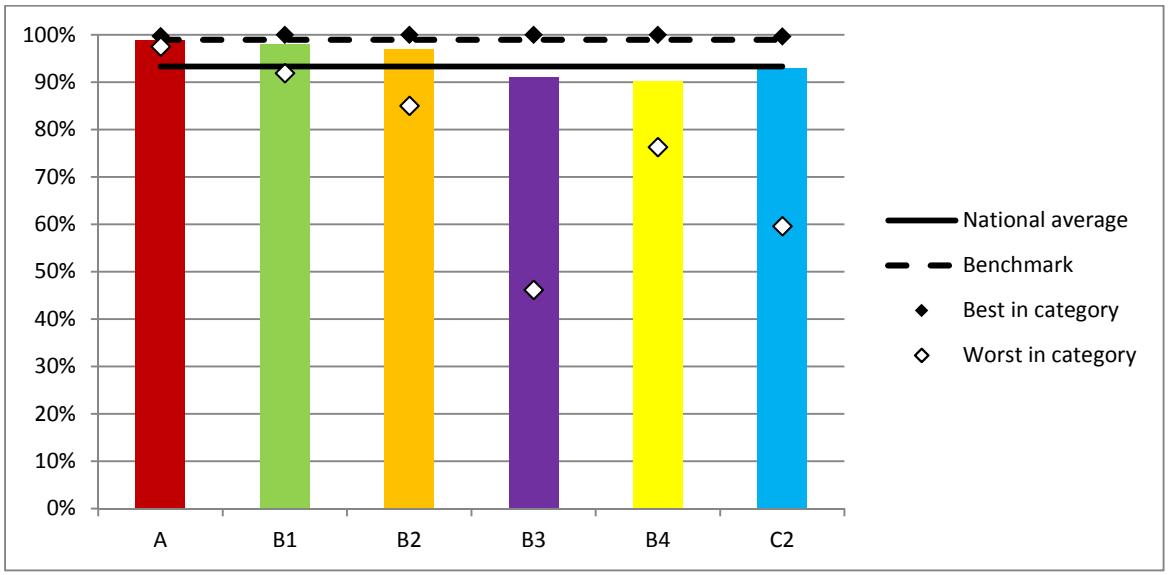
We should not only be concerned about the quantity of water we supply to communities, but also ensure that the quality of the water supplied is acceptable for its purpose.

We use clean water to drink, grow crops for food, operate factories, etc. and water and is vitally important to every aspect of our lives. Monitoring the quality of drinking water and treated effluents from wastewater treatment facilities helps protect our health, and aids identification and control of pollution impacts to the environment. We use monitoring information to understand exactly how we impact our water supply and to help us understand the important role we all play in water resource protection. Regularly monitoring water quality is a crucial part of identifying any existing problems, or any issues that could emerge in the future. Inadequate water supply and sanitation is a direct contributor to high levels of diarrhoea, dysentery and other diseases in Southern Africa and a 1997 study found that the total social cost of diarrhoeal disease was at least 1% of the GDP in South Africa (R3.4 billion). The 2010 General Household Survey showed that there were over 60,000 cases of childhood diarrhoea per month and approximately 9,000 child diarrhoeal deaths in the year.

	Name	Code	Data source	Average 2014 (number of datasets out of 152)	Average 2013 (number of datasets out of 152)	Trend
1	Drinking water compliance (E.coli / Faecal coliforms)	PQ26	DWS	93% 145 (95%)	-	-
2	Drinking water quality health check	PQ1	DWS	62% 152 (100%)	60% 152 (100%)	
3	Wastewater and environmental safety health check	PQ2	DWS	50% 152 (100%)	47% 152 (100%)	

Drinking water compliance (E.coli / Faecal coliforms) (%)

Microbiological compliance (E.coli / Faecal Coliforms) over a 12 month period as determined by DWA Blue Drop Certification audit.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
99%	City of Johannesburg (GP) 99.8%	Mbombela (MP), Steve Tshwete (MP), Tlokwe (NW) 100%	Breede Valley (WC), Knysna (WC), Randfontein (GP) 100%	Beaufort West (WC), Bitou (WC), Karoo Hoogland (NC), Kgatelopele (NC), Lesedi (GP), Nala (FS), Siyancuma (NC), Thembelihle (WC), Tswelopele (FS), Ventersdorp (NW) 100%	Bushbuckridge (MP), Moses Kotane (NW) 100%	Alfred Nzo (EC), Vhembe (LP) 99.7%

The national average is 93% (based on 145 datasets – 95% of WSAs) with a Blue Drop standard of 99%. Usually indicated by reporting the count (number) of indicator organisms present in a given volume of water. SANS 241 requires a 97% compliance.

"Benchmarking makes you honest. If you report good results, make sure you are good, because your peers will want to learn from you."

Municipal Benchmarking Initiative (MBI) for Better Performance of Local Government

The Municipal Benchmark Initiative is a new ball game in the water value chain. It has strengthened water sector intelligence, instilled confidence in practitioners and provided a platform for municipalities to learn from each other. It has surpassed expectations in the few years since its inception.

MBI has confirmed that collective wisdom is the correct path to victory, and we truly bear positive testimony of municipalities that have emerged as great role players and improved tremendously through some baby steps initiated by the MBI. SALGA KZN will always support this initiative and is willing to host MBI workshops in KZN at any time. I therefore urge councillors and municipal officials to support the programme and spread the MBI gospel to all water practitioners around the country for the better performance of local government and Nation at large.

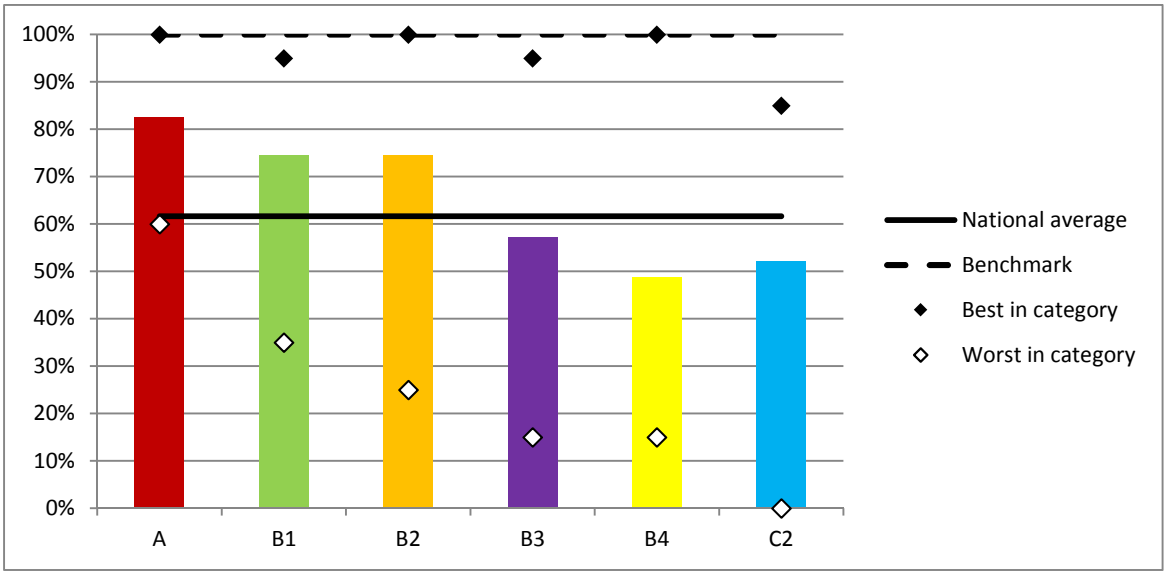
In closing, I quote United National Secretary-General Ban Ki-moon in his speech delivered on the 24th September 2008: "*We say often that water is life. Let us act like we mean it, and work together to achieve sanitation and water for all*".

Bright Nkontwana

Programme Manager: Municipal Infrastructure Services within SALGA KZN

Drinking water quality health check

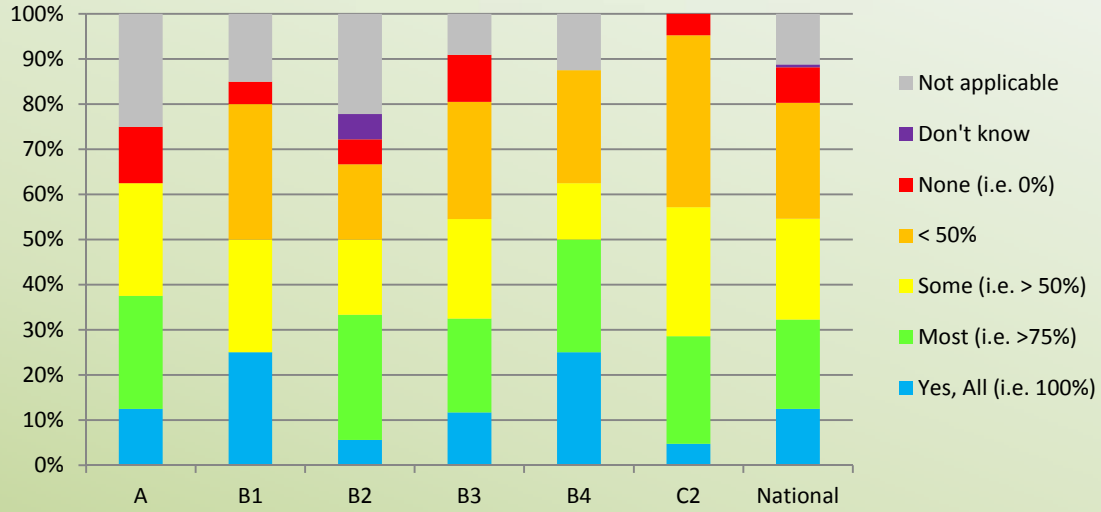
Formula: Drinking water quality health determined from assessment of 5 key vulnerability attributes.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Ekurhuleni (GP) 100%	Msunduzi (KZN) 95%	//Khara Hais (NC), Saldanha Bay (WC), Westonaria (GP) 100%	Witzenberg (WC) 95%	Dr J S Moroka (MP) 100%	Amajuba (KZN), Ugu (KZN), Umzinyathi (KZN) 85%

The national average is 62% (based on 152 datasets – 100% of WSAs). It is important to remember that the results indicate the vulnerability of drinking water quality (and therefore Blue Drop status) and is not a direct reflection of performance. In some instances, municipalities might have Blue Drop status, but have a high vulnerability. This indicates that maintenance of Blue Drop status in the future is potentially not sustainable as issues identified are not being addressed (e.g. not tabled, insufficient budget). In other instances, the vulnerability assessment might indicate low vulnerability; whereas the Blue Drop results indicate "high risk". In these instances, municipalities may already have begun to implement corrective actions to resolve issues/shortcomings identified through the Blue Drop process, thus lowering their future vulnerability. The benchmark of 100% ensures no key vulnerabilities related to drinking water quality exist, and if maintained will positively contribute to the attainment/maintenance of Blue Drop status.

Are WTWs operated by staff with correct skills/qualifications & experience (as per Blue Drop requirements)?



Common strategic actions that will ensure Municipal readiness to perform

- Ensure strategic planning/proper planning
- Ensure budget allocation as per planning
- Implementation of policies
- Develop Master Plans, policies and by-laws – monitoring, implementation, review
- Follow "Back to Basics" principals
- Need an appropriate master plan and capital investment required to ensure effective and sustainable services
- Debt collection to improve revenue (revenue enhancement)
- Improved record keeping (better systems)
- Involve management and obtain political buy-in
- Improve risk management
- Attract and retain the correct staff
- Staff training and improvement of skills
- Where you appoint service providers to address issues ensure that there is a transfer of skills to municipal officials

The Integrated Planning, Strategy and Information Management Unit of the Water and Sanitation Department at the City of Cape Town

The Integrated Planning, Strategy and Information Management (IPSIM) Unit was conceptualised in 2004. In an organisation as large as the Water and Sanitation Department in the City of Cape Town (4000 staff), accurate information was seen to be the key to performance reporting, operations, legal compliance and management.

Apart from its main Planning function which includes Infrastructure Master Planning, Strategic Planning and Integration of Planning, the unit also aims to be an efficient and relatively small unit coordinating all information needs for the Department, conducting analysis and issuing reports or other outputs. It has been found that there are close synergies between data management and planning.

The unit closely cooperates with other branches within the Department. The branch that generates the information is required to take responsibility for the accuracy of information provided (signoff by Branch Manager or delegated person). The IPSIM team verifies the results of the data provided against previous results, trends, benchmarks as well as city targets and signs off on the quality of the information having been verified as well as ensuring it is stored and accessible.

In some cases, this cooperation needs to extend to other departments within the City as well as external stakeholders. For example, a key input to the Water Services Development Plan is the management of stormwater catchments or Health districts, both functions which reside in totally separate Directorates.

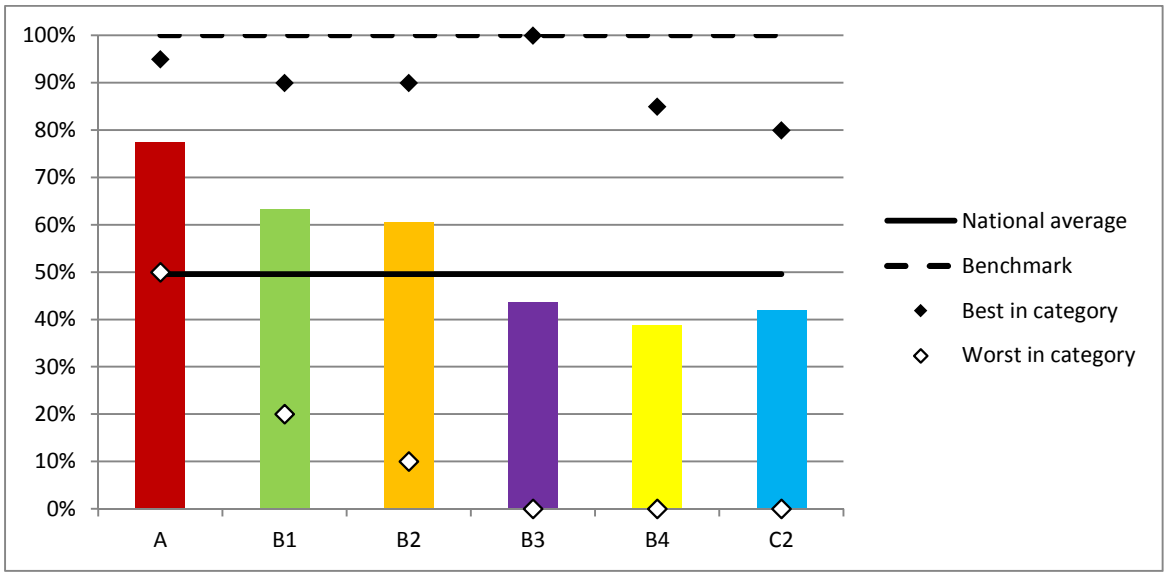
The success of this approach can inter alia be attributed to this work being defined as a core function measured by specific KPI's. Staff members are required to produce key outputs within a certain timeframe, where their success is firstly dependant on gaining the trust and cooperation of the different stakeholder and gathering various statistics and measurements from them.

The unit also needs to ensure that the contributing branches have good information systems with which to produce and store information. Should a weak area be identified, processes and systems can be investigated, solution developed and implemented but always in a cooperative manner with full involvement of the system user.

The IPSIM Unit receive a large number of requests for different data sets from different stakeholders and for different purposes such as from customers, internal and external stakeholders, national government, research organisations or from organisations that are involved in national and international benchmarking programmes.

Wastewater and environmental safety health check

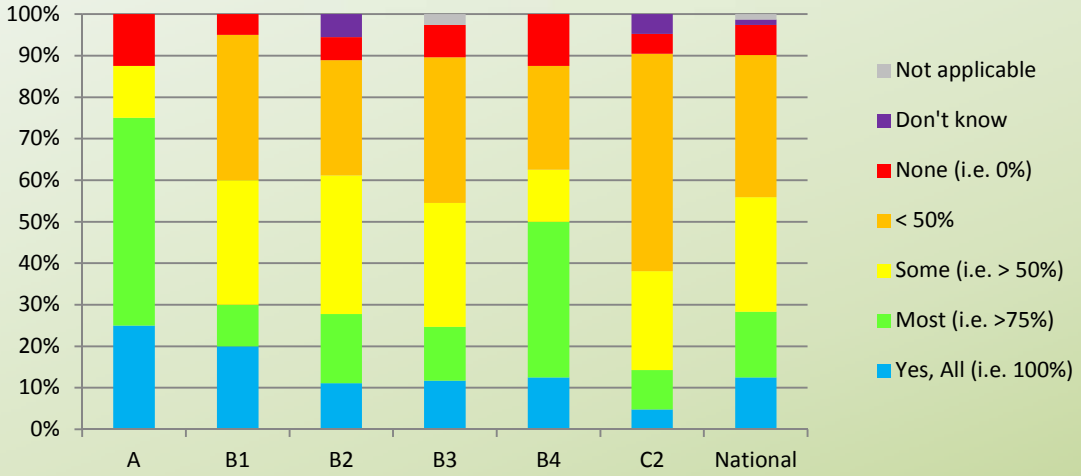
Formula: Wastewater and environmental safety health determined from assessment of 5 key vulnerability attributes.



Best In Category						
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	eThekwini (KZN) 95%	Newcastle (KZN), Steve Tshwete (MP) 90%	Saldanha Bay (WC) 90%	Bitou (WC) 100%	Dr J S Moroka (MP) 85%	Ugu (KZN) 80%

The national average of 50% (based on 152 datasets – 100% of WSAs) is lower than the drinking-water average (62%) and emphasises that the status of drinking-water services is generally better than the status of wastewater/sanitation services in South Africa. As noted previously, it is important to remember that the results indicate the vulnerability of wastewater quality (and therefore Green Drop status) and is not a direct reflection of performance. In some instances, municipalities might have Green Drop status, but have a high vulnerability. This indicates that maintenance of Green Drop status in the future is potentially not sustainable as issues identified are not being addressed (e.g. not tabled, insufficient budget). In other instances, the vulnerability assessment might indicate low vulnerability; whereas the Green Drop results indicate "high risk". In these instances, municipalities may already have begun to implement corrective actions to resolve issues/shortcomings identified through the Green Drop process, thus lowering their future vulnerability. The benchmark of 100% ensures no key vulnerabilities related to wastewater quality exist, and if maintained will positively contribute to the attainment/maintenance of Green Drop status.

Are WWTWs operated by staff with correct skills/qualifications & experience (as per Green Drop requirements)?



"Only 15% of WSDPs that end up in the IDP are acceptable. Most WSDPs are not complete or have poor data quality and associated poor planning."

Financial Management

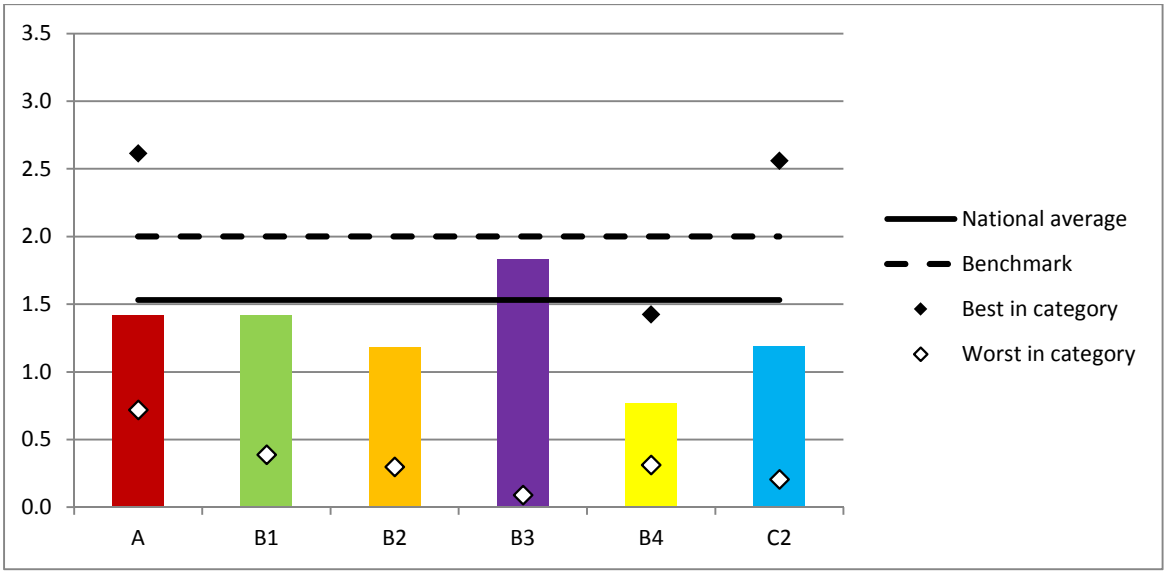
A municipality's financial management plays a critical role in the financial sustainability of the municipality.

Without income from services, the municipality will either be running a bankrupt business or be highly reliant on grants – clearly an unsustainable solution. Financial management includes the tactical and strategic goals related to the financial resources of the municipality, and considers, for example, whether the municipality has sufficient reserves to maintain and/or expand its services. Financial ratios are a useful means to quickly determine whether a business is worth investing in, and similarly municipal financial ratios provide a clear indication of the financial health of a municipality. Good financial management enables a municipality to accomplish both important big picture/long-term and daily financial objectives.

	Name	Code	Data source	Average 2014 (number of datasets out of 152)	Average 2013 (number of datasets out of 152)	Trend
1	Municipal current ratio	CR	NT	1.53:1 150 (99%)	2:1 131 (86%)	
2	Cost of salaries	Salaries	NT	33.6% 134 (88%)	31% 144 (95%)	
3	Water services income	Income	NT/StatsSA	R1 633 per household per annum 140 (92%)	R1 116 per household per annum 130 (86%)	
4	Revenue (water) / Household	FM26	NT/DWS	R 1089 per household per annum 146 (96%)	-	-
5	Revenue (wastewater) / Household	FM27	NT/DWS	R505 per household per annum 141 (93%)	-	-
6	Financial management health check	FP1	DWS	60% 152 (100%)	59% 152 (100%)	
7	Revenue collection health check	FP2	DWS	50% 152 (100%)	47% 152 (100%)	
8	Capital Expenditure to Total Expenditure (water)		NT	31% 140 (92%)	-	-
9	Capital Expenditure to Total Expenditure (wastewater)		NT	40% 123 (81%)	-	-
10	Net Surplus / Deficit (water)		NT	-23% 108 (71%)	-	-
11	Net Surplus / Deficit (wastewater)		NT	-13% 108 (71%)	-	-

Municipal current ratio (or working capital ratio)

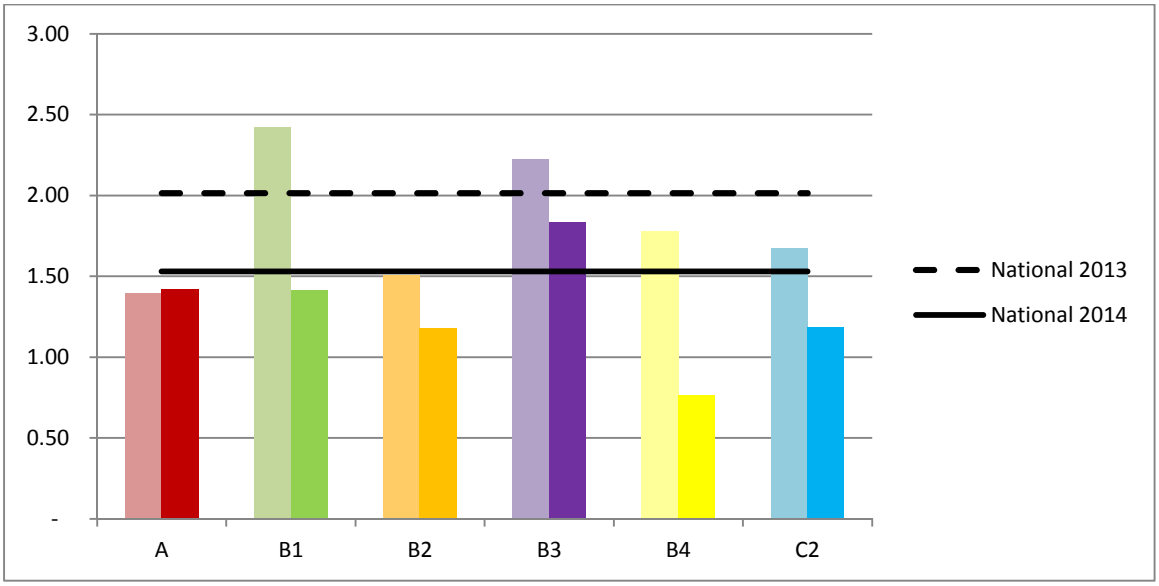
Formula: Municipal current assets / municipal current liabilities, at the end of the assessment period (i.e. for the municipality, and not only the Water Services Authority function, as this information is not readily available).



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
2:1	Buffalo City (EC) 2.6:1	Sol Plaatje (NC) 3.6:1	Saldanha Bay (WC) 3.8:1	Dipaleseng (MP) 24.3:1	Dr J S Moroka (MP) 1.4:1	Chris Hani (EC) 2.6:1

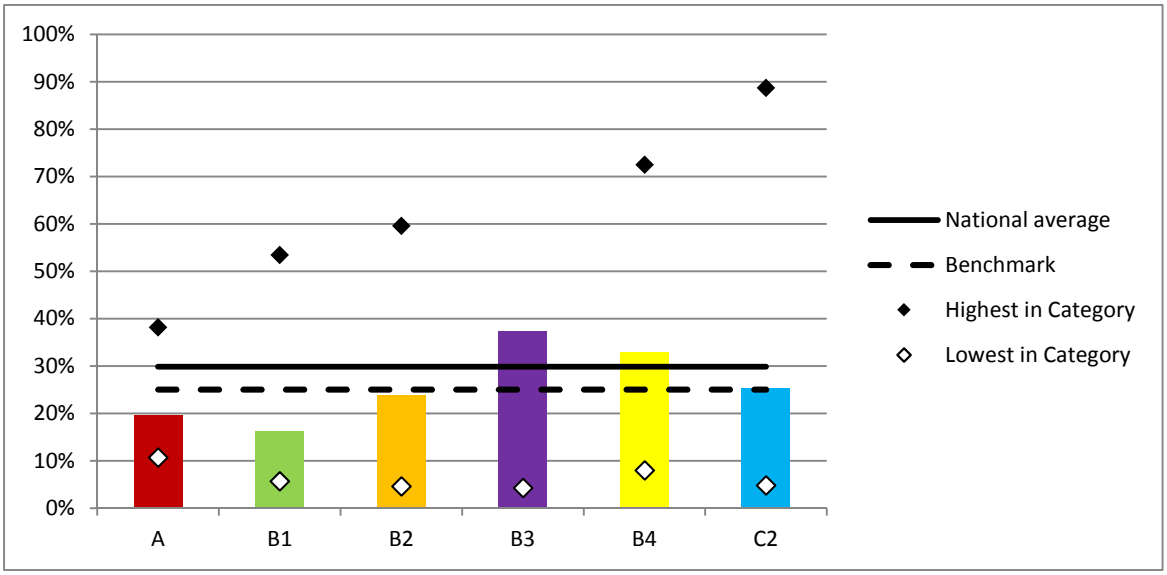
The national average is 1.5:1 (based on 150 datasets – 99% of WSAs). The ratio measures the extent to which current assets provide cover to meet current liabilities, and therefore whether the municipality has enough resources to pay its debt over the next business cycle. Although acceptable current ratio values vary from industry to industry, a current ratio of 2:1 is considered to be acceptable, and a benchmark of 2:1 is therefore proposed. The higher the current ratio is, the more capable the municipality is to pay its obligations. If the current ratio is below 1 (current liabilities exceed current assets), then the municipality may have problems paying its bills on time. Although a high ratio indicates "safe" liquidity, it can also be a signal that the municipality has problems getting paid on its receivables.

Comparison Graphs - 2013 VS 2014: FM - Current ratio



Cost of salaries

Formula: Cost of salaries for municipality / operating expenditure for the municipality, for the assessment period (i.e. for the municipality, and not only the Water Services Authority function, as this information is not readily available).



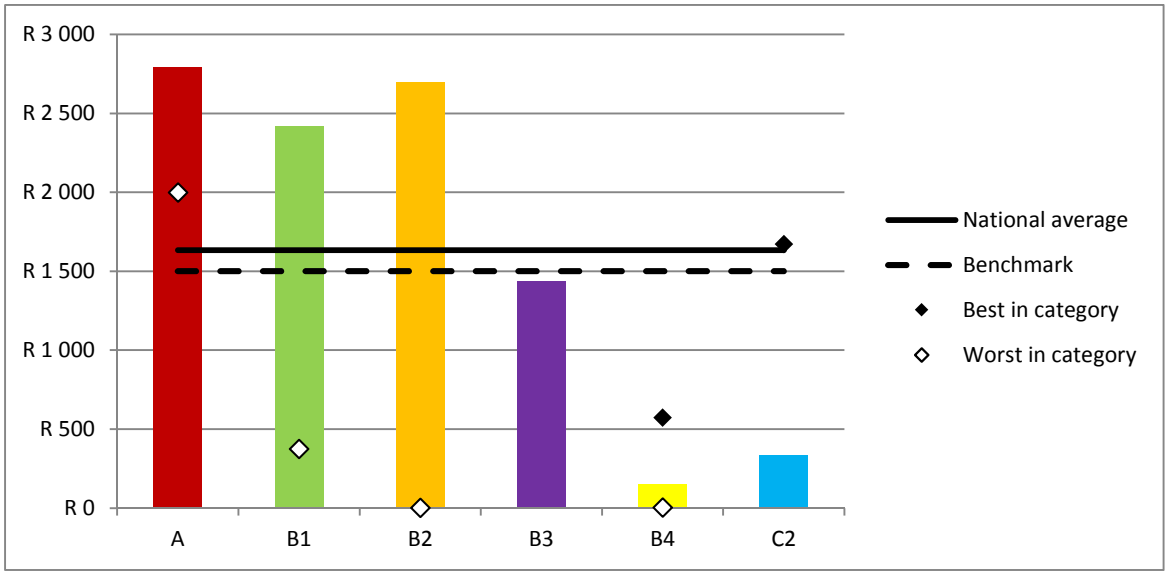
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
25%	City of Johannesburg (GP) 14.2%	Msunduzi (KZN) 7.8%	Metsimaholo (FS) 7.3%	Ga-Segonyana (NC) 7.5%	Thembisile (MP) 10.2%	Dr Ruth S Mompati (NW) 4.8%

The national average is 34% (based on 134 datasets – 88% of WSAs) and a benchmark of 25% is proposed. It is widely accepted that there is a need for effective technical and management support to rural water schemes to maintain functionality of the infrastructure, and that such support may require a significant number of highly skilled staff members. The cost of such technical support could represent a large proportion of the overall operational costs, and could be a factor resulting in the higher cost of salaries ratio noted in more rural municipalities.

"The budget cycle starts in August. So plan properly and be proactive. Don't wait until February and then say 'I need this'."

Water services income

Formula: Income obtained from water services / number of households, during the assessment period.



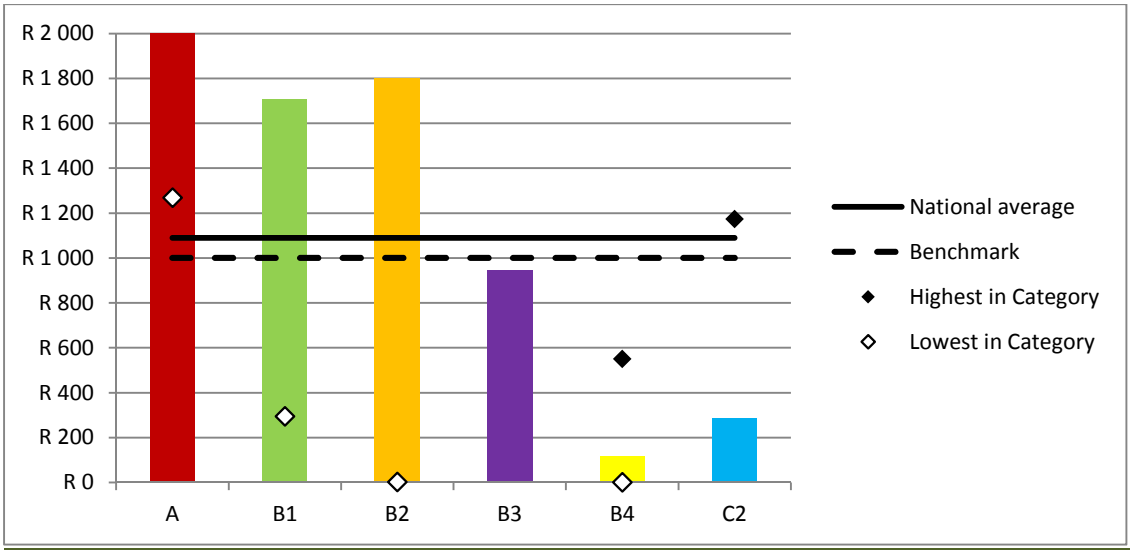
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
R1 500 per household per annum (R125/month)	Mangaung (FS) R3 356 per household per annum (R280/month)	Emfuleni (GP) R4 550 per household per annum (R379/month)	Mossel Bay (WC) R5 116 per household per annum (R426/month)	Gamagara (NC) R4 602 per household per annum (R384/month)	Moses Kotane (NW) R574 per household per annum (R48/month)	Ugu R1 673 per household per annum (R139/month)

The national average is R1 633 per household per annum (or R136/month) (based on 140 datasets – 92% of WSAs). Of concern is that many municipalities do still not have cost reflective tariffs in place (see figure overleaf), and thus revenues from tariffs do not cover operations and maintenance costs and/or debt service and depreciation costs (indication of whether the municipality has the capacity to invest in infrastructure without the grants given by government). Appropriate tariff modelling and implementation of appropriate tariffs following approval by Council are essential actions. Lower incomes could also be attributable to poor debt collection efficiency, thus indicating a need to review current revenue enhancement and credit control strategies and implement accordingly. A benchmark of R1 500 per household per annum (or R125/month) is proposed.

"Make it as easy as possible for customers to pay."

Revenue (water) / Household (R per household per annum)

Formula: Income obtained from water services (water) / number of households, during the assessment period.

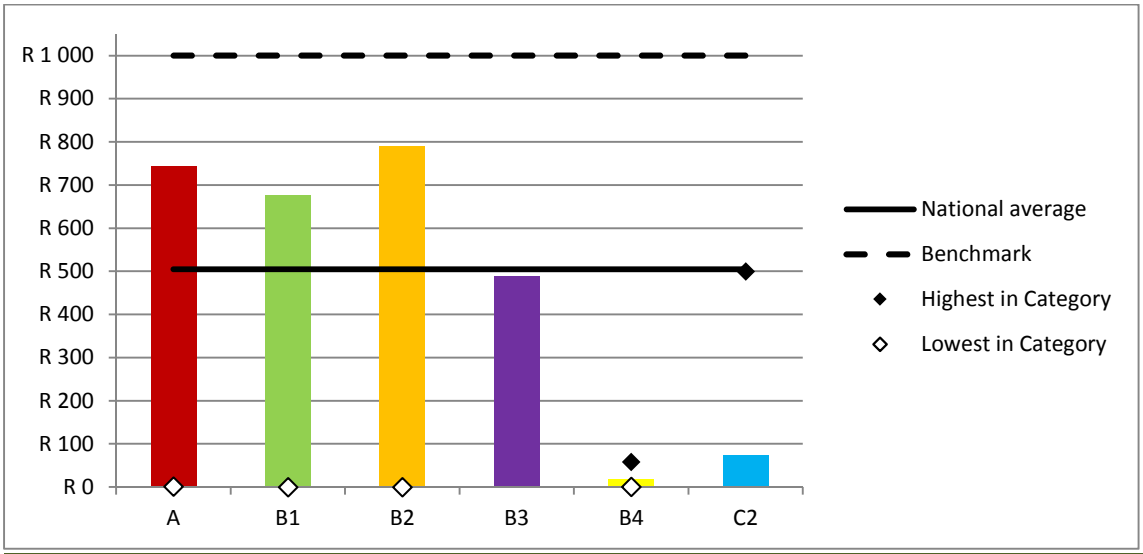


	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
R1000	Mangaung (FS) R2 599	Emfuleni (GP) R3 541	Metsimaholo (FS) R4 434	Gamagara (NC) R3 653	Moses Kotane (NW) R551	Ugu (KZN) R1 173

The national average is R1 089 (based on 146 datasets – 96% of WSAs).

Revenue (wastewater) / Household (R per household per annum)

Formula: Income obtained from water services (wastewater) / number of households, during the assessment period.

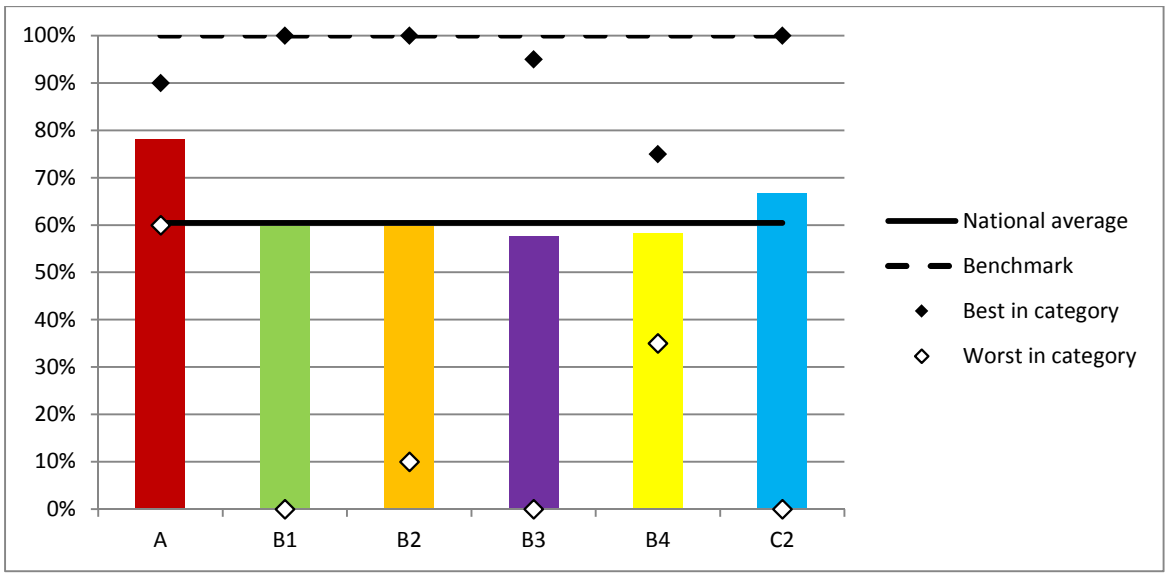


	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
R1000	City of Johannesburg (GP) R1 182	Stellenbosch (WC) R1 243	Overstrand (WC) R2 045	Bitou (WC) R1 896	Joe Morolong (NC) R59	Ugu (KZN) R500

The national average is R505 (based on 141 datasets – 93% of WSAs).

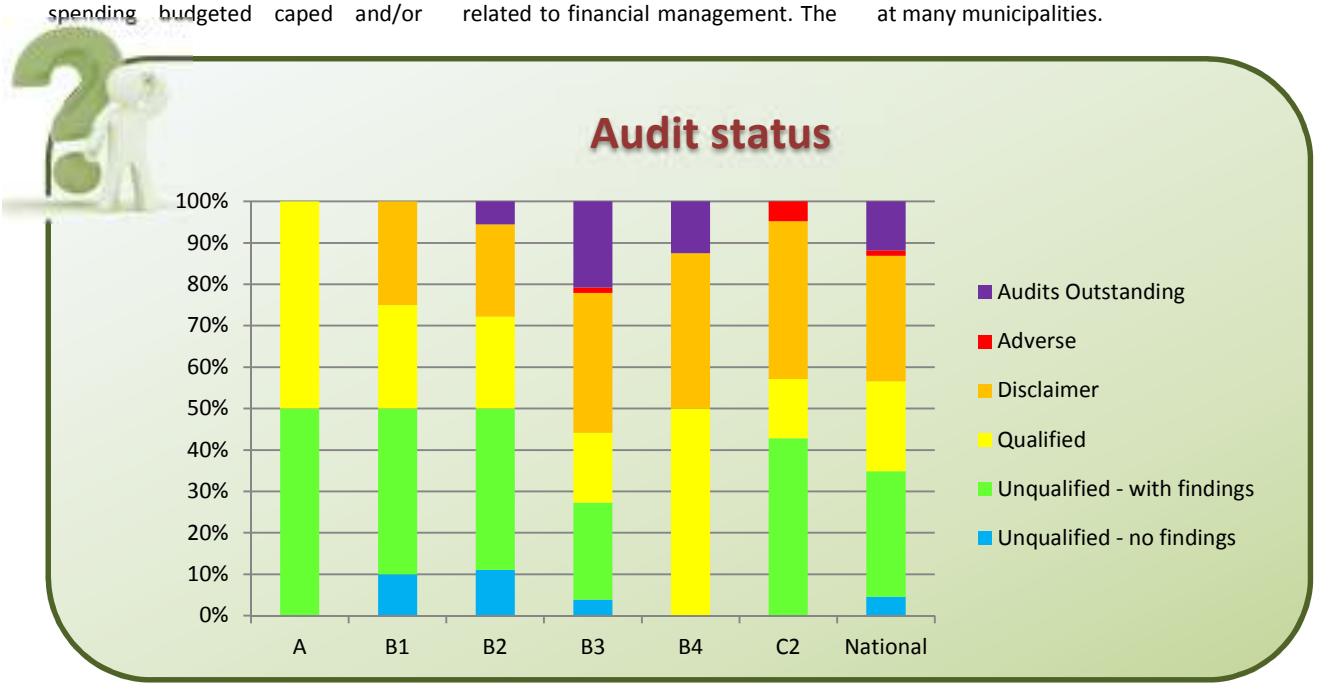
Financial management health check

Formula: Financial management health determined from assessment of 5 key vulnerability attributes.



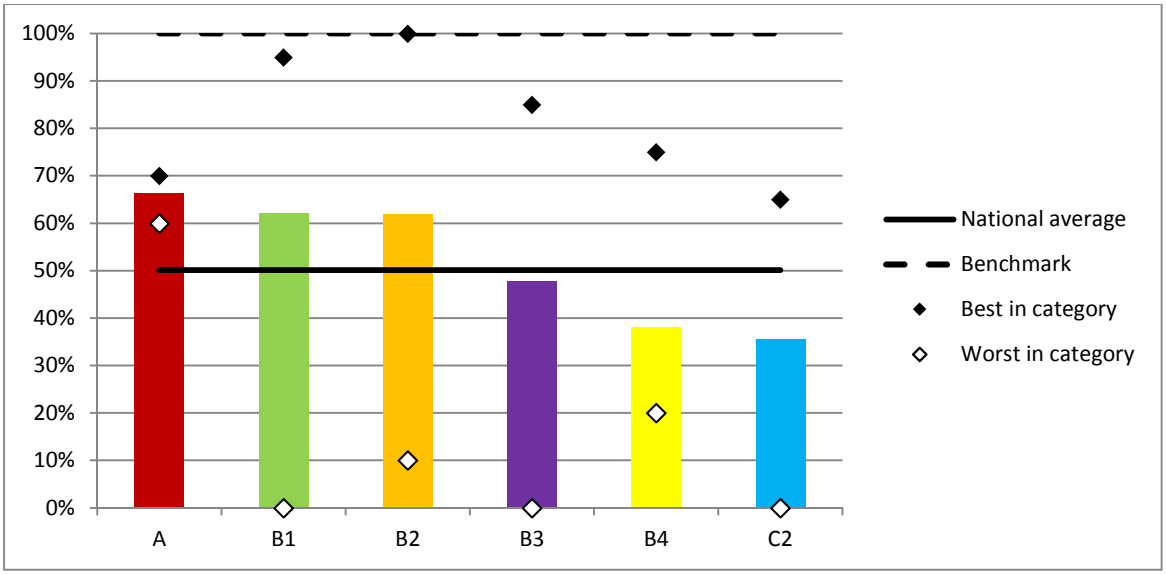
Benchmark	Best In Category					
	A	B1	B2	B3	B4	C2
100%	City of Cape Town (WC), eThekwini (KZN) 90%	Steve Tshwete (MP) 100%	Overstrand (WC) 100%	Laingsburg (WC), Langeberg (WC), Ndlambe (EC) 95%	Dr J S Moroka (MP) 75%	Umgungundlovu (KZN), Zululand (KZN) 100%

The national average of 60% (based on 152 datasets – 100% of WSAs) indicates that some municipalities might have difficulty in effectively spending budgeted caped and/or often have outstanding accounts with major service providers/creditors (e.g. Eskom, water boards). The benchmark of 100% ensures no key vulnerabilities related to financial management. The audit status is also a good indication of the financial management within a municipality, and the figure below highlights that significant issues exist at many municipalities.



Revenue collection health check

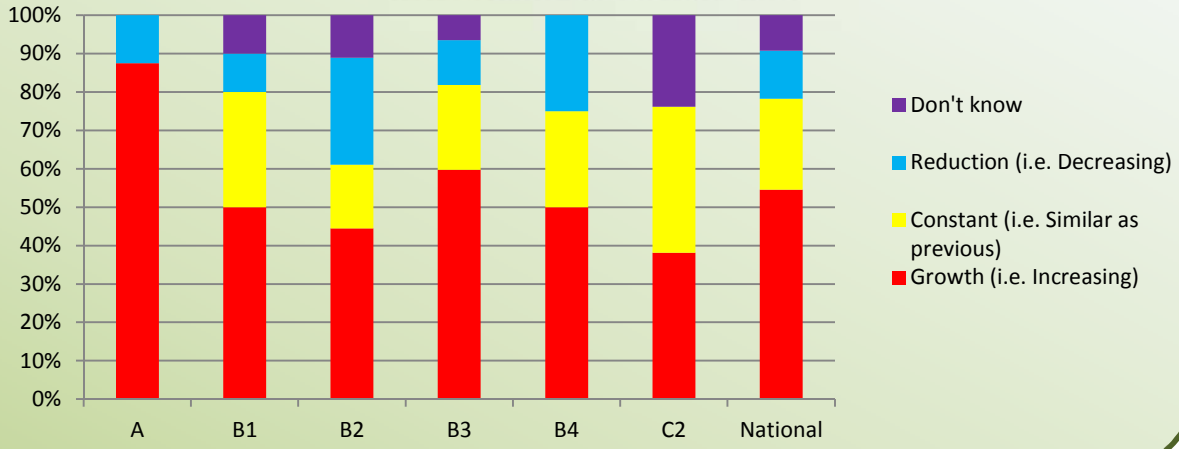
Formula: Revenue collection health determined from assessment of 5 key vulnerability attributes.



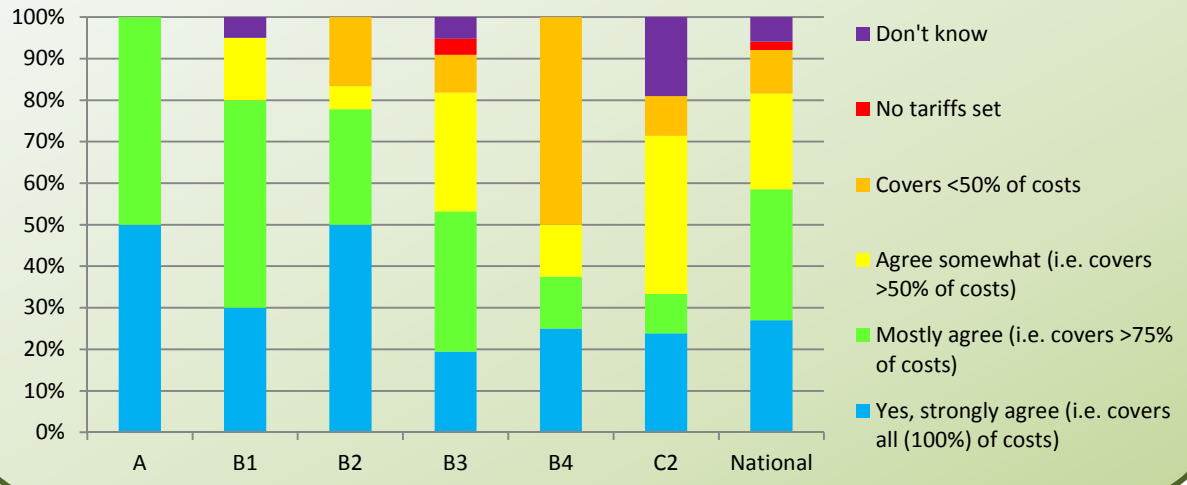
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Buffalo City (EC), City of Cape Town (WC), City of Tshwane (GP), Ekurhuleni (GP) 70%	Drakenstein (WC) 95%	//Khara Hais (NC), Overstrand (WC) 100%	Bitou (WC), Lephalale (LP) 85%	Albert Luthuli (MP) 75%	Amajuba (KZN), uThungulu (KZN) 65%

The national average of 50% (based on 152 datasets – 100% of WSAs) shows that this is one of the most vulnerable attributes of water services in South Africa. It is important to remember that the results indicate the vulnerability of revenue collection (i.e. Do we have cost reflective tariffs? Do we send bills on time? What is our collection rate? Are our debtors increasing? – see figures overleaf) and is not a direct reflection of performance. The benchmark of 100% ensures no key vulnerabilities related to revenue collection exist.

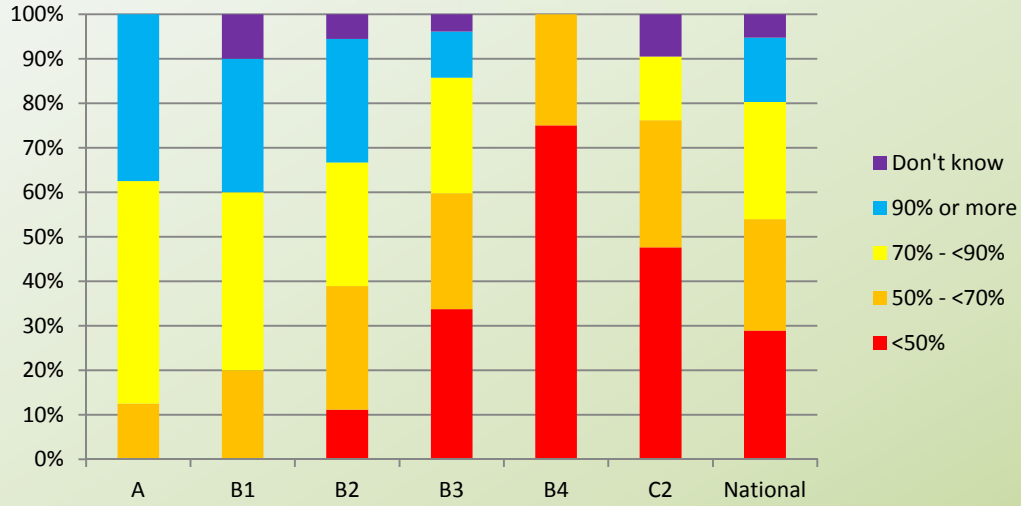
What is the trend related to outstanding debtors (>90 days)?



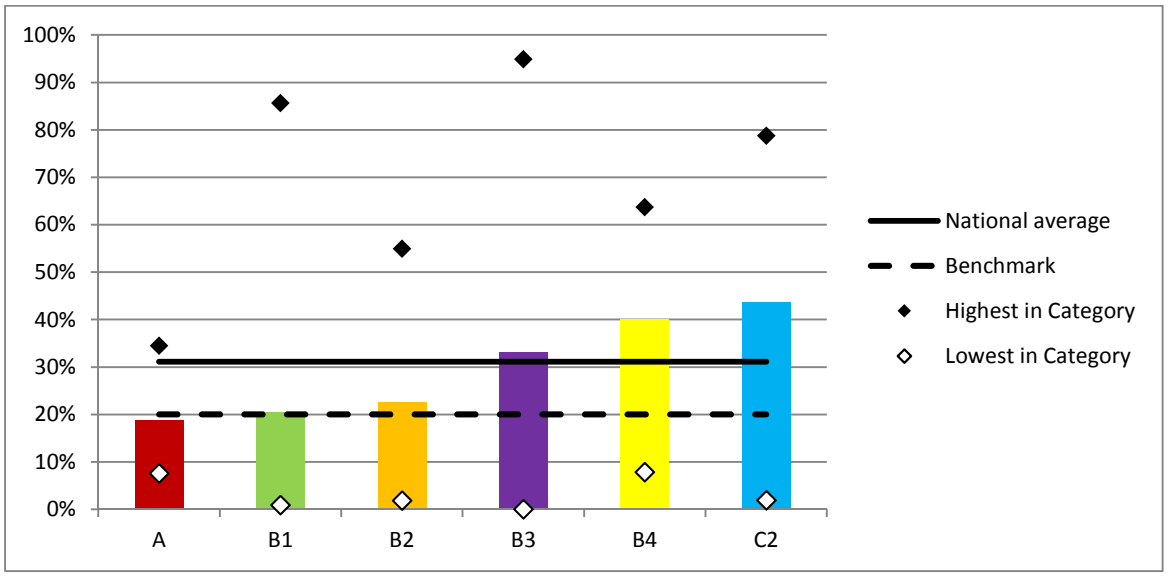
Are cost reflective tariffs in place?



What is the revenue collection rate (revenue received/billed - %)?

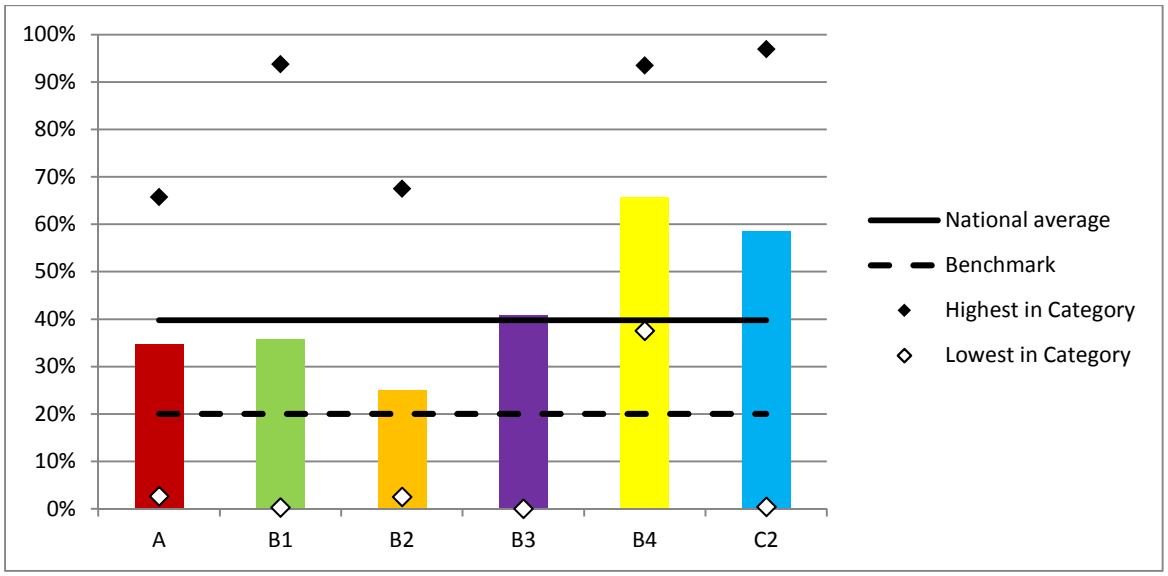


Capital Expenditure to Total Expenditure (water)



The national average is 31% (based on 140 datasets – 92% of WSAs).

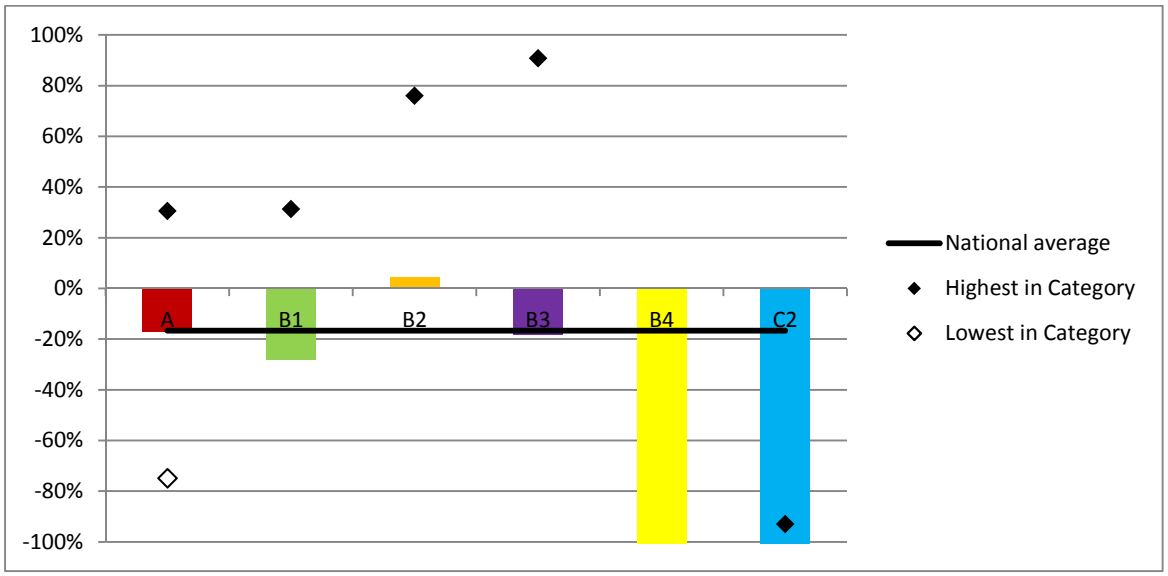
Capital Expenditure to Total Expenditure (wastewater)



The national average is 40% (based on 123 datasets – 81% of WSAs).

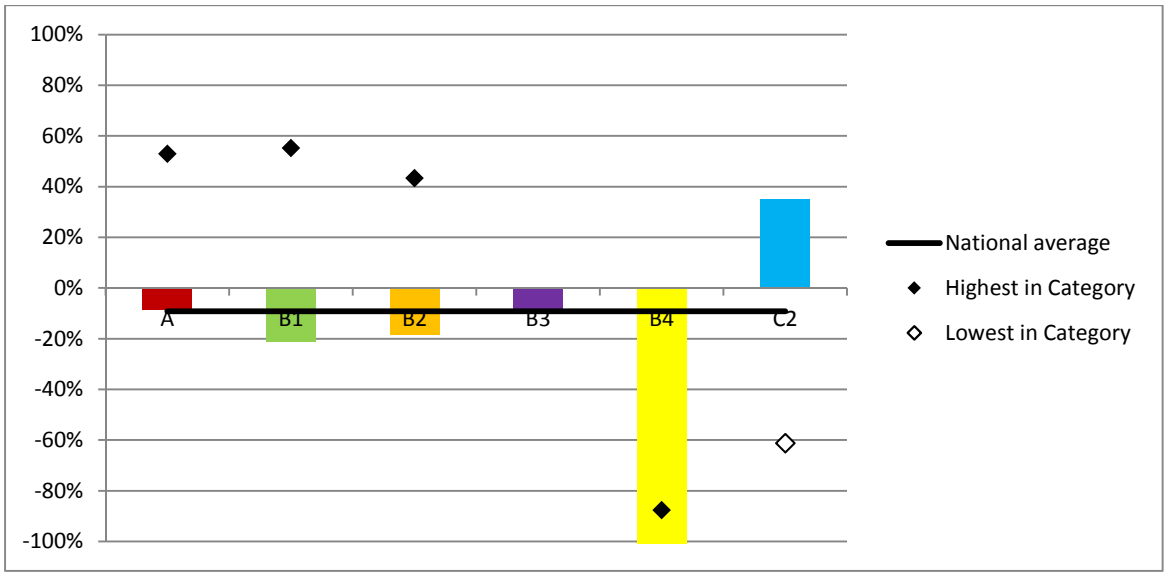
*"The CFO is **NOT** enemy No.1! The world is full of nice people. If you can't find one…be one! So if your CFO is not talking to you…be proactive and talk to your CFO."*

Net Surplus / Deficit (water)



The national average is -23% (based on 108 datasets – 71% of WSAs).

Net Surplus / Deficit (wastewater)



The national average is -13% (based on 108 datasets – 71% of WSAs).

"Costs are not really the problem…proper revenue management is the problem."

Municipal Standard Chart of Accounts (mSCOA)

A key objective of the National Treasury mSCOA Regulations is to enable the alignment of budget information with information captured in the course of the implementation of the budget. Additional key objectives, which also illustrate potential benefits, include:

- Improved data quality and credibility
- The achievement of a greater level of standardisation
- The development of uniform data sets critical for "whole-of-government" reporting
- The standardisation and alignment of the 'local government accountability cycle'
- The creation of the opportunity to standardise key business processes
- Improved transparency, accountability and governance through uniform recording of transactions at posting account level detail
- Enabling deeper analysis and sector comparisons to improve financial performance
- The standardisation of the account classification to facilitate mobility in financial skills

The improved quality of data will enhance the budget, financial reporting and other decision-making processes impacting on local government. mSCOA segments include:

- Funding – What source of funding will be used for the transaction and from which source is the revenue received?
- Function – Against which functions or sub-functions should the transaction be recorded?
- Standard Classification – Against which organisational vote or sub-vote should the transaction be recorded?
- Item – What is the nature of the transactions to be recorded?
- Project – Does the transaction relate to a specific project and if so, what type of project?
- Regional Indicator – Which geographical area is deriving the benefit from the transaction?
- Costing– Impact of the transaction on secondary costing?

The MBI aims to align with mSCOA requirements to the benefit of municipalities.

The Water Services Authority (WSA) League (2014)

Introduction

This is the second year that the WSA League has been developed and published. It is the intention to produce this analysis on an annual basis. In the longer term this will create an opportunity to identify and analyse trends in performance.

The development of the WSA League is motivated by a desire to create a tool that allows Water Service Authorities (WSAs) and other stakeholders to reflect on performance in the delivery of water services, and to enable them to compare such performance with peers. It is a precept of the League that WSAs do not all have to contend with similar operational challenges. Some have large populations, some operate over vast rural, and all WSAs have a unique combination of household and communal water supply as well as sewer and pit-based sanitation solutions.

A ranking such as this WSA League assists to inform understanding of who the better performers are and ultimately to investigate and understand how that such performance is achieved. This enables better design of support initiatives and indeed identifies where such support is most required. The outcomes from the league in 2013 also enabled some WSAs to reflect on their own performance and areas requiring improvement. It is envisaged that this activity will be expanded on utilising the 2014 League outcomes.

Methodology

Recognising that the provision of quality Water Services requires performance across a multi-disciplinary landscape, it was necessary to identify a set of metrics that reflects that diversity. It was also a requirement that all 152 WSAs be able to 'participate' in the League, hence the metrics used had to be equally available for all. This need for both 'diversity and universality' did impose some limitations on the selection of metrics.

The Measured Performance Areas and the relevant metrics utilised in constructing the League are noted below:-

Performance Area	Metric	Source
Water Treatment Processes	Blue Drop Score	Blue Drop Report
Drinking Water Quality	Drinking Water Quality Score	Blue Drop Report
Waste Water Treatment Processes	Green Drop Score	Green Drop Report
Effluent Quality	Effluent Quality Score	Green Drop Report
Reliability of Water Supply	Reports from Consumers	Census 2011
Administration	Audit Reports	Auditor General Reports
Asset Management	Asset Management Scores	National Treasury Reports
Finances	Current Ratio (adapted)	Annual Financial Statements

Continuing with the sporting analogy, each score for a WSA was compared to the score of all other participants (Analogous to a 151 games being played by each participant. Having a better score than all other WSAs results in an individual score of 152), resulting in a 'number of wins and losses'. This yielded a score out of 152 for each WSA – on each parameter. The 8 scores from the Performance Areas noted above were totalled to get an overall score for each WSA.

Peer Groups

In order to allow for comparison with Peers it was necessary to determine a series of Groupings. These were determined on the basis of the 'Service Delivery Challenge' that each WSA must address. Clearly it is not easy, nor fair, to compare the performance of those serving a number of small towns with those operating in a metropolitan area with large populations and significant water consumption by commercial concerns. Likewise operating in a rural area with infrastructure spread out over a vast area presents challenges of its own.

Based on consideration of population served, area of operation and type of services rendered, the following Peer Grouping was determined. WSAs serving:-

- Large Urban Areas
- Medium Sized Urban Areas
- Smaller Urban Areas
- A Mix of Rural and Urban Areas
- Largely Rural Areas

Outcome of the League

The purpose of the ranking is not to 'name and shame' nor embarrass any particular municipality and their staff. For this reason the absolute ranking from 1 – 152 is not presented but rather, the performance of all WSAs has been organised in 4 tiers:

- Top performers
- Showing potential
- Weaknesses identified
- Improvement Required

In each Tier the names are organised alphabetically within each Peer Group.

Although, as stated above, it is not the intention to embarrass, it is appropriate that those top performers be recognised for their achievements. The Fifteen Top Performing WSAs were.

Rank	Water Service Authority
1	Tlokwe City Council
2	Bitou
3	City of Cape Town
4	City of Johannesburg
5	Saldanha Bay
6	Ekurhuleni
7	Breede Valley
8	George

Rank	Water Service Authority
9	Overstrand
10	Witzenberg
11	uMhlathuze
12	Emfuleni
13	Mossel Bay
14	Swartland
15	Cape Agulhas

In recognition of the variation in operational challenge that must be considered it is also important to recognise those top performers in Peer Group.

Large Urban	Medium Urban	Smaller Urban	Rural-Urban Mix	Large Rural
Tlokwe	Bitou	Cape Agulhus	uMhlathuze	Mogalakwena
Cape Town	Saldanha Bay	Swellendam	uMsunduzi	Umzinyathi
Johannesburg	Overstrand	Emthanjeni	uMgungundlovu	iLembe

Significantly there was very little year on year mobility between the performance Tiers. The top 15 performers in 2014 were largely the same as in 2013 with only three new entrants, and only one from outside the top 20 in the previous year. Of the

38 WSAs in the top Tier only 8 were new entrants, and each of these was from Tier 2 in 2013. Likewise in the bottom Tier, only 12 of the 38 WSAs were new entrants. Overall 86 WSAs remained in the same performance Tier, 62 moved up or down one Tier and only 4 WSAs moved 2 Tiers.

It is important to not read too much into this since there are only 2 years of history in the league rankings, but this does point to 'stability' in the performance of WSAs. Monitoring this over time will yield important insights as to whether organisations are constrained by their circumstances and context, and indeed what should be done to address this.

It is of course important to compare performance on an absolute basis, but in many situations 'context is everything'. Developing an understanding of the policies and procedures of each of the Peer Group top performers can offer valuable insights into what it takes to perform well within a particular context.

The Operational Challenge

Seldom will it be disputed that providing any service to a larger population will require greater resources. Of course the argument of 'economies of scale' can be made, but in total, it will 'cost more' to serve more people. However, in reality the operational challenge is characterised by a more complex interaction of a number of factors. It is however difficult to quantify this challenge, but intuitively it can be appreciated. As mentioned above, it is not necessarily a fair, or useful, representation of performance when context is not considered.

Over the years a number of attempts have been made to determine how this operational challenge differs between WSAs. In that there is no clear definitive mechanism to measure the scale of the challenge it was necessary to develop an indicative measure that is at least representative of the comparative differences between WSAs.

In general it is appreciate that the following factors can be used as proxies for how difficult it will be to provide services.

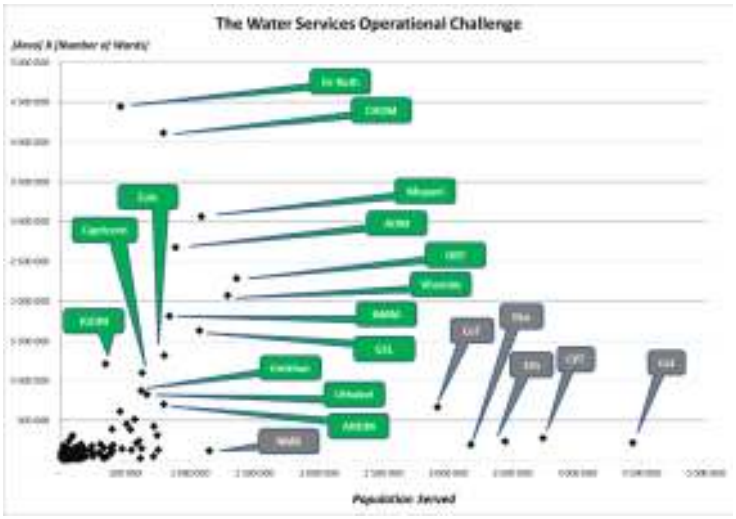
- Population served.
- Area of operation.
- The degree to which communities (and water supply schemes) are remote from each other.

The first two items in this list are easily determined from the population figures in census 2011 and land areas calculated in GIS databases. Some measure of the degree of operational fragmentation is not as readily available. Ideally this would be determined from a comprehensive list of all infrastructure within each WSA. A comprehensive data base of this sort is not readily available for all 152 WSAs. Hence it was necessary to identify an acceptable proxy for this.

To this end the number of wards in each WSA was used as an indicator of the degree to which communities are fragmented and hence require multiple water schemes and infrastructure. Clearly this is not a precise measure of the 'how many different operational units' a WSA must contend with, but it is felt that it is largely representative of this contributor to operational complexity. This is illustrated in the map alongside.

Considering the parameters of 1) population served and 2) the area and fragmentation of communities within that area - we see that the magnitude and nature of the operational challenge varies widely between WSAs.

It is clear that two groups of WSA have a significantly more difficult task in providing services than the majority. Those with large populations (viz. the Metros) and those with many separate communities spread over vast areas. In order to compare performance on a truly fair (and useful) basis we must attempt to 'normalise' such performance against this challenge.

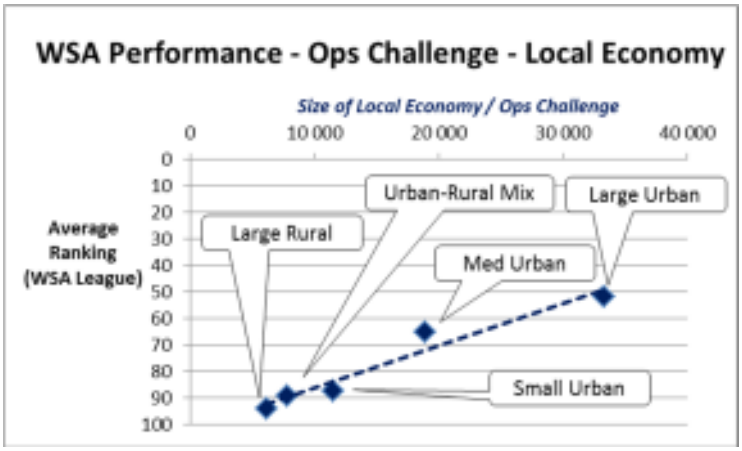


Considering also the fact that WSAs operate in environments that do not share equivalent levels of economic development, we must also compare the degree to which resources are in fact available to address the operational challenges. While it is easy to recognise that an area with a weaker economy will experience financial difficulties due to poverty, it is also important to recognise that such weakness will also manifest as a lack of other essential resources such as 1) availability of skilled staff, 2) a network of specialist service providers and indeed simple things such as 3) vendors carrying necessary spare parts.

Comparing the average ranking of each Peer Group with an index of the challenge and the size of each local economy ([Operational Challenge Index] / [Municipal Gross Value Add]) , we see a distinct pattern.

Those WSAs where the size of the local economy is large relative to the operational challenge achieve significantly higher performance rankings.

This observation clearly warrants further investigation. If it is indeed true that performance is largely an outcome of the systemic characteristics of each area then it will require a rethink and realignment of how support is provided to those WSAs that continue to experience difficulty in improving performance and achieving acceptable levels of service delivery.



Conclusions

It can be concluded that:-

- The performance levels and ranking of WSAs in the 2014 League is similar to that in 2013.
- The Operational Challenge is not consistent across all WSAs. Some of the WSAs face a significantly disproportionate challenge in providing water services to their communities.
- The qualitative nature of these challenges is also not necessarily consistent.
- The size of the local economy affects WSA performance
    - Those WSAs addressing a large operational challenge within a context of a large developed local economy perform well.
    - Those WSAs with a service delivery mandate in areas with weaker economies perform poorly.
- In both cases there are anomalies and outliers. It will be important to develop an understanding of how the top performers in each Peer Group achieve superior outcomes.
- These findings suggest that the performance of WSAs is largely a consequence of the economic environment in which they operate.
- The support and intervention designed for poorly performing WSAs should take note of the systemic nature of the challenge.

Tier 1

Large Urban	Medium Urban	Smaller Urban	Rural-Urban Mix	Large Rural
Breede Valley	Bergrivier	Beaufort West	Hantam	
Buffalo City	Bitou	Cape Agulhas	Umgungundlovu	
City of Cape Town	Knysna	Emthanjeni	uMhlathuze	
City of Johannesburg	Langeberg	Swellendam	Umsunduzi	
City of Tshwane	Midvaal			
Drakenstein	Mossel Bay			
Ekurhuleni	Oudtshoorn			
Emfuleni	Overstrand			
eThekwini	Saldanha Bay			
George	Swartland			
Lesedi	Theewaterskloof			
Merafong City	Witzenberg			
Mogale City				
Nelson Mandela Bay				
Sol Plaatjie				
Stellenbosch				
Steve Tshwete				
Tlokwe City Council				

Tier 2

Large Urban	Medium Urban	Smaller Urban	Rural-Urban Mix	Large Rural
Govan Mbeki	Bela-Bela	Camdeboo	Dr JS Moroka	Amathole
Mangaung	Cederberg	Gamagara	Kareeberg	Capricorn
Matjhabeng	Hessequa	Kgatelopele	Lephalale	Chris Hani
Metsimaholo	Kai !Garib	Khâi-Ma	Maluti a Phofung	Ga-Segonyana
Randfontein	Matzikama	Laingsburg	Mbombela	iLembe
Westonaria	Phokwane	Mookgopong	Newcastle	Joe Gqabi
		Prince Albert	Rustenburg	Mogalakwena
		Tsantsabane		Ugu
		Tswelopele		Umzinyathi
		Ubuntu		

Tier 3

Large Urban	Medium Urban	Smaller Urban	Rural-Urban Mix	Large Rural
City of Matlosana	//Khara Hais	Baviaans	!Kheis	Amajuba
Dihlabeng	Kouga	Dikgatlong	Madibeng	Harry Gwala
Moqhaka	Mafube	Emakhazeni	Polokwane	Joe Morolong
Thaba Chweu	Makana	Kannaland	Setsoto	Moses Kotane
	Maquassi Hills	Letsemeng	Siyancuma	Nkomazi
	Modimolle	Magareng	Tokologo	Umkhanyakude
	Pixley Ka Seme	Mohokare		Uthukela
	Umjindi	Siyathemba		Uthungulu
	Victor Khanye	Thembelihle		Vhembe
		Umsobomvu		

Tier 4

Large Urban	Medium Urban	Smaller Urban	Rural-Urban Mix	Large Rural
Emalahleni	Kopanong	Blue Crane Route	Albert Luthuli	Alfred Nzo
Lekwa	Mantsopa	Dipaleseng	Kamiesberg	Bushbuckridge
Msukaligwa	Masilonyana	Ikwezi	Karoo Hoogland	Dr Ruth Segomotsi Mompati
Ngwathe	Nala	Kou-Kamma	Kgetlengrivier	Mkhondo
	Nketoane	Naledi	Mier	Mopani
	Thabazimbi	Nama Khoi	Moretele	Ngaka Modiri Molema
		Phumelela	Ndlambe	O.R.Tambo
		Renosterberg	Sundays River Valley	Sekhukhune
		Richtersveld	Thembisile Hani	Zululand
			Ventersdorp	

Final Considerations and Way Forward

The MBI's work effort and associated progress has been substantial during the last year; yet needs to be seen in light of this being a fledgling process which has included a need to test & research approaches and respond appropriately.

A gradual start with gathering momentum is a normal situation with Benchmarking processes, and the experience in Europe, Canada and elsewhere is that it takes multiple years before true momentum is in place.

Good progress has been made across most areas of the project. Solid participation has occurred at the metro level (both metric and process benchmarking); whilst at the District Municipalities (DMs) and Local Municipalities (LMs) good participation in process benchmarking has occurred via the Water Services Master Classes and annual Benchmarking Workshop. DM/LM metric benchmarking has been limited to Core and Metric indicators.

During interactions with WSAs, many indicate that data that would allow calculation of noted MBI PIs does exist. Despite this, many WSAs were not able to provide this data to the MBI. In particular:

1. Where WSAs are not yet measuring/monitoring to allow calculation of PIs, WSAs should: (1) select 1 or 2 key PIs per module and start measuring/monitoring required data inputs so that PIs can be calculated.
2. Where WSAs are measuring/monitoring and thus able to calculate PIs, WSAs should: (1) Utilise the Munibench system for data analysis and peer comparison, and (2) Develop action plans to address any identified weaknesses/shortcomings.

The MBI team will continue to provide WSAs guidance and facilitate peer group interactions/performance assessment discussions between WSAs and their peers.

The expectation is that the MBI can with time lead to substantial breakthrough improvements in water services delivery in South Africa. In addition to the efforts of the project sponsor, Benchmarking Ambassadors and the project team, success will be dependent on interest, commitment and involvement from municipalities and the supportive involvement and alignment from key water services sector groups including *inter alia* Department of Water Affairs (DWA), Department of Cooperative Governance (DCoG), and National Treasury (NT).

Considering the sector and project constraints that exist, and within the reality that benchmarking is a voluntary process, the MBI has made good progress. On-going efforts will aim to allow "proactive nurturing" for the generation of momentum across the DMs and LMs which is starting to be achieved amongst the cities.

"Disclose your problems. Benchmarking is not a beauty competition. Also share your successes, and help others learn how it can be done!"

Meet the MBI Team

William Moraka
SALGA

Jay Bhagwan
WRC

Grant Mackintosh
Emanti

Kim Walsh
PDG

Mzi Ramba
Emanti

Thabisa Manxodidi
Emanti

Warren Retief
Emanti

Philip de Souza
Emanti

Rajiv Paladh
PDG

Jim Gibson
Maluti GSM

Unathi Jack
Emanti

Shawn Moorgas
Emanti

About MBI

In April 2011, the South African Local Government Association and Water Research Commission re-launched the National Municipal Benchmarking Initiative (MBI). The Project Aims to:

- Support improved efficiency and effectiveness in water services delivery through comparative performance benchmarking, peer-to-peer knowledge sharing and iterative performance improvements,
- Strengthen performance measurement, monitoring and management in municipal water services provision,
- Build communities of practice within and between municipalities,
- Forge relationships of mutual respect and trust between municipalities and thereby strengthen the development of performance tracking, reporting and comparative assessment systems.

Achieving the above in the South African context across all municipalities holds significant challenges, and as such the following key components of the **Project Approach** are significant:

- Make benchmarking part of "normal, good business practice" that assists officials with their day-to-day operations and demonstrate economic benefits and value to the water services sector.
- Focus on hands-on support ("how do I do that?").
- Create a support network and culture of information exchange between peers ("how did they do that?").
- Use a web-based real-time data-capture and reporting system for tracking and measuring performance.

At your service

Mr William Moraka
SALGA
012 369 8000
wmoraka@salga.org.za

Mr Jay Bhagwan
WRC
012 330 9008
jay@wrc.org.za

Mr Duncan Daries
IMESA
021 4003020
Duncan.Daries@capetown.gov.za

Mr Grant Mackintosh
MBI Team Leader
021 880 2932
grantm@emanti.co.za

Munibench
www.munibench.co.za
Helpdesk: mbi@emanti.co.za
or 021 880 2932

APPENDIX A: DATA ELEMENTS USED TO GENERATE PI'S

Variable	Value	Unit
Total Current Assets		R
Total Curent Liabilities		R
Salaries (water)		R
Salaries (wastewater)		R
Revenue (water)		R
Revenue (wastewater)		R
Capital expenditure (water)		R
Capital expenditure (wastewater)		R
Operating Expenditure (water)		R
Operating Expenditure (wastewater)		R
Residential water tariff for 9 kL/month		R
Residential water tariff for 25 kL/month		R
Residential water tariff for 35 kL/month		R
Total Population		Number
Total Households		Number
Water Services – Staff		Number
Water Services – Registered professional engineers		Number
Water Services – Technicians		Number
Drinking Water Compliance (E.coli/Faecal Coliforms)		%

Variable	Value	Unit
System Input Volume		kL/annum
Billed Metered Consumption		kL/annum
Billed Unmetered Consumptio		kL/annum
Revenue Water		kL/annum
Non-Revenue Water		kL/annum
Connections - metered		Number
Connections - Unmetered		Number
Length of mains (water)		km
Network Inspection (water)		km
Mains replacement (water)		km
Mains failures (water)		No.
Meter replacement (water)		Number
Total sewer length (wastewater)		km
Sewer inspection (wastwater)		km
Sewer replacement (wastewater)		km
Sewer blockages (wastewater)		Number
Water Protests		Number
Sanitation Protests		Number

APPENDIX B: LIST OF WSA TYPES

Municipal Category	WSA Code	WSA Name	Province
A	BUF	Buffalo City Metropolitan	EC
A	NMA	Nelson Mandela Bay	EC
A	MAN	Mangaung	FS
A	JHB	City of Johannesburg	GP
A	TSH	City of Tshwane Metropolitan	GP
A	EKU	Ekurhuleni Metropolitan	GP
A	ETH	eThekwini	KZN
A	CPT	City of Cape Town	WC
B1	FS161	Letsemeng	FS
B1	FS184	Matjhabeng	FS
B1	GP421	Emfuleni	GP
B1	GP481	Mogale City	GP
B1	KZNN282	City of uMhlathuze	KZN
B1	KZNN225	Msunduzi	KZN
B1	KZNN252	Newcastle	KZN
B1	LIM354	Polokwane	LP
B1	MP312	Emalahleni	MP
B1	MP307	Govan Mbeki	MP
B1	MP322	Mbombela	MP
B1	MP313	Steve Tshwete	MP
B1	NC091	Sol Plaatje	NC
B1	NW372	Madibeng	NW
B1	NW403	Matlosana City Council	NW
B1	NW373	Rustenburg	NW
B1	NW402	Tlokwe	NW
B1	WC023	Drakenstein	WC
B1	WC044	George	WC
B1	WC024	Stellenbosch	WC
B2	EC104	Makana	EC
B2	FS192	Dihlabeng	FS
B2	FS204	Metsimaholo	FS
B2	FS201	Moqhaka	FS
B2	GP484	Merafong City	GP
B2	GP422	Midvaal	GP
B2	GP482	Randfontein	GP
B2	GP483	Westonaria	GP
B2	LIM367	Mogalakwena	LP
B2	MP314	Emakhazeni	MP
B2	MP302	Msukaligwa	MP
B2	NC083	//Khara Hais	NC
B2	WC025	Breede Valley	WC
B2	WC045	Greater Oudtshoorn	WC
B2	WC048	Knysna	WC
B2	WC043	Mossel Bay	WC
B2	WC032	Overstrand	WC
B2	WC014	Saldanha Bay	WC
B3	EC107	Baviaans	EC
B3	EC102	Blue Crane Route	EC
B3	EC101	Camdeboo	EC
B3	EC103	Ikwezi	EC
B3	EC108	Kouga	EC
B3	EC109	Kou-Kamma	EC
B3	EC105	Ndlambe	EC
B3	EC106	Sundays River Valley	EC
B3	FS162	Kopanong	FS
B3	FS205	Mafube	FS
B3	FS194	Maluti-A-Phofung	FS
B3	FS196	Mantsopa	FS
B3	FS181	Masilonyana	FS
B3	FS163	Mohokare	FS
B3	FS185	Nala	FS
B3	FS164	Naledi	FS
B3	FS203	Ngwathe	FS
B3	FS193	Nketoana	FS
B3	FS195	Phumelela	FS
B3	FS191	Setsoto	FS
B3	FS182	Tokologo	FS
B3	FS183	Tswelopele	FS
B3	GP423	Lesedi	GP
B3	LIM366	Bela-Bela	LP
B3	LIM362	Lephalale	LP
B3	LIM365	Modimolle	LP
B3	LIM364	Mookgophong	LP
B3	LIM361	Thabazimbi	LP
B3	MP306	Dipaleseng	MP
B3	MP305	Lekwa	MP
B3	MP303	Mkhondo	MP
B3	MP304	Pixley ka Seme	MP
B3	MP321	Thaba Chweu	MP
B3	MP323	Umjindi	MP
B3	MP311	Victor Khanye	MP
B3	NC084	!Kheis	NC
B3	NC092	Dikgatlong	NC
B3	NC073	Emthanjeni	NC
B3	NC453	Gamagara	NC
B3	NC452	Ga-Segonyana	NC
B3	NC065	Hantam	NC
B3	NC082	Kai! Garib	NC
B3	NC064	Kamiesberg	NC
B3	NC074	Kareeberg	NC
B3	NC066	Karoo Hoogland	NC
B3	NC086	Kgatelopele	NC
B3	NC067	Khai-Ma	NC
B3	NC093	Magareng	NC
B3	NC081	Mier	NC
B3	NC062	Nama Khoi	NC
B3	NC094	Phokwane	NC
B3	NC075	Renosterberg	NC
B3	NC061	Richtersveld	NC
B3	NC078	Siyancuma	NC
B3	NC077	Siyathemba	NC
B3	NC076	Thembelihle	NC
B3	NC085	Tsantsabane	NC
B3	NC071	Ubuntu	NC
B3	NC072	Umsobomvu	NC
B3	NW374	Kgetlengrivier	NW
B3	NW404	Maquassi Hills	NW
B3	NW401	Ventersdorp	NW
B3	WC053	Beaufort West	WC
B3	WC013	Bergrivier	WC
B3	WC047	Bitou	WC
B3	WC033	Cape Agulhas	WC
B3	WC012	Cederberg	WC
B3	WC042	Hessequa	WC
B3	WC041	Kannaland	WC
B3	WC051	Laingsburg	WC
B3	WC026	Langeberg	WC
B3	WC011	Matzikama	WC
B3	WC052	Prince Albert	WC
B3	WC015	Swartland	WC
B3	WC034	Swellendam	WC
B3	WC031	Theewaterskloof	WC
B3	WC022	Witzenberg	WC
B4	MP301	Albert Luthuli	MP
B4	MP325	Bushbuckridge	MP
B4	MP316	Dr JS Moroka	MP
B4	MP324	Nkomazi	MP
B4	MP315	Thembisile	MP
B4	NC451	Joe Morolong	NC
B4	NW371	Moretele	NW
B4	NW375	Moses Kotane	NW
C2	DC44	Alfred Nzo District Municipality	EC
C2	DC12	Amathole District Municipality	EC
C2	DC13	Chris Hani District Municipality	EC
C2	DC14	Joe Gqabi District Municipality	EC
C2	DC15	O R Tambo District Municipality	EC
C2	DC25	Amajuba District Municipality	KZN
C2	DC29	Ilembe District Municipality	KZN
C2	DC43	Harry Gwala District Municipality	KZN
C2	DC21	Ugu District Municipality	KZN
C2	DC22	uMgungundlovu District Municipality	KZN
C2	DC27	uMkhanyakude District Municipality	KZN
C2	DC24	uMzinyathi District Municipality	KZN
C2	DC23	Uthukela District Municipality	KZN
C2	DC28	Uthungulu District Municipality	KZN
C2	DC26	Zululand District Municipality	KZN
C2	DC35	Capricorn District Municipality	LP
C2	DC47	Greater Sekhukhune District Municipality	LP
C2	DC33	Mopani District Municipality	LP
C2	DC34	Vhembe District Municipality	LP
C2	DC39	Dr Ruth S Mompati DM	NW
C2	DC38	Ngaka Modiri Molema District Municipality	NW

What can benchmarking do for you?

1. **Improve services**
2. **Identify opportunities**
3. **Set realistic but aggressive goals**
4. **Challenge internal paradigms on what is possible**
5. **Sharpen your processes**
6. **Uncover strengths within your municipality**
7. **Learn from the leaders' experiences**
8. **Prioritise and allocate resources more efficiently**
9. **Cut costs and save time**
10. **Help ensure regulatory compliance**

Have you ever thought of the edge that participating in the Municipal Benchmarking Initiative (MBI) can give your municipality? Whether you want to:

- improve the quality of water services,
- boost your efficiency,
- sharpen your processes,
- cut your costs and save time,
- benchmarking can help you achieve your goals, cost effectively.

In this MBI status report, you will find out what the MBI team and participating municipalities have been up to, and the benefits arising from participation in the MBI. You will also learn about current sector challenges and how these can be overcome through benchmarking.

The Municipal Benchmarking Initiative

A SALGA led initiative supported by the Water Research Commission

"for municipalities, by municipalities, to the benefit of municipalities"