The effective management of water services within the Dr Ruth Segomotsi Mompati District Municipality

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ABSTRACT

The study was conducted within the water sector environment with the aim of investigating Sedibeng Water’s capabilities that will ensure improved service delivery in the Dr Ruth Segomotsi Mompati District Municipality (DRRSMDM). Sedibeng Water was appointed as a water service provider within the district and services Greater Taung Local Municipality (GTLM) on behalf of DRRSMDM and, in line with section 78 of the Municipal System Act, all the water service providers have to assess their capabilities of effective management and delivery of water services. Therefore, ten attributes of effective management of water service practices were presented in this study as key instruments capable of bringing about efficiency in the manner in which Sedibeng Water operates or delivers services. It was found during the literature review that when these attributes are deployed, they will ensure the achievement of operational effectiveness within the water service provider.

The empirical study was conducted in Sedibeng Water, North-West region, servicing GTLM on behalf of DRRSMDM. During the background review of the DRRSMDM, several challenges were encountered, including the fact that municipal water consumption per capita is unacceptably high and there is a lack of water demand management and poor water use efficiency across the municipality.

The research was qualitative in nature where the relevant clauses that relate to the ten attributes of effectively managed water sector utilities (attributes) were identified in the signed service level agreement (SLA). A template document was designed according to the literature and forwarded to the relevant manager to provide the required information. One-on-one interviews were then conducted with the relevant managers for verification and clarity of information provided. According to the responses received, Sedibeng Water effectively manages water services within the GTLM with an overall compliance of 74.3%. However, the report also highlights on some areas that still need some improvements with the suggested remedial actions and recommendations based on the findings of the empirical research conducted.

Keywords: Sedibeng Water, Dr Ruth Segomotsi Mompati District Municipality, service level agreement, attributes, section 78, service delivery.
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<td>CMA</td>
<td>Catchment Management Agency</td>
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<td>CWS</td>
<td>Community Water System</td>
<td></td>
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<td>DBSA</td>
<td>Development Bank of Southern Africa</td>
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<td>DRRSMDM</td>
<td>Dr Ruth Segomotsi Mompati District Municipality</td>
<td></td>
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<td>DWA</td>
<td>Department of Water Affairs</td>
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<td>ERP</td>
<td>Emergency Respond Protocol</td>
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<td>FBW</td>
<td>Free Basic Water</td>
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<td>GTLM</td>
<td>Greater Taung Local Municipality</td>
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<tr>
<td>IDP</td>
<td>Integrated Development Plan</td>
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<td>MAR</td>
<td>Mean Annual Runoff</td>
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</tr>
<tr>
<td>MEC</td>
<td>Member of Executive Committee</td>
<td></td>
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<td>PFMA</td>
<td>Public Finance Management Act (Act 1 of 1999)</td>
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<tr>
<td>RDP</td>
<td>Reconstruction and Development Plan</td>
<td></td>
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<td>SALGA</td>
<td>South African Local Government Association</td>
<td></td>
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<td>SLA</td>
<td>Service Level Agreement</td>
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<td>Stats SA</td>
<td>Statistics South Africa</td>
<td></td>
</tr>
<tr>
<td>TCTA</td>
<td>Trans Caledon Tunnel Agency</td>
<td></td>
</tr>
<tr>
<td>UFW</td>
<td>Unaccounted for Water</td>
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<tr>
<td>WARMS</td>
<td>Water Authorisation and Registration Management System</td>
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<tr>
<td>WC/DM</td>
<td>Water Conservation and Demand Management</td>
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<tr>
<td>WCP</td>
<td>Water Conservation Plan</td>
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WISA  Water Institute of Southern Africa
WRC  Water Research Commission
WSA  Water Services Authority
WSI  Water Services Institutions
WSP  Water Services Provider
WUA  Water Users' Association
1.1 INTRODUCTION

All over the world, water and wastewater utilities face common challenges which, among others, include but are not limited to rising costs, aging infrastructure, increasingly stringent regulatory requirements, population changes and a rapidly changing workforce (Utility Advisors and Collaborating Organisation, 2008:1). Effective water and wastewater utility managers have, however, systematically applied effective utility management approaches that have helped them improve their products and services, increase community support and ensure a strong and viable utility long into the future (Utility Advisors and Collaborating Organisation, 2008:1).

Effective utility management has many benefits to water and wastewater utilities, including enhancing the stewardship of their infrastructure, improving performance in many critical areas, and responding to current and future challenges (Utility Advisors and Collaborating Organisation, 2008:1).

In South Africa, the local government restructuring initiative got underway in 2000 with the creation of different municipal categories, including metropolitan, district and local municipalities where a key outcome of this process was a clear shift in responsibility with local government obligated to deliver a range of services to the people it serves (National Business Initiative, 2006:2). Despite structural changes that were effected in 2000, municipalities still face a major challenge in balancing the constitutional imperatives of providing access to affordable basic services while also ensuring the optimal use and mobilisation of available skills, resources, capacity and assets (National Business Initiative, 2006:2).

Local government legislation such as the Municipal Systems Act (Act 32 of 2000, s11) and the Municipal Finance Management Act (Act 56 of 2003, s62) regulates both the decision making and the implementation decisions by municipalities; therefore the process of evaluating municipal service delivery mechanisms should be
regarded as an ongoing process rather than a once-off or isolated solution (National Business Initiative, 2006:2).

According to the Municipal System Act (Act 32 of 2000, s76), municipalities are not obliged to provide municipal services themselves but may consider appointing service providers to do so on their behalf, without limiting or compromising their autonomy or authority. Despite its complexities, basic municipal service delivery is vital in South Africa and prevailing legislation on service delivery must be seen to assist municipalities in making informed and considered decisions. These laws and processes ultimately serve and protect the people who benefit from the delivery of municipal services (National Business Initiative, 2006:2). Owing to the fact that local governments respond to unique needs within the areas they serve, there is no generic model or step-by-step guide that can be rolled out across the board to all municipalities; an effective project plan, developed by a municipality before embarking on any decision-making process, is thus critical. This is where specific compliance issues must be identified, with a sequence of events structured to ensure an effective overall process (National Business Initiative, 2006:2).

1.2 BACKGROUND AND CHALLENGES OF DR RUTH SEGOMOTSI MOMPATI DISTRICT MUNICIPALITY

According to Yes Media (2014:245), the area that Dr Ruth Segomotsi Mompati District Municipality covers is more or less 43 700 km² and is bordered by both Ngaka Modiri Molema and Dr Kenneth Kaunda Municipalities in the north and John Taolo Gaetsewe Municipality in the south, with the population numbers of approximately 463 815. The district comprises the following five local municipalities: Kagisano-Molopo, Naledi, Mamusa, Greater Taung and Lekwa-Teemane (Fig 1.1).

Dr Ruth Segomotsi Mompati District Municipality is relatively arid and was the scene of border disputes, rebellions and skirmishes between the British, the Boers of the Transvaal Republic, the Korana Khoikhoi and Tlaping (Tswana) tribes in the late nineteenth century (Gaffney's, 2009:1164).

The offices of the district municipality are housed in Vryburg which is viewed as the regional centre and where the agricultural sector is a significant producer of beef and
where some of the largest Hereford herds in the world are found (Gaffney, 2009:1164). The Community Services sector and the agricultural sector are the most dominant employment sectors in DRRSMDM, providing 33.1% and 17% of the total number of employment opportunities respectively (Gaffney’s, 2009:1165).

Figure 1.1: Map of Dr Ruth Segomotsi Mompati District Municipality


According to Yes Media (2014:245), DRRSMDM is one of the poorest districts in the province with 82% of households living at or below subsistence level (that is, earning R1 600 or less a month) and a large portion (35.8%) of the economically active population is unemployed probably owing to the low level of education of the inhabitants of DRRSMDM because a large portion of the population (21.40%) has no education at all and 17.20% have matric and only 5.40% have a tertiary qualification.

The water services in the district are still at the Reconstruction and Development (RDP) standard where 47.8% of households in the district have access to water through communal standpipes and 4.4% of the households still do not have access to water; the rest of the households (47.9%) have access to piped tap water inside their yards (Yes Media, 2014:245).
1.3 DEMOGRAPHICS OF MUNICIPALITIES WITHIN THE DRRSMMDM

Table 1.1 below outlines statistics of the local municipalities within DRRSMMDM, focusing on the municipal area, population, number of households and unemployment rate (Yes Media, 2014:245-247).

<table>
<thead>
<tr>
<th>Municipalities within the District</th>
<th>Area (km²)</th>
<th>Population</th>
<th>No. of Households</th>
<th>Unemployment Rate</th>
</tr>
</thead>
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<tr>
<td>Dr Ruth S Mompati DM</td>
<td>43 700</td>
<td>463 815</td>
<td>125 270</td>
<td>35.80%</td>
</tr>
<tr>
<td>Greater Taung LM</td>
<td>5 635</td>
<td>177 642</td>
<td>48 613</td>
<td>49.80%</td>
</tr>
<tr>
<td>Kagisano-Molopo LM</td>
<td>23 827</td>
<td>105 789</td>
<td>28 531</td>
<td>30.20%</td>
</tr>
<tr>
<td>Lekwa-Teemane LM</td>
<td>3 681</td>
<td>53 248</td>
<td>14 930</td>
<td>30.50%</td>
</tr>
<tr>
<td>Mamusa LM</td>
<td>3 615</td>
<td>60 355</td>
<td>14 625</td>
<td>35.10%</td>
</tr>
<tr>
<td>Naledi LM</td>
<td>6 941</td>
<td>66 781</td>
<td>18 572</td>
<td>26.10%</td>
</tr>
</tbody>
</table>

(Source: The official yearbook: Local Government in South Africa, 2014)

1.4 AUDIT OPINIONS

In 2010/11 and 2011/12 Dr Ruth Segomotsi Mompati District Municipality was the only municipality granted an audit outcome that is financially unqualified with other matters respectively. However, in 2012/13 the district regressed to achieve results that were financially qualified with other matters. Kagisano-Molopo, Lekwa-Teemane and Mamusa local municipalities showed stagnation in audit outcome getting a disclaimer with finding for three conservative years from 2010/11 until 2012/13. Greater Taung also showed stagnation in audit outcome, receiving a disclaimer with findings for 2011/12 and 2012/12 after getting a qualified audit opinion with findings in 2010/11. There was an improvement in an audit outcome of Naledi Local Municipality. The municipality received an unqualified audit opinion with findings after getting a disclaimer with findings in the 2010/2011 and 2011/2012 financial years. (AGSA: 2012/2013).
1.5 THE RESEARCH PROBLEM

DRRSMDM as a Water Service Authority (WSA) has been facing service delivery protests and recently there were protests in Boitumelong and Bloemhof. The protesters called on the North-West provincial government to come and implement section 139 (1C) of the Constitution of the Republic of South Africa (Act 108 of 1996) and dissolve the municipality, citing a lack of service delivery. Houses belonging to police officers, officials of the Lekwa-Teemane municipality and the mayor as well as the community hall were torched by residents (SABC News, 07 April 2014). The same trend of service delivery protests occurred in Zeerust where the protestors marched to their local municipal headquarters to demand the delivery of water to their villages (SABC News, 13 April 2014).

Violent service delivery protests over water broke out in Mothutlung, Brits, earlier this year leading to the deaths of four community members (3S Media, 04 April 2014).

Water and sanitation problems were identified in terms of the municipal turn-around strategy as issues that the DRRSMDM had to pay more urgent attention to in reducing backlogs across the entire municipal area.

1.6 THE OBJECTIVES OF THE RESEARCH

Sedibeng Water was appointed as one of the water service providers (WSP) within the district since 2002 to ensure efficient, affordable, economical and sustainable access to water and sanitation services. The nature of the agreement is such that Sedibeng Water will be responsible for the management of water system in order to render it operational and efficient, and in so doing Sedibeng Water shall develop and implement a maintenance management program for the sustainability, protection and enhancement of the water system. The WSA on the other hand shall be responsible for obtaining the financial resources necessary to plan, design and effect the replacement, betterment or expansion of the existing water system and/or acquiring or construction of new assets.

According to section 78 of the Municipal Systems Act, all the water service providers have to assess their capabilities to effectively manage and deliver water services.
The research therefore seeks to evaluate Sedibeng Water's capabilities of rendering effective management of water services as guided by ten attributes of effectively managed water sector utilities.

16 Main objectives

This research will investigate Sedibeng Water's capabilities that will ensure improved service delivery in the district municipality. Those required capabilities are part of the service level agreement that Sedibeng Water signed with DRRSMDM and are in line with the ten attributes of effectively managed water sector utilities.

1.6.1 Literature objectives

The literature review will cover the service level agreement that Sedibeng Water signed with DRRSMDM. It will also discuss the section 78 process of the Municipal Systems Act and the ten attributes of effectively managed water sector utilities. In conclusion the literature review will cover the acts and legislation that are relevant to the provision of water services.

1.6.2 Empirical objectives

The research will investigate the existing Service Level Agreement signed between the municipality and Sedibeng Water and identify clauses that relate to the ten attributes of effectively managed water sector utilities. A questionnaire will be compiled and be used to investigate current practices in Sedibeng Water against the attributes.

1.7 CHAPTER DIVISION

Chapter 1 serves the function of introducing the research topic. Chapter 2 outlines important aspects to consider when aiming at effective management of water services within Sedibeng Water. Chapter 3 comprises the empirical study and analysis of the results, and contains the research methodology, design and data collection. Chapter 4 focuses on the conclusion and recommendations, attainment of the study objectives and concludes with remedial action to address the shortcomings that were identified in the assessment.
1.8 SUMMARY

Effective utility management will ensure that water and wastewater utilities enhance the stewardship of their infrastructure, improve performance in many critical areas and will be able to respond to current and future challenges.

Many municipalities in South Africa still face major challenges in balancing the constitutional imperatives of providing access to affordable basic services while also ensuring the optimal use and mobilisation of available skills, resources, capacity and assets. According to the Municipal Systems Act (Act 32 of 2000), municipalities are not obliged to provide municipal services themselves, but may consider appointing service providers to do so on their behalf, without limiting or compromising their autonomy or authority.

The problem statement indicates that DRRSMDM as a Water Service Authority (WSA) has been facing service delivery protests and the protesters are citing a lack of service delivery.

The main objective of the study is to investigate Sedibeng Water's capabilities that will ensure improved service delivery in the DRRSMDM, mainly emphasising the GTLM where Sedibeng Water was appointed as the water services provider.

The study employs two methods, namely a literature review and an empirical study. The literature review mostly covers the ten attributes of effectively managed water sector utilities. The empirical study briefly describes the research design, data collection, analysis of results and ethical consideration of the field study.

The following chapter consists of the literature review which was derived from approved publications. The chapter starts by reviewing the trend of outsourcing and efficiency in the management of water service globally, followed by an overview of the water services sector in South Africa and what measures should be employed to secure future water supply in South Africa. The literature review will also highlight the institutional arrangements and partnerships that exist in the water sector and the state of access to water in South Africa. Legislation and policies on access to water in South Africa will also be discussed. The chapter will further elaborate on the section 78 process. In conclusion, the chapter will cover attributes that will ensure effective management of water sector utility.
2.1 INTRODUCTION

According to De Lange (2010:62), most of South Africa’s available water supply has already been allocated, and the only “supply options” available are linked to inter-sectoral re-allocations. De Lange (2010:62) suggests that the key to strategic water resource management lies in effective demand-side approaches, and to achieve that, South Africans need to improve their understanding of how water is currently used and the usage of the resource in lesser ways. Effective management of water usage must therefore be based on a clear and unambiguous appreciation of human behaviour related to water use and patterns. Continued drives to increase the efficiency of water use will not necessarily lead to decreases in water use, but efficiency gains in water use either reduce the amount of the water used to realise the same output or enable more output to be realised with the same water inputs (De Lange, 2010:62).

2.2 OUTSOURCING AND EFFICIENCY IN THE MANAGEMENT OF RURAL WATER SERVICES

According to González-Gómez et al., (2013:732), the water service for household use has for a long time been a more difficult challenge for rural areas, owing to the fact that water services require significant investment and entail high maintenance costs that local governments find difficult to meet because of their limited ability to generate revenue.

González-Gómez et al., (2013:732) further suggest that, apart from fulfilling legal requirements, rural areas in developed countries face another challenge of achieving efficient management. The greatest challenge for rural water utilities is that they must provide their services in areas with low population density and must maintain relatively large transport and distribution networks and furthermore face greater
financial restrictions (Sauer & Frohberg, 2007:31). Moreover, the fact that their operations are relatively small-scale can make such utilities inherently inefficient and expensive (Bhattacharyya et al., 1995a:373).

Extensive research has been conducted on the efficiency of water utilities aimed at ascertaining what form of management, public or private, performs the best; the literature upholds that conclusions cannot be reached in terms of one form of management being superior to another (González-Gómez & García-Rubio, 2008:52; Bel & Warner, 2008:1341; Abbott & Cohen, 2009:237). Berg and Marques (2011:602), however, conclude that labour productivity tends to be higher in the private sector, but often incurs higher capital expenditures, while public sector infrastructure investment tends to be lower. Moreover, service quality is seldom included in such studies (Berg & Marques, 2011:602). According to Carvalho et al., (2011:16), public utilities tend to operate in scenarios with diseconomies of scale and scope, which could explain why some studies conclude that private companies perform better.

In the case of Italy, Guerrini et al., (2011:559) and Romano and Guerrini (2011:206) contend that public-owned companies perform better in terms of the labour factor and other relevant operating costs. These authors state that public owned companies purchase and employ inputs in a much better way, when compared with public-private partnerships. Da Cruz et al., (2012:849) compare the performance of 88 water utilities, 55 in Portugal and 33 in Italy. The results of this paper, albeit not entirely conclusive, suggest that public companies are more efficient managers than other forms of ownership and that public-private partnerships are more efficient than private companies.

2.3 AN OVERVIEW OF THE WATER SERVICES SECTOR IN SOUTH AFRICA

South Africa has an average rainfall of approximately 450 mm per annum, which is well below the world average of about 860 mm per year; South Africa is therefore semi-arid and a water-stressed country (National Water Resource Strategy, 2004:15). Water usage in South Africa comprises 77% surface water, 9% groundwater and 14% re-use of return flows; the management of water resources in
South Africa involves catchment management, river systems, water storage, water abstraction and return-flow management (DWA, 2013:5).

Although South Africa's mean annual runoff (MAR) is about 49 billion m$^3$/annum, only 10.24 billion m$^3$/annum of this is available at high assurance (DWA, 2013:7). An estimated 9.5 billion m$^3$/annum is required to satisfy the total ecological reserve requirement (the Reserve) (DWA, 2013:7). The current basic domestic water use component (or 25 litres/person/day) translates to 472 million m$^3$/annum or 11% of the total domestic water use (DWA, 2013:7).

Many rural settlements still have insufficient water resources to meet their basic water demands and further groundwater and surface water resource developments are necessary. Ground water usage is in the order of 2 billion m$^3$/annum, although this may be an underestimation. Recent estimates indicate that the potential reliable yield could be 5 billion m$^3$/annum (DWA, 2013:7).

It is estimated that return flows from irrigation, urban domestic use and bulk industrial and mining effluents could offer re-use opportunities of up to 1.9 billion m$^3$/annum. The current total reliable yield, at 98% assurance of supply, is close to 15 billion m$^3$/annum (DWA, 2013:7).

According to the DWA’s Water Authorisation and Registration Management System (WARMS) database, the total registered water usage (not to be confused with actual use), has already reached the estimated 2025 high water requirement of 17.3 billion m$^3$/annum. Current usage is estimated to be between 15 and 16 billion m$^3$/annum (DWA, 2013:7).

Assurance of water supply for the future is not a problem unique to South Africa. It is estimated that by 2025, at least 3.5 billion people (almost 50% of the world's population) will face water scarcity (DWA, n.d:4). In South Africa, it is estimated that, based on current usage trends, water demand will exceed availability of economically usable fresh water resources by 2025 (DWA, n.d:4). The continuing trend in industrialisation and urbanisation of the population is expected to place further pressure on the country’s sources of water supply unless appropriate corrective action is taken (DWA, n.d:4).
Without effective management of water resources by the municipalities that provide this service, metering and billing, consumption in urban and rural areas could rise to more than 7.3 billion m³/annum resulting in an increase in total water use of close to 20 billion m³/annum, which the country will not be able to meet (DWA, 2013:7).

2.4 INSTITUTIONAL ARRANGEMENTS AND PARTNERSHIPS

The DWA as the custodian of water in South Africa oversees and regulates the water business through appropriate policies and regulations. These policies and regulations are then implemented through its nine provincial offices and four water management clusters (DWA, 2013:4). The DWA also monitors the performance of the sector and regulates the drinking water quality and effluent quality against industry standards and also recommends changes to the business environment within which the various role-players have to perform (DWA, 2013:4).

The DWA operates at national and provincial levels across all elements of the water cycle (i.e. from water resource management, water abstraction and water processing to distribution of potable water). However, some functions are constitutionally assigned to appropriate sector partners and they are not all executed by DWA. Most of the large dams and related water resource infrastructure are owned by DWA and the Department of Water Affairs also undertakes the necessary planning and implementation of water resource development projects (DWA, 2013:3).

Water boards and municipalities, on the other hand, manage regional bulk water distribution and, in some of the larger metropolitan municipalities, water boards also purify water to potable standards (DWA, 2013:4). Constitutionally, local government (metropolitan municipalities, local or district municipalities) are responsible for water services (water supply and sanitation) and should act as the Water Services Authorities (WSAs) and often also as Water Service Providers (WSPs) for all communities in their areas of jurisdiction. In a situation where WSA lacks capacity, and waste water management is a regional challenge, those WSAs have contracted out the function to bulk water services providers such as the water boards but, nonetheless, the responsibility still rests with WSA to ensure an effective service delivery (DWA, 2013:4).
The DWA maintains close partnerships with the South African Local Government Association (SALGA), the Development Bank of Southern Africa (DBSA), Catchment Management Agencies (CMAs), Water Use Authorities (WUAs), the Trans Caledon Tunnel Authority (TCTA), the Water Institute of Southern Africa (WISA), universities and technikons (DWA, 2013:4).

2.5 THE STATE OF ACCESS TO WATER IN SOUTH AFRICA

According to the statistics of South Africa’s 2011 census results, 46.3% of households in South Africa have access to piped water and just more than 85% have access to water that is of a RDP-acceptable level. This level of access, however, is not reflected across all provinces in the country. In the Eastern Cape, 31.1% of households do not have access to water of a RDP-acceptable level, while the same is true for 27.2% of households in Limpopo (StatsSA:2011).

2.6 LEGISLATION AND POLICIES ON ACCESS TO WATER

Section 3(1) of the Water Services Act (Act 108 of 1997, s3(1)) recognises the “rights of access to basic water supply and basic sanitation necessary to ensure sufficient water and an environment not harmful to health or well-being” and provides that “everyone has a right of access to basic water supply and basic sanitation” respectively. Section 3(2) of the Water Services Act further states that “every water service institution must take reasonable measures to realise these rights”.

According to section 1 of the Water Services Act (Act 108 of 1997, s1), “Basic water supply” means a prescribed minimum standard of water supply services necessary for the reliable supply of sufficient quantity and quality of water to households, to support life and personal hygiene. Thus, by way of sections 3 and 1 read with regulation 3(b), the Act confers to everyone a right of access to a minimum quantity of water of 25 litres per person per day or 6 kilolitres per household per month.

There are, however, a number of associated pieces of legislation that contribute to the definition of the legislative framework within which water supply and sanitation
services, water resource management and water are based and impact on water services, and include:

- Demarcation Act (Act 27 of 1998)
- Municipal Structures Act (Act 117 of 1998)
- Municipal Systems Act (Act 32 of 2000) and

2.7 THE WATER SERVICES CHALLENGES IN SOUTH AFRICA

A study of 905 towns found that 28% of those towns still have inadequate water resources mainly owing to the fact that there is no surplus water in South Africa and therefore water has to be distributed over large areas and difficult terrain at high cost to service the remaining needs (DWA, 2013:68). Further compounding the water services challenges in South Africa is the fact that municipal water consumption per capita is unacceptably high and there is a lack of water demand management and poor water use efficiency across the sector. There is also a lack of technical capacity within the municipalities with regard to infrastructure asset management, resulting in infrastructure failing; therefore municipalities are unable to provide sustainable services (DWA, 2013:69).

2.8 THE SECTION 78 ASSESSMENT

According to Potter (2005:1), a section 78 assessment is a process required by the Municipal Systems Act (2000) to assess potential service delivery mechanisms for the provision of a municipal service. It is also a strategic decision-making process that may have long-term service delivery implications. The main purpose of a section 78 assessment is to enable water services authorities to select the most appropriate service delivery mechanism(s) that will ensure access to efficient, affordable, economical and sustainable water services (Potter, 2005:1).
2.8.1 The drivers of the section 78 process

As prescribed by Section 77 of the Municipal Systems Act (Act 32 of 2000, s77), the municipality must review and decide on an appropriate mechanism to provide a municipal service in the municipality or a part of the municipality. The municipality can consider providing the municipal service internally or externally.

According to Potter (2005:1), the most common drivers of whether the municipal service should be provided through an internal or external mechanism include the expiry of the existing service delivery mechanisms and/or the consequences of the minister’s authorisations under Section 84 of the Municipal Structures Act (a shift in powers and functions between local and district municipalities).

2.8.2 The section 78 criteria

As indicated in Fig 2.1, the criteria for section 78 involve the following four steps that include: assessment and review; decision making; implementation of internal mechanism or exploring the external mechanisms and final decision (National Business Initiative, 2006:11).

2.8.3 Views of organised labour and the local community

According to the National Business Initiative (2006:12), a municipality is required to assess the views of organised labour during both the internal and external assessment stages, unlike the local community which is only required if an external assessment is done. The legislation requires assessment of views only, not negotiation. Procedurally it has been recommended to raise the issues through the local labour forum. Organised labour should be notified of the process and its views sought regarding the needs and challenges of service delivery, as well as on how restructuring can be improved.

The Section 78 report should then demonstrate that any views received have been assessed by the municipality and there had been an interaction with the community, especially where the municipality is considering external mechanisms; in particular if the municipality has, following an assessment of providing services through an internal mechanism, decided to explore the possibility of providing services by way of
an external mechanism. Before taking a final decision, it must give notice to the community of its intention to do so (National Business Initiative, 2006:12).

The legislation further requires that before a municipality enters into a service delivery agreement with an external service provider, it must establish a programme for community consultation and information dissemination regarding the appointment of the external service provider and the contents of the service delivery agreement must be communicated to the local community through the media (National Business Initiative, 2006:12).

**Figure 2.1: The Section 78 process**

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Assess and review internal service delivery mechanisms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 2</td>
<td>Decide on appropriate internal service delivery mechanism or explore external service delivery</td>
</tr>
</tbody>
</table>
| Step 3 | - Implement appropriate internal service delivery mechanisms  
- Allocate sufficient human, financial and other resources necessary for proper provisioning of the service |
| Step 3 | - Inform local community of intention  
- Assess and review external service delivery mechanisms (if it is likely to be PPP, comply with S120 regulations)  
- Conduct or commission a feasibility study  
- Consider views and recommendation as may be appropriate (labour, community; national) |
| Step 4 | Decide on appropriate internal or external service delivery mechanism |

*Source: Overview of Municipal Service Delivery Mechanism, 2006:10*
2.9 THE TEN ATTRIBUTES OF EFFECTIVELY MANAGED WATER SECTOR UTILITIES

The attributes narrate desired effects that are applicable to all water and wastewater sectors and they comprise a framework related to operations, infrastructure, customer satisfaction, community welfare, natural resource stewardship and financial performance (Utility Advisors and Collaborating Organisation, 2008:3). Water and wastewater utilities can use the attributes to select priorities for improvement, based on each organisation’s strategic objectives and the needs of the community it serves. By applying these attributes, the utilities will be able to deliver increasingly efficient, high-quality service (Utility Advisors and Collaborating Organisation, 2008:4).

The themes that are in line with the attributes were extracted from the signed SLA between the DRRSMDM and Sedibeng Water (Table 2.1) and will be discussed in greater detail.

Table 2.1: Attributes and themes of effectively managed water utilities

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Theme</th>
<th>Number of clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product quality</td>
<td>Blue Drop and Green Drop requirements</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Minimum Safety Compliance</td>
<td>1</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>Customer Care</td>
<td>4</td>
</tr>
<tr>
<td>Employee and leadership development</td>
<td>Institutional Arrangement</td>
<td>1</td>
</tr>
<tr>
<td>Operational optimisation</td>
<td>Operation and maintenance of assets</td>
<td>6</td>
</tr>
<tr>
<td>Financial viability</td>
<td>Business plans and budgets</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Revenue collection and debt policy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Financial records</td>
<td>7</td>
</tr>
<tr>
<td>Infrastructure stability</td>
<td>Annual reporting</td>
<td>3</td>
</tr>
<tr>
<td>Operational resilience</td>
<td>Emergency matters</td>
<td>2</td>
</tr>
<tr>
<td>Community sustainability</td>
<td>Water conservation and demand management</td>
<td>1</td>
</tr>
<tr>
<td>Water resource adequacy</td>
<td>Level of service</td>
<td>7</td>
</tr>
<tr>
<td>Stakeholder understanding and support</td>
<td>Free basic water service (FBW)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Performance</td>
<td>1</td>
</tr>
</tbody>
</table>
2.9.1 Product quality

The product (water) must be of high quality. Adherence to the high product quality will ensure that potable water, treated effluent and process residuals are produced in full compliance with regulatory and reliability requirements and consistent with customer, public health and ecological needs (Utility Advisors and Collaborating Organisation, 2008:4).

According to the SLA signed between the DRRSMDM and Sedibeng Water, there are two themes, namely Blue Drop and Green Drop requirements and minimum safety compliance that are in line with the product quality attribute and will also be elaborated on.

2.9.1.1 Blue Drop and Green Drop requirements

According to the DWA (2008:3), Blue and Green Drop status provides citizens with credible information on the confidence that it has in drinking water and wastewater management within the various water services authorities. WSA awarded the Blue and/or Green Drop status so that this status may be used to market towns to both their citizens and tourists. A sign or flag indicating that the town has Blue or Green Drop status, will allow consumers to drink water from the taps in the town with confidence (DWA, 2008:3).

The SLA clause 6.1.2 requires that that WSP ensures effective utilisation and protection of the water resources and requires proof of the contingency plan.

2.9.1.2 Minimum safety compliance

According to Mueller et al., (1997:1224), the reasons for regional water-quality assessments are to describe spatial and temporal patterns in water quality and to identify the factors and processes that influence those conditions. On the other hand, some regional assessments have the specific purpose of relating water quality to legal standards.

Clause 6.5.2 of the SLA requires that WSP monitors the water quality within the water supply network on a daily basis and informs the WSA of the result monthly.
2.9.2 Customer satisfaction

There should be constant customer satisfaction surveys. The customer surveys provide reliable, responsive and affordable services in line with customer-accepted service levels and give prompt customer feedback to maintain responsiveness to customer needs and emergencies (Utility Advisors and Collaborating Organisation, 2008:4).

According to the SLA signed between the DRRSMDM and Sedibeng Water, customer care is the only theme that is in line with the customer satisfaction attribute and will be discussed.

2.9.2.1 Customer care

In the water services, customer care is influenced by the Principles of Batho Pele (1997), the culture of community participation and the provision of information to consumers. The Department of Water Affairs is mandated to protect and enhance the relationship between the consumer and provider and to publish the performance in this key area (DWA, 2013:2).

According to the SLA signed between the DRRMDS and Sedibeng Water, the WSP must then develop a customer charter and inform WSA in good time of any interruptions and keep records of the reports.

2.9.3 Employee and leadership development

The water services provider or water services authority must ensure that the workforce that is recruited is competent, motivated, adaptive and safe-working, and the employer must have incentives that will retain staff. The employer must also encourage a culture of continual learning and improvement that will over a certain period improve employee institutional knowledge and will emphasise opportunities for professional and leadership development and strive to create an integrated and well-co-ordinated senior leadership team (Utility Advisors and Collaborating Organisation, 2008:4).

According to the SLA signed between the DRRSMDM and Sedibeng Water, institutional arrangement is the only theme that is in line with the employee and leadership development attribute and will also be discussed.
2.9.3.1 Institutional arrangement

The municipalities as water services authorities employ a considerable number of workers in the water division. These technical operating personnel are trained very differently and are very differently further qualified (Heidebrecht, 2012:10). Continuous training systems do not exist in many municipalities and therefore the water service providers must implement the skills transfer programme to transfer the skills while providing the services to the municipalities. The WSP must undertake and facilitate activities, training, campaigns and programmes aimed at building capacity and transferring skills to its own employees as well as to the WSA and its officials.

2.9.4 Operational optimisation

The water utility should ensure that there is an ongoing, timely, cost-effective, reliable and sustainable performance improvement in all facets of its operations and that resource use, loss and impacts from day-to-day operations are minimised to ensure sustainable long-term usage (Utility Advisors and Collaborating Organisation, 2008:5)

According to the SLA signed between the DRRSMDM and Sedibeng Water, operation and maintenance of assets is the only theme that is in line with the operational optimisation attribute and will be discussed in greater detail.

2.9.4.1 Operation and maintenance of assets

An "asset" in water services context is a component of a facility with an independent physical and functional identity and age, and the renewal and replacement of the assets should be a constant and ongoing task (EPA, 2012). The benefits of asset management include, among others, prolonged asset life, meeting consumer demands owing to system sustainability, sustained performance and reduced costs for both operations and capital expenditures (EPA, 2012).

The SLA clauses that relate to operation and maintenance of assets include implementation of a preventative maintenance plan, meter testing and calibration programme and reading of bulk meters.
2.9.5 Financial viability

The full life-cycle cost of the utility should be understood and an effective balance between long-term debt, asset values, operations and maintenance expenditures and operating revenues should be established and maintained. The utility should establish predictable rates that are consistent with community expectations and acceptability and will be adequate to recover costs, provide for reserves, maintain support from bond rating agencies and, finally, be able to plan and invest for future needs (Utility Advisors and Collaborating Organisation, 2008:5).

According to the SLA signed between the DRRSMDM and Sedibeng Water, there are three themes, namely funding, budget and subsidies, revenue collection and debt policy and financial records that are in line with the financial viability attribute and will be elaborated on.

2.9.5.1 Funding, budget and subsidies

In terms of section 32(b) of the Water Services Act, a water board must enter into written contracts when performing its primary and other activities. These contracts form the basis of funding for a water board. A water board must set conditions for the provision of services in relation to the determination and structure of tariffs and the payment and collection of money due to the water board.

The WSP is therefore responsible for the compilation of an annual business plan and budget for water services and water supply system. The Water Services Act further dictates that a water board must, not later than one month before the commencement of each financial year, submit a business plan related to the following five financial years. The WSP must therefore provide the WSA with a detailed report on the security of supply, updated information on customers and amounts billed to customers.

2.9.5.2 Revenue collection and debt policy

The WSP must implement control measures regarding water services to recover the revenue due to the WSA, for water services revenue due to the WSA and for water services revenue in accordance with prevailing regulatory provisions.
2.9.5.3 Financial records

The WSP must annually submit a copy of its audited financial reports and the auditor's report in respect of those financial statements. The WSP must also submit updated information to the WSA of customer database including information on managing transfers, changes of status and termination of contracts with existing customers.

2.9.6 Infrastructure stability

The utility should understand the condition of, and costs associated with, critical infrastructure assets. The utility must also be able to maintain and enhance the condition of all assets over the long term. This should done at the lowest possible life-cycle cost and acceptable risk that is consistent with customer, community and regulator-supported service levels, and be in line with anticipated growth and system reliability goals. The utility should be able to assure that asset repair, rehabilitation, and replacement efforts are co-ordinated within the community to minimise disruptions and other negative consequences (Utility Advisors and Collaborating Organisation, 2008:5).

According to the SLA signed between the DRRSMDM and Sedibeng Water, annual reporting is the only theme that is in line with the infrastructure stability attribute and will be discussed.

2.9.6.1 Annual reporting

The primary activity of a water board is to provide water services (bulk and reticulation) to other water services institutions (WSI). It may also undertake other activities but only if it is not likely to limit the water board's capacity to perform its primary activity and it is not likely to be to the financial prejudice of itself, any WSI, existing consumers and other users serviced by it within its service area. It must be in accordance with its board's policy statement and provided for in its business plan (DWA Institutional Oversight, n.d).

The Minister must table in the National Assembly the water board's annual report, financial statements and the audit report on financial statements. The annual report should include the maintenance expenditure report that indicates the budget spent.
on asset repair, rehabilitation and replacement efforts. In terms of the *Water Services Act (Act No. 108 of 1997)*, every water board must prepare and adopt a maintenance policy statement that may be amended from time to time, and it must be revised at least every five years to ensure sustainable use of assets (DWA Institutional Oversight, n.d).

### 2.9.7 Operational resilience

The water utility should put measures in place that will ensure that utility leadership and staff work together to anticipate and avoid problems and should reactively identify, assess, establish tolerance levels and effectively manage a full range of business risks in a proactive way, consistent with industry trends and system reliability goals (Utility Advisors and Collaborating Organisation, 2008:5).

According to the SLA signed between the DRRSMDM and Sedibeng Water, emergency matters is the only theme that is in line with the operational resilience attribute and will be discussed further on.

#### 2.9.7.1 Emergency matters

An emergency respond plan (ERP) is a documented plan that describes the actions that a Community Water System (CWS) would take in response to various major events. A major event refers to credible threats which include indications of terrorism or acts of terrorism; major disasters or emergencies such as hurricanes, tornadoes, storms, earthquakes, fires, flood or explosion regardless of cause; and catastrophic incidents that leave extraordinary levels of mass casualties, damage and disruption severely affecting the population, infrastructure, environment, economy and government functions (EPA, 2004:1).

Protecting public health is the primary goal of community drinking water systems, and having an up-to-date and workable ERP helps achieve this goal in any crisis situation (EPA, 2004:1). According to the SLA, the WSP is expected to notify the WSP of any emergency within an hour of becoming aware of the emergency and also agree on the process for addressing the emergency.
2.9.8 Community sustainability

The water sector utility's operations, infrastructure and investments should be managed in such a way as to protect, restore and enhance the natural environment. The utility should use water and energy efficiently and be able to promote economic vitality and engender overall community improvement. The water utility should also consider a variety of pollution prevention, watershed and source water protection approaches as part of an overall strategy to maintain and enhance ecological and community sustainability (Utility Advisors and Collaborating Organisation, 2008:5).

According to the SLA signed between the DRRSMDM and Sedibeng Water, water conservation and demand management is the only theme that is in line with the community sustainability attribute and will be discussed.

2.9.8.1 Water conservation and demand management

In South Africa, water is key to winning the battle against poverty and its scarcity could be a limiting factor to growth. No socio-economic development can take place without water. Water is a precious resource that has to be used as efficiently as possible before new water resources development can be considered; a strategic change in the use and conservation of the water resources is therefore required (DWAF, 2004:1).

Clause 6.12.2 of the SLA requires that the WSP must monitor and forecast all factors influencing the quantity of water available.

2.9.9 Water resource adequacy

The WSA/WSP must ensure that water availability is consistent with current and future customer needs through long-term resource supply and demand analysis, conservation and public education (Utility Advisors and Collaborating Organisation, 2008:5).

According to the SLA signed between the DRRSMDM and Sedibeng Water, there are two themes, namely level of service between WSP and WSA and free basic water, that are in line with the water resource adequacy attribute and will be discussed.
2.9.9.1 Level of service between WSP and WSA

Without water, life cannot be sustained beyond a few days and the lack of access to adequate water supplies leads to the spread of disease; nonetheless international guidelines or norms for minimum water quantities that domestic water supplies should provide, remain largely lacking. The Joint Monitoring Programme, which produces the Global Assessment of Water Supply and Sanitation data, describes reasonable access as being "the availability of at least 20 litres per person per day from a source within one kilometre of the user's dwelling" (WHO and UNICEF, 2000:3). Many uses of water occur largely at the household level (for instance drinking, eating and hand washing); others may occur away from the home (laundry and in some cases bathing). This therefore needs to be borne in mind when ensuring that adequate quantities of domestic supply are available for these purposes, and in interpreting and applying minimum values (WHO and UNICEF, 2000:3).

The SLA requires that the WSP should project to the WSA the water quantities for future use and average daily demands. The WSP must also maintain adequate water pressure in the systems, give meter connections to all unmetered consumers and must modify or refurbish the water systems.

2.9.9.2 Free basic water

In recognition of the primary importance of having a clean and adequate water supply, the South African government in 2000 introduced the Free Basic Water policy, which allows for every household to get 6 000 litres (6 kilolitres) of water per month at no cost. This is calculated at 25 litres per person per day (Water Wheel, 2005:18). Sedibeng Water should provide the free basic water (FBW) information showing the villages, the population and the amount that they are providing on a monthly basis.

2.9.10 Stakeholder understanding and support

The water sector utility must be able to generate understanding and support from oversight bodies, community and watershed interests, and regulatory bodies for service levels, rate structures, operating budgets, capital improvement programmes, risk management decisions, and be able to actively involve stakeholders in the
decisions that will affect them (Utility Advisors and Collaborating Organisation, 2008:5).

According to the SLA signed between the DRRSMDM and Sedibeng Water, performance management is the only theme that is in line with the stakeholder understanding and support attribute and will be discussed.

2.9.10.1 Performance management

With the adoption of the Department of Water Affairs’s Strategic Plan Update: 2010-2015 (De Lange, 2010:63), the water boards continued the transition to becoming performance-based organisations where clear and measurable goals, objectives and targets for improved performance are established and reported. The Strategic Plan establishes that the water boards will improve transparency and accountability by ensuring that their goals and actions are clear and accessible; by demonstrating and explaining results achieved; and by enhancing and improving accessibility to data and information. This Annual Performance Report is part of the water boards’ efforts toward developing as performance-based organisations.

2.9.11 Summary

South Africa is a semi-arid and a water-stressed country with an average rainfall well below the world average. Many rural settlements still have insufficient water resources to meet their basic water demands and further groundwater and surface water resource developments are necessary in South Africa. Based on current usage trends, it is estimated that water demand will exceed availability of economically usable fresh water resources by 2025. The continuing trend in the industrialisation and urbanisation of the population is expected to place further pressure on the country’s sources of water supply unless appropriate corrective action is taken. Without effective management of water resources by the municipalities that provide this service, there will be an increase in total water usage of close to 20 billion m³/annum, which the country will not be able to meet.

According to the Key Results from the 2011 Statistics South Africa Census (StatsSA), 46.3% of households in South Africa have access to piped water and just more than 85% have access to water that is of a RDP-acceptable level. A study of 905 towns found that 28% of those towns still have inadequate water resources
mainly owing to the fact that there is no surplus water in South Africa and therefore water has to be distributed over large areas and difficult terrain at high cost to service the remaining needs. Further compounding the water services challenges in South Africa is the fact that municipal water consumption per capita is unacceptably high and there is a lack of efficient water demand management and poor water use across the sector. There is also a lack of technical capacity within the municipalities regarding infrastructure asset management, resulting in failing infrastructure; municipalities are therefore unable to provide sustainable services.

South Africa still experiences water services challenges which, among others, include inequality in access to basic water services and a lack of reliable and efficient water services. There are many organisations currently involved in water services in South Africa including the DWA, water boards, municipalities, community-based organisations and publicly or privately owned companies. Literature highlights the institutional framework that clearly defines the role of all role-players in water services.

A section 78 assessment is a process required by the Municipal Systems Act (Act 32 of 2000, s78) to assess potential service delivery mechanisms for the provision of a municipal service. The literature provides in-depth information on the topic discussing the trigger and criteria of the section 78 process and the views of both organised labour and the local community when the water services authority decides to render the water services using either internal or external mechanisms.

The literature also focuses on the attributes of effectively managed water sector utilities. The attributes were aligned with the relevant themes in the SLA that DRRSMDM signed with Sedibeng and were discussed.

In the following chapter, the empirical study scrutinises the effective management of water in the DRRSMDM by Sedibeng Water based on the ten attributes of an effectively managed water utility. The performance of Sedibeng Water on compliance was assessed through the responses from the respondents in the questionnaire.
3.1 INTRODUCTION

This chapter will focus on the methodological technique of data gathering and the results and discussion of the empirical study. The chapter relates to the problem statement and research objectives stated in chapter 1. The methodological technique consists of the development of a questionnaire and data collection. Results and discussions are based on compliance of the service provider in effectively managing the water services. The conclusion summarises findings of the results and discussions.

3.2 RESEARCH METHODS

The research methods that will be employed will involve both the literature study and the empirical study. In the literature study a variety of data sources such as service level agreements, case studies, articles, relevant acts, textbooks and the Internet will be used and in the empirical study the contract clauses that relate to the attributes will be identified. The themes which were selected and posed to the selected respondents were compiled from the relevant sections of the contract and were in line with the literature review contained in chapter 2 of this study. A template document that shows what information is required will be drafted and given to the relevant manager to provide that information. The questionnaires were self-administered in order to provide assistance to the respondents where such assistance or clarification was sought. Thereafter one-on-one interviews will be set with the relevant managers to verify where the information is not clear. Based on the information provided, Sedibeng Water will be assessed for compliance.
3.2.1 Research design

The research design is qualitative where the relevant clauses that relate to the attributes will be identified in the signed SLA. The questionnaire consisted of fourteen (14) themes covering 39 contract clauses. The themes were linked to the ten attributes of effectively managed water sector utilities (Table 2.1). The clauses were described and the questionnaire stated the information that was requested from the managers.

Moreover, the questionnaire was designed to draw specific responses to evaluate Sedibeng Water as far as its pursuit to manage water sector effectively is concerned. It is also important to state that the questionnaire was developed using the standards laid down in the literature review, obtained from some of the arguments regarding the manner in which effective management of water sector utilities may be achieved within the water services provider in the local sphere of government.

Every theme was assigned a score weighting and the clauses were scored on the scale consisting of the three pre-set response choices to draw out specific responses from all the respondents, namely: a) Complying (5), b) Partial Complying (3) and c) Non-Complying (0).

The technique is termed "closed-ended" and it was chosen to avoid or reduce answers expressed in certain degrees or answers that express the extent of the occurrence of an event under investigation. The above-stated reason thus informed the choice of the scale used in the questionnaire for this study. As a control measure, managers would also be requested to provide documentary proof of the information that they provide.

3.2.2 Data collection techniques

All questionnaires were used as a form of data collection and were handed to every member of the regional management team to populate. The questionnaires were later collected and combined to analyse the results.

3.2.3 Issues of reliability and validity

Reliability refers to equivalence, consistency and stability, while validity determines whether the research truly measures that which it was intended to measure or how
truthful the research results are. Qualitative designs will therefore focus on credibility, transferability, dependability and conformability, and the appropriate test methods will be agreed upon.

3.2.4 Data analysis and interpretation

The data submitted by the departmental heads will be captured and analysed using Microsoft Excel. The engagements regarding the information submitted will be in the form of an interview where clarity and verification of the submitted information will be given.

3.3 ETHICAL CONSIDERATIONS

3.3.1 Confidentiality

All information regarding this research will be strictly treated as confidential and only be made available to the relevant authorities.

3.3.2 Informed consent

All the documents that will be sourced for this research will be sourced legally and will be used after acquiring consent from the affected parties.

3.4 PRESENTATION OF RESULTS AND FINDINGS

3.4.1 Introduction

Sedibeng Water was appointed as a water services provider for the DRRSMDM which was declared a water services authority (WSA) in 2002. Sedibeng Water provides water services for the Greater Taung local municipality, Naledi Local Municipality and more recently, Lekwa-Teemane Local Municipality. Both Sedibeng Water and the DRRSMDM signed a Service Level Agreement which describes the roles and responsibilities of the two parties.

An empirical study was conducted in Sedibeng Water on attributes of effectively managed water sector utilities. The sample consisted of the eight regional executive
committee members within Sedibeng Water: North-West Region. A questionnaire was drawn up from the relevant service delivery clauses according to the signed SLA between Sedibeng Water and the DRRSMDM and was forwarded to the relevant manager to distribute.

3.4.2 Analysis of results and findings

3.4.2.1 Product quality

The product quality attribute comprised two themes which are Blue Drop and Green Drop requirements, and minimum safety compliance. The score weight of the attribute was 12.5%.

3.4.2.1.1 Blue Drop and Green Drop requirements

Sedibeng Water was requested to provide a copy of the water contingency plan (WCP). The developed WCP positively impacts on drinking water quality standards and gives early warning systems for pollution or/and pollution threat detection. The WCP also allows for determination and planning for present and future water treatment requirements and planning for future relevant and cost effective water treatment technology.

At the assessment it was found that Sedibeng Water had developed a WCP that provides information with a combination of a water safety plan and incident and response management protocol (Table 3.1).
### Table 3.1: Blue Drop and Green Drop Requirements

<table>
<thead>
<tr>
<th>Clause Description</th>
<th>Compliance Assessment</th>
<th>Score Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WSP is responsible for the protection of water resources of the supply area by the implementation of measures that will ensure effective utilisation by all consumers of the available water, as well as protection of water sources from contamination. (Clause No. 6.1.2)</td>
<td>Sedibeng has developed a Water Contingency Plan (WCP). Therefore compliant.</td>
<td>5/5</td>
</tr>
</tbody>
</table>

#### 3.4.2.1.2 Minimum Safety Compliance

Sedibeng Water was requested to provide a monitoring program of the water quality within the water supply network and water quality test results. Conducting water quality testing will ensure that Sedibeng Water provides the consumers with drinking water that meets quality standards. It will also give early warning systems for pollution or/and pollution threat detection and will ensure that Sedibeng Water plans for future appropriate and cost effective water treatment technology and methods.

Sedibeng reported that water quality sampling and testing is conducted weekly, and provided the results of water testing records over the last five years (Table 3.2).
### Table 3.2 Minimum Safety Compliance

<table>
<thead>
<tr>
<th>Clause Description</th>
<th>Score Weight</th>
<th>Information Required</th>
<th>Compliance Assessment</th>
<th>Score Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WSP shall monitor the water quality within the water supply network on a daily basis and inform the WSA of the results on a monthly basis. Drinking water quality monitoring will be done in terms of SANS-241. The WSP must inform the WSA of the results on a monthly basis. (Clause No 6.5.2)</td>
<td>7.5%</td>
<td>Monitoring of the water quality within the water supply network (water quality test results)</td>
<td>Sedibeng reported that water quality sampling and testing is conducted weekly, and provided the results of water testing records over the last five years. Therefore compliant</td>
<td>5/5</td>
</tr>
</tbody>
</table>

### 3.4.2.2 Customer satisfaction

The customer satisfaction attribute comprised only one theme, namely customer care. The weight of the attribute was 7.5%.

The theme, however, comprised four clauses that required consumer charter, records of account queries for water consumption by the customers, records of investigations arising from request by the WSA or its customer to test the relevant bulk meters and records of informing the WSA timely of any planned reduction or increase in water pressure at any customer connection and the reasons (Table 3.3).

- **Consumer charter**

The consumer charter will enable the WSA to discharge its performance monitoring function and to respond to any query regarding any services interruptions/disruptions due to water pressure related issues. Sedibeng Water needs to strengthen its reporting capacity to capture and report any planned reduction or increase of customer connection pressures and should include this item in the monthly operational reports.
• **Records of account queries for water consumption by the customers**
  
  Sample records of customer query were provided and records are properly captured. This is important for the management and catering of customer concerns/needs.

• **Record of investigations arising from request by the WSA or its customers to test the relevant bulk meters**
  
  Failure to carry out these investigations will result in customers losing confidence in the fault or query reporting systems. A case of no action taken implies that faults, queries, defects and leaks are left unattended and unresolved, therefore compromising sustainability of the water supply system and infrastructure.

  Sedibeng Water should train the customer care personnel to enhance their capacity to carry out investigations and capture all the details involved in the resolution and rectification of customer queries.

  Lack of a customer care programme will result in poor water services delivery and non-consideration of customer needs/concerns/satisfaction. Sedibeng Water must develop and implement a consumer charter and train the personnel to enhance their skills and capacity to operate the customer care programme.
### Table 3.3: Customer Care Programme

<table>
<thead>
<tr>
<th>Clause Description</th>
<th>Clause Score Weight</th>
<th>Information Required</th>
<th>Compliance Assessment</th>
<th>Score Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WSP must inform the WSA timely of any planned reduction or increase in water pressure at any customer connection, the reasons therefore and the actions implemented to rectify such reduction or increase and the period thereof, in accordance with the system operating standards (Clause No 6.7.2).</td>
<td>2%</td>
<td>Consumer Charter</td>
<td>Sedibeng has not developed a reporting procedure for the planned reduction or increase in pressure. Therefore Non-compliant.</td>
<td>0/5</td>
</tr>
<tr>
<td>The WSA or its customers may query the consumption reflected on account within 14 days of receiving an account (Clause No 6.8.1).</td>
<td>2%</td>
<td>Record of account query for water consumption by the WSA or customer.</td>
<td>The records of customer query were provided and contained in the customer query reports. Therefore compliant.</td>
<td>5/5</td>
</tr>
<tr>
<td>The WSP must investigate the query and at the request of WSA or its customer test the relevant bulk meters or meters within 14 days of a query having been made (Clause No 6.8.2).</td>
<td>1.5%</td>
<td>Record of investigations arising from request by the WSA or its customers to test the relevant bulk meters or meter.</td>
<td>One record of customer query and investigation carried out was provided. However, the customer query report could not show the resolution of the query/complaints as captured. Therefore partially compliant.</td>
<td>3/6</td>
</tr>
<tr>
<td>The WSP undertakes to develop and to start to implementing a customer care programme within 3 months after the date of signing the contract to ensure that customers are aware of their rights and obligations, and which aims to create a positive and reciprocal relationship between customers, the WSA and the WSP (Clause No 6.16.2).</td>
<td>2%</td>
<td>Record of informing the WSA timely of any planned reduction or increase in water pressure at any customer connection and the reasons.</td>
<td>Sedibeng operates a customer care programme. However, it does not have a customer charter. Therefore partially compliant.</td>
<td>3/5</td>
</tr>
</tbody>
</table>
3.4.2.3 Employee and leadership development

The employee and leadership development attribute comprised only one theme, namely the institutional arrangement. The weight of the attribute was 5%.

The information required was the organogram, training activities and capacity building records (Table 3.4).

The management structure indicates that all the positions are filled. However, the compliance assessment indicates that the WSP is not fully fulfilling its WSP functions and obligations in terms of the contract in the area of training the personnel. Providing training in a wide range of areas within the organisation strengthens the ability of the WSP to discharge functions owing to work place skills development and growth and the transfer of appropriate skills.

The WSP does not completely fulfil its WSP functions and obligations in terms of its training requirements relating to the WSA personnel training. The WSP needs to check that the work place skills development plan caters for the technical services personnel and, on the other hand, the WSA needs to forward the work place skills development plans and the skills needs assessment for its personnel to the WSP so that the WSP can plan and align the training of the WSA to suit the training needs of its personnel.
### Table 3.4: Institutional Arrangement

<table>
<thead>
<tr>
<th>Theme: Institutional arrangement</th>
<th>Theme Score Weight: 5%</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Clause Description</th>
<th>Clause Score Weight</th>
<th>Information Required</th>
<th>Compliance Assessment</th>
<th>Score Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WSP must undertake and facilitate activities, training, campaigns and programmes aimed at building capacity of and transferring skills to its own employees as well as to the WSA and its officials who are responsible for the administration, monitoring and regulating of this contract and the water services within the supply area in respect of: management, financial and technical matters associated with the water supply services (Clause No 6.15.1).</td>
<td>5%</td>
<td>Organogram, training activities and capacity building records</td>
<td>Sedibeng provided the high level management organogram. All the management positions are currently filled and it follows that the necessary human resources are within the WSP to undertake its functions and obligations in terms of the WSP/WSA contractual requirements. Sedibeng submitted records on training conducted over the last three years including study loans and bursary information. The training that has been undertaken is in a range of areas/skills and therefore addresses the requirements of and covers most of the section in the organisation. Therefore partially compliant. There is no record of training provided to the WSA officials who are responsible for the administration, monitoring and regulating of this contract and the water services within the supply. Therefore non-compliant.</td>
<td>3/5</td>
</tr>
</tbody>
</table>

### 3.4.2.4 Operational optimisation

The operational optimisation attribute comprised only one theme, namely the operation and maintenance of assets. The score weight of the attribute was 20%.

The theme comprised six clauses that required a record of implementation of a preventive maintenance programme, record of a meter (bulk and retail) testing and calibration programme, testing of all meters within one month from the end of the relevant financial year, notice given to the WSA where the repair or replacement of the meter took longer than the stated period with the reasons, monthly reading of all
bulk, production and consumer meters and the actual production meter reading (Table 3.5).

- **Implementation of a preventive maintenance programme**

Provision of plant, equipment and diesel engine maintenance schedules ensures that there are no unscheduled breakdowns of the plant, equipment and parts and therefore service interruptions and disruptions are minimised. It will also ensure that budgeting and costing for the repairs and maintenance work is properly carried out.

- **Record of a meter (bulk, and retail) testing and calibration programme**

Failure to comply with this clause impacts on the accuracy of the volumes of water production and consumption, the determination of the amount of unaccounted for water (UFW), the determination of the cost of water production (bulk meter readings) and eventually the determination of water tariffs.

The WSP is required to implement a meter testing and calibration programme by the procurement of suitable equipment and tools for the testing and calibration of meters.

- **Testing of all meters within one month from the end of the relevant financial year**

Failure to provide additional information affects the ability of the WSA to carry out its performance monitoring functions in terms of the WSA/WSP contract and will impact on the accuracy of water measurement, the determination of UFW and billing and revenue collection. The requirement of this sub-clause can be addressed and resolved once a centralised meter testing and calibration unit has been established.

The WSP also needs to strengthen its reporting protocols and procedures by training its personnel to enhance their reporting skills. The WSP should add this as an item to report in the monthly operational reports.
### Table 3.5: Operation and Maintenance of Assets

<table>
<thead>
<tr>
<th>Clause Description</th>
<th>Clause Score Weight</th>
<th>Information Required</th>
<th>Compliance Assessment</th>
<th>Score Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WSP shall develop, submit and start to implement a preventative maintenance management programme within 3 months after signing of the contract for the sustainability, protection and enhancement of the water system (Clause No 6.2.2).</td>
<td>4%</td>
<td>Record of implementation of a preventative maintenance programme</td>
<td>Sedibeng provided information on the plant, equipment and diesel engine maintenance schedule and checking procedures Therefore compliant.</td>
<td>5/5</td>
</tr>
<tr>
<td>The WSP must develop and agree with the WSA on a meter testing and calibration programme for all bulk, production and consumer meters (Clause No 6.3.1.1).</td>
<td>3%</td>
<td>Record of a meter (bulk, and retail) testing and calibration programme</td>
<td>Sedibeng has no meter testing and calibration programme in place. Therefore non-compliant.</td>
<td>0/5</td>
</tr>
<tr>
<td>The WSP must annually test all the bulk and production meters. Consumer meters will only be tested at the request of a consumer (Clause No 6.3.3.1).</td>
<td>3%</td>
<td>Testing of all meters within one month of the end of the relevant financial year</td>
<td>Information is not available/not in place, therefore non-compliant.</td>
<td>0/5</td>
</tr>
<tr>
<td>The WSP must give notice to the WSA in the event that the repair or replacement of the bulk, production and consumer meter is likely to take longer than the stated period and indicate the reason or reasons thereof (Clause No. 6.3.4.2).</td>
<td>3%</td>
<td>Notice given to the WSA where the repair or replacement of the meter took longer than the stated period with the reasons</td>
<td>Sedibeng did not provide the repair or replacement of the bulk, production and consumer meter; therefore non-compliant.</td>
<td>0/5</td>
</tr>
<tr>
<td>The WSP must read all bulk, production and consumer meters monthly within 7 days after the end of the preceding month (Clause No 6.3.5.1).</td>
<td>4%</td>
<td>Monthly reading of all bulk, production and consumer meters</td>
<td>Sedibeng provided the records of the reading of these meters. Therefore compliant.</td>
<td>5/5</td>
</tr>
<tr>
<td>The WSP must provide the WSA with a bulk, production and consumer reading (Clause No 6.3.5.2).</td>
<td>3%</td>
<td></td>
<td>Sedibeng provided the records of the reading of bulk production and consumer meter reading schedules. Therefore compliant.</td>
<td>5/5</td>
</tr>
</tbody>
</table>
3.4.2.5 **Financial viability**

The financial viability attribute comprised three themes which are business plans and budgets; revenue collection and debt policy; and financial records. The weight of the attribute was 22.5%.

- **Business plans and budgets**

This clause will enable the WSA to monitor the expenditure of the WSP, promulgate the water tariffs and monitor performance of the WSP. Sedibeng Water submitted its business plans and budget together with the shareholders’ compact (Table 3.6).

**Table 3.6: Business plans and budgets**

<table>
<thead>
<tr>
<th>Clause Description</th>
<th>Theme Score Weight</th>
<th>Information Required</th>
<th>Compliance Assessment</th>
<th>Score Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WSP is responsible for the compilation of an annual Business Plan and Budget for water services and water supply system. The Business Plan together with the Budget shall be submitted by the WSP to the WSA for approval. The WSP will only be paid up to the approved monthly budget amount, unless otherwise instructed by the WSA (Clause No 7.2).</td>
<td>7.5%</td>
<td>Business Plans, Water budgets, Shareholder Compact</td>
<td>Sedibeng prepared the latest Business Plan for 2013/2014 including the shareholder compact and water budgets that form part of the BP. In the budgets, provision has been made for capacity building programmes. Therefore compliant.</td>
<td>5/5</td>
</tr>
</tbody>
</table>

- **Revenue collection and debt policy**

The theme comprised three clauses that required a record of enforcement of control measures authorised by the WSA; a record of accumulated arrears and actions instituted to recover outstanding amounts; and documentation that will assist with cost recovery (Table 3.7).

The WSP needs to be supported by the WSA in the implementation of the credit enforcement measures and intervention by the local authority to make the measure effective and achieve the desired results. Failure to comply with this clause impacts
on the ability for the WSA to monitor cost recovery measures and new equipment acquired for cost recovery purposes and, lastly, to monitor the cost incurred for the cost recovery measures.

The WSP needs to train its personnel in office inventory management, record keeping and the reporting procedures or the WSP needs to provide a copy of a sample of the asset register and written confirmation to the WSA that it has and maintains an asset register.

Table 3.7: Revenue Collection and Debt Policy

<table>
<thead>
<tr>
<th>Theme: Revenue Collection and Debt Policy</th>
<th>Theme Score Weight: 7.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clause Description</td>
<td>Score Weight</td>
</tr>
<tr>
<td>The WSP undertakes to implement if required the enforcement of control measures in respect of water services, which will include the limiting of and under clearly defined special circumstances, the disconnecting of water services, as is necessary at the time in order to recover the revenue due to the WSA, for water services revenue due to the WSA and for water services revenue in accordance with prevailing regulatory provisions. In such cases the WSP is authorised and shall be obliged to implement and enforce for and on behalf of the WSA's credit control policy (Clause No 6.17.1).</td>
<td>3%</td>
</tr>
<tr>
<td>Records of accumulated arrears and record of any actions instituted to recover outstanding amounts (Clause No 8.7.5.5).</td>
<td>3%</td>
</tr>
<tr>
<td>Records of all software mapping and documentation related to or which will assist with cost recovery (Clause No 8.7.5.7).</td>
<td>1.5%</td>
</tr>
</tbody>
</table>
• **Financial records**

Sedibeng’s 2009/10 annual report was received in good order. Sedibeng has received a generally acceptable accounting practice audit opinion. Sedibeng reported that they have not incurred penalties in terms of the contract. The finances of Sedibeng have been audited and the books are in good order and have received a generally acceptable accounting practice opinion.

Managing transfers, changes of status and termination of contracts with existing customers will help to keep the records and list of new consumers updated for future planning for water resources requirements (Table 3.8).

Lack of information on this will impact on the delivery of water provision services and the determination of water demand and water demand projection volumes. It will also affect billing and revenue collection and the calculation of water production.

The WSP needs to strengthen the capacity (human resources) by training within the finance section and include this item in the monthly operational reports.

**Table 3.8: Financial Records**

<table>
<thead>
<tr>
<th>Clause Description</th>
<th>Clause Score Weight</th>
<th>Information Required</th>
<th>Compliance Assessment</th>
<th>Score Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WSP must submit a copy of its audited financial reports for each year to the WSA, and on submission thereof, to the Minister in accordance with the Water Services Act. The reports must comply with all the regulatory provisions and include complete audited financial statements and the auditor’s report (Clause No 8.2).</td>
<td>1.5%</td>
<td>Annual Financial Statements</td>
<td>Sedibeng’s 2012/13 annual report was received in good order. Sedibeng received a generally acceptable accounting practice audit opinion. Therefore compliant.</td>
<td>5/5</td>
</tr>
<tr>
<td>The annual report of the WSP must provide details of any penalties incurred by the WSP in terms of the contract and a</td>
<td>1%</td>
<td>Record of any penalties incurred by the WSP in the annual report in terms of the contract in accordance with the contract in terms of the contract</td>
<td>No penalties were incurred by the WSP in terms of the contract. Therefore compliant.</td>
<td>5/5</td>
</tr>
<tr>
<td>Description</td>
<td>Percentage</td>
<td>Details</td>
<td>Score</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>copy thereof must be submitted to the WSA, on submission to the Minister in accordance with the Water Services Act (Clause No 8.3).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The auditor’s report in respect of the financial statement for water services (Clause No 8.4.1.2).</td>
<td>1%</td>
<td>Independently audited ring-fenced financial statement from an independent auditor. Sedibeng’s financial statement was received in good order, has been audited by independent auditors (PricewaterhouseCoopers), and received a generally acceptable accounting practice opinion. Therefore compliant.</td>
<td>5/5</td>
<td></td>
</tr>
<tr>
<td>Signing up agreement with new customers (Clause No 8.7.2.2).</td>
<td>1%</td>
<td>All new water meters installed by Sedibeng are pre-paid meters. A sample record of consumer agreement was provided. Therefore compliant.</td>
<td>5/5</td>
<td></td>
</tr>
<tr>
<td>Managing transfers, changes of status and termination of contracts with existing customers (Clause No 8.7.2.3).</td>
<td>1%</td>
<td>Information is not available/not in place, therefore non-compliant.</td>
<td>0/5</td>
<td></td>
</tr>
<tr>
<td>Managing and implementing its customer care programme (Clause No 8.7.2.4).</td>
<td>1%</td>
<td>Sedibeng operates customer care and received minutes of the customer interaction meeting reports. The reports contain important elements, i.e. the customer query/concerns and the solutions proposed, the target dates for addressing them and the actual completion date. Therefore compliant.</td>
<td>5/5</td>
<td></td>
</tr>
<tr>
<td>The WSP undertakes to make the customer database and all information gathered as well as equipment purchased, which is associated with revenue services and details of third party arrangements available to the WSA and/or the revenue contractor (Clause No 8.7.5).</td>
<td>1%</td>
<td>Customer database and all information gathered as well as equipment purchased which is associated with revenue services and details of third party arrangements. Sedibeng uses the Mecromega system. The current equipment used for revenue collection was taken over from the ABET Centre, as a result no new equipment has been purchased for the past five years. The VNP equipment for the different cash points to link to the Mecromega system belongs to Telkom. Service agreement for meter reading contractor and invoices for computer drop safes provided. Therefore compliant.</td>
<td>5/5</td>
<td></td>
</tr>
</tbody>
</table>
3.4.2.6 Infrastructure stability

The infrastructure stability attribute comprised only one theme, namely annual reporting. The score weight of the attribute was 5%.

Annual planning will ensure planning for alternative water sources and resources and budgeting and financing for such alternative water sources.

The WSP needs to carry out investigation and an analysis of the security of supply and produce a detailed report with measures to be implemented to address or alleviate any concerns that will be identified. This item is related to water resources use and availability and requires the development of a Water Security Plan (Table 3.9).

Table 3.9: Annual Reporting

<table>
<thead>
<tr>
<th>Theme: Annual reporting</th>
<th>Theme Score Weight: 6%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clause Description</td>
<td>Clause Score Weight</td>
</tr>
<tr>
<td>The WSP must annually provide the WSA with a detailed report on the security of supply. The report must reflect availability concerns identified by the WSP, indicate which measures will be implemented by the WSP to address or alleviate concerns and make recommendations as to actions that may be taken to address or alleviate concerns (Clause No 6.12.3).</td>
<td>3%</td>
</tr>
<tr>
<td>Providing the WSA with all updated or new information that it has available on customers (Clause No 8.7.2.5).</td>
<td>1.5%</td>
</tr>
<tr>
<td>Record of meter readings and amounts billed over proceeding twelve months (Clause No 8.7.5.3).</td>
<td>1.5%</td>
</tr>
</tbody>
</table>
3.4.2.7 Operational resilience

The operational resilience attribute comprised only one theme, namely the emergency matters. The score weight of the attribute was 10%.

Failure to make emergency notifications within the stipulated period negatively impacts on water services provision and contingency planning around the emergency. The WSP needs to strengthen its reporting protocols by training (human and capital). The WSP should continue with the phone method of reporting and the record of emergencies should be captured in the monthly operational reports.

Sedibeng Water has, however, failed to provide records of the process that was agreed upon to address emergencies. This was due to the WSP not properly reporting the emergencies to the WSA as required and will result in emergencies that are not properly attended and resolved, and downtime periods that will not be properly monitored.

The WSP and WSA needs to schedule regular co-ordination meetings to streamline methods and the process for addressing standard and non-standard emergencies (Table 3.10).

Table 3.10: Emergency Matters

<table>
<thead>
<tr>
<th>Theme: Emergency matters</th>
<th>Theme Score Weight: 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clause Description</td>
<td>Clause Score Weight</td>
</tr>
<tr>
<td>The WSP or WSA shall within 1 hour of becoming aware of an emergency or possible emergency immediately notify the Municipal Manager of the WSA and the Chief Executive of the WSP (Clause No 6.11.2).</td>
<td>5%</td>
</tr>
<tr>
<td>The parties shall agree on a process for addressing the emergency as defined in the emergency plan (Clause No 6.11.3).</td>
<td>5%</td>
</tr>
</tbody>
</table>
3.4.2.8 **Community sustainability**

The operational optimisation attribute comprised only one theme, namely the water conservation and demand management. The score weight of the attribute was 5%.

Water conservation and demand management will ensure planning for water availability during drought periods and budgeting and costing for alternative water resources.

The WSA should consider the establishment of a centralised WC/DM unit to co-ordinate and discharge this function as the WSPs have demonstrated a lack of capacity to undertake the function (Table 3.11).

**Table 3.11: Water Conservation and Demand Management**

<table>
<thead>
<tr>
<th>Clause Description</th>
<th>Clause Score Weight</th>
<th>Information Required</th>
<th>Compliance Assessment</th>
<th>Score Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WSP is responsible for obtaining and generating all information required to monitor and forecast all factors influencing the quantity of water available (Clause No 6.12.2).</td>
<td>5%</td>
<td>Record of information generated to monitor and forecast all factors influencing the quantity of water available</td>
<td>Information is not available/not in place, therefore non-compliant.</td>
<td>0/5</td>
</tr>
</tbody>
</table>

3.4.2.9 **Water resource adequacy**

The product quality attribute comprised two themes which are level of service between WSP and WSA and free basic water service. The weight of the attribute was 12.5%.

A record of metered and unmetered consumers, a list of the WSA’s most recent customer connections, quantities and estimated quantities of water for future years at the existing customer connections, the average daily demand projections, the minimum and maximum water supply pressures per customer connection and the management of the refurbishment, improvement and/or modification of the water system.
- **Record of metered and unmetered consumers**

Records of the consumers who are metered enable WSA to effectively carry out its performance monitoring functions in terms of the WSA/WSP contract.

- **Quantities and estimated quantities of water for future years at the existing customer connections**

This will enable the WSA to plan and budget for infrastructure upgrade and to retrofit to address the UFW.

The WSP needs to enhance its capability (human and technical) within the water production section in the area of water demand calculations and projections and the reporting requirements of this clause.

- **The average daily demand projections**

The average daily projections affect ability of the WSA to determine future water demands and to budget for the FBW services. The remedial action for this clause can only be worked out once the water demand projections are known in terms of determining the upgrading or the retrofitting needs for the infrastructure/water supply system.

- **The minimum and maximum water supply pressures per customer connection**

The minimum and maximum water supply pressures per customer connection helps in planning for the pressure management within the water systems and also in planning for the upgrade of infrastructure in terms of installation of air valves and pressure controlling valves within the system.

The WSP further needs to carry out pressure monitoring within the water reticulation network to determine whether the pressures are in line with the pressures given in the SLA. Where pressure fails to meet the requirements, the WSP will have to carry out pressure balancing within the network by installing pressure regulating valves and zoning the supply area.
• The management of the refurbishment, improvement and/or modification of the water system

The WSP reported that this activity is the responsibility of the WSA. The WSP requires the appointment of an experienced and knowledgeable service provider to carry out an assessment and quantify the refurbishment, improvement and/or modification needs of the water system required from time to time, including capturing such cost in the operational budget for approval by the WSA. Sedibeng Water, however, still operates and maintains the infrastructure regularly (Table 3.12).

Table 3.12: Level of Service between WSP and WSA

<table>
<thead>
<tr>
<th>Theme: Level of Service</th>
<th>Clause Description</th>
<th>Clause Score Weight</th>
<th>Information Required</th>
<th>Compliance Assessment</th>
<th>Score Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>It is hereby recorded that on the start date, the WSP has provided and shall continue to provide at all times the quantities of water for future years at the existing customer connections (Clause No 6.4.1.1).</td>
<td>1.0%</td>
<td>Record of consumers who were not metered and who have been metered within 3 months from the date of signing the contract or when the WSP becomes aware of such</td>
<td>Sedibeng provided the consumer meter readings and the bulk water production records showing the volumes of water produced. However, water demand projection records are not available. Therefore partially compliant.</td>
<td>3/5</td>
</tr>
<tr>
<td></td>
<td>The WSP will provide every 6 months prior to commencement of its financial year the WSA with a list of the WSA's most recent customer connections and the annual average daily demand of the last full year of supply at each of the customer connections (Clause No 6.6.1.2).</td>
<td>0.5%</td>
<td>Record of every 6 months prior to commencement of WSP financial year of list of the WSA's most recent customer connections</td>
<td>The record of the customers is contained in the consumer meter reading records. Therefore compliant.</td>
<td>5/5</td>
</tr>
<tr>
<td></td>
<td>The WSP shall at all times meet the annual average daily demand projections as increased by normal growth at each customer connection (Clause No 6.6.1.6).</td>
<td>0.7%</td>
<td>Record of continuing to provide at all times the quantities and estimated quantities of water for future years at the existing customer connections</td>
<td>Information is not available/not in place, therefore non-compliant.</td>
<td>0/5</td>
</tr>
<tr>
<td></td>
<td>The WSP shall undertake a detailed assessment of its ability to meet the WSA's daily peak flows immediately after the</td>
<td>0.8%</td>
<td>Record of satisfying the average daily demand projections</td>
<td>The WSP has not carried out an assessment of its ability to meet the</td>
<td>0/5</td>
</tr>
</tbody>
</table>
effective date and shall prepare and agree with the WSA on a detailed action plan, with identified priorities for meeting the WSA's daily peak flow demand where it is unable to do so on the effective date (Clause No 6.6.2.2).

The WSP shall maintain the minimum and maximum supply pressures per customer connection under normal operating conditions based on existing and projected annual average daily demand (Clause No 6.7.1).

All the existing consumers who are not metered and all new consumers must be metered within 3 months from the date after signing this contract or when the WSP becomes aware of a consumer whose meter consumption is not measured; and the WSP must allow for this in the Business Plan (BP) and the Water Services Budget (Clause No 6.10.2).

Where the cost of the work involved is covered within the operational budget, the WSP shall be responsible for and shall manage the refurbishment, improvement and/or modification of the water system as may be required from time to time to render it operational and/or efficient or to improve the general performance of the water system (Clause No 6.13.1).

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Compliance Score</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Record of maintaining the min &amp; max supply pressures per customer connection under normal operating conditions</td>
<td>Information is not available/ not in place, therefore non-compliant.</td>
<td>0/5</td>
</tr>
<tr>
<td>Sedibeng indicated that all the consumers within the supply area are metered and provided records of new prepaid meters installed. Therefore compliant.</td>
<td>5/5</td>
<td></td>
</tr>
<tr>
<td>Sedibeng reported that this activity is the responsibility of the WSA. However, Sedibeng Water carries out normal maintenance. Therefore compliant.</td>
<td>5/5</td>
<td></td>
</tr>
</tbody>
</table>

### 3.4.2.10 Free basic water service

Provision of the water volumes and records of FBW enables the WSA to determine the amount of FBW provided and the amount of water provided per household to the indigent (Table 3.13).
Table 3.13: Free Basic Water Service

<table>
<thead>
<tr>
<th>Clause Description</th>
<th>Clause Score Weight</th>
<th>Information Required</th>
<th>Compliance Assessment</th>
<th>Score Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>The WSP shall submit a Business Plan and Budget for the financial year ending June 2014 to the WSA for approval. The budget shall be based on the tariff structure already recommended by the WSP and approved by the WSA and shall accommodate the policy of the WSA to deliver the first 6 kl/household/month or any amount of water agreed on at no cost to all the indigent households supplied by the local municipalities which is approved by WSA (Clause No 7.1).</td>
<td>7.5%</td>
<td>A policy to deliver the first 6 kl/household per month or any amount of water agreed on at no cost to all the indigent households</td>
<td>Sedibeng provided the free basic water (FBW) information showing the villages, the population and the amount. An amount of 4.5 kl/hh/month is provided to the indigent community. The business plan indicates the cost element for the FBW delivered. Thus complaint.</td>
<td>5/5</td>
</tr>
</tbody>
</table>

3.4.2.11 Stakeholder understanding and support

The stakeholder understanding and support attribute comprised only one theme, namely performance management. The score weight of the attribute was 7.5%.

The theme required the provision of a valid contract between Sedibeng Water and the municipality. The WSP/WSA contract is valid and all the service level agreements are protected and fully enforceable in terms of the contract (Table 3.14).

Table 3.14: Performance Monitoring

<table>
<thead>
<tr>
<th>Clause Description</th>
<th>Clause Score Weight</th>
<th>Information Required</th>
<th>Compliance Assessment</th>
<th>Score Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every obligation of the WSP in terms of the contract represents a key performance area of the WSP for the duration of the contract (Clause No 8.17.1).</td>
<td>7.5%</td>
<td>WSP Contract (WSP/WSA)</td>
<td>Sedibeng has in place a contract for its WSP functions and obligations with the WSA. The current contract is valid up to 30 July 2015. Thus compliant.</td>
<td>5/5</td>
</tr>
</tbody>
</table>
3.5 SUMMARY

The assessment of Sedibeng Water as a water service provider for Dr Ruth Segomotsi Mompati district municipality indicates that Sedibeng Water currently does have sufficient capacity to provide the water services for the municipality and has provided information on a plant, equipment and diesel engine maintenance schedule and checking procedures.

The financial statements of Sedibeng Water have been received in good order, and received a generally acceptable accounting practice opinion after having been audited by independent auditors (PricewaterhouseCoopers).

Sedibeng Water is not completely fulfilling its WSP functions and obligations in terms of training requirements of the WSA personnel. The WSA, however, needs to forward the work place skills, development plans and the skills needs assessment for its personnel to the WSP for the WSP to plan and align the training of the WSA to suit the training needs of its personnel.

The WSA must support the WSP in the implementation of the credit enforcement measures and intervention by the local authority to make the measure effective and achieve the desired results.

Sedibeng Water must develop and implement a consumer charter and also train the customer care personnel to enhance their capacity to conduct investigations and capture all the details involved in the resolution and rectification of customer queries.

There should be a regular schedule for co-ordinating meetings between Sedibeng Water and the municipality to streamline the methods and process for addressing standard and non-standard emergencies. Sedibeng Water should establish a centralised WC/DM unit to co-ordinate and discharge this function, as this is a further requirement of no drop status of the municipality.

The next chapter, chapter 4, will focus on the empirical study’s conclusion to effectively manage water services in the DRRSMDM.
CHAPTER 4
CONCLUSION AND RECOMMENDATIONS

4.1 INTRODUCTION

Several arguments were advanced in the preceding chapters on the important practices which Sedibeng Water must consider in order to effectively manage water services within DRRSMMD. In this chapter, conclusions and recommendations will be developed based on findings in chapter 3, wherein the analysis of results was discussed. The overall compliance of Sedibeng Water in effective management of water services within DRRSMMD was 74.3% as indicated in Table 4.1.

Table 4.1: Compliance Evaluation of Sedibeng Water

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Theme</th>
<th>Max score achievable</th>
<th>Score achieved</th>
<th>Score weight (%)</th>
<th>Score achieved (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product quality</td>
<td>Blue Drop and Green Drop requirements</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Minimum Safety Compliance</td>
<td>5</td>
<td>5</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>Customer Care</td>
<td>20</td>
<td>11</td>
<td>7.5</td>
<td>4.1</td>
</tr>
<tr>
<td>Employee and leadership development</td>
<td>Institutional Arrangement</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Operational optimisation</td>
<td>Operation &amp; Maintenance of Assets</td>
<td>30</td>
<td>15</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Financial viability</td>
<td>Business Plans and Budgets</td>
<td>5</td>
<td>5</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Revenue Collection and Debt Policy</td>
<td>15</td>
<td>15</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Financial Records</td>
<td>35</td>
<td>30</td>
<td>7.5</td>
<td>6.4</td>
</tr>
<tr>
<td>Infrastructure stability</td>
<td>Annual Reporting</td>
<td>15</td>
<td>10</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Operational resilience</td>
<td>Emergency Matters</td>
<td>10</td>
<td>8</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Community sustainability</td>
<td>WC/DM</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Water resource adequacy</td>
<td>Level of Service</td>
<td>35</td>
<td>18</td>
<td>5</td>
<td>2.6</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>------------------</td>
<td>----</td>
<td>----</td>
<td>---</td>
<td>----</td>
</tr>
<tr>
<td>Free basic water service</td>
<td></td>
<td>5</td>
<td>5</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Stakeholder understanding and support</td>
<td>Performance</td>
<td>5</td>
<td>5</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>108.5</td>
<td>80.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage compliance</td>
<td></td>
<td>74.3%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 4.2 IMPROVEMENT IN EFFECTIVE MANAGEMENT OF WATER SERVICES BY SEDIBENG WATER

To improve the effectiveness of Sedibeng Water in managing water services by using the attributes for effectively managed water services discussed in chapter 2, the following attributes were found to have shortcomings: operational optimisation where meter testing and calibration were the biggest concerns. In the customer satisfaction attribute, implementation of customer care and a consumer charter is still absent. Employee and leadership development, especially with regards to training of WSA personnel, needed some attention. To enhance financial viability within Sedibeng Water, a credit policy enforcement is urgently needed; and under community sustainability there must be the establishment of WC/DM unit.

Implications of non-compliance in these areas will be analysed and the remedial actions to the shortcomings identified will be suggested.

#### 4.2.1 Meter testing and calibration

Meter testing and calibration impacts on the accuracy of water production, consumption volumes as well as the amount of unaccounted for water (UFW), which in turn impact on billing and revenue collection. The provisions of bulk production and consumer meter reading record will also benefit the WSA in determining water production costs and eventually the correct determination of water tariffs.

Sedibeng Water is therefore required to implement a meter testing and calibration programme by procuring suitable equipment and tools for testing and the calibration of meters or it may be negotiated between the two parties that the WSA establishes a centralised meter testing and calibration unit to discharge this function. Sedibeng
Water also needs to reinforce its reporting procedures by training its personnel to enhance their reporting skills.

4.2.2 Training of WSA personnel

Providing training in a wide range of areas within the organisation reinforces the WSP’s ability to discharge functions due to work place skills development and the transfer of appropriate skills. Failure to comply with this clause impacts negatively on the capacity of the WSA to discharge its performance monitoring.

The WSP must therefore check that the work place skills development plan caters for the technical services personnel and must align the personnel training to suit their training needs. On the other hand, the WSA must forward the work place skills development plans and the skills needs assessment of its personnel to the WSP in order for the WSP to plan and align the training of the WSA to suit the training needs of its personnel.

4.2.3 Establishment of WC/DM unit

Water conservation and demand management impacts on planning for water availability during drought periods and also on budgeting and costing for alternative water resources.

The WSP should consider the establishment of a centralised WC/DM unit to coordinate and discharge this function.

4.2.4 Implementation of customer care and a consumer charter

The implementation of customer care fortifies the ability of the WSA to respond to any query regarding any service interruptions/disruptions due to water pressure related issues. Failure to implement a customer care programme will lead to customers losing confidence in the fault or query reporting systems and if no action is taken it implies that faults, queries, defects and leaks will be left unattended and unresolved, compromising sustainability of the water supply system and infrastructure. Lack of a customer care programme will result in poor water services delivery.
The WSP must develop and implement a consumer charter and train the personnel to enhance their skills and capacity to operate this customer care program.

4.2.5 Credit policy enforcement

Enforcement of a credit policy will enable the WSP to recover the cost of water services, and recover arrears and outstanding payments that will be utilised for future financing of water services as well as the upgrade and improvements of the systems. Enforcement of a credit policy will also enable the WSP to meet its financial goals and targets.

The WSP needs to be supported by the WSA in the implementation of the credit enforcement measures and to minimise the intervention by the local authority in order to make the measure effective and to achieve the desired results.

4.3 CONCLUSION

In chapter 2 the standards for achieving effective management of water services within Dr Ruth Segomotsi Mompati were set, based on the arguments presented in that chapter. Therefore, to achieve effective management of water services, the thirteen attributes of effective management of water services discussed in chapter 2 had to be taken into consideration. Chapter 3 presented some of the key challenges facing Dr Ruth Segomotsi Mompati District Municipality against the background discussions of the organisation. In that chapter it was stated that the solution to the challenges facing the municipality would be found in the effective management of water services within the municipality.

The questionnaire was developed based on the standards set in chapter 2, and its results were presented in chapter 4. In this chapter conclusions are drawn on the compliance of Sedibeng Water in effectively managing water services within Dr Ruth Segomotsi Mompati District Municipality. It may therefore now be concluded, according to the responses received, that Sedibeng Water effectively manages water services within the municipality although there are still areas that need some improvements. Those areas were identified and the remedial actions to those shortfalls have been suggested.
According to the questionnaire and the discussions on the implications and the remedial actions given above, the main areas that Sedibeng Water still have to attend to and that will further improve their effectiveness in managing water services within the Dr Ruth Segomotsi Mompati District Municipality include:

- Meter testing and calibration
- Training of WSA personnel
- Establishment of a WC/DM unit
- Customer care and a consumer charter and
- Credit policy enforcement

4.4 RECOMMENDATIONS

Based on the findings presented in chapters 4 and 5, the following are therefore recommended:

- There should be an independent monitor to oversee that both the WSA and WSP carry out their roles and responsibilities as outlined in the service level agreement.

- Sedibeng should introduce organisational approaches that contribute to overall effective utility management. Such approaches should include engaging employees in improvement efforts, implementing a change management process that encourages staff at all levels to embrace change and implementing strategies that seek, identify and celebrate early, step-by-step victories.

- Communication and reporting protocol should be improved between WSA and WSP. This can be achieved through a co-ordinating committee meeting and customer interaction meetings.

- There should be effective leadership by the WSA that will ensure that the direction of the utility is understood, embraced and followed on an ongoing basis throughout the management cycle and that should discourage the interference of councillors in water related issues that are administrative issues. Councillors
should also be workshopped on their roles and responsibilities within the municipality.

- The municipality should budget adequately for water services.
- The municipality should develop adequate bye-laws that will enable the WSP to enforce the culture of payment from the consumers.
- The municipality should involve the WSP in infrastructure projects, as WSP are the operators of that infrastructure.
- For the sake of cohesion and common vision, the WSP should be part of the integrated development programme (IDP) of the WSA.
- Sedibeng should implement a continual improvement management framework through a complete, start-to-finish management system. This includes identification of management strengths, areas for improvement, priority needs and improvement opportunities. Using this framework, Sedibeng Water can understand improvement opportunities and establish explicit service levels, guide investment and operational decisions and form the basis for ongoing measurement, and provide the ability to communicate clearly with customers and key stakeholders.
BIBLIOGRAPHY


