SALGA
South African Local Government Association

WATER RESEARCH COMMISSION

Supporting Water Services Performance Measurement and Improvement

Annual Report on Water Services in South Africa 2013

The Municipal Benchmarking Initiative

A SALGA led initiative supported by the Water Research Commission **May 2014**

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

IMESA

Municipal Benchmarking Initiative
water services

Ten things

Benchmarking can do for your municipality

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

What are your goals?

What do you want to achieve?

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

Municipal Benchmarking Initiative
water services

Foreword by the CEO of SALGA

"Let the journey continue"

Technological advances and the need to "think globally and act locally" have compelled us to take a strategic approach to benchmarking and measuring the performance of municipalities in the delivery of water services.

Since the inception of the re-engineered municipal water services benchmarking project in 2010, SALGA in partnership with the Water Research Commission has provided seed funding to measure municipal operational performance in water services. This seed funding has enabled SALGA and the Water Research Commission to gathering intelligence on water services authorities' performance and, most importantly, to benchmark performance amongst peers.

The benchmarking initiative uses technological innovation through the introduction of a web based system, called Munibench (www.munibench.co.za). Munibench provides an easy system to: track municipal performance; enhance interactions between municipalities; and undertake comparative benchmarking amongst peers with similar characteristics. Our aim is to encourage municipalities to use the system to improve their performance.

SALGA and the WRC are continuing to provide financial support to continue the good work that has been initiated. However, additional funding is required and thus municipalities are also requested to make a contribution towards sustaining the initiative. The emphasis of the next cycle is to not only maintain the gains made but to also associate parameters within the water services business indicators. This will enable municipalities to be classified into a water services league. With this approach, municipalities are able to be competitive locally and internationally.

Our benchmarking initiative is shared globally through international networks and conferences. We will also vigorously market this initiative to external stakeholders - both private and public - with a view to sharing ideas and continuously improving water services performance.

We extend our appreciation to our strategic partners, the Water Research Commission, the Institution of Municipal Engineering of Southern Africa (IMESA), and eThekwini Municipality for your everlasting support in making this initiative a success. To our municipalities, let the journey continue to greater heights. It is our pleasure to have worked together with you in producing this report.

Let the journey continue!

Xolile George

Chief Executive of SALGA

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

Municipal Benchmarking Initiative
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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.

How benchmarking makes a difference

Why Benchmark Water Services?

The benefits of benchmarking are well documented, but do they really deliver those benefits to municipalities?

If someone were to tell you that you can make your water services business more efficient, improve your water and effluent quality, save costs and ensure customers are happy, you would want to know more. The Municipal Benchmarking Initiative (MBI) can do all these things for your municipality.

Maybe it is best if we allow a global business leader to explain the importance of benchmarking:

"…All the good business leaders I know are maniacal about measuring things. They know their sales data and customer satisfaction numbers, which divisions of their company are beating

expectations and which are lagging behind. Some even analyse their calendars to make sure they're spending time on the right priorities. (I admit I'm one of those.) Measurement is a big part of mobilizing for impact. You set a goal, and then you use data to make sure you're making progress toward it. This is crucial in business…"
(Bill Gates, Time Magazine, 30 September 2013)

Benchmarking is "A tool for performance improvement through systematic search and adaptation of leading practices" (IWA's Task Group on Benchmarking)

The MBI provides municipalities with a practical framework for you to examine, review and continuously improve your water services business. So what has the MBI Team been up to?

- Internationally aligned locally relevant PI's, to support performance improvement
- Supported Peer Learning processes, to assist improved performance
- Supported Munibench web-data base and tool, to assist improved performance
- Facilitated Peer Group activities, to assist improved performance
- Business Analysis and Business Intelligence, annual Scorecards and National Report

Ensure participation of all municipalities, to benefit of all municipalities.

Adopt a "less is more approach" to benchmarking, especially when getting started.

Benchmark

- **Noun: a standard or point of reference against which things may be compared**
- **Verb: evaluate (something) by comparison with a standard (Oxford Dictionary of English)**
- **Typically levels of performance of another organization**

Baseline

- **A minimum or starting point used for comparisons**
- **E.g. Average current performance – check in future – changing?**

Target

- **Level of performance you are aiming to reach in the future**

Standard

- **A level of quality or attainment (Oxford Dictionary of English)**
- **E.g. Attend to all bursts within 6 hours**

The national Municipal Benchmarking Initiative for Water Services, or MBI as it is generally known, is a SALGA flag-ship initiative aimed at supporting municipalities towards improved and more efficient service delivery. Key features of the MBI include:
(i) Making benchmarking part of "normal, good business practice" that assists municipal officials with their day-to-day operations and demonstrates economic benefits and value;
(ii) Focusing on hands-on support ("how do I do that?");
(iii) Creating a support network and culture of information exchange between peers ("how did they do that?");
(iv) Using a web-based data-capture and reporting system for tracking and measuring performance. All of this done under the MBI mantra of "*for municipalities, by municipalities, to the benefit of municipalities*".

As SALGA project manager, I am pleased with the excellent level of municipal participation and interaction, including the now regular attendance and inputs from councillors at the popular MBI Water Services Master Classes. SALGA is satisfied that the novel modular and tiered approach of the MBI encourages and enables all to participate, at a level aligned with their current capabilities and future aspirations. Enjoy this 2013 MBI Annual report and we look forward to all municipalities proactively growing your participation going forward!

William Moraka, SALGA

We have been applying the concept of benchmarking for decades. This has advanced human kind to the present. I would like to site two everyday examples of benchmarking. Firstly, consider a mother and a growing child, where the mother monitors the growth of the child measuring the increase in height over time. She keeps benchmarking to previous points of reference. By doing so she is able to articulate a variety of reasons, such as nutrition, illnesses etc. that contributes to the child's growth. Consider also another everyday activity that we continually track; namely our consumption of petrol. With the rising costs and increases in petrol prices, one is always measuring the output one receives from a litre of petrol. Based on the kilometres travelled one can provide a variety of reasons for this performance. Using this data and knowledge one is able to make a number of decisions to improve performance of fuel consumption.

Benchmarking is not a new technique. In fact, as humans we are in a state of constant and unconscious benchmarking.

After years of pursuing Benchmarking in the water services sector in South Africa, it makes me proud of the progress and innovations achieved to date. We were the first to introduce an incremental approach to benchmarking, thus allowing all to participate at levels they perceived to benefit most. The MBI has been a challenging yet rewarding road full of learning. The current and growing levels of enthusiasm, participation and interest is most pleasing. I am hoping that in the next few years we are able to further grow this initiative and in doing so improve the performance of the water services sector.

Jay Bhagwan, WRC

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. An initiative which IMESA is proud to be an active team member within is the Municipal Benchmarking Initiative (MBI).

Globally, benchmarking is recognised as a best practice 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.

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.

Frank Stevens, IMESA

The primary indicator of performance in any private company is profit. Private companies are in a competitive environment and so do not usually share performance information beyond what is required by the companies act.

As municipal, public sector, water and sanitation providers, we operate on a not- for-profit basis in a monopolistic environment and so can share information freely. Because we do not set out to make a profit, we needed to find other ways to measure performance. The MBI is a tool designed by municipalities, for municipalities, and so is tailored to meet our needs.

The indicators and performance benchmarks are set by municipalities and so are very relevant and useful, especially given that we receive report backs at the end of each cycle. Being able to measure our performance against our peers makes the MBI unique because of the data and information sharing aspects of the programme.

Given the proven value of this type of benchmarking across the world as well as in the metropolitan municipalities in South Africa over a period of almost 10 years, it is an initiative that requires our active support, both in terms of contributing data and experiences as well as contributing to the costs of collecting and processing the data into valuable information and providing platforms for us to meet and debate the outcomes each year. This will ensure that we as municipalities are able to determine the direction that benchmarking takes so that it continues to be of value well into the future.

There is nothing that encourages performance more than an open sharing of our results – even the regulatory Blue and Green Drop have shown this despite these being a regulatory tool rather than a management support tool. The MBI measures factors that we have defined and tailored to suit our performance improvement needs give us a good indication of who is doing best where. The factors are even grouped to indicate performance in specific aspects of our work, through the dashboard. Engaging with those who are excellent performers enables us all to learn from them and improve ourselves. This is turn has positive benefits for our customers – the people that we all work to serve.

Neil Macleod,
Ethekwini Water and Sanitation

Benchmarking made simple

Some people think benchmarking is only for metros or involves significant time and/or costs. Not true – your participation is voluntary and should focus on what will improve your municipal water services.

Every ambitious municipality strives for service quality, efficiency and best practice. Benchmarking will help your municipality to get the best results and also how to keep improving. But you choose your level of participation.

Benchmarking process

A typical benchmarking process considers the following steps:

- Select useful Performance Indicators (PIs)
- Collect and store data (data should be fit for purpose)
- Analyse data and generate PIs
- Discuss and interpret your PIs (What is going on?)

Find your level of participation – Basic, Intermediate or Advanced?

A key feature of the MBI is the use of a modular, tiered approach to encourage and enable all to participate, at a level aligned with their current capabilities and future aspirations. Municipalities choose at what level they would like to participate (e.g. Basic, Intermediate or Advanced).

A cornerstone of the MBI is to "support improved efficiency and effectiveness in water services delivery through comparative performance benchmarking, peer-to-peer knowledge sharing and iterative performance improvements." MBI considers these approaches via relevant Performance Indicators (PIs) (and use of a web-based database, Munibench), peer network interactions and learning events.

One of the key objectives of the MBI is to attain a level of participation by all municipalities, be it at a "Basic" level (by mostly utilising existing data sets to show performance – minimising additional work by municipalities) or at an "Intermediate" or "Advanced" level. Although a default list of suggested PIs is provided, municipalities are free to choose at what level and what PIs they measure/monitor/ manage (dependant on their needs and circumstance).

Questions to ask?

1. **How well are we delivering water services right now?**
2. **What is causing us to not be any better?**
3. **What should we do about it?**

Find the right Performance Indicators for you

Identifying the most suitable performance indicators (PIs) is easy if you know what you want your municipality to achieve.

If you take a methodical approach and think about what you want your municipality to achieve, it should be easy to find PIs that suit you. Through consultation with municipalities, sector experts, and review of international best practice the MBI team have developed a "shopping list" of PIs from which to choose.

Check out other municipalities

Which parts of your water services business do you think are best or good practice? Why not interact with your peers and select some PIs which you want to track on a regular basis? If you want to improve, it's important to see where you currently stand, what others are doing, and what processes, practices or technology you can adapt or adopt to improve your performance.

Consider your customers

Do you know what matters to your customers? How often do you conduct customer surveys to see where you can improve? Participating in benchmarking will not only assist you in identifying and addressing customer needs more effectively, but can also be an important differentiator and assist Local Economic Development (LED) within your municipality.

Innovation

Do you find it hard to keep up with new technologies, regulations, standards, guidelines, methodologies, etc.?

Participating in benchmarking can help you stay at the forefront of fresh practices, and help you think differently to address the specific challenges you face. Your new ideas or practices could also spark other innovations with additional knock-on benefits to the water sector.

Let funders know you are serious

How can I demonstrate I want to improve performance if I don't know my current status? Participating in benchmarking and measuring your performance tells funders and water sector stakeholders that you are serious about performance improvement, and could make a difference when obtaining grant funding, loans, etc.

Choose Performance Indicators that help your municipality – What is worth measuring?

If the number of Performance Indicators is too overwhelming, consider narrowing your scope – What is most important?

"10 Mindset Shifts to Unleash the Transformative Power of Performance Measurement"

1. A continuous improvement philosophy
2. A results focus (not activity focus)
3. Patterns, not points (understand variation)
4. Statistics & numbers aren't hard
5. Absolutely no blame (curiosity instead)
6. A bias for action (learn by doing)
7. Process thinking
8. Systems thinking
9. No failure, only feedback
10. Performance measurement is PART of your job

Stacey Barr, Leading Performance Measurement Practitioner

Take the next step

Once you have identified the areas of your municipality that would benefit from measuring PIs, you can find the current list of PIs from Munibench (www.munibench.co.za) or contact the MBI team for guidance.

Successful performance improvement =

Attitude + Belief + Behaviour + Skill

"MBI provides a relative elastic limit range for a practical and achievable level of performance of a water utility. It has an inherent competitive effect among decision-makers for water service institutions that results in priority changes, increased resource allocation and perception review of the industry thereby improving performance. It also acts as a spring board for sound governance initiatives as water managers will be forced to put in place systems and processes for data and information management. It is a mirror for water service institutions that offers an opportunity and driving force for image and performance improvement."

Phil Mashoko, HOD: Water and Sanitation, Ekurhuleni Metro

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

"I have been trying to do calculations comparing our performance with other cities but have been unsure as to whether I have interpreted numbers correctly. Now that I have met my peers I can just call them and check next time."

"As a Deputy Mayor and Water and Sanitation Portfolio Chairperson, the MBI Master Class was very important and informative and we look forward to more in the future."

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.

"On-going case study presentations of success stories (as reflected by Performance Indicators) would assist other municipalities to learn, adapt and implement actions."

"I thought that I was the only one grappling with this issue. It is comforting to hear that others are having the same problems."

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 31 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 Accuracy and Reliability

The data for the PIs presented in this National MBI Report has been drawn from Department of Water Affairs, 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:

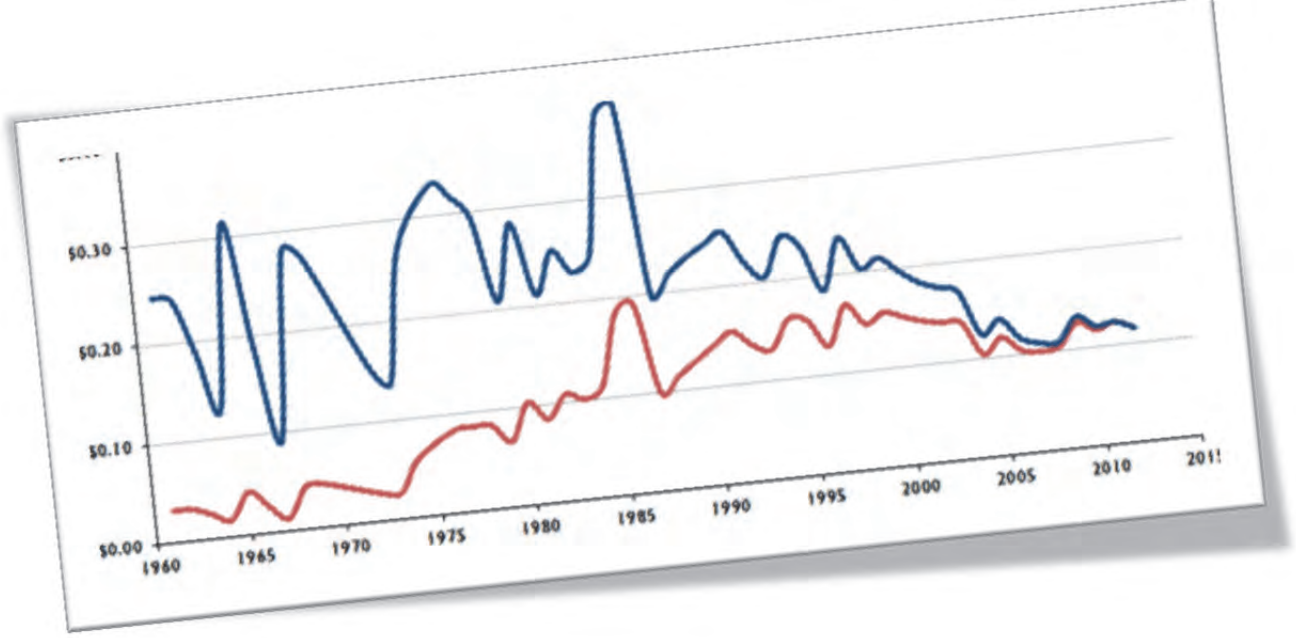
- National performance
- Municipal sub-category performance
- Provincial performance

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 2012 to 30 June 2013 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.

"As national water sector leader, DWA is keenly interested and supportive of the SALGA/WRC national Municipal Benchmarking Initiative and its objective of municipal water services performance improvements. Benchmarking based performance improvement requires inter alia good quality municipal data and information, and the regular updating thereof. DWA is also interested in this municipal data for national and regional strategic planning and reporting purposes, and hence DWA plays an active role engaging with all relevant stakeholders to this end, including data sharing with the MBI. This is an excellent municipal initiative which we will continue to support and engage with.
Allestair Wensley, DWA: Water Services: Planning and Information



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.

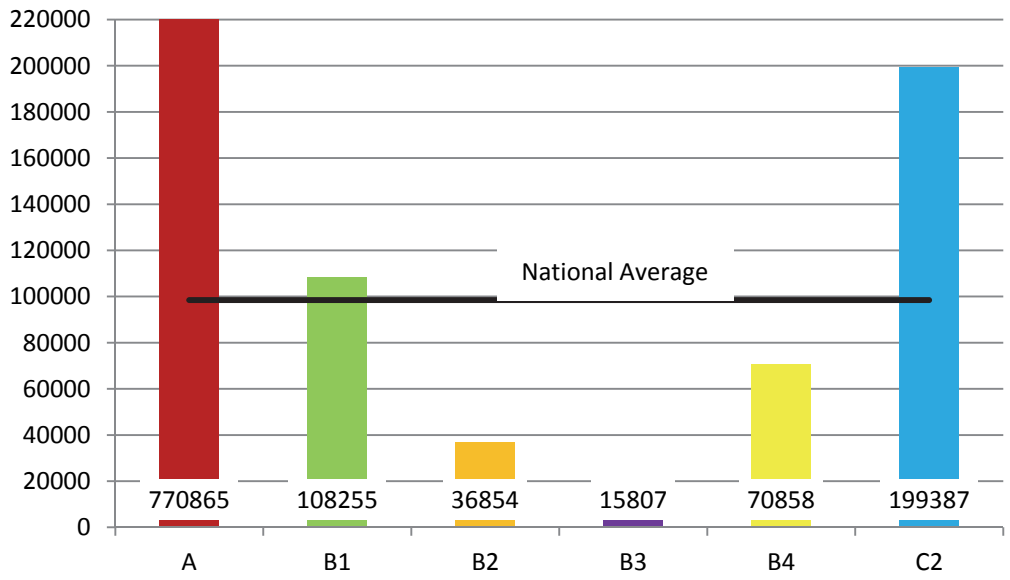
Please note that the graphs selected for this report represent the majority, but not all, of the data collected through the MBI. Some data has been omitted due to (i) incomplete datasets, (ii) limited data availability or (iii) lack of data confidence.

Context

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 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	StatsSA	No.	152 (100%)
Connections	DWA	No.	142 (93%)
Length of mains (water)	DWA/WRC	km	142 (93%)
Number of households per connection	DWA/StatsSA	No.	139 (91%)
Number of connections per km of mains	DWA/WRC	No. / km	137 (90%)

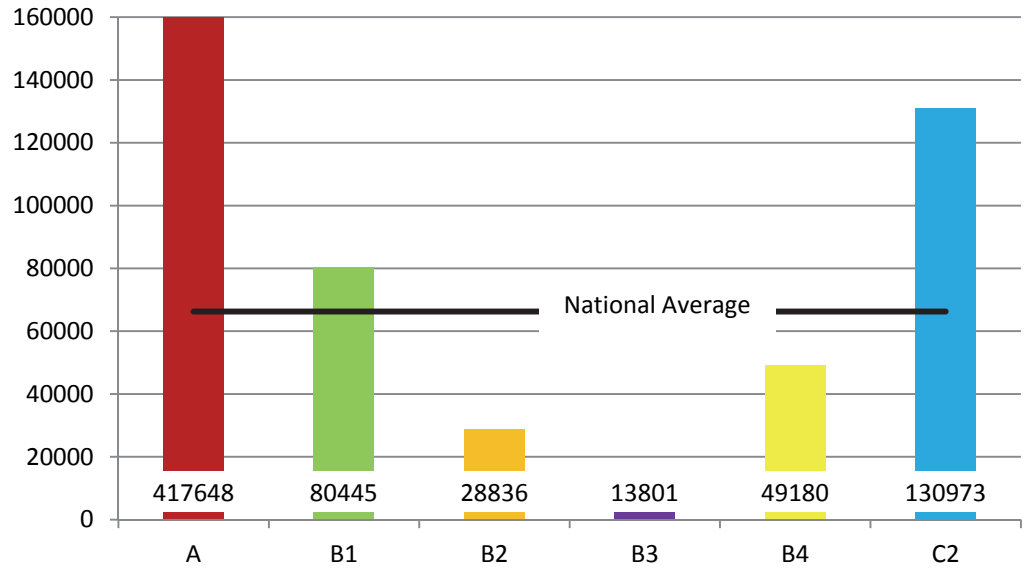
1. Average number of households (No.)



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)**

2. *Average number of connections (water) (No.)*

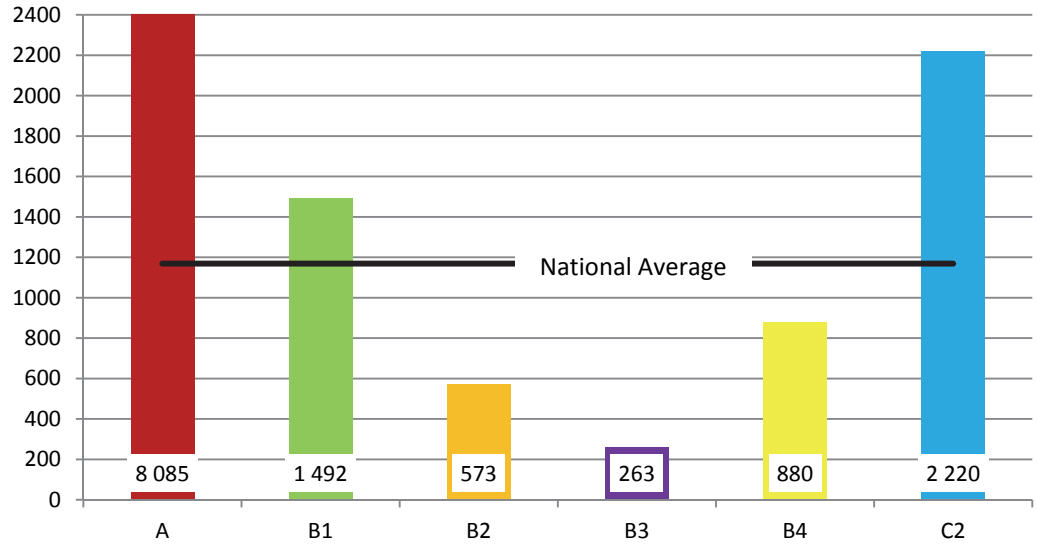


The data is based on 142 datasets (93% of WSAs) and indicates the number of service connections within the supply area, and is defined as the authorised pipe connecting the main to the measurement point or to the customer stop-valve, as applicable. Where several registered customers or individually occupied 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.

"The MBI's Scorecard, which is produced for every WSA, is an extremely useful management report on a municipality's key benchmarking Performance Indicators. The Scorecard shows me and my team clearly as to how we are doing relative to national benchmarks and targets, relative to our District Municipality peers, and also relative to provincial and national peers. It helps our team to engage on performance management around these key topics, and prompts and supports us in ensuring that our data sets are accurate. Importantly, I can access and update such at any-time via the Munibench system."

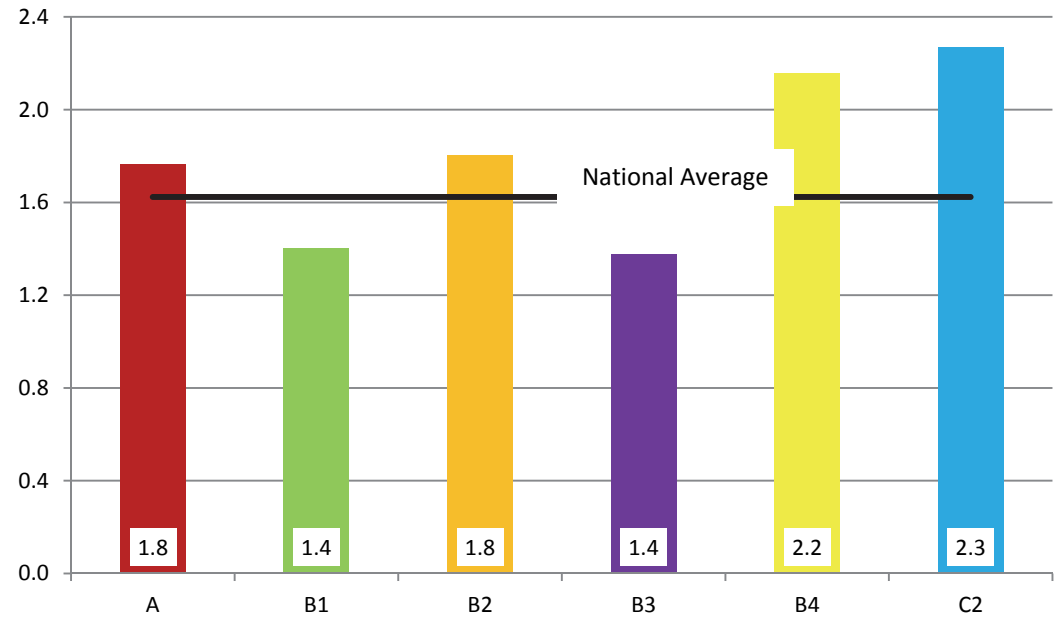
Makhaya Dungu, Director of Technical Services – Engineering, Chris Hani DM

3. Average length of mains (water) (km)



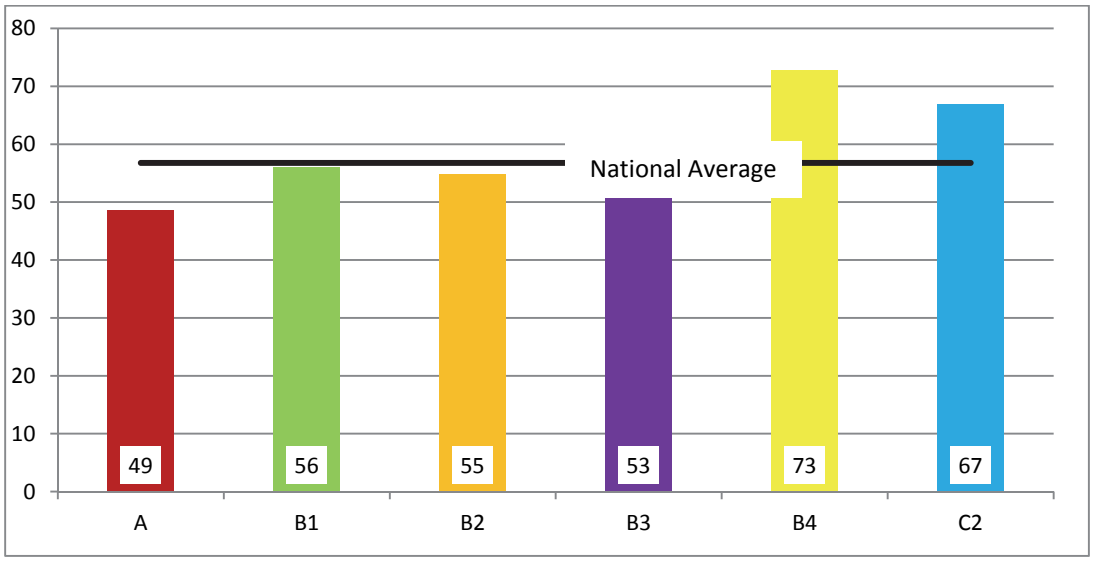
The data is based on 142 datasets (93% of WSAs), considers the transmission and distribution mains length (service connections excluded), and indicates that some municipalities have distribution networks of significant size. The average age of these assets would be useful to measure and track, as this 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.

4. Average number of households per connection (No.)



The data is based on 139 datasets (91% 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).

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



The data is based on 137 datasets (90% 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.

"I think that the MBI team have done a brilliant job in succeeding where so many other attempts to launch benchmarking platforms have failed before. Well done! The collection of data however "does not happen by accident" and it is essential that champions for each of the six modules must be identified for each and every participating municipality. We will then all be in a strong position to identify and make significant improvements to our industry."

Simon Scruton, Senior Manager: Non-Revenue Water, eThekwini Water and Sanitation

Performance Indicators (PIs) for 2013

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 31 PIs calculated nationally for 2013.

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)**

The following table summarises the PIs calculated per module.

	Module	PIs (2013)
1	Water Conservation and Demand Management	6 (19%)
2	Human Resources and Skills Development	6 (19%)
3	Service Delivery and Backlogs	7 (23%)
4	Operations and Maintenance	3 (10%)
5	Product Quality	4 (13%)
6	Financial Management	5 (16%)
	Total	**31 (100%)**

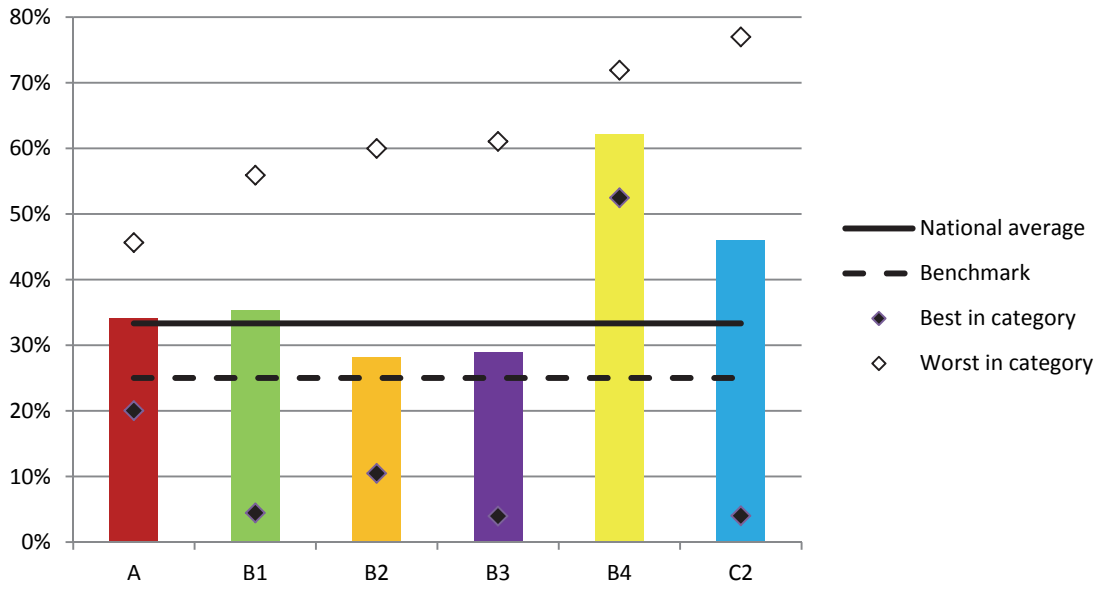
The noted performance will be presented in the sections that follow.

Water Conservation and Demand Management

	Name	Code	Data source	Units	Number of WSAs for which PI was generated (out of 152)
1	Non-revenue water (by volume)	NRW	DWA/WRC	%	92 (61%)
2	Number of connections that are metered	Metering (%)	DWA/WRC	%	139 (91%)
3	System input volume (population)	Input (capita)	DWA/StatsSA	L / capita / day	96 (63%)
4	System input volume (households)	Input (household)	DWA/StatsSA	m^3 / household / month	96 (63%)
5	Water resource management health check	WRM	DWA	%	152 (100%)
6	Water conservation and demand management health check	WDM1	DWA	%	152 (100%)

1. Non-revenue water (by volume)

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



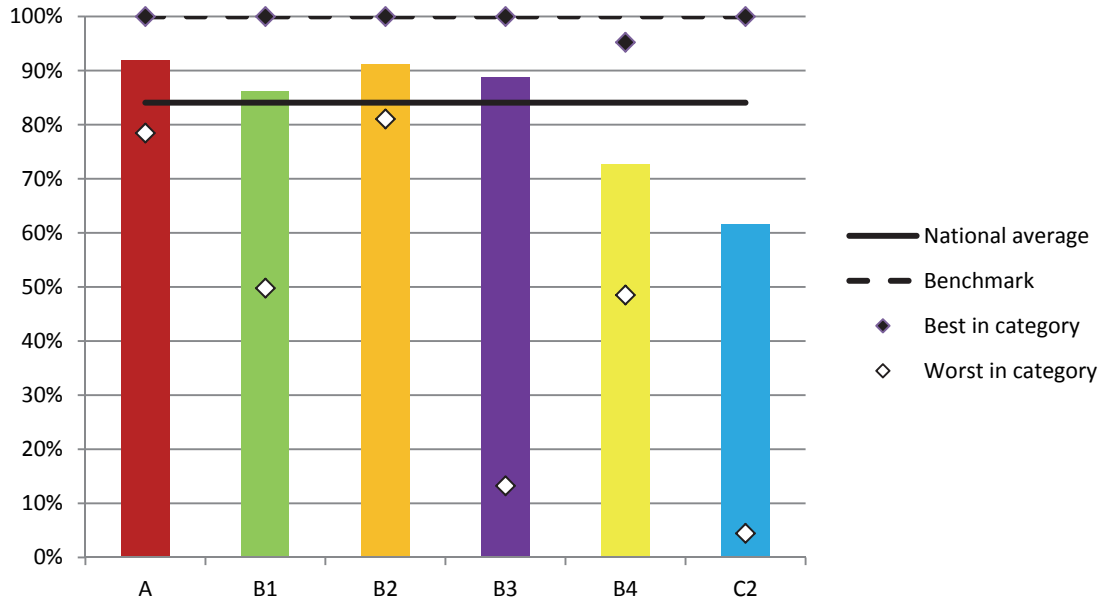
	Best In Category					
Benchmark	A	B1	B2	B3	B4	C2
25%	City of Cape Town (WC) 20%	George (WC) 4.5%	Mossel Bay (WC) 10.5%	Ndlambe (EC) 4.0%	Moses Kotane (NW) 52.5%	O R Tambo (EC) 4.0%

The national NRW average is 33% (based on 92 datasets – 61% 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 half-water losses by 2014 will not be met.

2. *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.

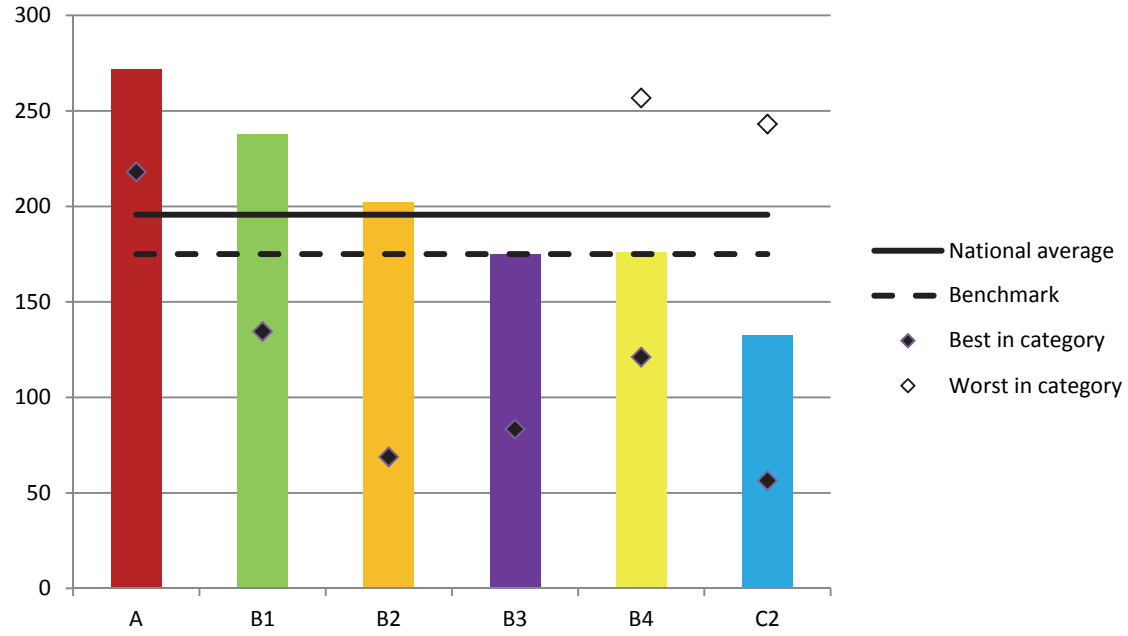


	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	City of Cape Town (WC), Ethekwini (KZN), Mangaung (FS) 100%	City of uMhlathuze (KZN), Tlokwe (NW), Msunduzi (KZN) 100%	Msukaligwa (MP) 100%	Beaufort West (WC), Bela Bela (LP), Bitou (WC), Cape Agulhas (WC), Hantam (NC), Lesedi (GP), Swartland (WC), Theewaterskloof (WC), Umjindi (MP) 100%	Joe Morolong (NC) 95.2%	Ilembe (KZN) 100%

The national metering average indicates that 84% of connections are metered (based on 139 datasets – 91% 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.

3. *System input volume (population)*

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



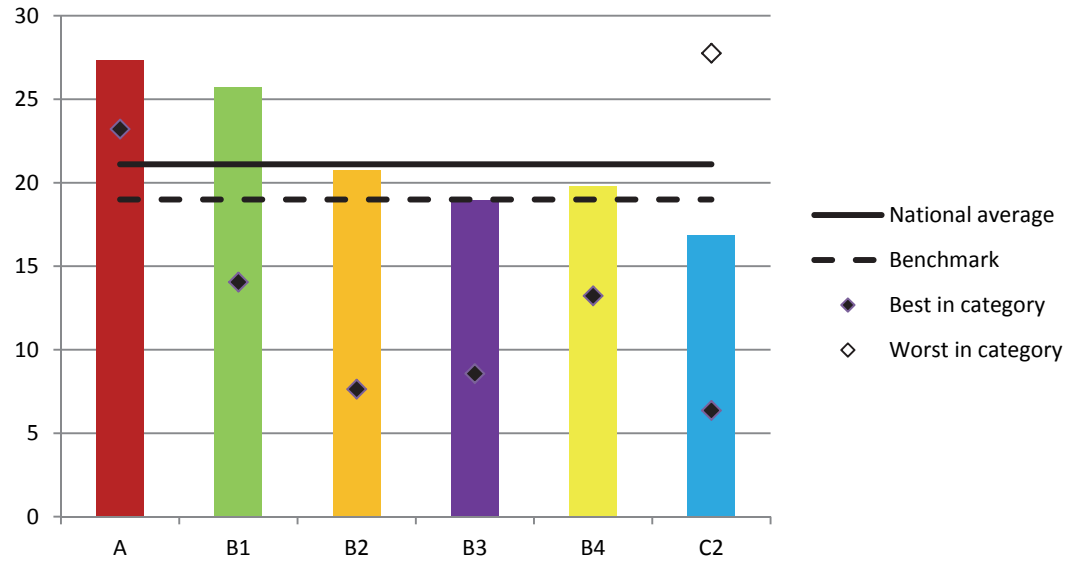
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
175 L / capita / day	Nelson Mandela (EC) 218 L / capita / day	Letsemeng (FS) 134 L / capita / day	Msukaligwa (MP) 69 L / capita / day	Richtersveld (NC) 83 L / capita / day	Moretele (NW) 121 L / capita / day	Ngaka Modiri Molema (NW) 56 L / capita / day

The national system input volume average (based on population) is 196 L/capita/day (based on 96 datasets – 63% 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).

"The Cities Working Group around WCWDM created a platform where I could see what other Cities are doing in terms of managing NRW. This enabled me to improve on some of the things I have been doing and also initiate other activities I have not been embarking on. This is an excellent initiative and should be upheld by relevant authorities at all times."
Koki Mokhoabane, Manager: WCDM, Mangaung Metro

4. *System input volume (households)*

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

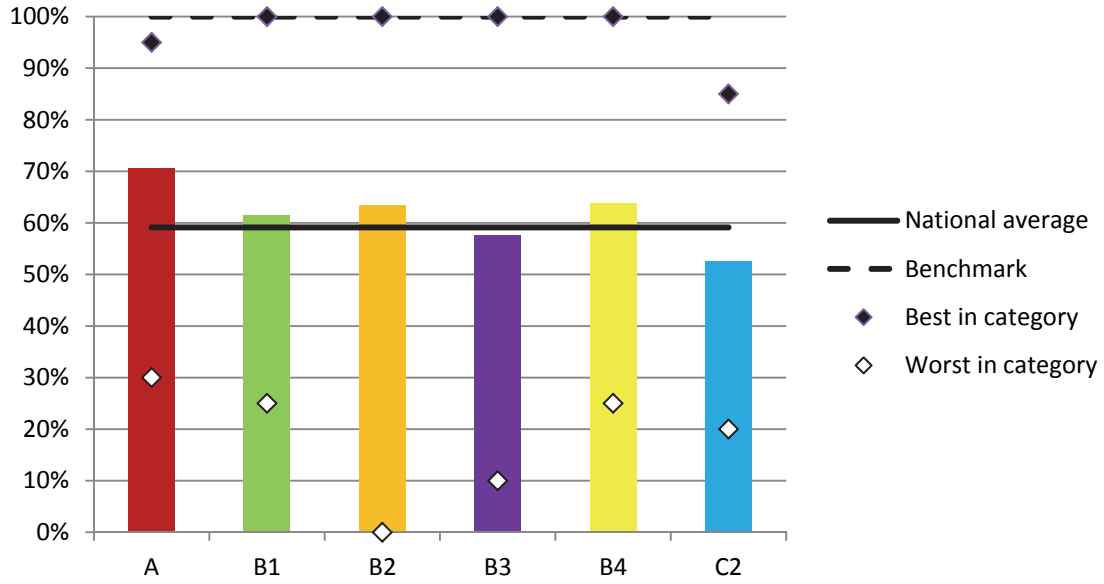


	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
19 m^3 / household / month	Buffalo City (EC) 23 m^3 / household / month	Letsemeng (FS) 14 m^3 / household / month	Makana (EC), Msukaligwa (MP) 8 m^3 / household / month	Richtersveld (NC) 9 m^3 / household / month	Moretele (NW) 13 m^3 / household / month	Ngaka Modiri Molema (NW) 6 m^3 / household / month

The national system input volume average (based on population) is 21 m^3 / household / month (based on 96 datasets – 63% 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.

5. *Water resource management health check*

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



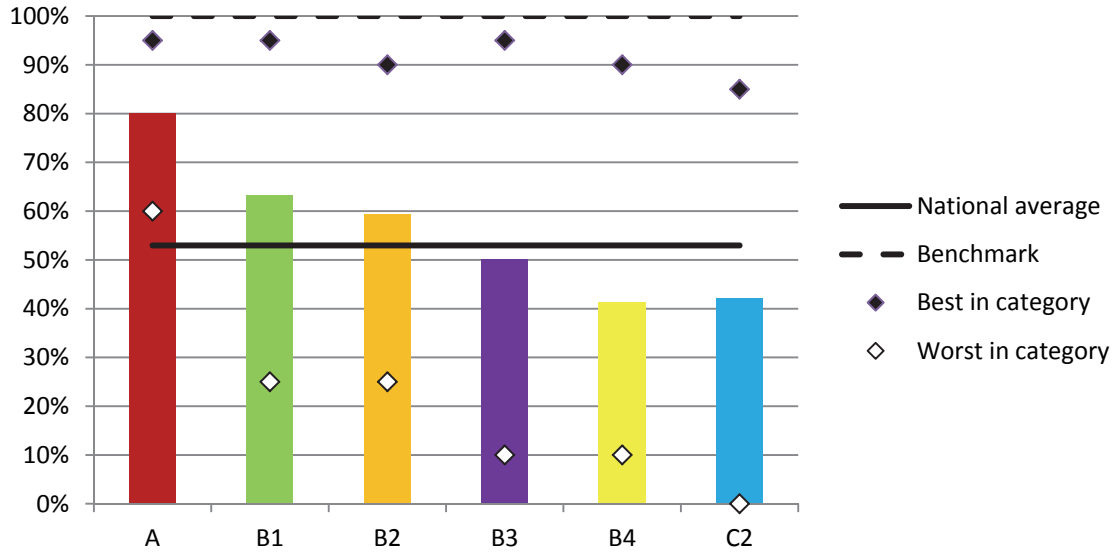
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Buffalo City (EC) 95%	George (WC) 100%	Merafong (GP), Randfontein (GP) 100%	Bitou (WC), Hessequa (WC), Theewaterskloof (WC), Tokologo (FS) 100%	Dr JS Moroka (MP) 100%	Alfred Nzo (EC) 85%

Although the national average is 63% (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.

"It is useful if the smaller municipalities share ideas with other municipalities of the same size and with same challenges."

6. *Water conservation & demand management health check*

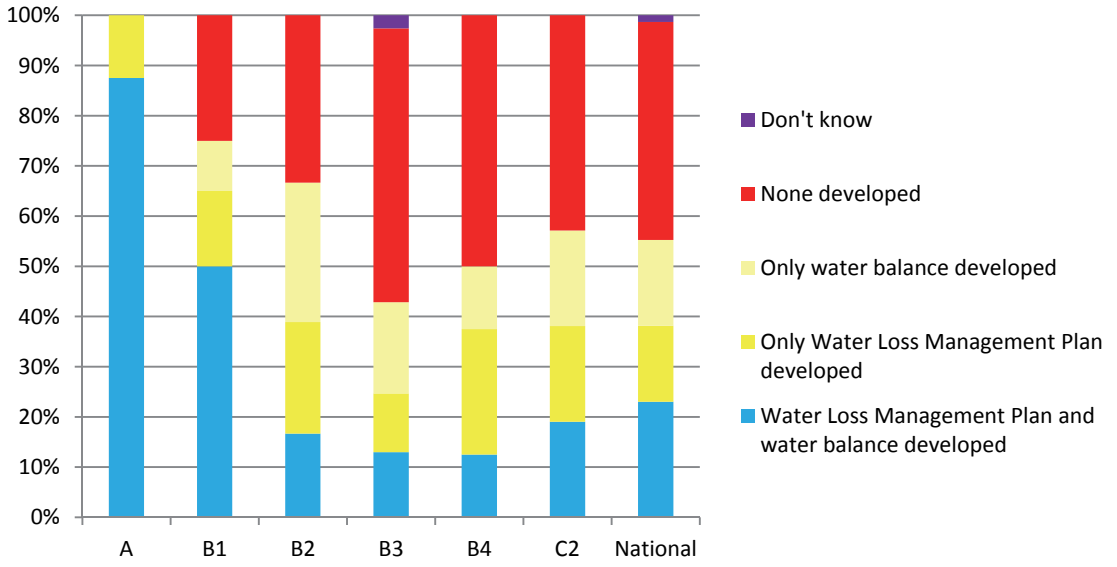
Formula: Water conservation and demand management health determined from assessment of 5 key vulnerability attributes.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	City of Cape Town (WC) 95%	Drakenstein (WC) 95%	Overstrand (WC), Randfontein (GP), Saldanha Bay (WC) 90%	Bergrivier (WC), Swartland (WC), Ubuntu (NC) 95%	Dr J S Moroka (MP) 90%	Ugu (KZN) 85%

The national average of 53% (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.

Have you developed a Water Loss Management Plan and water balance?



No Drop Certification

DWA has recently 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

In addition to the above PIs, the CWG also track the following PIs:

- **Infrastructure Leakage Index (ILI) (No.)**
- **Total water losses (m3/connection/annum and m³/km/year)**
- **Real water losses (L/connection/year and L/km/day)**
- **Consumption per connection (m3/connection/year)**
- **Inefficiency of use of water resources (%)**
- **Leaks repaired (No./100 km and number/connection)**
- **Mains surveyed (km/km)**
- **Unmetered water (%)**
- **Illegal connections removed (No./1000 connections)**

District and Local Municipalities are encouraged to consider measuring and tracking the aforementioned PIs in their peer groups.

"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."

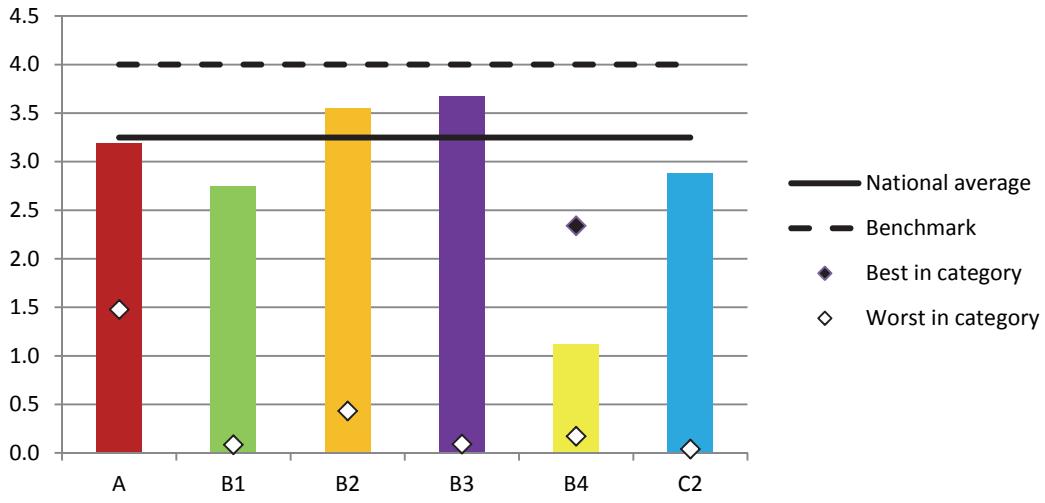
Peter Flower, Director: Water & Sanitation, City of Cape Town

Human Resources and Skills Development

	Name	Code	Data source	Units	Number of WSAs for which PI was generated (out of 152)
1	Number of water services staff	Staffing	DB/DWA/WRC	Staff per 1000 connections	110 (72%)
2	Technical management skill level health check	HR1	DWA	%	152 (100%)
3	Technical staff skill level health check	HR2	DWA	%	152 (100%)
4	Number of water services registered professional engineers	PrEng	DB/StatsSA	Engineers per 100 000 capita	118 (78%)
5	Number of water services technicians	Tech	DB/StatsSA	Technicians per 100 000 capita	119 (78%)
6	Technical staff numbers health check	HR3	DWA	%	152 (100%)

1. 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.

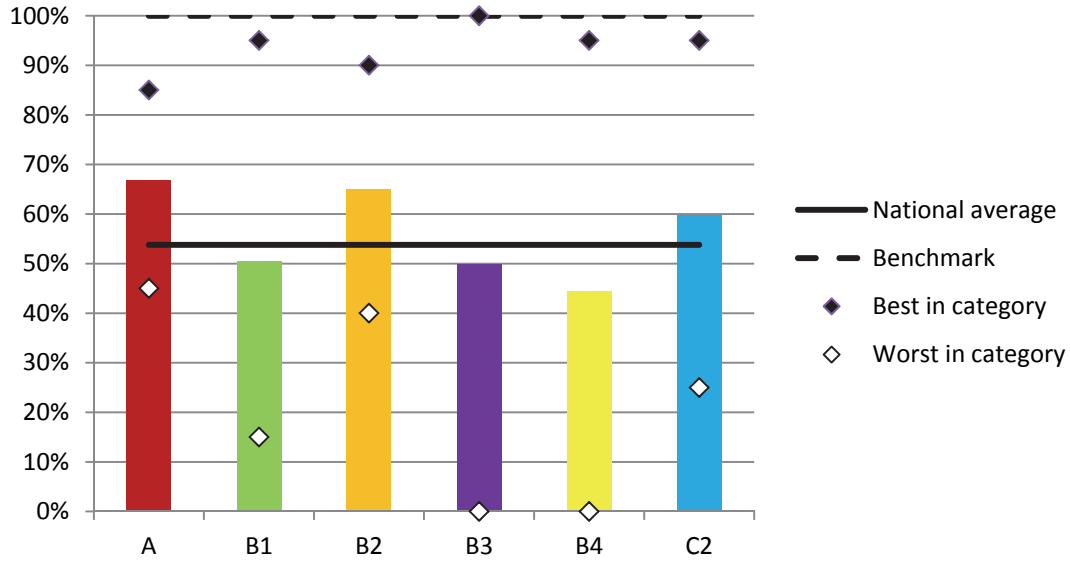


	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
4.0 Staff per 1000 connections	eThekwini (KZN) 6.0 Staff per 1000 connections	City of uMhlathuze (KZN) 10.6 Staff per 1000 connections	Mogalakwena (LP) 9.1 Staff per 1000 connections	Karoo Hoogland (NC) 14.1 Staff per 1000 connections	Albert Luthuli (MP) 2.3 Staff per 1000 connections	Ugu (KZN) 15.7 Staff per 1000 connections

The national average is 3.2 water services staff per 1000 connections (based on 110 datasets – 72% 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.

2. *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) 85%	Letsemeng (FS) 95%	Makana (EC), Westonaria (GP) 90%	Lesedi (GP) 100%	Dr JS Moroka (MP) 95%	Chris Hani (EC), Umzinyathi (KZN), Zululand (KZN) 95%

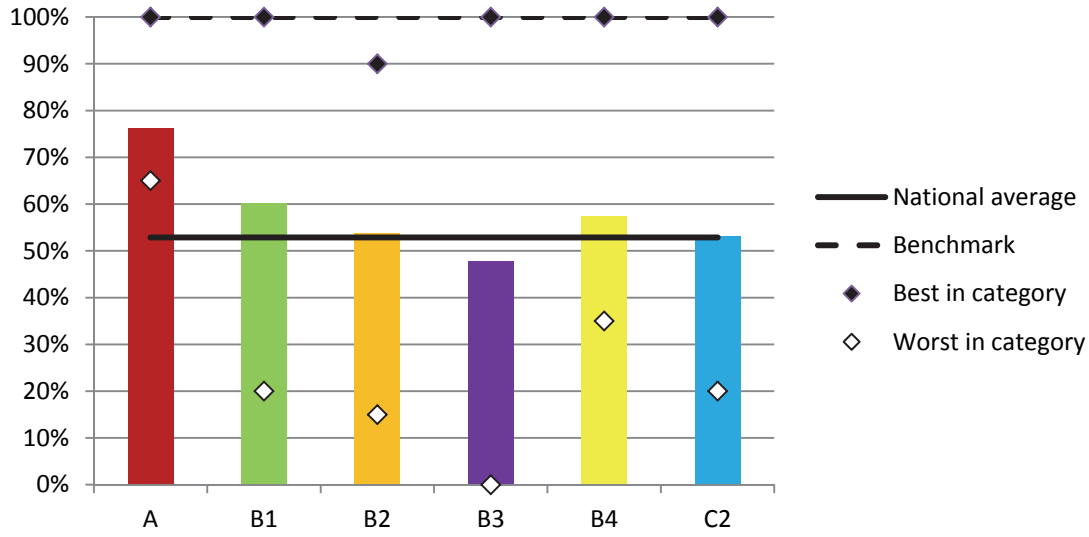
The national average of 54% (based on 152 datasets – 100% of WSAs) indicates that many municipalities do not have senior technical management with the appropriate skills. The benchmark of 100% ensures no key technical management skill level vulnerabilities exist. If efficient and sustainable operations are to be achieved and/or maintained, appropriate indicators need to be included within water services management contracts and associated performance tracked.

"I need to determine whether my organogram meets my service level needs. Please help!"

"With regards to Human Resources Performance Indicators, we need to consider measuring and improving the turnaround time for appointments."

3. *Technical staff skill level health check*

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



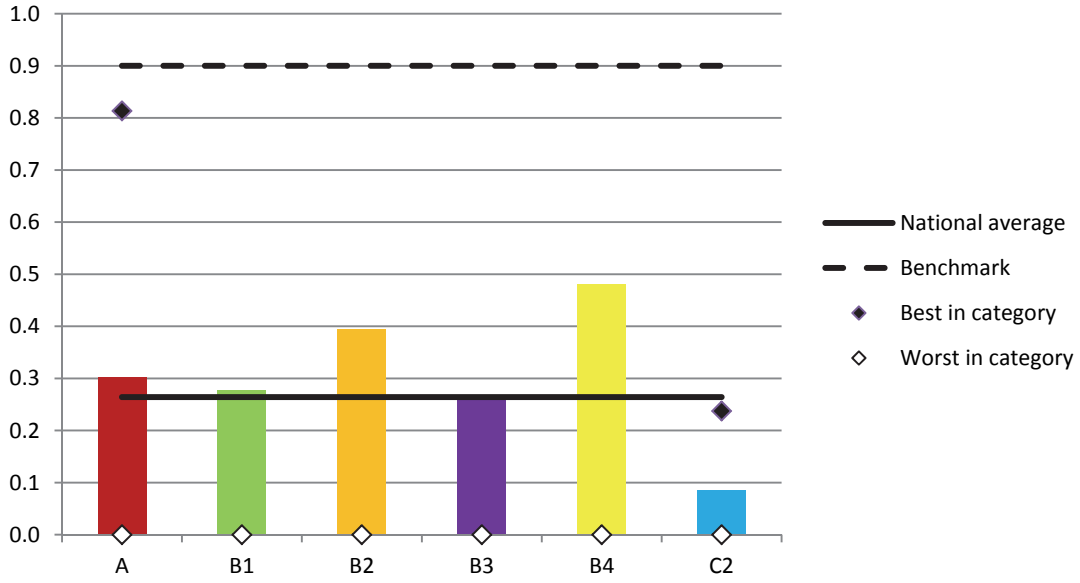
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Buffalo City (EC) 100%	George (WC) 100%	Westonaria (GP) 90%	Theewaterskloof (WC), Ubuntu (NC) 100%	Dr JS Moroka (MP) 100%	Zululand (KZN) 100%

The national average of 53% (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.

"The Northern Cape, especially local municipalities in the Namakwa DM can gain through the MBI programme. Once Benchmarking is implemented, best practices and lessons learnt can be shared."

4. *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.



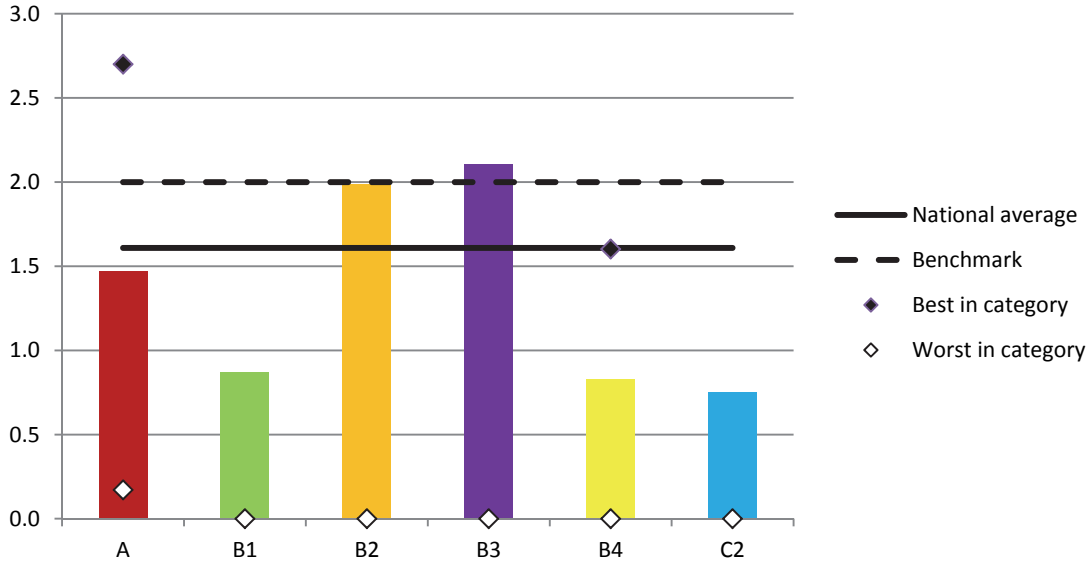
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
0.9 Engineers per 100 000 capita	eThekwini (KZN) 0.8 Engineers per 100 000 capita	Polokwane (LP) 1.4 Engineers per 100 000 capita	Overstrand (WC) 2.5 Engineers per 100 000 capita	Lephalale (LP) 3.5 Engineers per 100 000 capita	Dr JS Moroka (MP) 1.6 Engineers per 100 000 capita	Ngaka Modiri Molema (NW) 0.24 Engineers per 100 000 capita

The national average is 0.26 engineers per 100 000 capita (based on 118 datasets – 78% 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.

"We need to consider the impact of continuous migration by people on effective service delivery."

5. *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.

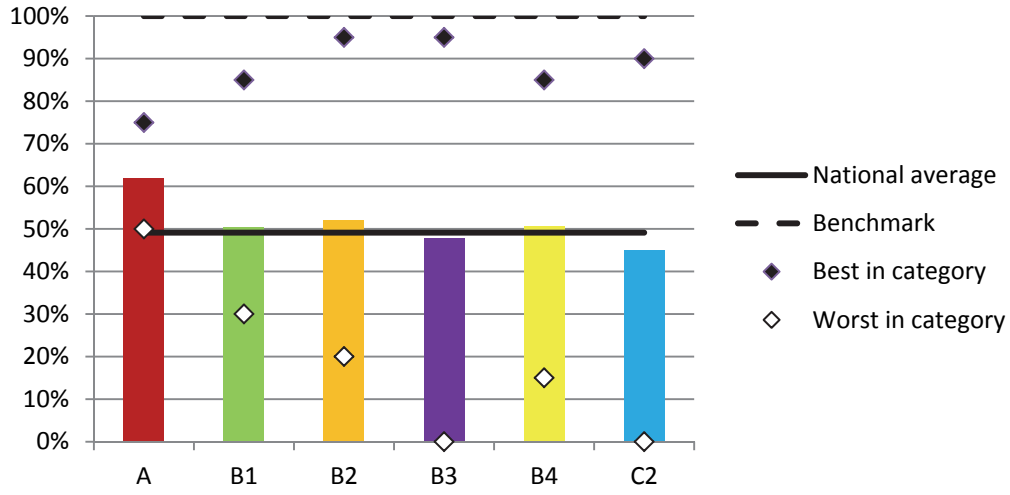


	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
2.0 Technicians per 100 000 capita	City of Cape Town (WC) 2.7 Technicians per 100 000 capita	City of uMhlathuze (KZN) 4.5 Technicians per 100 000 capita	Emakhazeni (MP) 8.5 Technicians per 100 000 capita	Baviaans (EC) 11.3 Technicians per 100 000 capita	Dr JS Moroka (MP) 1.6 Technicians per 100 000 capita	Amathole (EC) 3.4 Technicians per 100 000 capita

The national average is 1.6 technicians per 100 000 capita (based on 119 datasets – 78% 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.

6. *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) 75%	Letsemeng (FS) 85%	Metsimaholo (FS) 95%	Tokologo (FS) 95%	Dr J S Moroka (MP) 85%	Alfred Nzo (EC), Chris Hani (EC) 90%

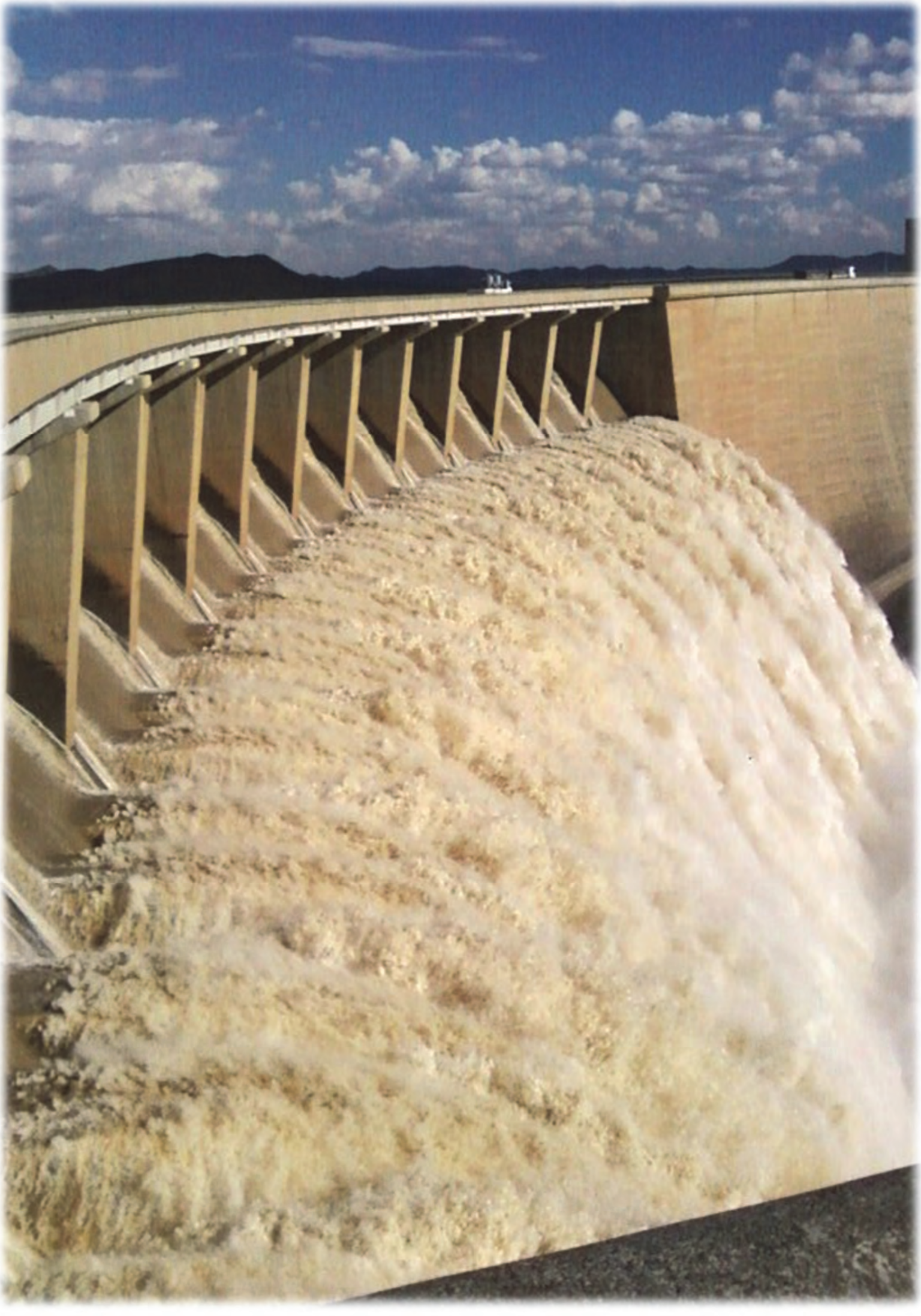
The national average of 49% (based on 152 datasets – 100% of WSAs) indicates that many municipalities do not have the appropriate number of staff, therefore implying that either many posts in the organogram remain vacant or that the organogram is not appropriate and requires revision. In many instances 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.

Insights from Metro's CWG

In addition to the above PIs, the CWG also track the following PIs:

- **Employment equity (by race, gender and disability) (%)**
- **Employee turnover/loss (No./employee/year)**
- **Absenteeism (days/employee/year)**
- **Overtime work (%)**
- **Vacancies (%)**
- **Staffing (No. (FTE)/ 1000 connections and No. (FTE)/ 1000000 m3/year (water) and No. (FTE)/ 1000 p.e. and No. (FTE)/ 100 km sewer main (wastewater))**

District and Local Municipalities are encouraged to consider measuring and tracking the aforementioned PIs in their peer groups.

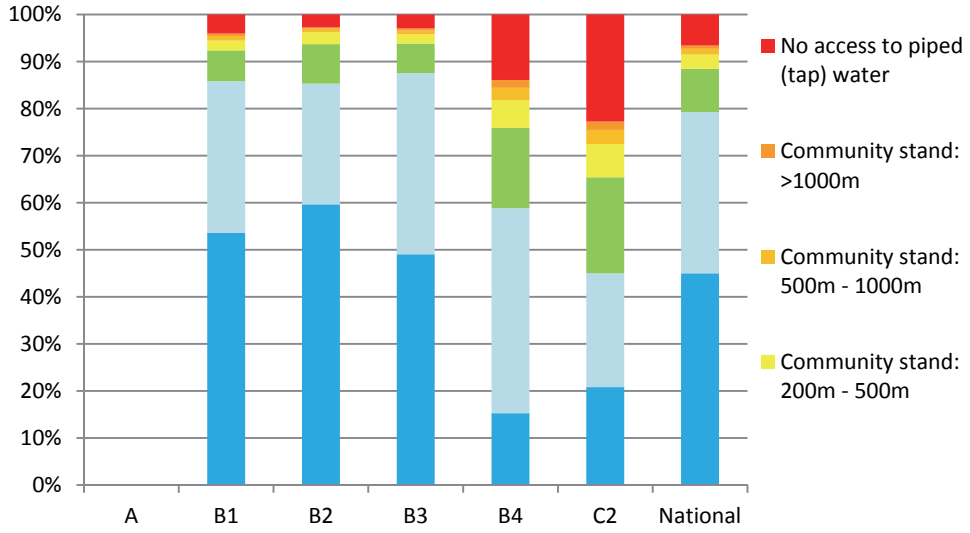


Service Delivery and Backlogs

	Name	Code	Data source	Units	Number of WSAs for which PI was generated (out of 152)
1	Access to water	Access to water	StatsSA	%	144 (95%)
2	Access to sanitation	Access to sanitation	StatsSA	%	144 (95%)
3	Water services vulnerability index	VI	DWA	No.	152 (100%)
4	Water services planning health check	SD1	DWA	%	152 (100%)
5	Organisational performance monitoring health check	M&E	DWA	%	152 (100%)
6	Water service quality health check	SD2	DWA	%	152 (100%)
7	Customer care health check	SD3	DWA	%	152 (100%)

1. Access to water

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



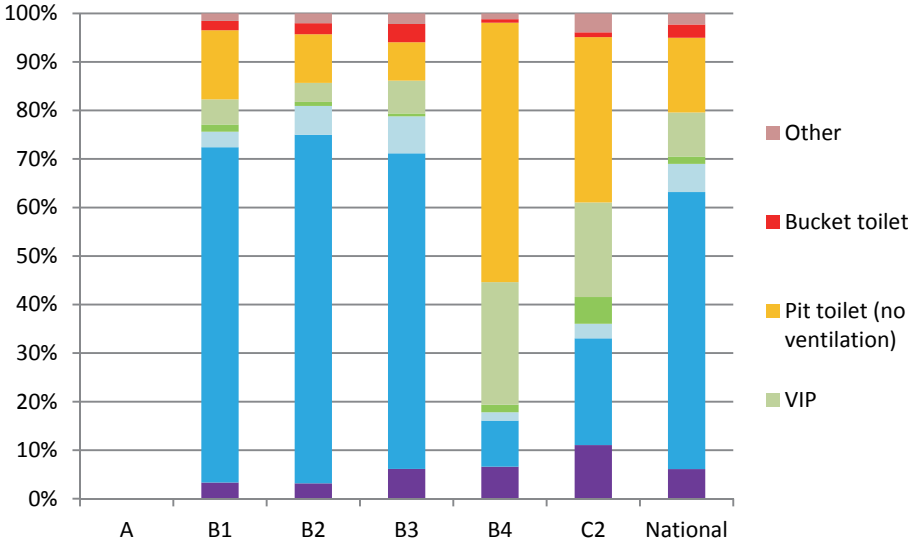
	Best In Category					
Benchmark	A	B1	B2	B3	B4	C2
100%	*	Drakenstein (WC) 98.6%	Saldanha Bay (WC) 99.2%	Swartland (WC) 99.1%	Thembisile (MP) 93.3%	Amajuba (KZN) 87.7%

***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.

2. *Access to sanitation*

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



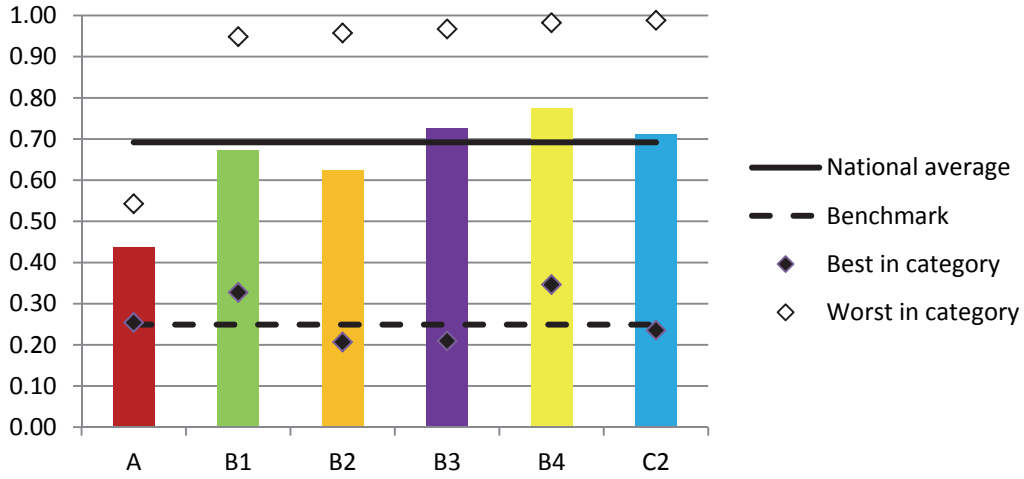
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	*	Matlosana City Council (NW) 94.8%	Saldanha Bay (WC) 96.4%	Beaufort West (WC) 95.4%	Albert Luthuli (MP) 60.7%	Umgungundlovu (KZN) 74.4%

***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.

3. *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) 0.25	George (WC) 0.33	Overstrand (WC) 0.21	Swartland (WC) 0.21	Dr J S Moroka (MP) 0.35	Chris Hani (EC) 0.24

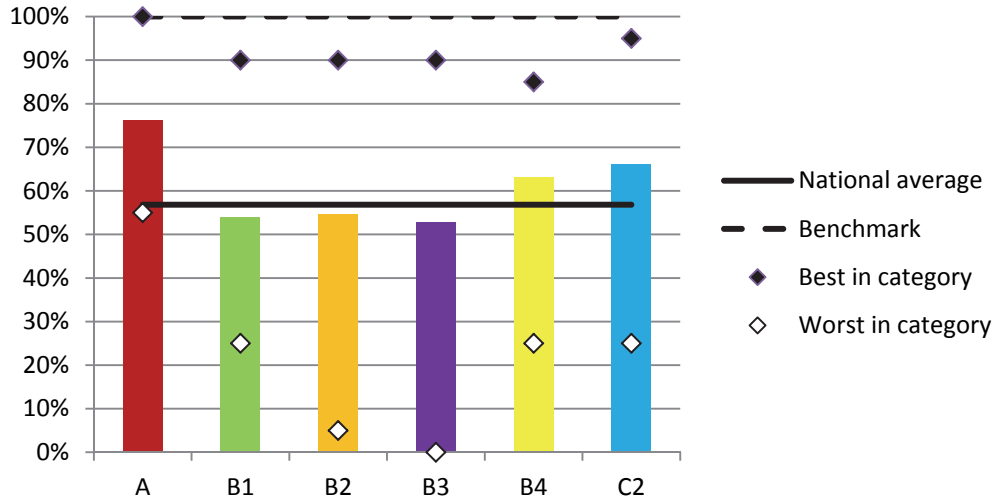
The water services Vulnerability Index (VI) is a good indicator of the readiness or ability of the municipality to perform (and not a direct indicator of the actual performance). Higher VIs (approaching 1.0) indicate that several of the 16 Key Water Services Functional Business Attributes are vulnerable, thus potentially resulting in water services failure. The national average is 0.69 (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.

"DWA strongly supports the MBI's objective of water services performance improvement, based on performance monitoring and assessment. Sustainable performance improvement necessitates carrying out an "existing situation analysis" and mapping out the interventions needed to enable ongoing service improvements. As such, DWA: Water Sector Support and MBI work closely together around the Municipal Strategic Self-Assessment (MuSSA) and Municipal Priority Action Plan (MPAP) which guides both WSAs and DWA sector support as to ensuring the municipalities water services business is "healthy" enough to perform."

Viv Naidoo, DWA KZN: Sector Support

4. *Water services planning health check*

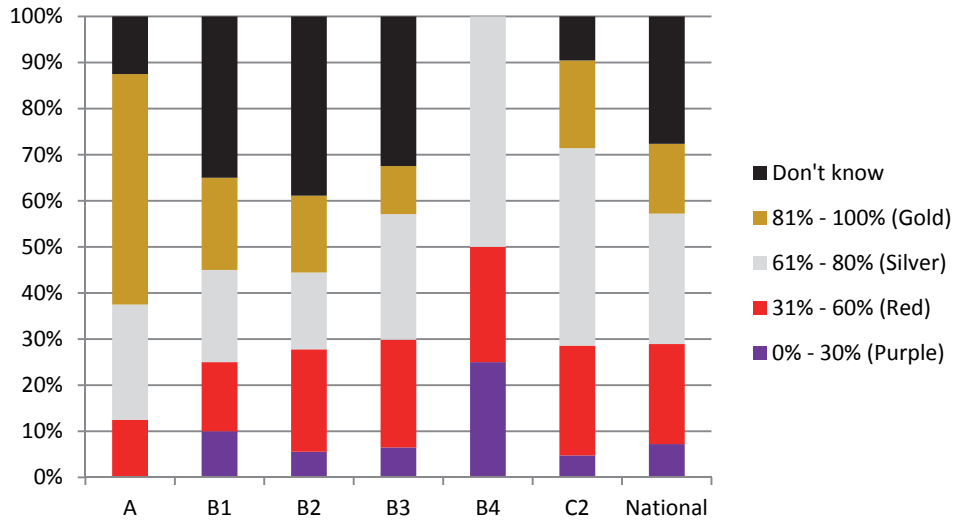
Formula: Water services planning health determined from assessment of 5 key vulnerability attributes.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	eThekwini (KZN), Buffalo City (EC) 100%	Drakenstein (WC) 90%	Mogalakwena (LP), Saldanha Bay (WC) 90%	Kannaland (WC), Maquassi Hills (NW), Mohokare (FS) 90%	Albert Luthuli (MP), Dr JS Moroka (MP) 85%	Alfred Nzo (EC), Chris Hani (EC) 95%

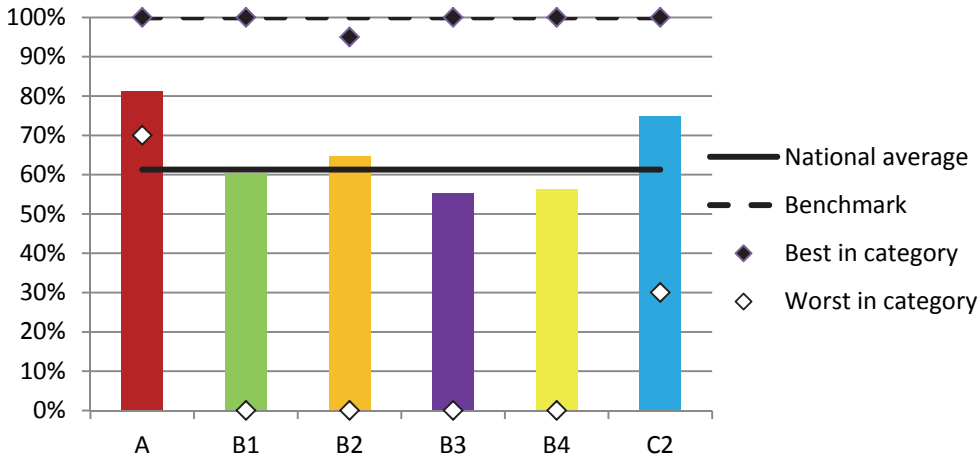
The national average of 57% (based on 152 datasets – 100% of WSAs) indicates that many municipalities do not have the appropriate water services planning processes/systems in place. The benchmark of 100% ensures no key water services planning vulnerabilities exist. By way of example, the figure below 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?



5. *Organisational performance monitoring health check*

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



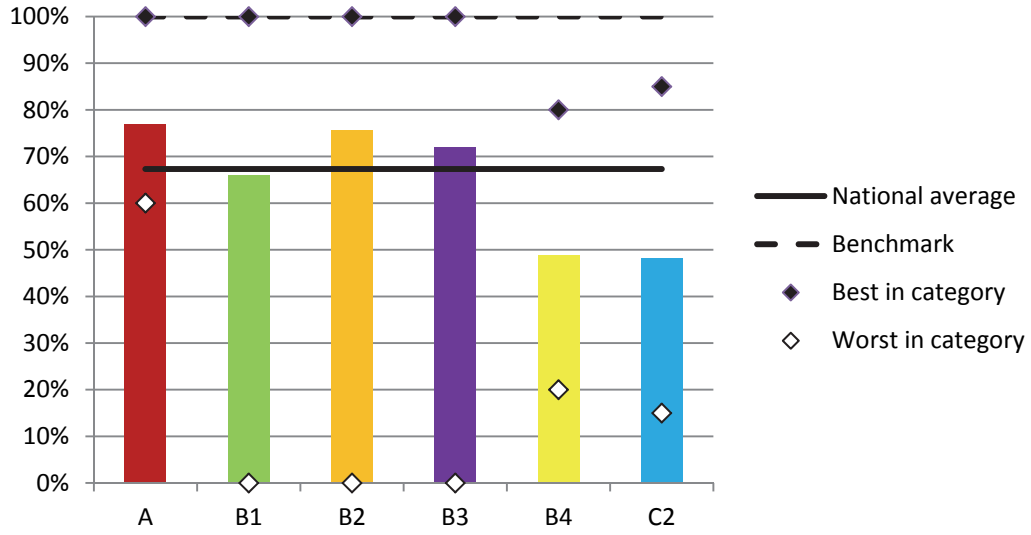
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Buffalo City (EC) 100%	Newcastle (KZN) 100%	Saldanha Bay (WC) 95%	Cape Agulhas (WC), Hessequa (WC), Setsoto (FS), Swartland (WC), Thabazimbi (LP) 100%	Albert Luthuli (MP) 100%	Alfred Nzo (EC), Chris Hani (EC) 100%

The national average of 61% (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 Municipal Benchmarking Initiative has allowed Msunduzi Municipality the opportunity to share, compare and evaluate best practices approaches across the spectrum of Municipalities with the ultimate aim at improving the water and sanitation service. The peer sharing interactions with various colleagues in the Water sector ensured that we look beyond the comforts of our respective municipal boundaries for sustainable, cost effective and innovative solutions."
Brenden Sivparsad, Process Manager: Water and Sanitation, Msunduzi Municipality

6. *Water service quality health check*

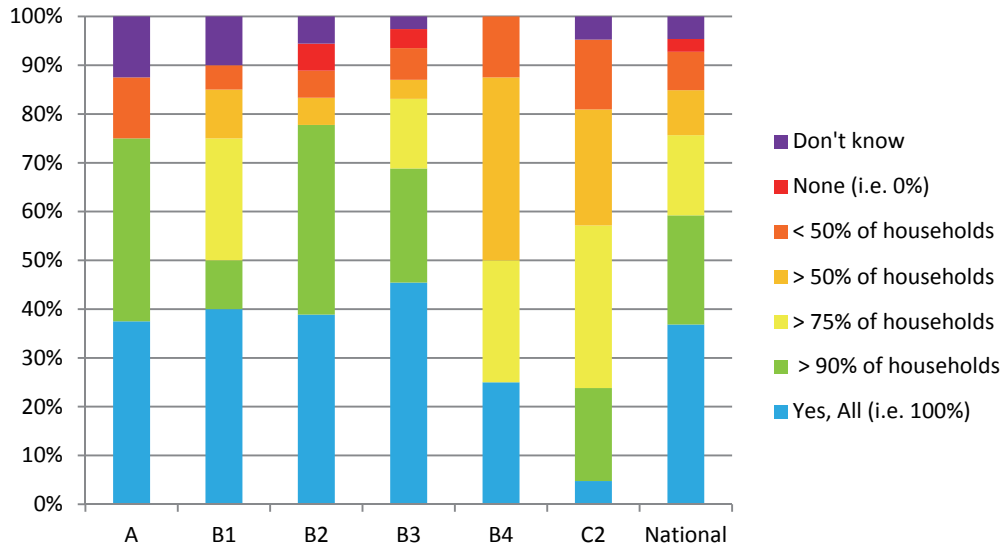
Formula: Water service quality health determined from assessment of 5 key vulnerability attributes.



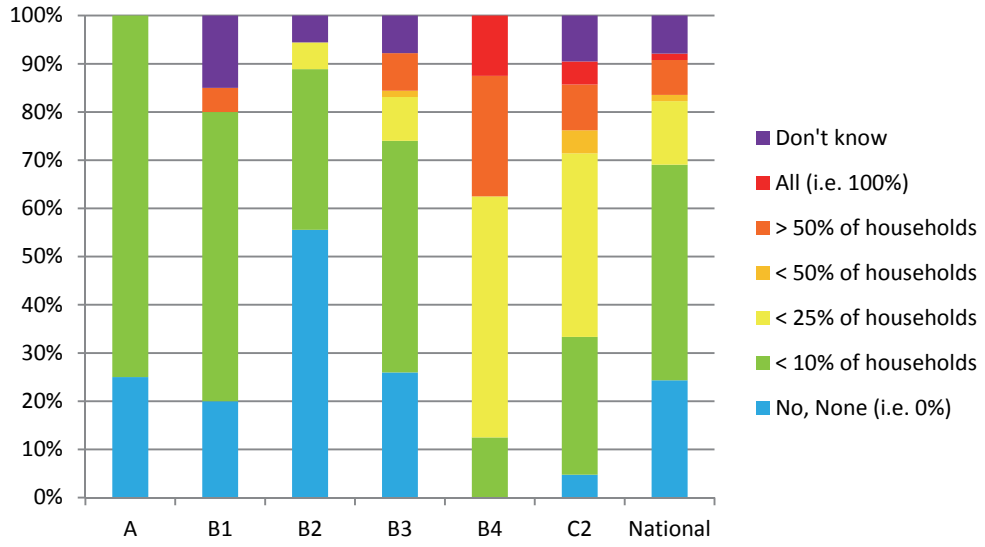
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Nelson Mandela (EC) 100%	Drakenstein (WC), Letsemeng (FS) 100%	Westonaria (GP) 100%	Cape Agulhas (WC), Tokologo (FS) 100%	Dr JS Moroka (MP) 80%	Chris Hani (EC) 85%

The national average of 67% (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)?

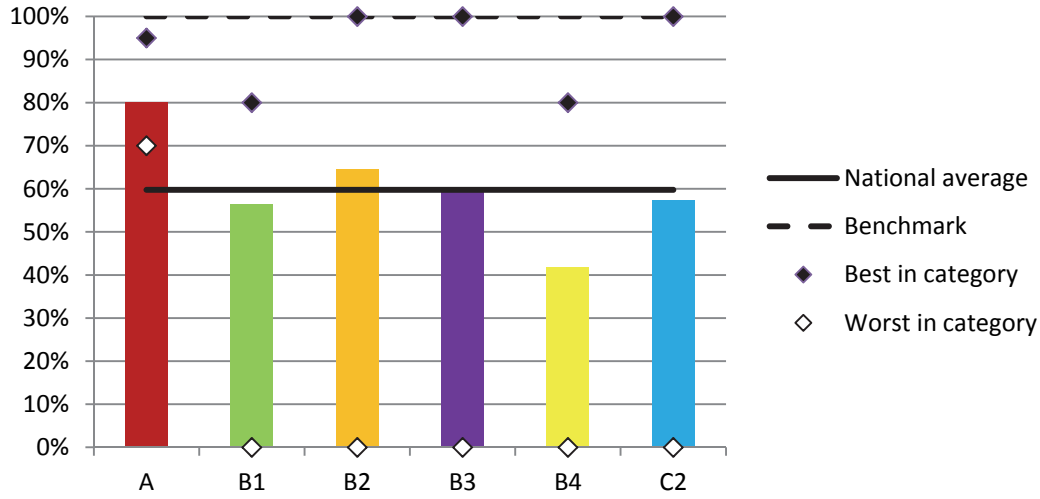


Do customers experience water pressure problems (i.e. no flow/partial flow <10 L/min)?



7. Customer care health check

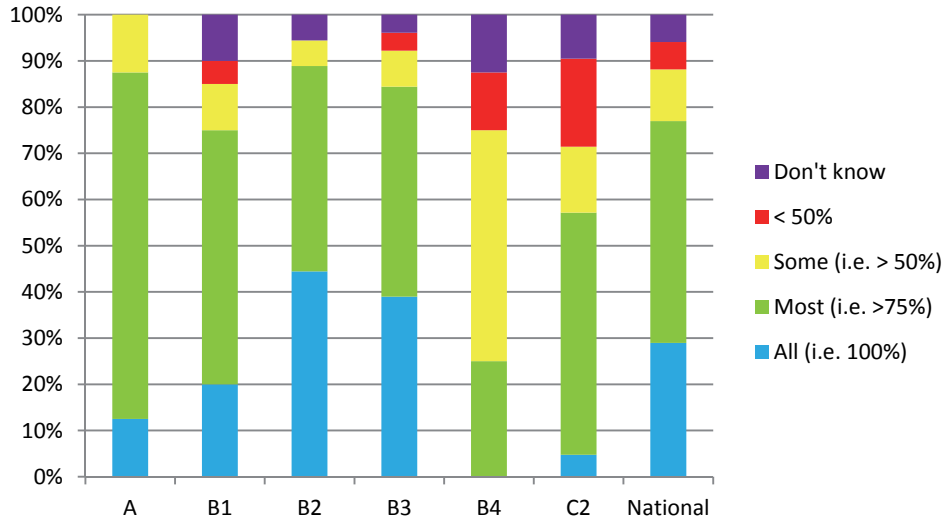
Formula: Customer care health determined from assessment of 5 key vulnerability attributes.



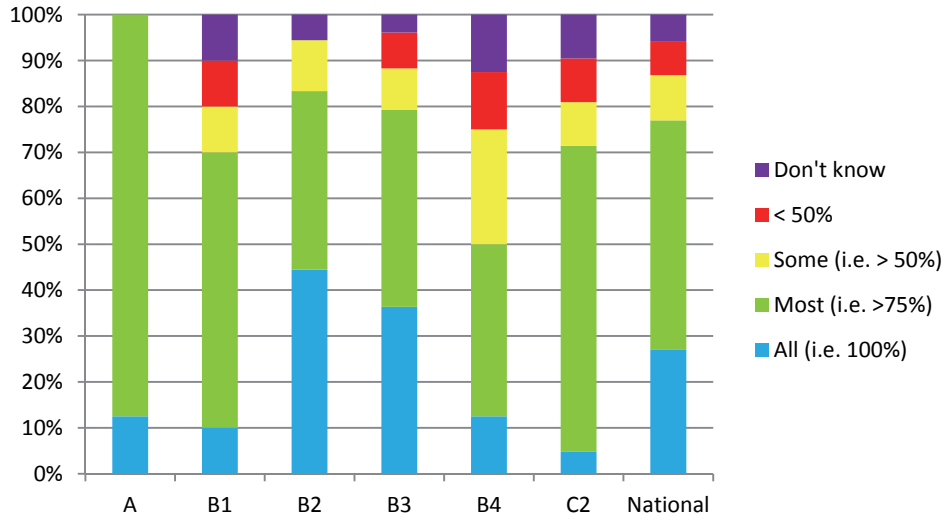
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Nelson Mandela 95%	Emfuleni (GP), City of uMhlathuze (KZN), Newcastle (KZN), Tlokwe (NW) 80%	Emakhazeni (MP), Overstrand (WC), Westonaria (GP) 100%	Ubuntu (NC), Witzenberg (WC) 100%	Thembisile (MP) 80%	Chris Hani (EC) 100%

The national average is 60% (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.

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



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



"The MBI's Municipal Scorecards are useful as we are able to see how we perform against other similar municipalities. In so doing we are able to identify key areas in which we can learn from our neighbouring municipalities and then engage accordingly."

Saskia Langner, Head: Waste Water and Water Treatment, Stellenbosch Municipality

Insights from Metro's CWG

In addition to the above PIs, the CWG also track the following PIs:

- **Backlogs (%)**
- **Time to eradicate backlog (years)**
- **Proportion of capital budget spent on backlogs (%)**
- **Position change in service level (%)**

Asset management specific PIs recently proposed by the Metros include (*NOTE:* Some of these PIs could also be included under "Operation and Maintenance"):

- **Condition of pipelines: proportion of pipeline that has passed its useful life (%)**
- **Condition of assets: Value of all assets that has passed its useful life as a proportion of their total replacement value (%)**
- **Capital expenditure on refurbishment/renewals:**
- **As a proportion of total capital expenditure (capex) (%)**
- **As a proportion of Current Replacement Cost (CRC) (%)**
- **As a proportion of total length of pipe (%)**
- **Number pipe bursts/breakages (No/100 km of pipeline)**

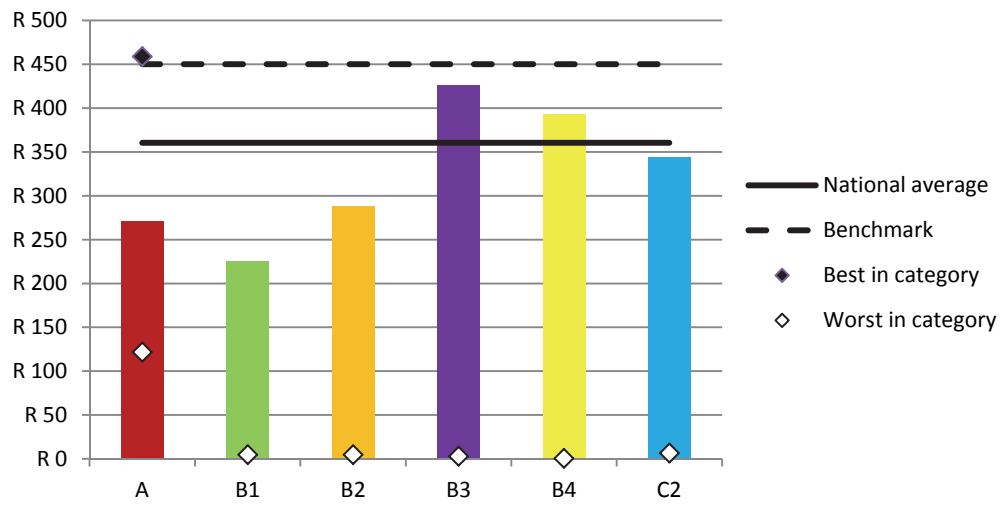
District and Local Municipalities are encouraged to consider measuring and tracking the aforementioned PIs in their peer groups.

Operations and Maintenance

	Name	Code	Data source	Units	Number of WSAs for which PI was generated (out of 152)
1	Water services capital investment	Capital	NT/StatsSA	R per capita per annum	132 (87%)
2	Infrastructure asset management health check	OM1	DWA	%	152 (100%)
3	Operations and maintenance of assets health check	OM2	DWA	%	152 (100%)

1. Water services capital investment

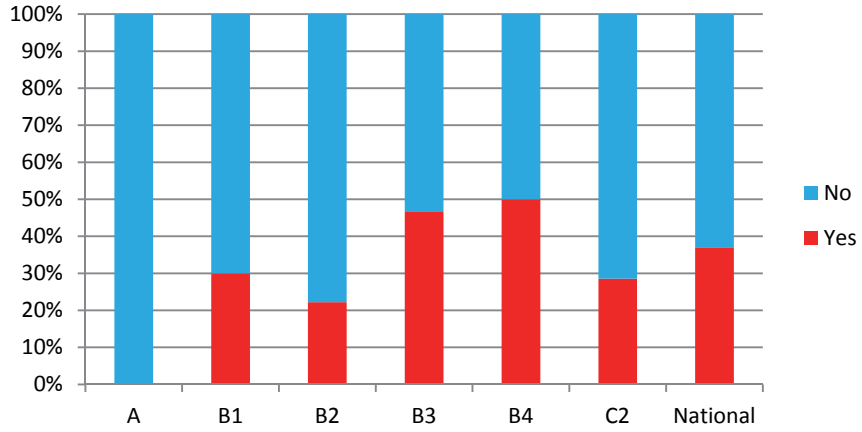
Formula: Total capital investment in water services (water and wastewater) / resident population, during the assessment period.



	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
R450 per capita per annum	Nelson Mandela (EC) R459 per capita per annum	Drakenstein (WC) R777 per capita per annum	Overstrand (WC) R929 per capita per annum	Tokologo (FS) R1 931 per capita per annum	Bushbuckridge (MP) R662 per capita per annum	Mopani (LP) R664 per capita per annum

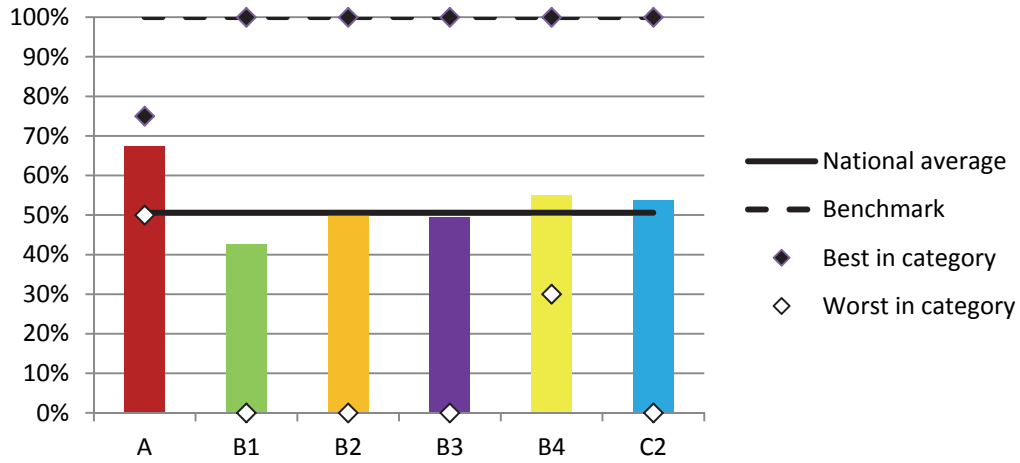
The national average is R360 per capita per annum (based on 132 datasets – 87% of WSAs). The higher capital investment noted in some municipalities is probably attributed to elimination of the services backlog and this high level of capital investment is not sustainable in the long term. While each municipality 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.

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



2. *Infrastructure asset management health check*

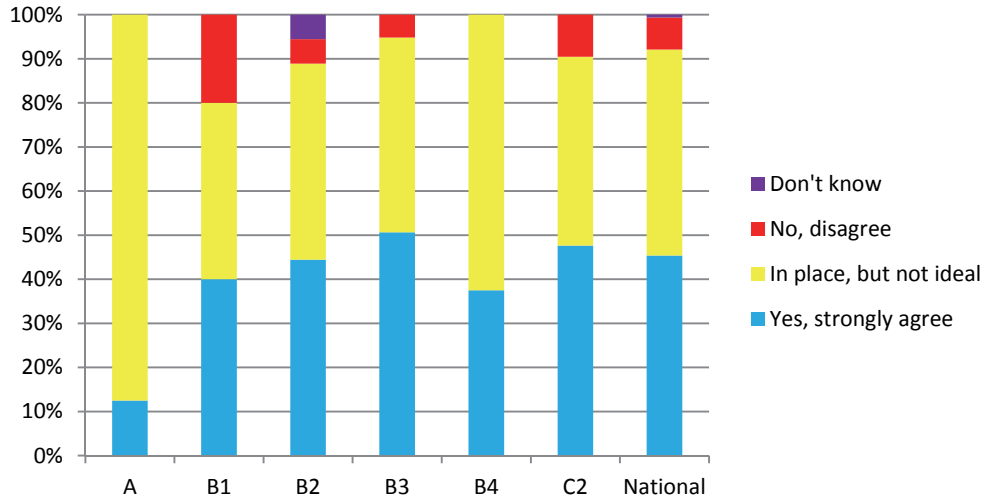
Formula: Infrastructure asset management health determined from assessment of 5 key vulnerability attributes.



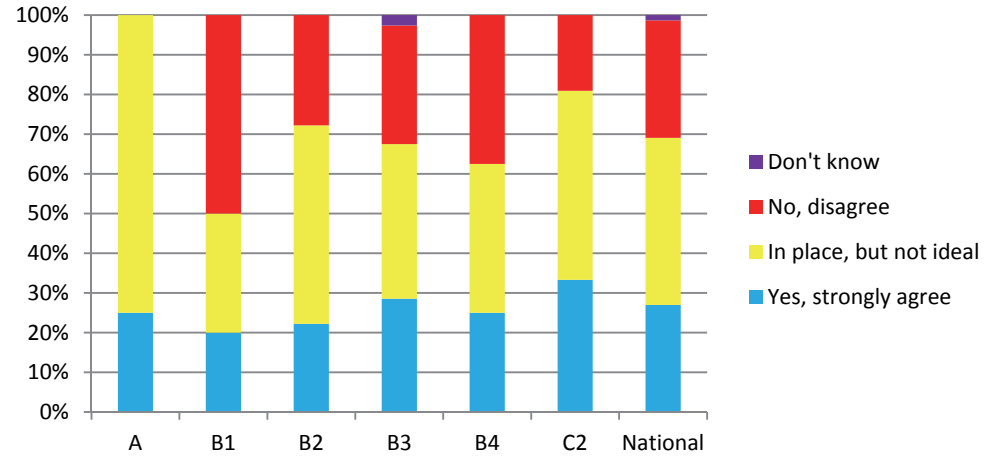
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Ekurhuleni (GP), Nelson Mandela (EC) 75%	Letsemeng (FS) 100%	Metsimaholo (FS), Saldanha Bay (WC) 100%	Tsantsabane (NC), Umjindi (MP) 100%	Dr JS Moroka (MP) 100%	Alred Nzo (EC) 100%

The national average of 51% (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 water services asset register?



Do you have an appropriate Infrastructure Asset Management Plan?

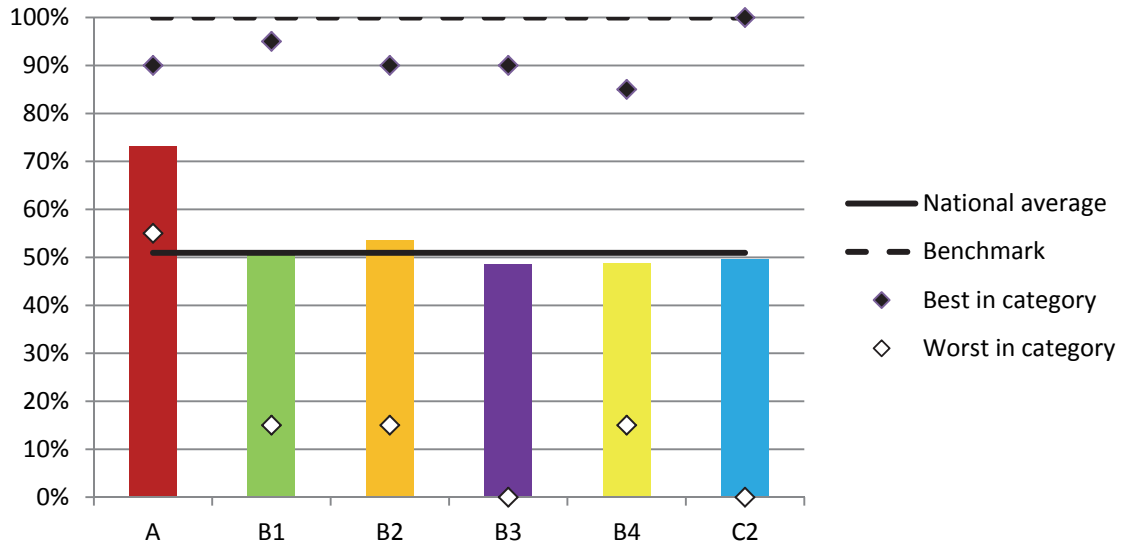


"Benchmarking and Performance Measurement provides an indication of the operational efficiency in an environment such as a municipal utility services department, relative to its peers. It provides the facts and statistics to support decision-making and helps to prioritise interventions to be implemented (e.g. pipe replacement/upgrade programmes, meter replacement programmes, demand-side interventions etc.). Ultimately, it is a means to improve service delivery."

Melissa De Sousa Alves, Senior Technician, Master Planning, City of Cape Town

3. *Operations and maintenance of assets health check*

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

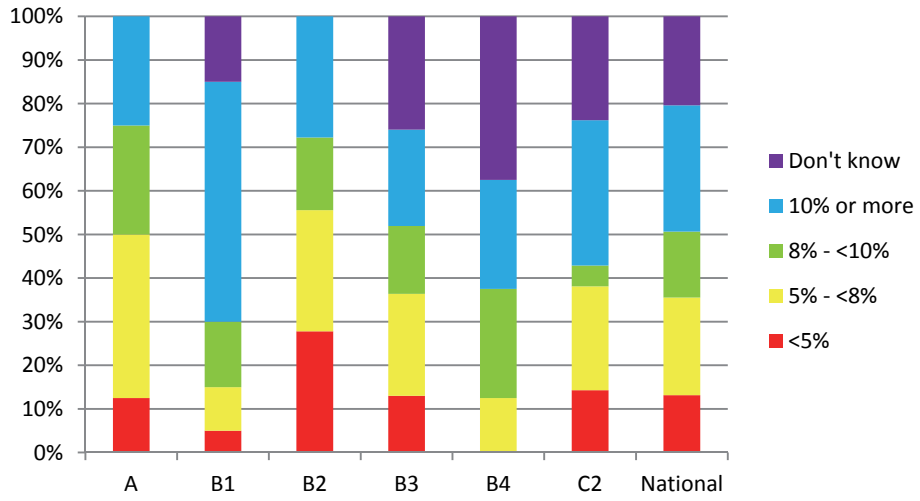


	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Buffalo City (EC), City of Johannesburg (GP), eThekwini (KZN) 90%	Drakenstein (WC) 95%	Westonaria (GP) 90%	Ubuntu (NC) 90%	Dr JS Moroka (MP) 85%	Chris Hani (EC) 100%

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.

"How do I improve my motivation to secure sufficient budget for O&M? Please help!"

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



Insights from Metro's CWG

In addition to the above PIs, the CWG also track the following PIs:

- **Drinking water treatment plant utilisation (% hydraulic capacity)**
- **Water mains failures (No./100 km/year)**
- **Water network inspection (%/year)**
- **Water mains replacement (%/year)**
- **Meter replacement (%/year)**
- **Wastewater pump station overflows (No./No. pump stations/year and No./kWh/year)**
- **Sewer blockages (No./100 km/year)**
- **Sewer network inspection (%/year)**
- **Sewer replacement (%/year)**

District and Local Municipalities are encouraged to consider measuring and tracking the aforementioned PIs in their peer groups.

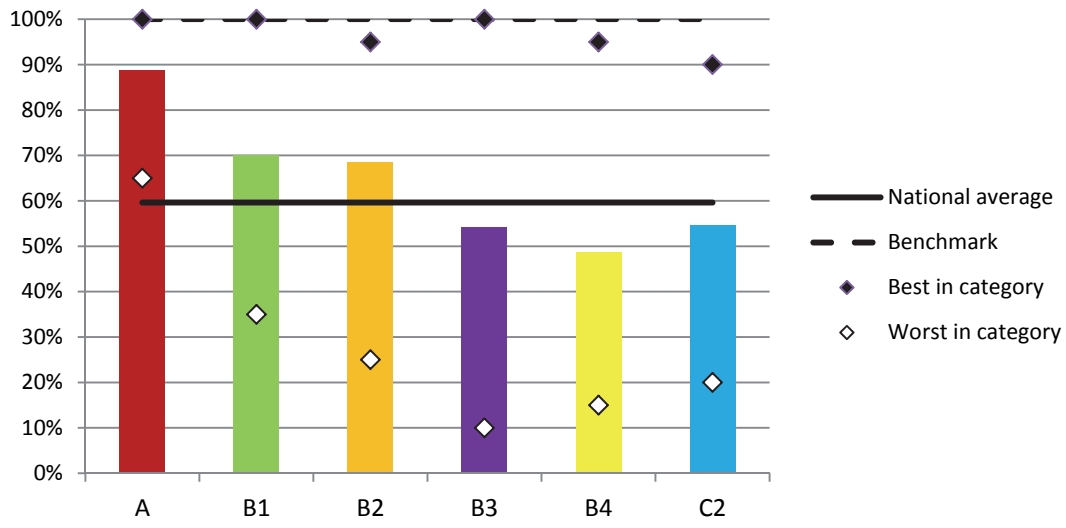

Aerator 3

Product Quality

	Name	Code	Data source	Units	Number of WSAs for which PI was generated (out of 152)
1	Drinking water quality health check	PQ1	DWA	%	152 (100%)
2	Blue drop score	BD	DWA	%	0 – results not yet released
3	Wastewater and environmental safety health check	PQ2	DWA	%	152 (100%)
4	Green drop score	GD	DWA	%	0 – results not yet released

1. Drinking water quality health check

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



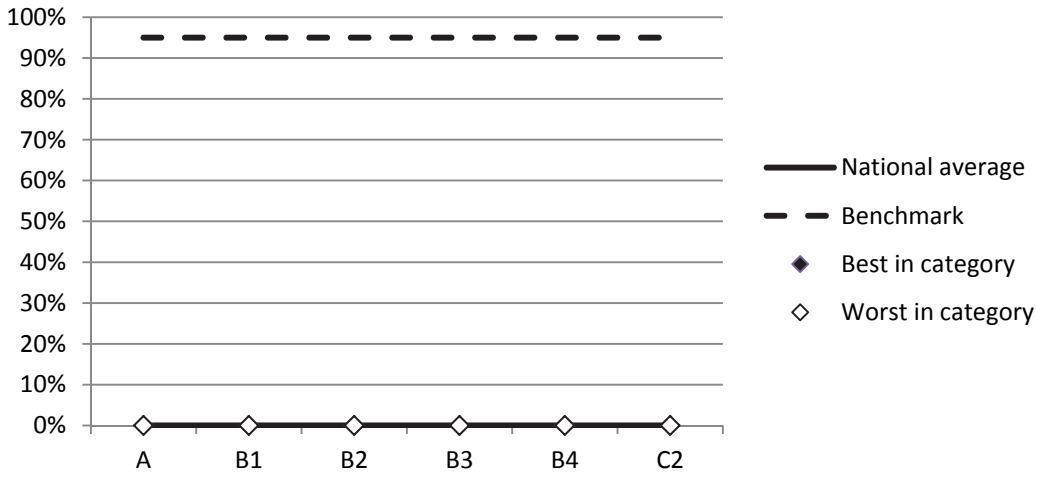
	Best In Category					
Benchmark	A	B1	B2	B3	B4	C2
100%	City of Cape Town (WC), City of Johannesburg (GP), eThekwini (KZN) 100%	Drakenstein (WC), Steve Tshwete (MP) 100%	Metsimaholo (FS), Saldanha Bay (WC) 95%	Bitou (WC) 100%	Dr J S Moroka (MP) 95%	Zululand (KZ) 90%

The national average is 60% (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.

2. *Blue drop score*

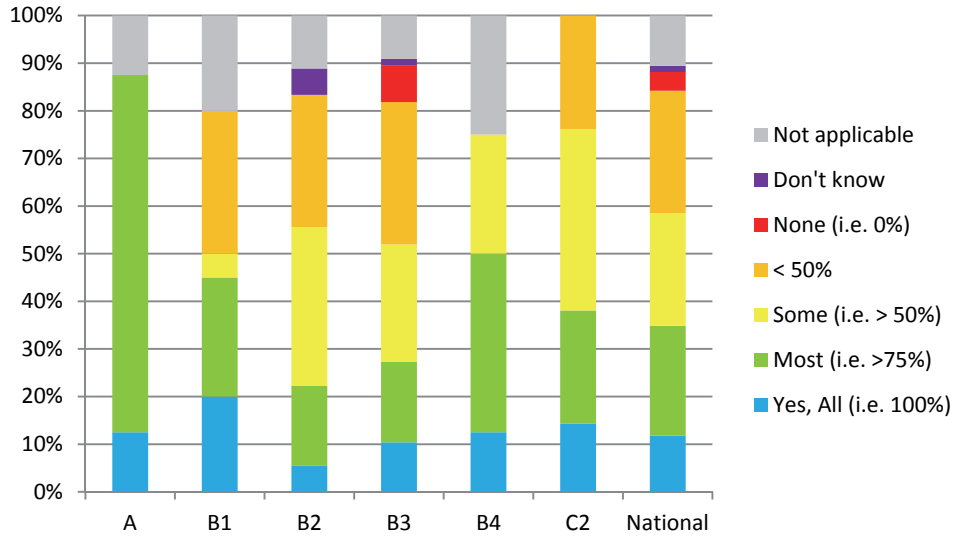
Formula: Blue Drop score for Water Services Authority as determined by DWA Blue Drop Certification audit.



	Best In Category					
Benchmark	A	B1	B2	B3	B4	C2
95%	-	-	-	-	-	-

The MBI chose as a key PI for drinking water the already existing and well established regulatory PI, namely, the WSAs Blue Drop score (or alternatively, the Progress Assessment Tool score). These results for the MBI reporting period, namely 2012/2013, are yet to be released by the Minister of Water & Environmental Affairs, Edna Molewa, pending verification processes. Given such delays, understandable as they may be, MBI participants have indicated that in the future further additional MBI PIs will be introduced such as basic water quality compliance PIs (See insights from Metro CWGs overleaf). Blue Drop information will be used as and when available. Key to note are, as per following figures, the significant shortages in skilled process controllers which exists, emphasising the on-going need for enhanced skills development and career pathing.

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

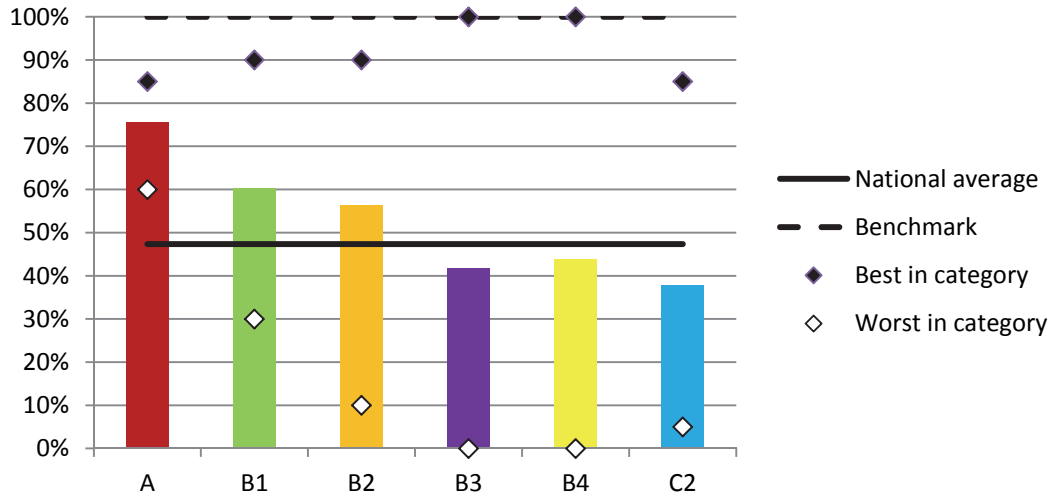


"As engineers and managers, we are continuously faced with applying our knowledge in making decisions, leading to action. Such knowledge-based decisions are possible through the application of our experience, while considering available information. Information can be defined as data viewed in context. The Municipal Benchmarking Initiative provides municipal managers with critical data, viewed in context, i.e. provides information of the highest quality, enabling good decision-making and subsequent service delivery. The initiative in itself sets a benchmark in the provision of relevant and appropriate municipal information. My congratulations on the success achieved through this MB initiative. I echo the sentiments that this fantastic effort should be replicated to all municipal services."

André van Niekerk, Director: Engineering Services, Stellenbosch Municipality

3. *Wastewater and environmental safety health check*

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

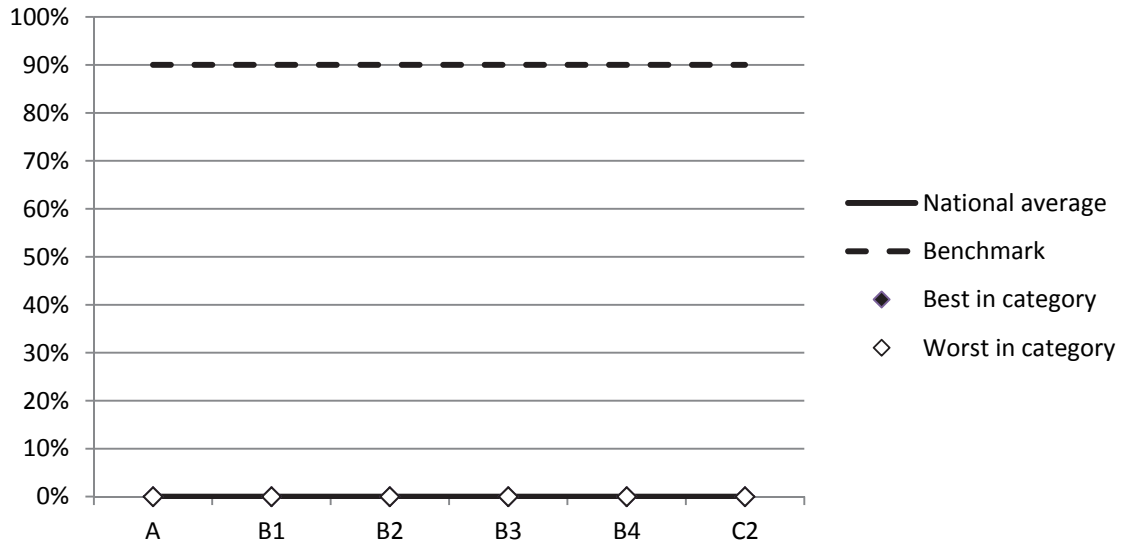


	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Buffalo City (EC), City of Tshwane (GP), eThekwini (KZN) 85%	Tlokwe (NW) 90%	Metsimaholo (FS), Saldanha Bay (WC) 90%	Bitou (WC) 100%	Dr J S Moroka (MP) 100%	Chris Hani (EC) 85%

The national average of 47% (based on 152 datasets – 100% of WSAs) is lower than the drinking-water average (60%) 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.

4. *Green drop score*

Formula: Green Drop score for Water Services Authority as determined by DWA Green Drop Certification audit.

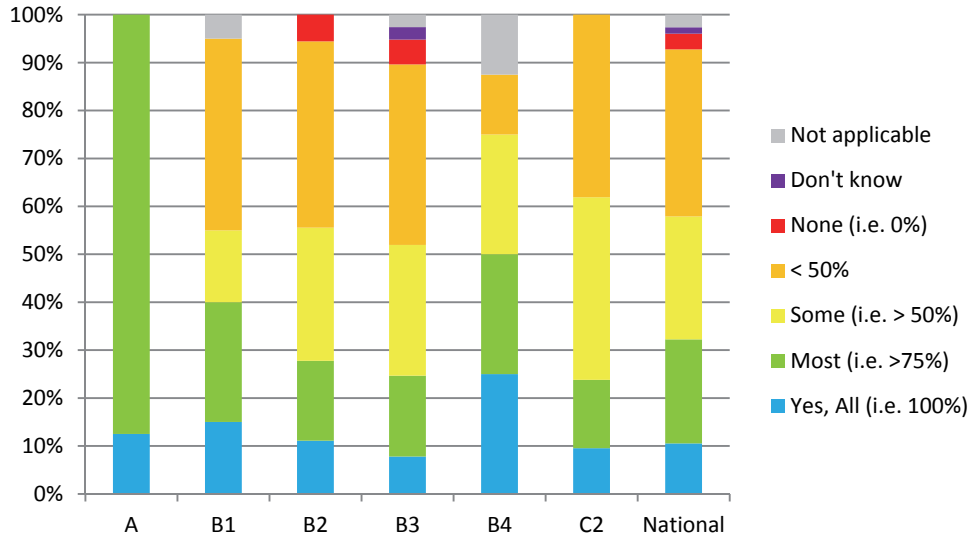


	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
90%	-	-	-	-	-	-

The MBI chose as a key PI for waste water the already existing and well established regulatory PI, namely, the WSAs Green Drop score (or alternatively, the associated Progress Assessment Tool score). These results for the MBI reporting period, namely 2012/2013, are yet to be released by the Minister of Water & Environmental Affairs, Edna Molewa, pending verification processes. Given such delays, understandable as they may be, MBI participants have indicated that in the future further additional municipal PIs will be introduced across all MBI participants. (See insights from Metro CWGs overleaf).

Green Drop information will be used as and when available. As indicated in the figure overleaf, significant shortages in skilled process controllers still exist, emphasising the on-going need for enhanced skills development and career pathing.

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

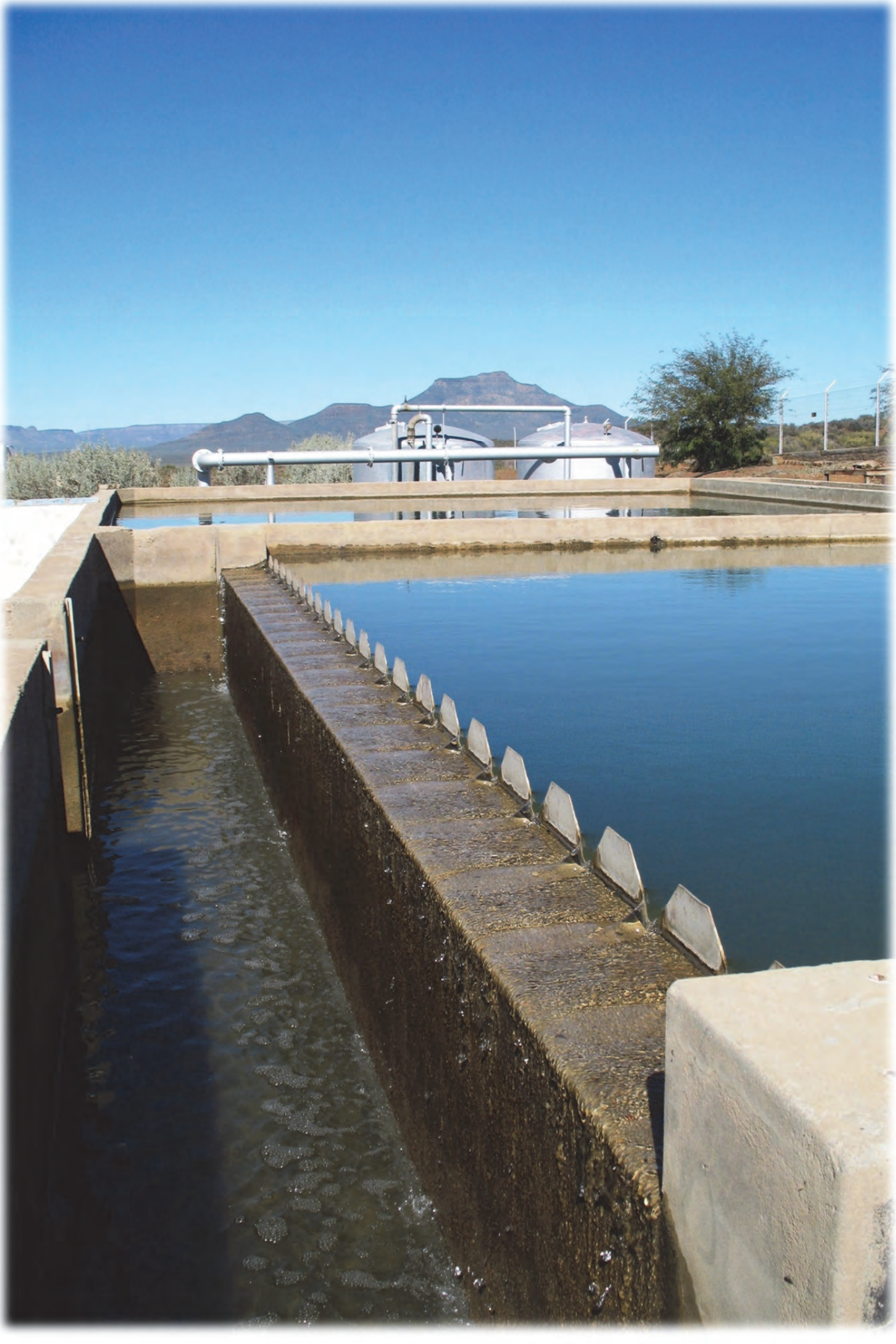


Insights from Metro's CWG

In addition to the above PIs, the CWG also track the following PIs:

- **Drinking-water quality compliance (%)**
- **Staffing numbers at water treatment works: actual vs. required (%)**
- **Staff skills at water treatment works: actual vs. required (%)**
- **Average order time for disinfection chemicals (days per order)**
- **Wastewater quality compliance (%)**
- **Staffing numbers at wastewater treatment works: actual vs. required (%)**
- **Staff skills at wastewater treatment works: actual vs. required (%)**
- **Water safety: average manpower hours without a working accident (average hours per water/wastewater treatment works)**
- **Industry trade effluent inspections (%/year)**
- **Industry trade effluent permits (%)**
- **Pollution incidents (No.)**

District and Local Municipalities are encouraged to consider measuring and tracking the aforementioned PIs in their peer groups.

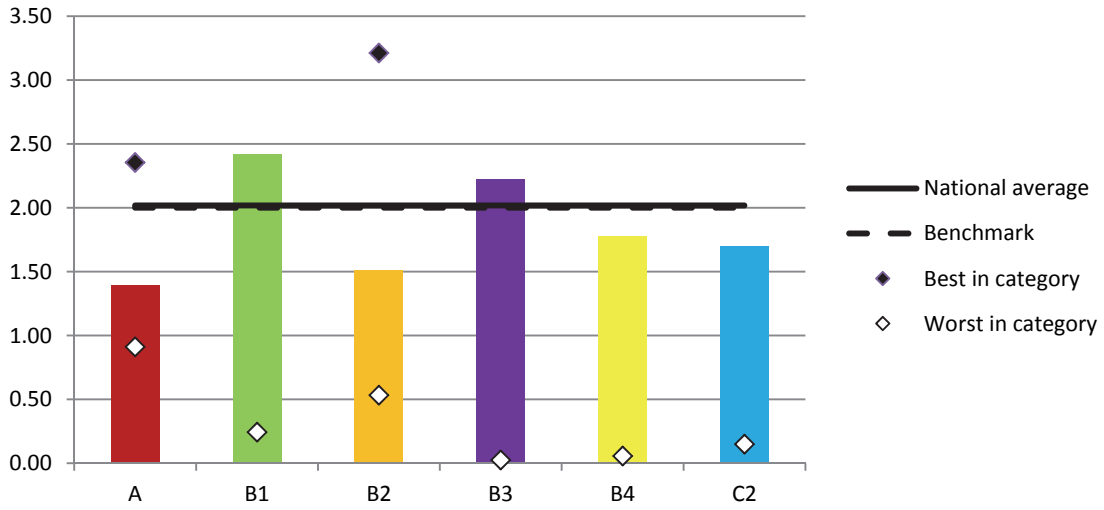


Financial Management

	Name	Code	Data source	Units	Number of WSAs for which PI was generated (out of 152)
1	Municipal current ratio	CR	NT	No.	131 (86%)
2	Cost of salaries	Salaries	NT	%	144 (95%)
3	Water services income	Income	NT/StatsSA	R per household per annum	130 (86%)
4	Financial management health check	FP1	DWA	%	152 (100%)
5	Revenue collection health check	FP2	DWA	%	152 (100%)

1. 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).



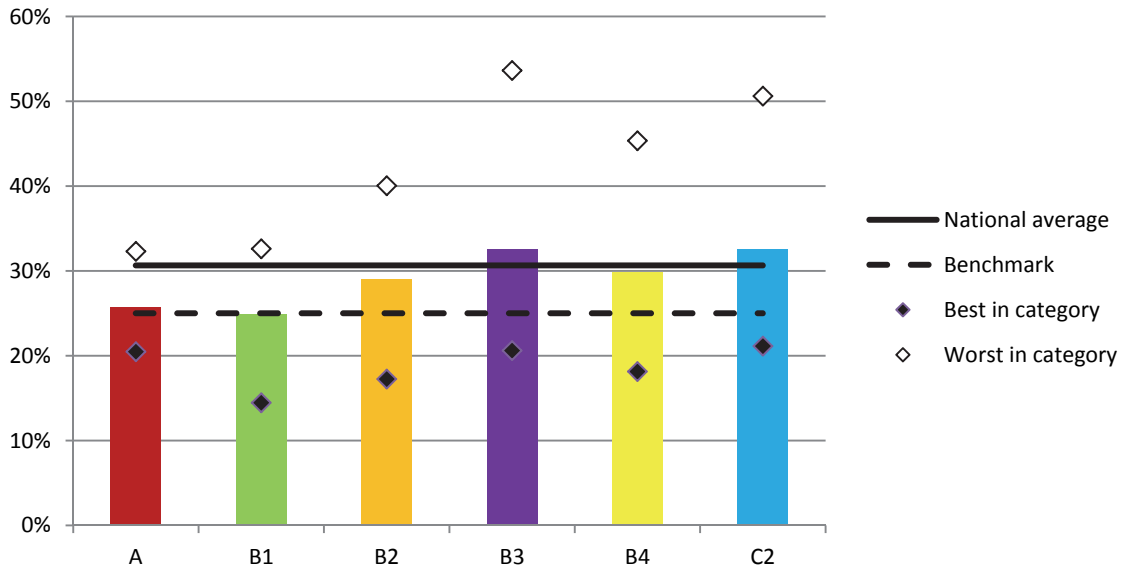
	Best In Category					
Benchmark	A	B1	B2	B3	B4	C2
2:1	Buffalo City (EC) 2.4:1	Tlokwe (NW) 7.9:1	Mossel Bay (WC) 3.2:1	Kai! Garib (NC) 13.2:1	Moses Kotane (NW) 7.2:1	Mopani (LP) 6.6:1

The national average is 2:1 (based on 131 datasets – 86% 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.

2. *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%	Ekurhuleni (GP) 20.5%	Rustenberg (NW) 14.5%	Merafong (GP) 17.3%	Kou-Kamma (EC) 20.6%	Thembisile (MP) 18.1%	Uthukela (KZN) 21.1%

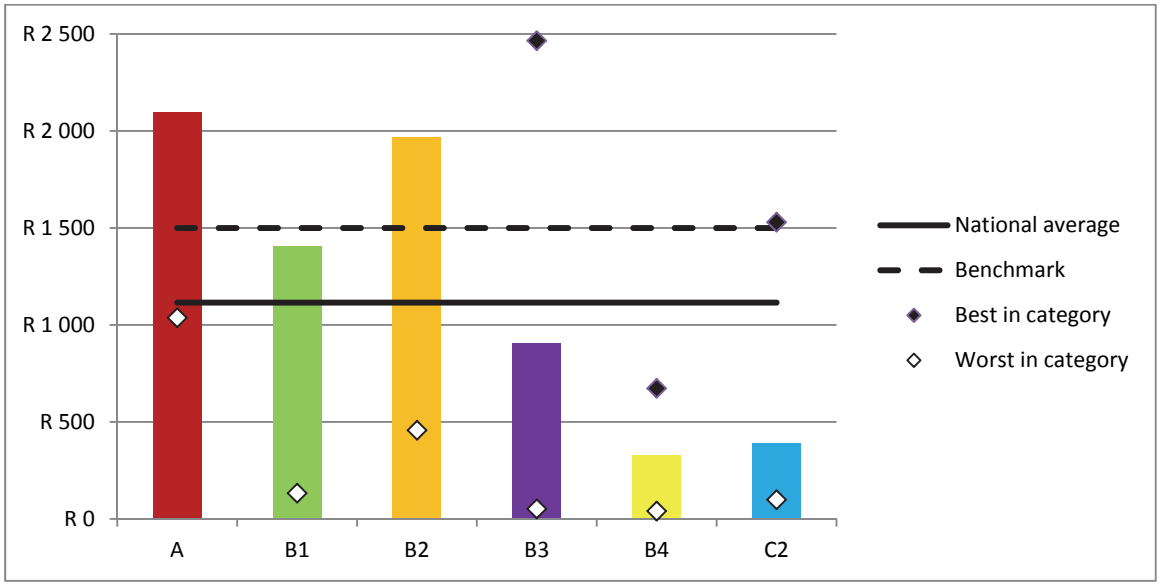
The national average is 31% (based on 144 datasets – 95% of WSAs) and a benchmark of 25% is proposed. It is widely accepted that there is a need for effective technical and management support to rural water schemes to maintain functionality of the infrastructure, and that such support may require a significant 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 biggest winners for us as the city in participating in benchmarking are our customers, as an entity we would not know if our methods to improve quality are working unless we set a baseline for measurements. Recognising the growing importance of improving efficiency in delivery of basic services in our city is an important management tool, and therefore benchmarking facilitates the sharing of best practice information and supports decisions to improve performance."

Jones Mnisi, General Manager: Strategy and Business Support, Johannesburg Water

3. *Water services income*

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



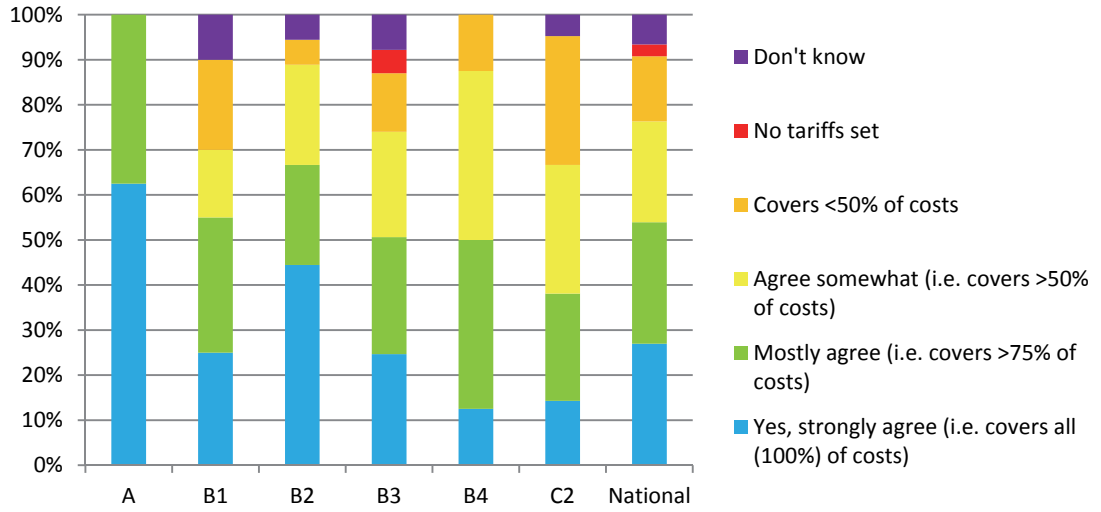
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
R1 500 per household per annum (R125/month)	City of Johannesburg (GP) R3 696 per household per annum (R308/month)	Sol Plaatje (NC) R2 520 per household per annum (R210/month)	Merafong (GP) R3 451 per household per annum (R288/month)	Victor Khanye R2 465 per household per annum (R205/month)	Moses Kotane (NW) R673 per household per annum (R56/month)	Ugu R1 530 per household per annum (R128/month)

The national average is R1 116 per household per annum (or R93/month) (based on 130 datasets – 86% 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.

"MBI Master Classes are important as it helps us understand how we are doing and what to do to provide good service delivery."

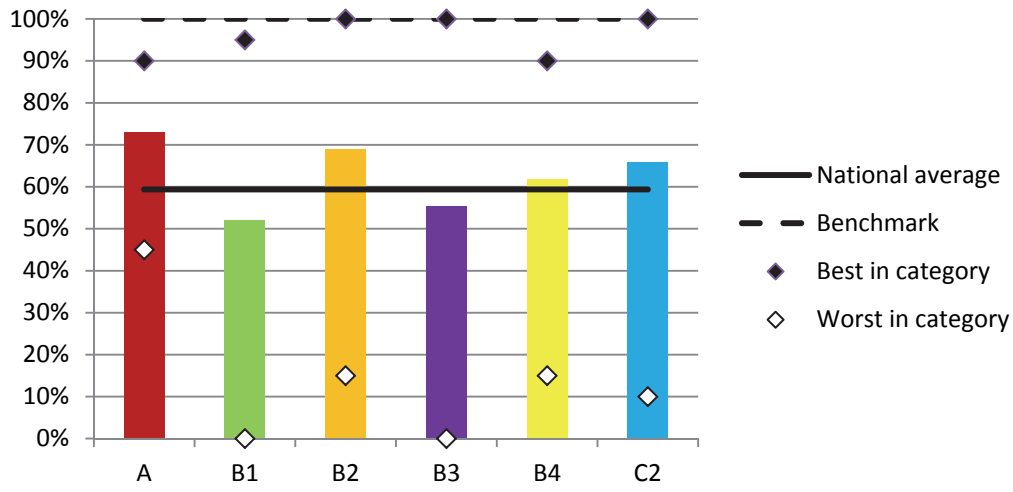
On-going case study presentations of success stories (as reflected by MBI Performance Indicators) would assist other municipalities to learn, adapt and implement actions.

Are cost reflective tariffs in place?



4. Financial management health check

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

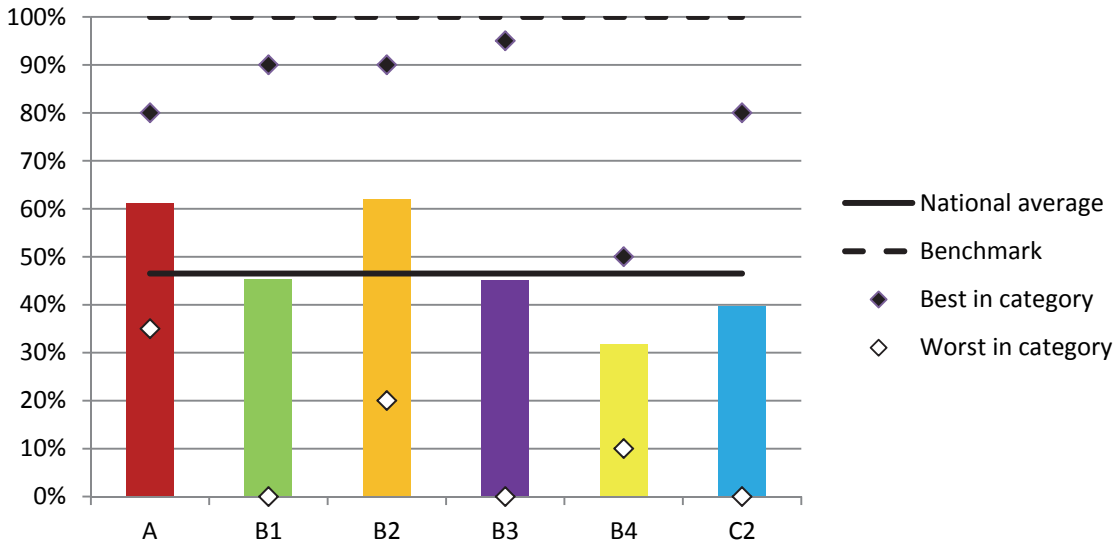


	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	City of Cape Town (WC) 90%	Tlokwe (NW) 95%	Mossel Bay (WC), Saldanha Bay (WC) 100%	Beaufort West (WC), Kareeberg (NC), Lesedi (GP), Swartland (WC), Tokologo (FS) 100%	Nkomazi (MP) 90%	Umgungundlovu (KZN), Umzinyathi (KZN) 100%

The national average of 59% (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.

5. Revenue collection health check

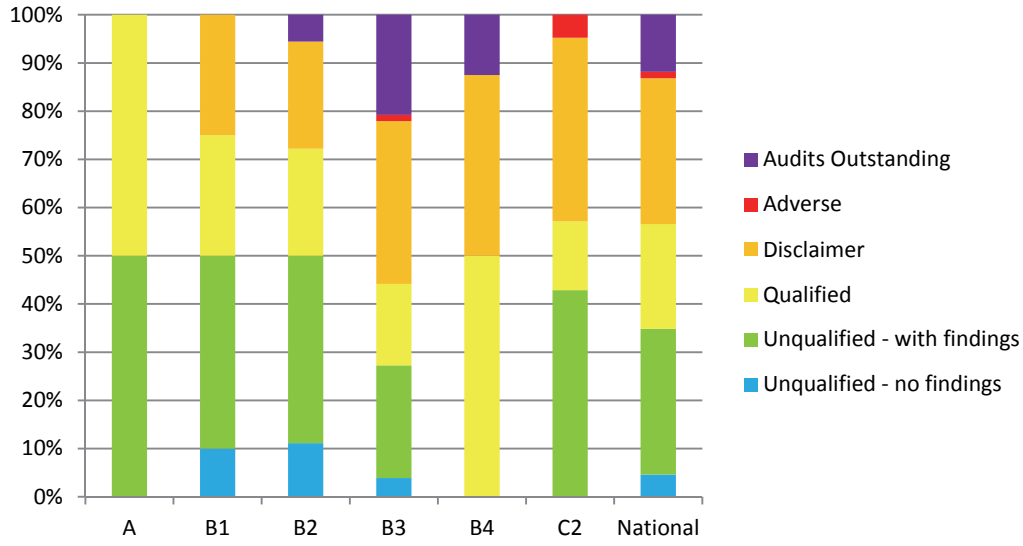
Formula: Revenue collection health determined from assessment of 5 key vulnerability attributes.



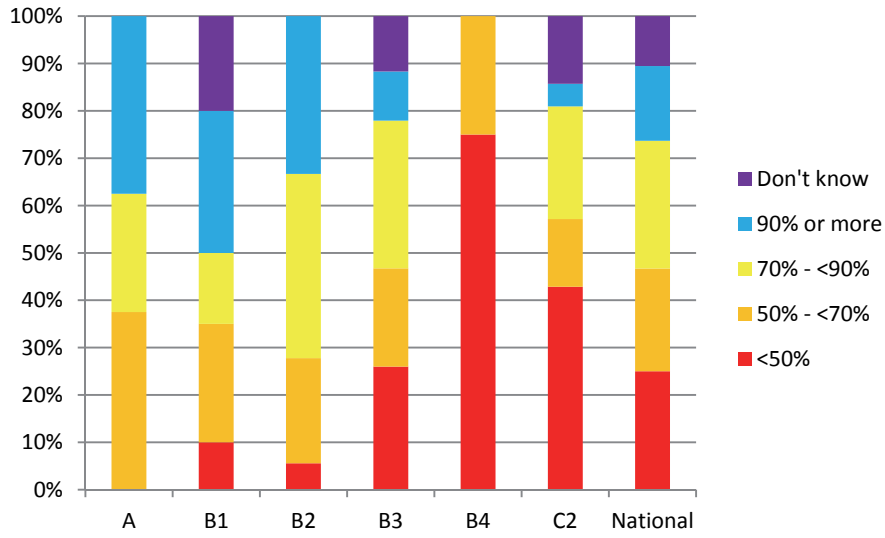
	Best In Category					
Benchmark	**A**	**B1**	**B2**	**B3**	**B4**	**C2**
100%	Mangaung (FS) 80%	Tlokwe (NW) 90%	Breede Valley (WC) 90%	Cederberg (WC) 95%	Dr JS Moroka (MP), Nkomazi (MP) 50%	Ugu (KZN) 80%

The national average of 47% (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.

Audit status



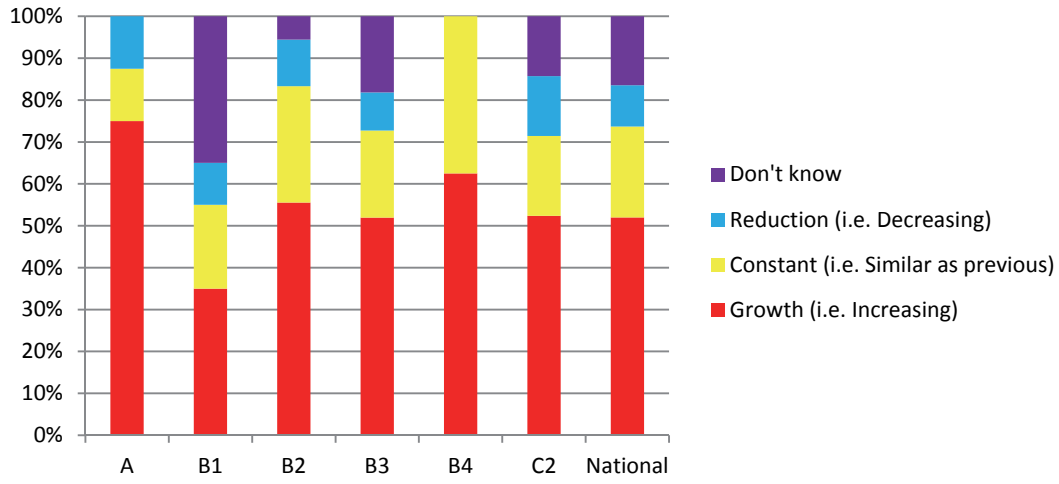
What is the revenue collection rate (revenue received/billed - %)?



"Ring fencing of budgets, costs and revenue for water and sanitation coupled with the standardisation of the chart of accounts throughout all Municipalities will promote Benchmarking which is an extremely important tool to assist Municipalities in growing and transforming their business to be effective , economic, efficient and sustainable. Budgets and Costs must be further broken down into operational Cost Centres to provide effective comparisons and reporting to Management and the various spheres of Government"

Rosh Maharaj, Senior Manager: Finance, eThekwini Water and Sanitation

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



Insights from Metro's CWG

In addition to the above PIs, the CWG also track the following PIs:

- **Solvency ratio (ratio)**
- **Non-revenue water by cost (R)**
- **Revenue collection rate (%)**
- **Average debtor days (days)**
- **Maintenance cost as a proportion of operating expenditure (%)**
- **Maintenance cost as a proportion of Current Replacement Cost (CRC) (%)**
- **Finance cost as a proportion of operating expenditure (%)**
- **Cost of meter reading (R/meter)**
- **Cost of billing (R/customer/year)**

District and Local Municipalities are encouraged to consider measuring and tracking the aforementioned PIs in their peer groups.

Standard Chart of Accounts (SCOA)

A key objective of the National Treasury SCOA 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. SCOA 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 SCOA requirements to the benefit of municipalities.

"Technical staff need to engage in and understand Finance matters."

"We need to invite the Financial Department to MBI events. Technical and finance officials need to consider the PIs together and work our way jointly forward addressing the challenges".

Get benchmarking – improve water services performance

Participating in the MBI can help ensure that you are doing things right. It tells customers, the Regulator and other stakeholders that you are meeting or exceeding water sector requirements and associated best practice. If you have not yet started, follow our tips below and use benchmarking to improve your performance.

1. Review your water services business

What would you like to do better? Perhaps you want to reduce your non-revenue water, or improve your response to call-outs.

2. Identify exactly what you want to achieve

Focus closely on the results you would like to see. If it's reduced non-revenue water, should you be reducing pressures or tracking bursts more closely? Identify clearly the benefit you want benchmarking to provide.

3. Think about your customers

What benefits will participating in benchmarking give your customers? Will it have an implication on your revenue or grant funding?

4. Think about the other internal municipal departments

Will participation in benchmarking improve your ability to work with other departments within the municipality? Will it increase inter-departmental communication and co-operation?

5. Review available MBI Performance Indicators

Once you have a picture of the benefits to your municipality, find the performance indicators (PIs) that best suit your objectives. You can browse the available MBI PIs on Munibench (www.munibench.co.za) or by contacting the MBI team.

6. Consider the PIs and make your choice

You may find more than one suitable PI that can help you meet your goals. Think about how much time and resources will be needed to implement each and how the benefits will compare. It is preferable to start simple and consider a "less is more" approach. Some PIs will require more commitment than others, but could bring greater rewards.

7. Implement your selected PIs

Make sure you are monitoring the necessary parameters so that you will have the required data to calculate your PIs. Importantly, consider the accuracy and reliability of your data.

8. Review and improve your performance

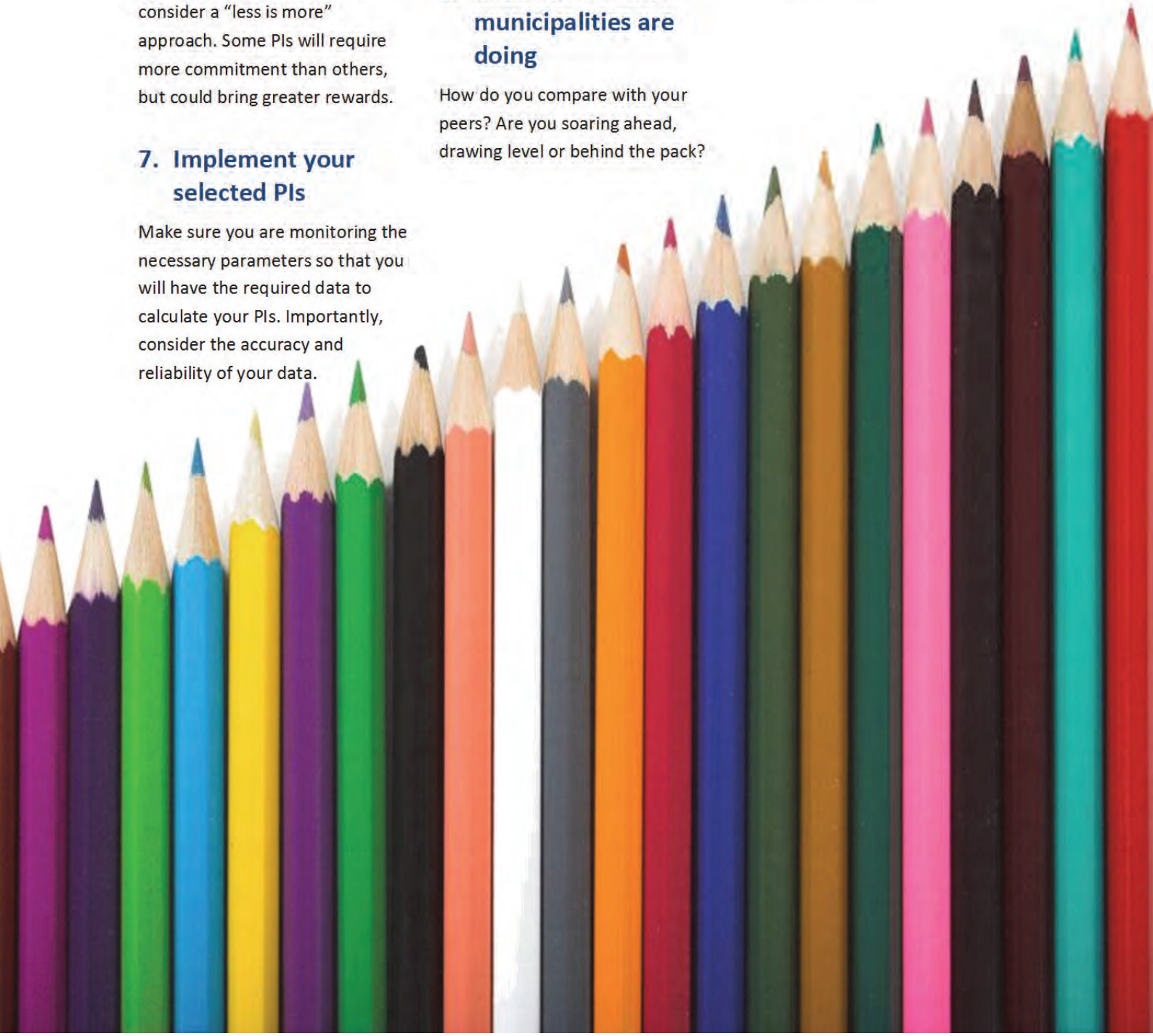
Develop improvement plans with specific measureable targets and regularly review your progress. Celebrate your achievements as you progress.

9. Check what other municipalities are doing

How do you compare with your peers? Are you soaring ahead, drawing level or behind the pack?

10.Tell the world

Make sure your customers, the Regulator and other stakeholders know you are participating in the MBI and what you are achieving. Look around for new opportunities that may have arisen as a result of participating in the MBI.



Final Considerations and Way Forward

The work effort and associated progress has been substantial; 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:

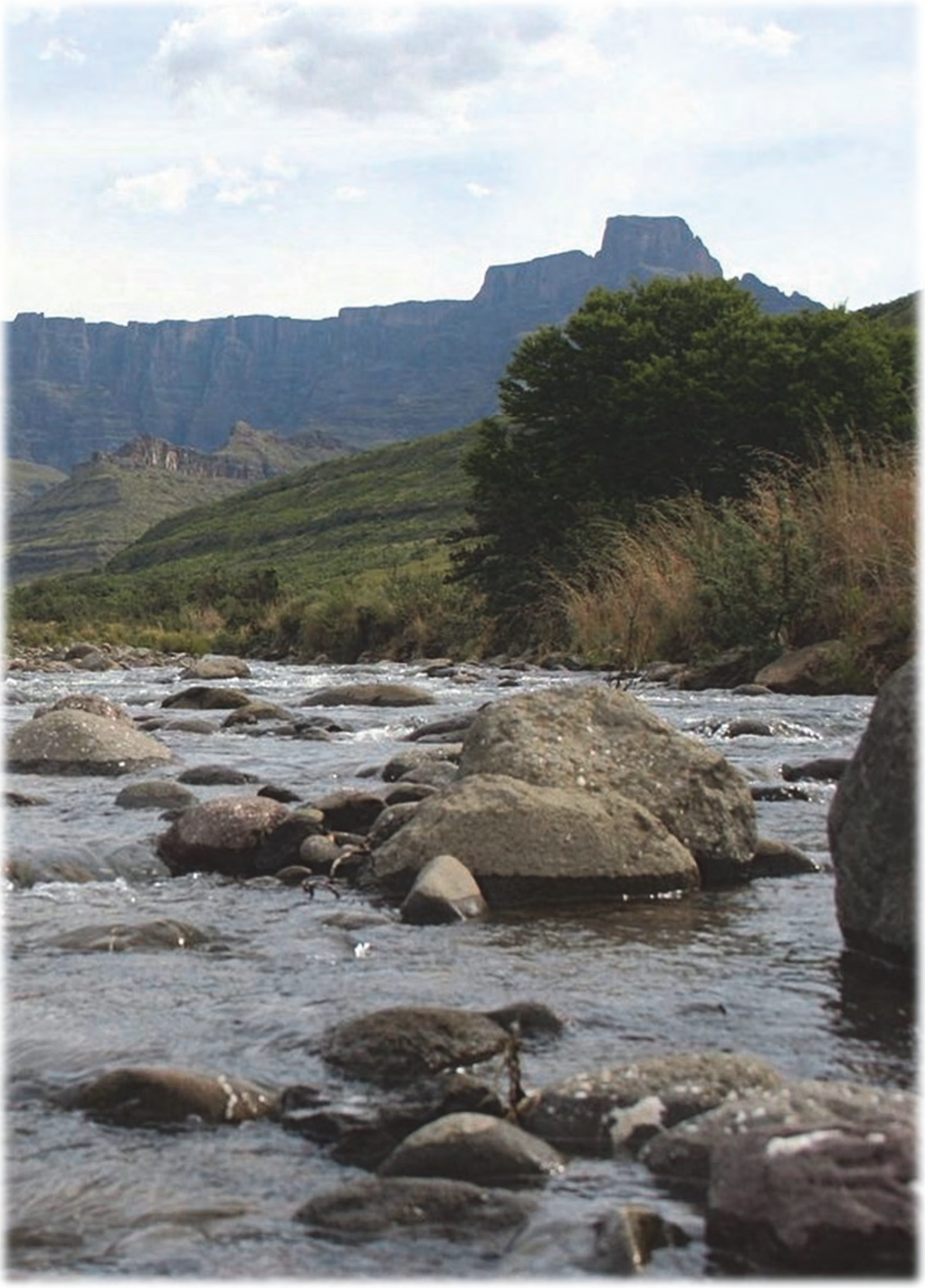
- Where WSAs are not yet measuring/monitoring to allow calculation of PIs, WSAs should: (1) select 1 or 2 key PIs per module and start measuring/monitoring required data inputs so that PIs can be calculated.
- Where WSAs are measuring/monitoring and thus able to calculate PIs, WSAs should: (1) Utilise 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.

"Somebody once said: People support what they are involved in and create, and resist what they are excluded from. Both IMESA and the MBI would like to nurture this creative culture of involvement and participation. It is the only way to grow and improve … and, oh dear, doesn't Local Government need growth and improvement! It is high time that Engineers in Local Government take a leading role in changing the sector and the MBI is a perfect example of just that. This water services initiative should be rolled to all municipal engineering services as the next step. Thank you to SALGA and the WRC for sponsoring this critical project."
Eddie Delport, Director: Technical Services, Breede Valley Municipality and IMESA



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

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APPENDIX: LIST OF WSA TYPES

Municipal Category	WSA Code	WSA Name	Province
A	BUF	Buffalo City	EC
A	NMA	Nelson Mandela Metropolitan	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 Plaatjie	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

Municipal Category	WSA Code	WSA Name	Province
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	Amatole 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	Sisonke 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

How best can you improve your operational efficiencies?

How can you adopt best practice efficiency innovations by your peers?

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 over-riding message is clear – benchmarking is good for your municipal water services business!

The Municipal Benchmarking Initiative

A SALGA led initiative supported by the Water Research Commission

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