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Municipal compliance with water services policy: A challenge for water security

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Note

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Contents

1. Introduction

It is important to understand the current constraints on and opportunities for the South African water sector to contribute to driving the country's economy and reducing inequality through greater access to water for household and productive uses.

This paper focuses on the state of municipal performance in water services in an effort to understand one aspect of the potential risk to the nation's ability to secure water for sustainable growth, as well as to the quality of the resource itself. It focuses on practices and challenges associated with municipalities' compliance with the four pillars of water services regulation – social responsibility, drinking water quality, economic regulation and environmental regulation. These four areas form the basis of the National Water Services Regulation Strategy (NWSRS) and are viewed as working in harmony with one another to ensure sustainability of water provision.

Municipalities face several challenges in meeting statutory requirements for the provision of water services. This raises the question as to whether the current level of decentralisation in water services provision and in local levels of regulation is appropriate, especially given the enduring municipal capacity constraints.

This paper argues that the blurring of lines between the water services authorities (WSAs) and water services providers (WSPs) at the local level has overlooked the importance of WSPs that are unable to explore external options to improve their performance. The ineffectual interpretation and implementation of the Section 78 process has contributed to municipalities primarily keeping the provision function in-house, even when the capacity to do so adequately is lacking.

The paper concludes by exploring the possible aggregation of WSA functions to the district municipal level, where appropriate, and the strengthening of governance mechanisms for citizens.

It might be asked why, when looking at the larger water consumption patterns in South Africa, so much attention is given to domestic use. Three reasons are put forward:

Domestic water use is the second largest consumption sector of overall water use and, at about 27% (Yako, 2008), it is the fastest growing category of use. In comparison with other economic sectors, the cost of reticulation is massive. The economic and social benefits derived from investing wisely by contributing to well-maintained, long-lasting infrastructure and the skills to do so far outweigh the actual monetary costs.

The constitutional mandate of the state is to ensure that adequate water and sanitation are provided with dignity. The Water Services Act (DWAF, 1997) also ensures that water services are provided in a sustainable way and do not pollute the environment. Wastewater discharges have a major impact on the water environment and must be factored into the equation of municipal water use.

In terms of shifting water demand patterns, urban water supply is the fastest growing sector of national water use. This has implications both for water supply and for wastewater management (Eales, 2008).

The inability of many municipalities to manage water services and current and future assets effectively raises the question as to how local government will cope with the increasing complexity of water provision as urban demand increases. The historical bias of rural, largely commercial, agriculture consuming the bulk (62%) of South Africa's water is beginning to shift towards increasing consumption for urban uses (currently 23%) (Eales, 2008). As the demand for water increases more rapidly than the population growth rate, the pressures on South Africa's existing water availability will rise significantly.

The situation is compounded by the fact that, over the past decade, water demand from South Africa's urban areas has grown faster than both the population growth rate and the economic growth rate (Savage et al., 2008:6). The complexity of this demographic change is due to service levels in urban areas being predominantly higher, for example for yard and in-house connections and waterborne sewerage. Wastewater volumes have risen significantly, thus adding greatly to the wastewater treatment responsibilities of municipal service providers.

2. The current regulatory framework and its constraints

The powers and functions of water services allocated to municipalities in the 1993 Interim Constitution of South Africa were confirmed in the 1996 Constitution. In 2000, with the establishment of new local governments, the national Department of Water Affairs and Forestry (DWAF) began a process of divesting the interim responsibilities it had assumed in 1994 to provide services to municipalities in the former homelands. It also began decentralising its support and oversight functions to regional offices.

For the past five years, the aim of the DWAF has been to streamline its support activities in order to focus on its core business of regulation. Key to the latest phase of this transition is the DWAF's move away from being a developmental regulator (where it has to provide evidence of its support prior to being able to take punitive action in instances of municipal non-compliance), to being an enforcer. The steps required for a national regulator to move into punitive action in instances of non-compliance are being streamlined.

Both the Water Services Act and the National Water Act (DWAF, 1998) provide the legislative context for water services and water resources management (WRM) respectively. The policy framework emerging from these two pieces of legislation addresses three important concepts that have shaped the direction of the water sector, namely, integrated water resources management (IWRM), the principle of equity in access to water, and the promotion of institutional decentralisation to bring about greater effectiveness (Savage et al., 2008:5).

Guided by the division of powers and functions under the Constitution, the DWAF has bifurcated its support and development of water resources and water services. This has prevented the DWAF from developing a holistic approach to regulating the entire value chain of water. An effort is currently under way to create a regulatory framework that integrates water resources and water services. In the meantime, regulatory strategies and frameworks and their implementation are unevenly developed between water services and water resources.

The regulatory framework for water services is further advanced through the draft NWSRS that has been canvassed across the water sector. It envisages the decentralisation of municipal regulation to 169 WSAs, with direct oversight of WSPs, whether exercised by the same municipal water department or an external provider, such as a private sector entity, water board or civil society structure. There are approximately 300 retail WSPs, the vast majority of which are municipal (Savage et al., 2008:12). Numerous constraints are associated with this regulatory approach, as discussed below.

- First, as the national regulator takes on a stronger enforcement role, it is still bound by the constitutional imperative of cooperative governance. This creates obstacles for a national sphere of government, in this case the regulator, to intervene in a local sphere of government. An example would be when a municipality fails to comply, in either its provider or authority function. At present, the Minister of Water Affairs and Forestry does not have the authority to remove the powers and functions of a non-compliant municipality, but must defer to the provincial department of local government to intervene. This constraint has been a strong motivation behind the DWAF's advocacy of the establishment of an independent regulator. (This opens up a debate about constitutional arrangements that will not be addressed in this paper.)

- Second, legislation aside, the most difficult obstacle to the current vision of water services regulation is that it is premised on the belief that the national regulator, through its Regulatory Performance Measurement System (RPMS) (DWAF, 2008d), will receive "revealing" data on 11 key performance indicators from 169 WSAs on an annual basis. This is a valuable vision, but currently unachievable in practice due to municipalities' lack of capacity. The reality on the ground is that only a handful of municipalities are able to provide reliable information. In the two years that the RPMS has been piloted across 19 municipalities, only three municipalities have provided "revealing" data that could enable the regulator to assess performance. Without reliable information at the local level, the national regulator cannot perform its job effectively. In order to remedy this situation, the National Benchmarking Initiative (NBI) for Water Services, now in its fourth year, was established as a joint initiative of the South African Local Government Association (SALGA), the Water Research Commission (WRC) and the DWAF. Its key objective is to promote credible data gathering and analysis by municipalities, which is an essential step towards good regulation.

- Third, the RPMS data is only provided, and therefore assessed, on an annual basis. This prevents the national regulator from being alerted to a service delivery problem at the local level before it is too late. Moreover, as very few municipalities can provide information on a quarterly basis, the national regulator is unable to assess performance trends within a more appropriate timeframe that would allow for intervention when necessary. This is a standard regulatory problem of information asymmetry in content and over time. It should nevertheless be taken into account in the expectations of what the regulator is able to accomplish in terms of the accuracy and timeliness of the information guiding its oversight function.Fourth, the expectations of what the regulator is able to achieve are unrealistic, given that the NWSRS is premised on a distinction between the roles of WSAs and WSPs at the municipal level. This distinction, however, is evident in only a few instances. This calls into question the feasibility of the entire regulatory strategy, given its presumption that this is the norm and therefore that all WSAs can provide the requested information and appropriate oversight.

3. Municipal compliance

This section highlights the main functional areas of economic, social, environmental and public health regulation, and describes the state of municipal compliance in each of these regulatory areas. Several of the issues highlighted here move beyond municipal compliance, pointing to serious flaws in the way in which performance has been conceptualised and rewarded through existing regulatory frameworks. As will be shown below, current regulatory models for municipal compliance are very sophisticated and assume a level of capacity at the local level that is not in place.

3.1 Economic regulation

Simply put, the economic regulation of water services looks at norms and standards for price setting, or tariff determination, by municipalities. This is independent of whether or not contracts are in place between WSAs and WSPs concerning service quality and price. The main objective of this area of regulation is to ensure that the price of water and its incorporation into municipal tariffs is affordable to the public. An element of cost-reflectiveness is also necessary, whereby a municipality will be able to generate sufficient income to cover the cost of its services over the long term.

- *Financial ring-fencing:* One of the most significant challenges to municipal compliance in the matter of economic regulation is the ability of municipalities to identify the full range of costs associated with water services. This is in part because, even though it is legally mandated, very few municipalities have financially ring-fenced their water service functions. Only eight of the 40 largest WSAs participating in the NBI, which together serve 75% of the population, have financially ring-fenced their water services, according to the benchmarking report for 2006/07.[1]

1 These are the Johannesburg, Nelson Mandela, Ilembe, Uthukela, Vhembe, Maluti-a-Phofung, Mangaung and Mogalakwena WSAs.

In South Africa, most in-house municipal water providers cannot cost the provision of their local water services accurately, which makes it very difficult to assign tariffs that can generate the revenues required to sustain these services. This is partly because costs incorporate both standard operating dimensions and depreciation, expansion and replacement costs. The general absence of registers in which the age, condition and values of assets are recorded makes cost-reflective price setting virtually impossible. As such, most municipal water departments are unable to subsidise other departments, but rather have to be subsidised by the municipality itself in order to fulfil their basic obligations. This has a significant implication for the financial viability of municipal functions.

- *Tariffs:* In order to ensure that the cost of water services, where consumers have to pay for these, remains affordable, municipalities have been encouraged to develop pro-poor tariffs for domestic users (DWAF, 2008b). Since 2001, the DWAF has regulated the application of a rising-block tariff system to promote equitable access to water for all. The system allows municipalities to ensure that moderate consumption remains affordable, and to cross-subsidise the minimum required for survival by charging high tariffs for high levels of consumption. This approach is also meant to cross-subsidise the cost of free basic services within the tariff structure, by allowing the first block to be free and recouping its costs higher up the stepped tariff.

  In 2006, the DWAF undertook a survey among municipalities to gauge compliance with the rising-block tariff system. Of the 236 municipalities that participated in the survey, 183 (78%) had already implemented three or more rising-block tariffs. The Eastern Cape (59%) and KwaZulu-Natal (69%) had the fewest municipalities with such tariffs in place.

  Despite this relatively good level of compliance, most of the municipalities are not reporting on the criteria used in setting their tariffs (DWAF, 2008b). This makes it difficult for the DWAF to assess whether the cost elements critical to sustainability, such as a budget item for the refurbishment of infrastructure, are actually included in the tariffs.

- *Unaccounted-for water:* If municipalities are to recover the costs of water provision based on cost-reflective tariffs, then non-revenue water use should be kept to a minimum. According to a national sample survey of 70 municipalities, at least 36% of potable water is non-revenue water, which is a consequence of physical and commercial losses. This is costing municipalities billions of rands in lost income. At least one-third of this amount is lost through leakage and spillage before the water flowing through the network reaches the end user. Extrapolated nationally, this totals 500 million cubic metres (m^3) of water per year (Seago & McKenzie, 2007).

  Revenue management is inadequate in many municipalities, and weaknesses in both billing and collection systems have led to the undercollection of revenue in water services, as well as large write-offs of consumer debts (Savage et al., 2008:26). This retrospective subsidy, combined with the opaque nature of cross-subsidies, raises concern as to whether this temporary approach to balancing municipal budgets is sustainable in the long term.

A significant contributor to municipal water losses is the insufficient investment in maintenance. This is in large part due to the nature of municipal financing for basic infrastructure, which is overly reliant on capital-intensive grants from the national government. Also, inadequate attention is paid to planning for ongoing operational costs and to where these resources will come from. Given the relatively high levels of local water wastage and the inability of municipalities to collect revenues, it is not surprising that municipal revenue is rising less rapidly than the growing cost of providing services as coverage is extended (Savage et al., 2008).

3.2 Social regulation

The primary task of social regulation is to ensure that all municipalities extend affordable access to basic water and sanitation services. The national policy objectives are to achieve universal access to water by 2008 and sanitation by 2010. Further to this, the regulator's goal is to ensure that all municipalities provide safe and reliable water services; implement a free basic water policy; and provide basic sanitation amenities in a manner that promotes public health and does not pollute the environment.

In order to finance the ability of municipalities to meet service targets, a grant funding framework has been established that transfers growing tranches of funding annually to municipalities. Its two key instruments are the Municipal Infrastructure Grant (MIG), which is conditional, and the Equitable Share Grant (ESG), which is non-conditional.

The MIG, which was implemented in 2003, is administered by the Department of Provincial and Local Government (DPLG). It consolidates a number of grant mechanisms for funding the capital cost of basic services infrastructure to poor households.

The ESG, administered by the National Treasury, was introduced in 1998 to fund the recurrent costs of providing basic services to households. In water services, this grant is aimed at covering areas such as free basic water, and operations and maintenance.

Since the first democratic election in 1994, South Africa has done exceptionally well in extending coverage. Water services have been extended to an additional 18.7 million people, whereas improved sanitation facilities have been provided to an additional 10.9 million people. Since 1996, according to census data, flush toilets have been provided to nearly 9 million more people, which is almost a fifth of the population. This equates to close to 60% of households at a national level now having flush toilets.[2]

2 The actual backlog remaining for water services, as of March 2008, is 6.56 million households and for sanitation, as of December 2007, 3.29 million households (DWAF, 2008a).

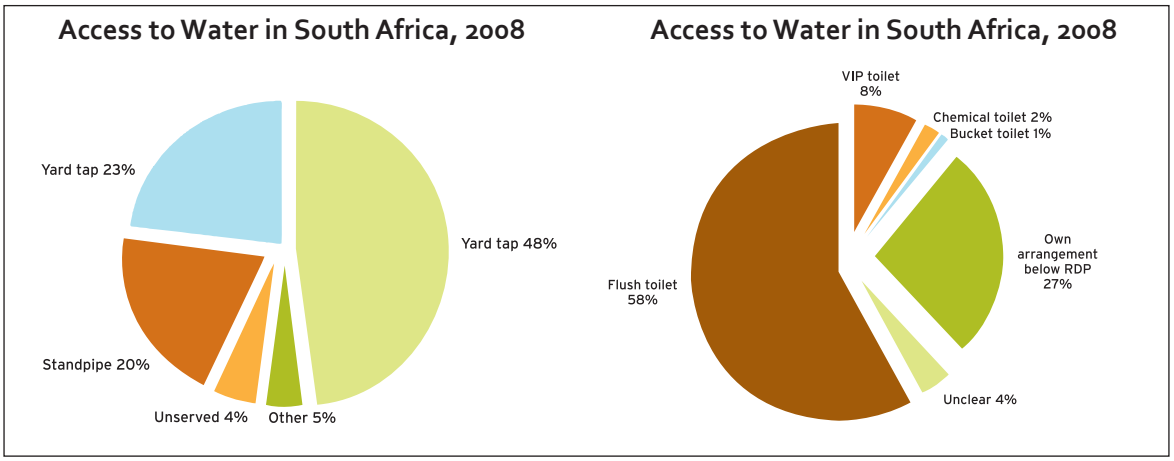

Figure 1: Breakdown of current levels of service for water and sanitation

Source: Eales, 2008; DWAF, 2008a

While these achievements in coverage have been impressive, the overarching pressure on municipalities to achieve targets within short timeframes has had several unintended consequences.

First, most municipalities have come to see intergovernmental transfers through MIG funding intended for the poor as an easy source of income to fund the expansion of services. Some municipalities are therefore focusing primarily on providing new installations in low-income areas, while neglecting broader maintenance, renewals and upgrades across the broader network. Figure 2 illustrates the growing decline in non-grant sources of finance for municipal infrastructure as municipalities increasingly rely on the MIG. This indicates that municipalities have stopped looking for alternative sources of funding for infrastructure development and renewal in other areas, which is critical for economic development and sustainable job creation. A report by the DPLG substantiates the situation depicted in the graph by noting that municipal borrowing is declining as a source of capital funding, and that capital subsidies have displaced private sector borrowing (DPLG, 2007).

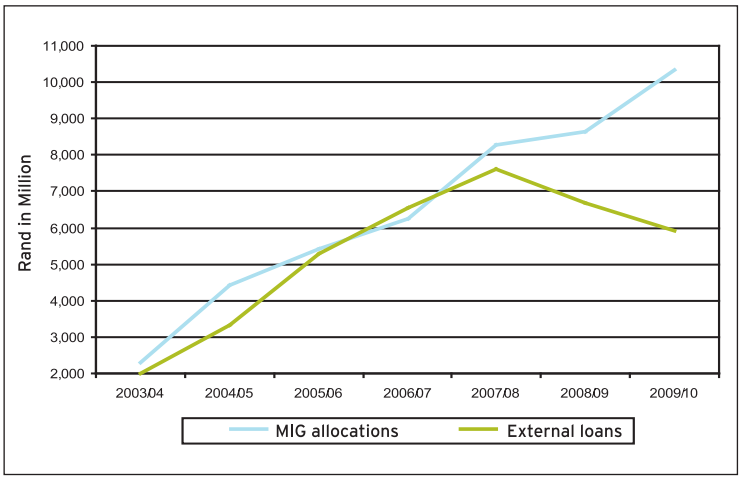

Figure 2: Growth in MIG and external loans, 2003/04–2009/10

Source: RSA, 2008a:87

Second, municipalities have tended to rely unduly on the equitable share to fund basic operations, and have not budgeted adequately for the real costs of maintaining and expanding their service infrastructure. This means that current tariff structures are generally not cost reflective and are therefore unable to generate the revenues necessary for sustainable service delivery. The growing emphasis of municipalities on investing in new infrastructure is an indication of the ease with which infrastructure grants, such as the MIG, can be obtained. This frequently leads to infrastructure being replaced rather than systematically maintained. Such deferred maintenance has eroded the asset base of several municipalities, thus threatening the sustainability of their services (Savage et al., 2008:28). Third, in becoming a little too reliant on (essentially free) capital grants from national government to accelerate the eradication of service delivery backlogs, municipalities have given inadequate attention to quality and ongoing service needs on the ground. This is substantiated by the spot-check assessment of MIG-funded water and sanitation projects since 2003, which was conducted by the Council for Scientific and Industrial Research (CSIR, 2007). The assessment aimed to determine the degree to which MIG-funded water and sanitation projects met required norms and standards, as well as other critical relevant legislation pertaining to water quality, technical quality, design standards, reliability and training. Nearly a third of the households indicated that their newly installed water systems were not reliable enough, as these had been out of order at least three times during 2006. Only 30% received training in the efficient use of water, or in the operation and maintenance of devices. This shows little effort on the part of municipalities in making households more aware of their responsibilities with regard to water conservation and hygienic practice (CSIR, 2007:20). Less than 17% of the completed sanitation projects were compliant in regard to the element of health risk, such as introducing hand-washing facilities, or offering health and hygiene education to break the chain of disease transmission (CSIR, 2007:21).

The constraints on regulating these unintended consequences lie predominantly with the differing objectives of the four national departments responsible for ensuring the provision of grants and for monitoring how effectively they are spent. The DPLG allocates the MIG, thereby establishing and monitoring the criteria according to which this source of funding can be obtained. In so doing, it focuses on projects or inputs, not on outputs and outcomes. National Treasury disburses grants for bulk infrastructure and the equitable share, but is limited in monitoring their use in relation to the latter, as it is non-conditional. While the DWAF provides funding for the transfer of schemes to municipalities, it also plays a role in overseeing how effectively these grants translate into services on the ground, such as taps that work and sanitation systems that are up to standard. However, this role could be strengthened.

The importance of monitoring housing when checking on infrastructure provision cannot be overestimated, given the overall proportion of new water and services infrastructure that actually falls under the provincial and municipal housing departments. While the National Department of Housing (NDoH) exercises a regulatory role over provincial housing departments, it does not have the

same objectives as a water services regulator (DWAF, 2008a:58). Furthermore, the often substandard quality of water and sanitation infrastructure that is put in place by local contractors or developers in subsidised housing schemes is not sufficiently regulated by all three spheres of the NDoH. This creates problems for households, who have to bear the costs of water leakage and of breakdowns in infrastructure.

A significant problem with the manner in which the DPLG is regulating municipal infrastructure compliance is that it primarily holds municipalities accountable for their performance in spending funds and delivering quantifiable outputs. For instance, it is more concerned with the number of taps put in the ground or the number of buckets removed, rather than focusing on infrastructure quality and service performance. Cost-efficiency or consumer satisfaction with the quality of services provided is not necessarily a primary concern for municipalities, who are trying to avoid being reprimanded for underspending.

Clearly, greater attention should be paid to process in terms of monitoring how services are delivered. Proper procedures should be followed in respect of design standards and training, and also in educating the public in the responsible use of infrastructure. There is a dire need to bring these four departments into a much tighter degree of alignment and coordination in overseeing municipal compliance with the social objectives of providing water and sanitation infrastructure, as well as in shifting from regulating outputs to ensuring outcomes.

3.3 Water resources, the environment, wastewater discharges and licences

Municipal compliance in regard to wastewater discharges is largely about ensuring that quality standards for effluent are met. The national regulator issues licences stipulating conditions to be met by specific wastewater treatment works (WWTW) in this regard. However, surveys have shown that a significant percentage of these systems do not meet the required standards and conditions. A main reason for this state of affairs is that population and economic growth have exceeded capacity in terms of infrastructure, operations and maintenance.

The ability of municipalities and other entities to install, manage and maintain new wastewater infrastructure has been constrained by large deficits in engineering and technical skills, inadequate capital and operating funds, and skewed compliance incentives. A further constraint is that 40% of the water quality challenge lies upstream of WWTW, while industrial effluent is a major contributory factor to the overall problem. Local governments' monitoring and enforcement will have to be enhanced in this regard.

In 2007, the DWAF undertook a national self-assessment of WSAs' capacity to comply with current norms and standards in the sector. The survey focused on legal compliance (licences and permits), the number and type of WWTW, capacity, monitoring for quality and quantity, and external and internal laboratories. The findings covered the responses from approximately 166 WSAs.

The first results relating to wastewater quality (DWAF, 2008e) indicated that 57% of WSAs did not have the appropriate licences for WWTW. Of the 34% of licensed WSAs, only three-quarters reported that they adhered to the licence conditions. Approximately 36% stated that their WWTW were overloaded, thus operating above their design capacity. (The majority of these WSAs are in the Eastern Cape, Free State and Limpopo.) Of concern also is that only 46% of WSAs reported that they monitored discharge volumes at all their WWTW, while only 58% stated that they monitored final wastewater effluent at least monthly.

The majority of WWTW (83%) serve small to medium-sized communities and are therefore more difficult to monitor from a municipal, regional and national regulatory perspective. A survey investigating a representative sample of 51 plants in eight provinces in 2006 found a critical shortage of trained and skilled staff. Approximately 56% of the plants required skilled staff for the adequate maintenance of the installed mechanical and electrical equipment and instruments. About half the plants were understaffed and needed additional skilled operators (Golder et al., 2006). Only 4% of the plants surveyed were operated and maintained adequately, and immediate intervention was needed in just under a third to avoid a threat to public health (Savage et al., 2008:17).

Poorly operated treatment works, as well as those operating above their design capacity, result in wastewater discharges that pose health risks to downstream users. In addition to damaging the environment, these discharges also affect the country's limited freshwater resources and raise the costs of water treatment and environmental rehabilitation (DWAF, 2008b:17). Given the seriously polluting effects of non-compliant WWTW, the DWAF is to be commended for strengthening its Compliance Monitoring and Enforcement Unit. This unit, in collaboration with the Department of Environmental Affairs and Tourism (DEAT), can now utilise the National Environmental Management Act (DEAT, 1998) more effectively in order to bolster the Water Services Act.

In the current context, however, it is not clear how greater emphasis on compliance will address the problems outlined above, unless it is accompanied by institutional changes and more realistic capital funding for network development and renewal. One way forward in dealing with growing levels of non-compliance with regard to WWTW is to explore more robust technologies with a lower risk of failure. A second option is to strengthen the capacity of plant operators to monitor their own works and receive feedback from the DWAF's sampling processes. Finally, institutional options should be considered that can more ably assist municipalities in coping with the challenges they face.

3.4 Water quality and public health

Unsafe drinking water is one of the greatest threats to life in the water services sector. This is particularly critical in the context of the increased vulnerability of people with weak immune systems owing to HIV and other illnesses (DWAF, 2008a:15). Figure 3 illustrates the comparative performance f regions with regard to water quality reporting and compliance levels.[3]

3 Note that the compliance data relates to both Class 1 and Class 2 compliance, and the reporting figures refer to the reports presented by WSAs in the regions. These reports are submitted monthly to the DWAF, acting in the capacity of the regulator. They detail the interventions taken by WSAs

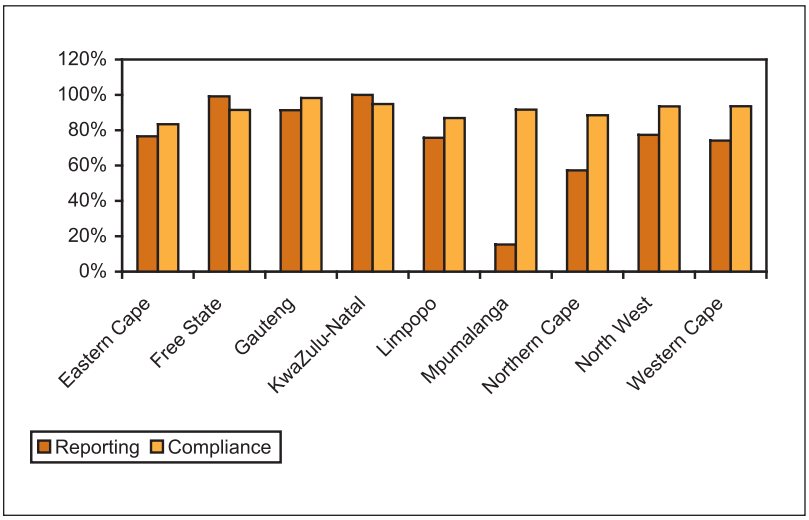

Figure 3: A comparison of regional reporting and compliance levels

Source: DWAF, 2008a:15

On average, 6% of the roughly 3200 sample sites across the country failed to meet the health requirements of the national standard over the 2007/08 reporting period. These were mainly detected in the rural areas, where a range of treatment shortcomings are evident. As assets such as the reticulation network continue to deteriorate, health risks associated with this poor state of equipment could accelerate. Unless asset management receives due attention, it will contribute to the decline in water quality.

In March 2008, failures in water and wastewater treatment in the Ukhahlamba District Municipality in the Eastern Cape hit the headlines. They serve as sobering examples of the consequences of failing to pay attention to these kinds of risks. Prior to 2006/07, district municipalities did not have a capital replacement fund. Only one out of five WWTW in these municipalities assessed by the DWAF in April 2008, was in a good state of repair (RSA, 2008b). Others were in a state of collapse and the likelihood of failure was high. Moreover, documented evidence shows that substandard drinking water quality in this area was a contributing factor in the death of 140 infants in the first three months of 2008.

DWAF figures show that the Eastern Cape region also registers the second-lowest level of Class 1[4] compliance in the country, with an average of 50.7% over the year. As noted in Figure 4, failures in drinking water quality averaged 16.9% over the year, making it the region with the highest rate of failure to comply with the maximum allowable limits of the national standard (DWAF, 2008a:15). On-the-ground assessment by independent researchers for the WRC shows a far higher incidence of failures in water quality (Momba et al., 2008).

to address the health failures detected in their areas of jurisdiction.

4 Class 1 refers to international water quality standards set by the World Health Organisation (WHO). Class 2 was established in South frica prior to the WHO standards and is a lower standard determination. It is seen as a safe range for a period over the average lifetime of a human being. This was done to accommodate struggling municipalities and rural schemes. Once the DWAF finalises its standards for drinking water quality, Class 2 will be phased out.

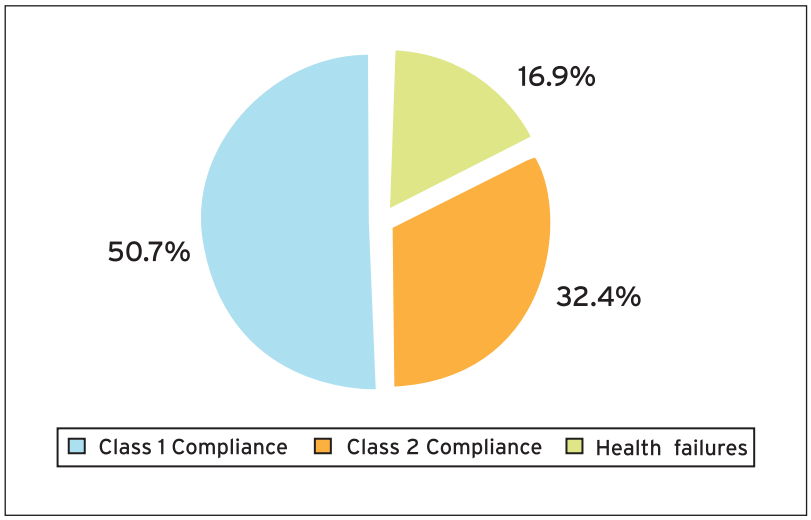

Figure 4: Drinking water quality compliance in the Eastern Cape, April 2007 to March 2008
Source: DWAF, 2008a:15

Declining raw water quality in many parts of the country is creating new challenges for the availability of water and its fitness for use. Clean water is necessary to dilute contaminated return flows and limit the effects of rising salinity and nutrient levels for agricultural and industrial users. The poor quality of discharged municipal effluent is increasing eutrophication and the bacteriological contamination of water resources, including groundwater (Eales, 2009:4). Bacteriological contamination from poorly treated sewage can result in the spread of waterborne diseases. Where municipal water treatment is not up to standard, people drinking tap water are at risk.

A critical role of the national regulator in protecting the public from poor quality water has been to introduce a framework with guidelines for municipalities in managing drinking water quality. Central to this has been the implementation in 2007 of an electronic monitoring system for drinking water quality. Approximately 90% of WSAs have been responding positively by supplying the relevant (but not necessarily reliable) data. An ongoing effort, however, is required to ensure comprehensive coverage and improved credibility of such monitoring activities and of information supplied by WSAs, where monitoring programmes are not projecting the quality of all water being reticulated in their area of jurisdiction (DWAF, 2008b).

Section 3 has highlighted the gravity of municipal non-compliance, which holds serious implications for the state of public health, environmental pollution and the sustainability of water and sanitation provision. Fundamental to reviewing the challenges relating to municipal compliance and the regulation capacity at national and local government level, is whether the policies that are in place are actually appropriate. The question is how municipalities can be judged as non-compliant when the policies they are following, set by national government, cannot actually be implemented effectively.

The development of water services policy has outpaced the institutional capacity to implement it on the ground. For instance, the NWSRS is appropriate for a developed world context – it sets out an ambitious framework that South Africa, as a whole, might be able to achieve in ten years' time. In the short term, however, it remains a largely normative framework and will require more than regulation to address the challenges in the sector.

It does not fall within the scope of this paper to examine the flaws of current policies in terms of setting unrealistic compliance expectations for municipalities. Nevertheless, it is time for a reassessment of municipalities that are not coping with both the WSA and WSP functions.

4. The way forward

4.1 A rethink of the decentralisation model

The poor levels of municipal compliance to water services standards show that, to a certain degree, the decentralised model of service provision mandated by the 1996 Constitution has not worked and is not working. Municipalities have undergone enormous transformation since 1994 and face a shifting terrain of adopting new boundaries, powers and functions. They have simultaneously had to contend both with a rapid increase in demand for services and a decline in the skills required to provide, maintain and monitor these services. Many entirely new municipalities have not yet come to grips with their tasks. Many others are also in a dire need of skilled workers, such as engineers, process controllers and maintenance staff.

In decentralising the responsibility for water services to municipalities, the lines between responsibility and actual provision were blurred. In terms of the Constitution, municipalities became responsible for delivering services, and the Water Services Act refined this mandate by stating that municipalities are to "ensure" provision. The policy drafters at the time recognised that water services provision is actually very complex and requires high levels of specialist managerial and technical expertise. The emphasis on "ensuring" provision signalled that municipalities should call in reliable, effective and affordable assistance where required. In this way, they could focus on their policy and regulatory function. This led to the drafting of Section 78 of the Municipal Systems Act (MSA) (DPLG, 2000).

The criteria and process for deciding on mechanisms to provide municipal services are spelled out in Section 78 of the MSA. The Act requires that each WSA should first assess whether it is able to undertake service provision itself by reorganising its administration and developing the necessary human resource capacity. The municipality should consult with organised labour in this assessment (Eales & Smith, 2008:109).

If the municipality concludes that it has, or can develop, the capacity to provide the service internally, Section 78.2 permits it to exit the process. Most WSAs have taken this route, and have appointed or established their own internal technical services departments as the WSP. Most municipalities are supported in this by organised labour. They have opted to avoid formal outsourcing, preferring to keep jobs, funding and control in-house (Eales & Smith, 2008:109).

If a municipality decides to explore external options, it should consult with the public. During this review of external options, the WSA is required to consider fundamental issues, such as the cost-effectiveness of different provider options, performance benchmarks, and whether or not particular options are pro-poor. Some observers argue that the legislation is biased against outsourcing of the provider function and the appointment of private sector agencies. This explains why there have been fewer public-private partnerships and appointments of private sector WSPs in the water services sector since the MSA was promulgated (Horton, 2008).

The same can be said for biases against municipalities considering civil society options, such as a local community-based organisation (CBO). The latter, as well as a small, medium and micro-enterprise (SMME), can only be appointed as a WSP if the WSA opts to look beyond internal service provision, and if the CBO or SMME is able to outbid other contenders in a competitive tender. The competitive tendering process immediately disqualifies CBOs, as they do not have a shareholder model by means of which their black economic empowerment (BEE) status can be assessed.

Municipalities are, however, increasingly relying on publicly or DWAF-owned water boards to support the provision of water services. This is, in part, owing to the strong support of the DWAF. As organs of state, municipalities are exempt from competitive tendering procedures, which reduces the time and cost they have to spend in procuring support. The efficiency of the water board, however, is not subject to the scrutiny of a tender assessment, and the risk of capture by the state is substantial (Eales & Smith, 2008:110).

There should be mechanisms for public oversight regarding the procedures with which water boards are appointed, and responsibilities for direct consumer interface should be required of them. If not, there will be no assurance that a water board will serve citizens better than in-house, community-based or private delivery systems. The evidence above suggests that Section 78 has been a flawed vehicle, allowing municipalities to turn to alternative mechanisms for taking over the provider function while they focus on policy and regulation. The current state of municipal compliance, as briefly outlined in this paper, has been the consequence.

The lifeline for existing struggling municipalities in South Africa may well be to get service provision adequately costed, tariffed and billed, and revenues collected for tradable services. This is an important point for senior decision makers in the DPLG to consider when deciding whether or not to remove the powers and functions from municipalities because of their erratic performance record.

Until the DPLG has completed its review of municipal powers and obligations, municipalities will continue to focus on both WSA and WSP functions. They will inevitably prioritise the harnessing of scarce skills in the country and target them at the provision function, given the magnitude of this skills gap. Approximately 90 municipalities do not have professional engineers, and the country is annually losing around 70 members of the civil engineering profession, including technicians (Lawless, 2008).

In most areas, however, it is very unlikely that under-resourced and understaffed municipalities will be able to fill their existing vacancies in water provision functions and attract highly skilled individuals to perform WSA functions.

As such, the current levels of legislative compliance across all 169 WSAs will continue to leave much to be desired as long as the underlying problem of poorly performing WSPs is not addressed. Results from both the first and second edition of the DWAF's national checklist[5] display the worst performance in the functional area of regulation and WSP performance management (68%), with anything under 90% being suboptimal.

This functional area comprises eight questions looking at the following issues (the checklist process consists of providing simple "yes" or "no" answers to these questions):

- Decisions about the mechanisms for rendering water services through a Section 78 process
- Decisions about whether WSAs have used Section 77 of the Act as a trigger for undertaking a Section 78 activity
- Whether WSAs have a bulk supply agreement in place
- Where the WSP is internal, whether WSAs have a performance management system in place
- Where the WSP is external, whether the WSA has a signed service delivery agreement
- Whether WSAs monitor the performance of WSPs
- Whether WSAs have approvals in place to access water for industrial use
- Whether the WSA function is managed and accounted for separately from the provision function

If WSAs are confessing that they do not have a grip on the legislation that makes up the regulatory function of water services, and the national regulator is largely dependent on local levels of regulation and information in order to play an oversight role, the question is how much more evidence is needed. In the light of this reality, it is necessary to rethink Section 78 in order to determine the degree to which municipalities can carry out their provision function. A rethink is also critical regarding the wisdom of decentralising the oversight function to 169 WSAs.

Where provision functions are failing, an improved mechanism for bringing in private or public sector options should be explored. Given the current bias within the existing Section 78 process, a review panel should be broadened to consist of the following:

- Senior representatives from the national government (the DPLG, DWAF or Treasury)
- An authority function, if aggregated to the district municipal or provincial level
- The relevant municipal authorities under whom a review is being considered
- A representative of civil society to monitor the transparency of the process
- This paper cannot begin to do justice to the complexity of getting such a review mechanism right

5 The DWAF's checklist process encompasses a WSA self-assessment across seven functional areas relating to legislative compliance to targets set out in the Strategic Framework for Water Services (SFWS).

It can at least flag this issue as being absolutely critical to helping municipalities bring in the necessary skills to carry out their provision function more effectively. In the current context, the sector needs to move beyond capacity building as the only solution.

With regard to the decentralisation of the authority function to the municipal level, where the capacity does not exist to perform WSA functions adequately, this local regulation role could be rescaled to the district municipal level. The DPLG's review of the White Paper on Local Government is currently under way, and part of this exercise lies in assessing the way in which to streamline the division of powers between local and district municipalities.

As part of this review, and in conjunction with the DWAF, the DPLG should seriously consider taking the WSA function away from local municipalities that are unable to meet their legislative requirements, and giving this over to capable district municipalities. If there is no capable district municipality to aggregate this function, the DPLG, in consultation with the DWAF, should hand it over to a metropolitan area or specialised organisations, such as provincial agencies.

This initiative would force a greater separation of WSA and WSP functions than is currently possible. It would also avoid the continued conflict of interest inherent in most municipalities performing both WSA and WSP roles. In this current state, most municipalities have few incentives to regulate themselves, which partially explains why the quality of information sent to the national regulator is so unreliable. The DPLG should not, however, simply assign a WSA function to a district municipality, as was done in 2001, unless it has the capacity to fulfil this oversight responsibility adequately. The value of aggregating the WSA function to the district level is that it could accentuate the overall planning function of the district municipality, which is of utmost importance for water services.

4.2 Bringing people back to the centre of development

The low levels of municipal compliance with the four areas of regulation noted above have certainly been felt by the public. South Africa is said to have one of the highest number of service delivery protests in the world, estimated at 10 000 in 2007 (Bond, 2008). One of the driving forces behind escalating protests across the country is the increasing levels of public frustration at the disconnection between the state and the citizenry when it comes to service delivery. This is partially attributable to local government becoming increasingly technocratic in its approach to service delivery.

In their attempt to respond to growing pressure from national government to meet targets, municipalities have increasingly become authoritarian in their approach to delivery. They have failed to understand the implications for the sustainability of service delivery when it is extended to users, often first-time users, who do not understand the complexity of the service delivery environment. This includes knowledge regarding the payment of bills; determining and appealing against incorrect estimations of household water use; fixing leaks within their properties; and reporting substandard

water services.

There is a desperate need to bring public education and oversight to the centre of service delivery, so as to strengthen and widen the process of development. Monitoring service delivery through call centres has certainly improved customer care and responsiveness in many parts of the country. It has, however, largely left out previously disenfranchised communities who do not understand how service delivery should work. Public education is an essential starting point in enabling ordinary citizens to play a critical role in monitoring water services locally, thereby strengthening the municipalities' public accountability.

Recently, the DWAF has begun to support this approach with the understanding that local regulation via the WSA is insufficient. There is a growing demand in the country for the approach of "raising citizens' voice in the regulation of water services". This model is seen as a vehicle for addressing the historical disconnection between engineering-run services and effective service provision, in which effective public participation is an integral component.

The training curriculum consists of ten modules covering the basics of water and sanitation services; the roles and responsibilities in each sphere of government; and how to interface with the municipal council. Through this training, residents become empowered to begin addressing water conservation and water demand management issues in their homes and communities. For example, they are shown how to deal with historical arrears if they are unable to pay, and how to fix leakages in their homes. Following this training, user platforms are set up. This enables community representatives to continue to engage with the council on a monthly basis by raising service delivery concerns and starting to play a monitoring role.

The long-term objective of this initiative is to encourage the public to become involved in the strategic planning of water provision, which is an essential part of the WSA function. It also has the potential to build the knowledge base among the general public by getting citizens to rate providers' performance. These ratings will have a regulatory impact.

The model began in 2006 as a pilot programme in four township areas in Cape Town, and has since become a fully funded council programme. The training has spread rapidly across township areas, with 23 user platforms being established in these areas.

Ekurhuleni Metropolitan Municipality in Gauteng, for example, has just completed its first-year pilot in three townships. It has had such an enthusiastic community turnout that community members who attended all ten training sessions have elected executive committees to run nine user platforms in the townships where training has taken place. The council is now preparing to roll out the programme in one of the fastest-growing metropolitan areas in the country, thus amplifying the challenges of, and need for, oversight of service delivery in the context of rapid demographic change.

The application of the model by the eThekwini Water Services (EWS) perhaps best illustrates emerging good governance at the local level. After its Infrastructure Portfolio Committee, ward councillors and civil society organisations (CSOs) received separate training, the EWS established a quarterly CSO platform to participate in policy reform issues. It would also listen to critical water service issues raised by CSOs that were hitherto ignored. The level of maturity in this engagement, previously replete with antagonism, was a consequence of the CSOs' training. Their new basic understanding of the working of water services dispelled much of their anger around service delivery failures.

The "raising citizens' voice" model is just one of many examples that exist across the country in an attempt to address the critical need for more effective public participation in service delivery. As the SFWS states, the public must be the "eyes and ears" of the regulator, and this model is just beginning to put this concept into practice.

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List of tables and figures

List of acronyms and abbreviations

BEE	black economic empowerment
CBO	Community-based organisation
CCS	Centre for Civil Society
CSIR	Council for Scientific and Industrial Research
CSO	Civil society organisation
DEAT	Department of Environmental Affairs and Tourism
DPLG	Department of Provincial and Local Government
DWAF	Department of Water Affairs and Forestry
ESG	Equitable Share Grant
EWS	eThekwini Water Services
HIV	Human immunodeficiency virus
IWRM	Integrated water resources management
m^3	Cubic metre
MIG	Municipal Infrastructure Grant
MSA	Municipal Systems Act
NBI	National Benchmarking Initiative
NDoH	National Department of Housing
NWSRS	National Water Services Regulation Strategy
RPMS	Regulatory Performance Measurement System
RSA	Republic of South Africa
SALGA	South African Local Government Association
SFWS	Strategic Framework for Water Services
SMME	Small, medium and micro-enterprise
WHO	World Health Organisation
WRC	Water Research Commission
WRM	Water resources management
WSA	Water services authority
WSLG	Water Sector Leadership Group
WSP	Water services provider
WWTW	Wastewater treatment works

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