



UNIVERSITY *of the*
WESTERN CAPE

FACULTY OF ECONOMIC MANAGEMENT SCIENCES

SCHOOL OF GOVERNMENT

**IMPACTS OF INCONSISTENT WATER BILLING: CASE STUDY OF LITHA PARK,
KHAYELITSHA, CAPE TOWN FROM 2010 TO 2018**

NAME AND SURNAME: ZAMILE ZANE SANGQU

STUDENT NUMBER: 3857040

SUPERVISOR: DR. M. MAKIVA

Contents	
DEDICATION	viii
ACKNOWLEDGEMENTS	ix
LIST OF ABBREVIATIONS	x
ABSTRACT	xii
CHAPTER ONE	1
1.1 Introduction and Background to the Research Problem	1
1.2 The Problem Statement.....	3
1.3 The Research Question	5
1.3.1 Research Sub-Questions	6
1.4 Research Aims and Objectives	6
1.4.1 To investigate the main drivers of inconsistent water billing in Litha Park.....	6
1.4.2 To examine how these challenges are impacting the community of Litha Park.....	6
1.4.3 To analyse the steps taken by the City of Cape Town to address inconsistencies in water billing.....	6
1.5 Research Rationale and Justification	6
1.6 Research Setting.....	7
1.8 Chapter Summary	10
REVIEW OF RELATED LITERATURE	11
2.0 Introduction.....	11
2.1 The Conceptual Framework.....	11
2.1.1 The concept of Service Delivery	11
2.1.2 The Concept of Cost-Recovery in Water Delivery	12
2.1.3 The Concept of Municipal Billing Systems	13
2.1.4 The Concept of Inconsistent or Incorrect Water Billing	14
2.1.5 The Concept of Public Administration	15
2.2 Analysis of Selected Legislative Framework.....	16
2.2.1 South African Constitution in relation to Water Provision	16
2.3 Examination of the Legal Framework and the Functions of a Municipality in relation to Water Provision	16
2.3.1 Water Policy and Law in post-1996 South Africa	18

2.3.2 The Free Basic Water Policy 2001	18
2.3.3 The Strategic Framework for Water Services (SFWS) (RSA, 2003)	19
2.3.4 The National Planning Commission (NPC)	20
2.3.5 The Justification for Cost-Recovery	21
2.3.5.1 Fiscal Argument	21
2.3.5.2 The Moral Argument	21
2.3.5.3 The Merits and Demerits of Cost-Recovery	22
2.3.5 The Importance of Cost Recovery in Water delivery	23
2.4 The Different Mechanisms for Water Services Cost Recovery	26
2.4.1 Flat Rate	26
2.4.2 District Metering	26
2.4.3 Prepaid Systems	26
2.4.4 Conventional Metering and Billing	26
2.5 An Exploration of Cost-Recovery Challenges in Municipal Billing in Post-1996	27
2.6 Theoretical Framework	28
This section explores the theoretical framework. These are the New Public Management and the Water Billing theories.	28
2.6.1 New Public Management	28
2.6.2.1 The Aims of Water Metering	30
2.6.2.2 Benefits and Cost of Metering	31
2.7 Implications of Water Metering in poorer townships in South Africa post-Apartheid	32
2.8 Chapter Summary	32
CHAPTER THREE	33
RESEARCH METHODOLOGY AND METHODS	33
3.0 Introduction	33
3.1 Research Methodology	33
3.2 The Research Paradigm	33
3.3 Research Design	34
3.4 Exploratory Research	34
3.5 Qualitative Research Approach	34
3.6 Case Study Research	36
3.7 Sampling of Participants	36

3.8 Data collection tools	37
3.9 Research Methods: Data Collection Sources	37
3.9.1 Literature Review (Secondary data)	38
3.9.2 Interviews	38
3.9.3 Focus Group Discussions (FGDs)	38
3.9.4 Telephonic interviews	40
3.10 Document Review.....	41
3.11 Data Triangulation	42
3.12 Data Analysis and Interpretation.....	42
3.13 Data trustworthiness.....	43
3.13.1 Reliability and validity	44
3.13.2 Conformability	45
3.14 Ethical considerations	45
3.15 Study Limitation	45
3.16 Chapter Summary and Conclusion	46
RESEARCH FINDINGS AND ANALYSIS	47
4.0 Introduction.....	47
4.2 Research Findings.....	49
4.3 The Following Themes Emerged from the Interviews	50
4.4 The study set out to investigate.....	51
4.4.1 Inconsistent water billing?	51
4.4.2 The causes of inconsistent water billing	52
4.4.3 The researcher pressed to understand when this problem of inconsistent water billing started?	54
4.5 Objective Two.....	54
4.5.1 How inconsistent water billing is impacting residents in the community?	54
4.5.2 How Inconsistent Water Billing is impacting households?	55
4.5.4 How did the residents address their lack of water?	57
4.5.5 Effect of Inconsistent Water Billing on Household Incomes	58
4.5.6 The Impact of Inconsistent Water Billing on Households	61
4.5.7 Impact on House ownership	61

The researcher asked Participants 2, 4, 6, 7, 9, 10, 12, 15 and 17 to explain how this inconsistent water billing is impacting house ownership in the community?	61
4.5.8 Impact on Pensioners	62
4.5.9 The Impact of Illegal Water Connections	62
4.6. Objective Three:	63
4.6.1 Special arrangements with the municipality	63
4.6.2 The Community Visits to Municipal Offices in Khayelitsha	63
4.6.3 The Road to the Civic Centre in Cape Town	65
4.6.4 Impact on relations with the City of Cape Town	66
4.6.5 Community meetings and their outcomes	66
4.6.6 The First Meeting with the city of Cape Town Officials	66
4.6.7 Meeting with City of Cape Town officials and the Mayor	67
4.7 Conclusion	68
CHAPTER FIVE	69
DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS	69
5.1 Introduction	69
5.2 Summary and Discussion of the Main Findings	69
5.2.1 The Research Question one	70
5.2.2 Research Question two	71
5.2.3 Research Question three	72
5.3 Recommendations	74
5.3.1 Recommendations for Litha Park Residents	74
5.3.2 Recommendations for the City of Cape Town	74
5.3.3 Recommendations for further study	74
5.4 Summary of Previous Chapters	75
5.5 Conclusion	76
6. Reference List	77
7. APPENDIXES	86



FACULTY OF ECONOMIC AND
MANAGEMENT SCIENCES

SCHOOL OF GOVERNMENT

CONSENT FORM FOR (INSERT RESEARCH INSTRUMENT/NAME OF
ORGANISATION ETC.)

RESEARCH TITLE: Impact of Inconsistent Water Billings: The Case Study of Litha Park, Khayelitsha, City of Cape Town, Cape Town

I have read the information presented in the information letter about a study being conducted by (Zamile Zane Sangqu) towards a Masters degree in Public Administration, at the School of Government (SOG), the University of the Western Cape.

This study has been described to me in a language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and was informed that I may withdraw my consent at any time by advising the student researcher.

With full knowledge of all foregoing, I agree to participate in this study.

Participant Name : MOWAKHE MADOKAZI

Participant Signature :

I give consent for recordings to be taken:

Agree	Disagree
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Date : 06 AUGUST 2021

Place : KHAYELITSHA

Student Researcher : Zamile Zane Sangqu

Student Researcher Signature :

Student Number : 3857040

Mobile Number : 0796659379

Email : sangqu51@gmail.com/3857040@myuwc.ac.za

I am accountable to my supervisor : Dr M. Makiva

Department : School of government

Telephone : +27 21 959 3832

Email : mmakiva@uwc.ac.za

List of Tables

Table 4.1 The Details of Participants and Code that were used to protect the identity of the participants from46

Table 4.2 Various research themes and sub-themes emerged from the study.....48



DECLARATION

1. I know that plagiarism means taking and using the ideas, writings, works or inventions of another as if they were ones own. I know that plagiarism not only includes verbatim copying, but also the extensive use of another person's ideas without proper acknowledgement (which includes the proper use of quotation marks). I know that plagiarism covers this sort of use of material found in textual sources and from the Internet.

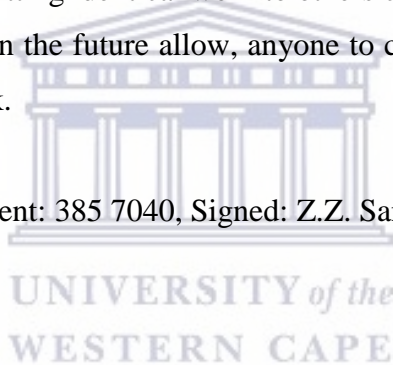
2. I acknowledge and understand that plagiarism is wrong.

3. I understand that my research must be accurately referenced. I have followed the rules and conventions concerning referencing, the citation and the use of quotations set out in the Departmental Guide.

4. This assignment is my own work. I acknowledge that copying someone else's assignment, or part of it, is wrong, and that submitting identical work to others constitutes a form of plagiarism.

5. I have not allowed, nor will I in the future allow, anyone to copy my work with the intention of passing it off as their own work.

Name: Zamile Zane Sangqu, Student: 385 7040, Signed: Z.Z. Sangqu, Date: 12 June 2022



DEDICATION

I dedicate this project to my late mother Nosabatha Bangani who was my source of strength and inspiration. We lost her while I was still busy with this project. I would also like to dedicate this project to the children who find themselves in similar situation. At some point in my life after I completed my grade 12, lack of funds prevented me from furthering my studies.

Many thanks to everybody I came across in my journey of trying to make something out of my life your well wishes have not gone to waste.



ACKNOWLEDGEMENTS

I wish to thank:

- Dr M. Makiva my supervisor for not allowing me to give up.
- Every member of my family without mentioning anyone by name for their support.
- My colleagues at work for their undying support.
- To all my classmates for the motivation during trying times.
- To the Almighty God for giving me strength to carry out this project.
- The University of the Western Cape and special thanks to all the lectures at the School of Government and Bridget Maart our go between person.



LIST OF ABBREVIATIONS

AP	Act of Parliament
ANC	African National Congress
CCT	City of Cape Town
CMA	Catchment Management Agencies
CRWD	Cost-Recovery in Water Delivery
DPLG	Department of Provincial and Local Government
DWAF	Department of Water Affairs and Forestry
FBO	Faith-Based Organisation
FBW	Free Basic Water Policy
GEAR	Growth, Employment and Redistribution
MBS	Municipal Billing Systems
MFMA	Municipal Finance Management Act
MSA	Municipal Systems Act
NPM	New Public Management
NGO	Non-Governmental Organisation
NWA	National Water Act
PA	Public Administration
PFMA	Public Finance Management Act
PS	Prepaid System
RDP	Reconstruction and Development Program
RSA	Republic of South African Constitution
UNGA	United Nations General Assembly
UNCESCR	United Nations Commission on Economic, Social and Cultural Rights
SANCO	South African Civic Organisations
SD	Service Delivery
SFWS	Strategic Framework on Water Services
UWC	University of the Western Cape

WB	World Bank
WHO	World Health Organisation
WSA	Water Service Authorities
WSP	Water Service Providers
WSP	Water and Sanitation Program



ABSTRACT

This study investigates the impacts of inconsistent water billing in Litha Park. The study highlights the challenges faced by the community in accessing water through automatic water billing meters that were introduced in the City of Cape Town to ensure that their water billing systems are correctly computed without any manual interventions. The research problem is that post-Apartheid the new South African government introduced the 1996 Constitution Act 108, which created the third tier of government, the local government or the municipality which is entrusted with a mandate to deliver basic municipal services like water, housing, electricity and waste management to all the residents. These municipal services are enshrined in the Constitution, the Municipal Structures Act of 1998 and the Municipal Systems Act of 2000, as basic services which the municipality has a statutory mandate to deliver to the residents as their rights or entitlement as South Africans. On the other hand, the introduction of the local government means that these municipalities needed to be sustained through the collection of rates and water bills to pay their employees, ensure the provision of new infrastructure and be sustainable. Hence, these municipalities need finances and ratepayers have to pay for services. Initially, residents in Litha Park were paying their water bills regularly, but from 2009 many started experiencing challenges in that some of the water billing systems was inaccurate, or inconsistent. This inconsistent water billing started impacting the residents triggering a meeting with the then Mayor of the City of Cape Town in 2018. It is this impact that triggered scholarly attention to investigate its impact on the community. To gain these insights the study adopted a qualitative research approach to collect the data. This involved elite interviews, focus group discussions and telephonic interviews with 18 community members and the study found that indeed the impact of inconsistent water billing in the community is real as many residents are experiencing water cutoffs, huge municipal water bills, others are using recycled water and some are seeking for buyers to take over their houses.

KEYWORDS: service delivery, water, billing, municipality, poverty, democracy, policy, Khayelitsha, neoliberalism, households

CHAPTER ONE

1.1 Introduction and Background to the Research Problem

Since 1994, the South African government has sought to ensure that all its citizens have access to clean water. This stance, according to Nleya (2011:2) emanates from a bleak history of the past whereby clean water was not accessible to the majority of black people. The new state inherited extreme inequality in water utilisation, by 1994, 12 million citizens lacked access to clean drinking water (Republic of South Africa (RSA) 1994:1). This was a challenge that needed urgent redress by the new African National Congress (ANC) leadership. To address these service delivery inequities post-1996 the government introduced political, economic and social reforms in the country.

The first step for Bond (2000) was the Reconstruction and Development Programme (RDP) which was launched in 1993 to provide water, housing, electricity and sanitation to all. He adds that this program ushered in water in many households, but by 1996 the state decommissioned it and replaced it with the Growth, Employment, and Redistribution (GEAR). This new policy ushered in the privatisation of water. However, since water is a scarce resource, the government, introduced new measures to ensure that water reaches all. Ngabarino (2017:6) expands that water was then enshrined in the 1996 South African Constitution as a basic right to ensure that all citizens have access to it.

To realise this vision, the government created the Department of Water Affairs and Forestry (DWAF) with the mandate to deliver water to all citizens (DWAF, 1997). The department also had to use sophisticated policy tools for working toward sustainable, equitable and efficient water resources management to deliver water to all citizens sustainably. Ngabarino (2017) explains that the Department of Water Affairs is governed by two Acts of Parliament. These are the National Water Act (NWA), Act 36 of 1998, and the Water Services Act (WSA) 1997. Green Cape (2014a) explains that the NWA redefined water rights in the country and established a new framework to mandate and regulate water resources.

Under this framework established by the NWA are several stakeholders, and the WSA promulgated in 1994 defined the role of DWA as a regulator. Green Cape (2014a) adds that the role of water boards as bulk providers and the role of municipalities as service providers are defined. Green Cape (2014a) expands that regional bulk water distribution is managed by water boards, municipalities and the DWA. Water boards and some of the larger metropolitan municipalities are also responsible for purifying water to potable standards for communities of consumers. These authorities act as Water Services Authorities (WSAs) and sometimes as water service providers (WSPs) in their areas (Green Cape, 2014a).

Dickens, Kotze, Mashigo, MacKay, & Graham (2003) expand that the department had several supporting organisations and institutions, including catchment management agencies (CMAs), and water user associations. Water Research Commission (2003) expands that the department had several supporting organisations and institutions, including catchment management agencies (CMAs), water user associations, water services institutions and the private sector. This collaboration amongst multiple actors made the water delivery complex, but it was meant to ensure a radical approach to water delivery to the consumers/ or the residents in the various communities. MacKay et al. (2003) explain that this collaborative approach to water management is the product of radical changes in the social, political and water policy environments. MacKay et al. (2003) add that achieving this will require a change in the way water resource managers conduct their business.

The next effort toward water delivery was the Free Basic Water Policy (FBW) announced in 2001 by the then President Thabo Mbeki in his vision of a 'better life for all' (Williams 2009:21) as he announced that municipalities would provide poor households with access to sufficient water free of charge (DWAF, 2002b:7). To ensure that all municipalities abide by this and avoid excuses of lack of revenue the Equitable Share was created as a grant that redistributes tax revenue from the central government to the provinces and municipalities to help municipalities cover the costs of providing services, like clean water, to their poor households (Department of Provincial and Local Government, 1999).

This policy directed municipalities to provide and price water in a way that would generate enough revenue to cover the operating costs of providing water not met by the Equitable Share and other grants (DWAF, 2002a). These water policies were to ensure that these rights are

fulfilled and that the inequities in its provision are reduced (Farrar, et al., 2014). This was to ensure that each local government faces the task of financing the provision of water and fulfilling the government's commitment to free basic water for all.

With this policy, the municipality is responsible for supplying each household with 6000 liters of potable water, accessible within 200m of the home as per RDP standards, free of charge each month (Farrar, et al., 2014). The "RDP-level" of water access is defined as having access to piped water less than 200 meters from one's dwelling. This estimate is set at 25 liters per person per day, or 6000 liters per household of 8 people per month (Farrar, et al., 2014).

Within the City of Cape Town, the municipality introduced water billing systems to ensure there is a level of payment to be made so that clean water is delivered. According to the Draft Water By-law (City of Cape Town, 2009), a "water management device is a device that controls the quantity of water flowing through a water meter over a certain time". The primary reasons for their use are to reduce debt and to save water by helping consumers or residents manage their water usage (Saayman, 2016). Ngabarino (2017) notes that there are several water management technologies or prepaid meters. Ngabarino adds that advanced water metering whether in the form of prepaid meters or water management devices is driven by the need to provide services to communities like Khayelitsha to deal with rapid urbanisation (Booyesen, 2016). Some of these pre-prepared meters are riddled with challenges and by 2009 residents in Litha Park started experiencing inconsistent water billings.

The Water and Sanitation Program (2008) explains that effective billing and collection systems are a vital component for ensuring the viability of a service provider like the municipality. Thus, improving billing and collection activities has an impact on the revenue streams of the municipality that can help it in improving services. On the contrary, inconsistent water billing impacts negatively on public confidence in the municipality and the residents and this has emerged as a problem in Litha Park in Khayelitsha, within the City of Cape Town.

1.2 The Problem Statement

The key challenge informing this study is the incorrect, inaccurate, or inconsistent municipal water billing that the community of Litha Park in Khayelitsha is experiencing. As intimated earlier, before 1994, the Apartheid regime denied blacks adequate housing, water and electricity

(Bond, 2002a). Post-1996 the new government inherited extreme inequalities in water distribution as 12 million blacks' lacked access to water and sanitation (RSA 1994:1).

To address these challenges as early as 1993 the ANC introduced a social policy which was the RDP with the vision to address these inequities in housing, water, electricity, and health, and social welfare (ANC, 1994). Post the 1994 elections the ANC began adjusting and enfeebling the redistributive provisions in the RDP and by 1996 it was decommissioned and replaced by a neo-liberal economic policy of GEAR which saw the commercialisation, commodification, and privatisation of housing, water and electricity in the country (Bond, 2000).

Besides, section 27 (2) of the South African Constitution of 1996 states that the state has to take 'reasonable legislative and other measures, within its available resources, to achieve the progressive realisation' of the right to water. Furthermore, section 4 (3) of the Water Services Act (1997) requires that procedures for the limitation or discontinuation of water supply must be 'fair and equitable' and provide for rational notice of intention to limit or terminate water services and for an opportunity to make representation.

Hansen (2005) reveals that the installations of these water meters have adverse consequences for black households, especially as millions were destitute and unemployed. Providing them with water is to ensure equality. Tissington (2011:20) agrees that the equality clause in section 9 of the Bill of Rights in the Constitution prohibits the state from unfairly discriminating "directly or indirectly against anyone on one or more grounds.

Hence, McDonald & Pape (2002:26) argue that "in the context of South Africa public sector managers are more aggressive than their private sector counterparts when it comes to cost recovery." These water billing inconsistencies are impacting many households as many cannot pay the water bills. Several meetings with councilors in Ward 92 and even with the Mayor of Cape Town have not addressed the problem.

Unless something is done to stop this trend more and more residents living in the townships would continue to face water challenges in different forms. This is leading to many turning to streams and contaminated water which could lead to the outbreak of cholera (Deedat & Cottle, 2003). Ruiters (2002:5) expands that unlike other basic services like electricity; water has no substitutes and almost always enjoys a 'natural monopoly.' Bond (2002) adds that the

importance of water for poverty alleviation or eradication is clear. The United Nations Commission on Economic, Social and Cultural Rights considers water to be indispensable for leading a life of human dignity and a prerequisite for the realisation of other human rights' (UNCESCR 2002). This is congruent with the United Nations General Assembly Resolution 64/292 on water (UNGA 2000)

Williams (2005) expands that pre-paid meters appear to be the instrument generating increasing poverty amongst blacks. Smith & Hanson (2003) clarify that by 2001, the city embarked on cutoffs of water in Makhaza in Khayelitsha whereas whites who owed the city were allowed to defer payments. This is a problem as Blacks have neither the resources nor the agency to engage the city legally (Nleya, 2011) to reclaim their constitutionally enshrined rights to water services.

Tissington clarifies that in terms of the 1996 Constitution, municipalities are entrusted with the responsibility for, “water and sanitation services limited to potable water supply systems, domestic waste-water and sewage disposal” (2011:21). She explains that the Municipal Systems Act of 2000 outlines the responsibilities of municipalities and water forms part of the “right to basic municipal services” enshrined in the Act (2011:18). Thus, these residents have to be provided with water.

There are huge deficiencies in the research problem as previous studies, like McDonald & Pape (2002); Ruiters (2002); Smith & Hanson (2003) and Rhonda & Harris (2016) have explored the issues of water delivery in Khayelitsha and little has been written on the impact of inconsistent water billing in the City of Cape Town. It is this gap in the literature that this study attempts to bridge.

The audience in this study is very crucial in that by involving Ward Councilor of ward 92 in Litha Park, Faith-Based Organisations (FBO) Leaders and the South African Civic Organisations (SANCO), Residential Civics like Street Committees and heads of households as co-researcher the researcher can get in-depth insights on the conceptions, challenges and impacts of inconsistent water billing at Litha Park.

1.3 The Research Question

The overarching research question this research will seek to address is: what are the impacts of inconsistent water billing in the Litha Park community?

1.3.1 Research Sub-Questions

1.3.1.1 What are the main drivers of the inconsistent water billing in Litha Park?

1.3.1.2 How these challenges are impacting the community of Litha Park?

1.3.1.3 How is the City of Cape Town addressing the water billing inconsistencies in Litha Park?

1.4 Research Aims and Objectives

1.4.1 To investigate the main drivers of inconsistent water billing in Litha Park.

1.4.2 To examine how these challenges are impacting the community of Litha Park

1.4.3 To analyse the steps taken by the City of Cape Town to address inconsistencies in water billing.

1.5 Research Rationale and Justification

Many scholars examined the challenges of water service in Khayelitsha, focusing on various areas. For example, Nleya (2011) examined how Khayelitsha residents turned to protests to address their water delivery shortcomings. Similarly, Rodina & Harris (2016) investigated water services and lived citizenship in Site C, Khayelitsha. Besides, Abang (2019) examined how the Social Justice Coalition employed social audits to compel the City of Cape Town to improve water delivery in Khayelitsha, but the limitations of his study are that he employed mixed-method research but this has shortcomings. Also, there were conceptual limitations.

These conceptual and methodological limitations triggered the need for this research on inconsistent water billing in the Township. These scholars did not look at the impact of water billing inconsistencies on the community. Thus, this study sought to close this gap by examining the impacts of inconsistent water billing in Litha Park, Khayelitsha. This gap justifies this study as an original study with policy value as no previous studies have been conducted on the impacts of inconsistent water billing in any part of South Africa or any municipality or Litha Park.

Though the problem of inconsistent water billing in Litha Park has been reported by many newspapers in the City of Cape Town no scientific research has been conducted at an academic level to determine its impact on the residents in this community. Furthermore, this study adopted a qualitative research approach through a case study in the community of Litha Park to immerse

the researcher into in-depth interviews with Councilor of Ward 92, community members or heads of households, leaders of civil society organisations, leaders of street committees or residential civics like the South African National Civic Organisation (SANCO) and leaders of Faith-Based Organisations (FBOs). The outcome of these interviews provided the impacts of these inconsistent water billings on the residents.

On the other hand, in the same way, that all individuals need money to live, a municipality as an administrative entity also needs money for its upkeep, paying its personnel and securing new infrastructure and maintaining the old ones for development. Before any expenditure, money must first be obtained from one source or another (Cloete, 1993:82). In this light, finance is like the oil that keeps the engine of the municipality running from ceasing and without it there cannot be any infrastructural development in the City of Cape Town (Craythorne, 1997:391).

Municipalities are mandated to make adequate provisions for basic services like water to the various residents. These actions require adequate resources, which are to be raised by consumers. Inadequacies in management could be high proportions of non-revenue, poor billing arrangements, limited metering, and non-viable pricing. In most cases, inconsistent water billing hurts the residents and this creates a trust deficit in these communities leading to protests and other forms of bottom-up engagements with the municipality.

The study will add another layer of scholarship on how communities are engaging the municipality to ensure that there is consistency in water billing in the communities as inconsistent water billing is impacting negatively. The study will assist the researcher to gain insights into the causes of water billing inconsistencies. It will analyse these issues, and develop recommendations that, if adopted by the municipality will improve water billing in this community.

1.6 Research Setting

This section foregrounds the research site which is Litha Park, in Khayelitsha, Cape Town. The area is about 27 km from the Central Business District of Cape Town. The research setting of a study foregrounds the study. Geert (1993) concurs that most of what we need to understand about a social phenomenon is situated as background information before the actual phenomenon is examined. Seekings (2013:1) explains that the area is part of the greater City of Cape Town.

He again adds that it was created in 1983 by the apartheid government of the time. He adds that since then the area has remained poor for 25 years later. According to the Leader of a Faith-Based Organisation¹ in the community, the area was created in 1991 and the houses are bank houses. This study will examine the impacts of inconsistent water billing in Litha Park.

1.7 Key study concepts

1.7.1 The concept of Service Delivery

According to Hemson & Awuso-Ampomah (2004:512), service delivery includes not only the ability to provide users with services needed or demanded, but also a sense of redress; that the services should raise the standard of living of the majority and confirm their citizenship in the new South Africa. They add that in a society of growing inequality service delivery is seen as an instrument for leaping over the contradictions and ensuring a 'social contract' with people, especially those who had been neglected for centuries. According to Rakate (1995:118), service delivery is the provision of public activities, benefits, or satisfaction to the citizens. Rakate (2006:20) notes that service delivery relates to both tangible and intangible public goods and services. In the context of Khayelitsha, Nleya (2011:9) notes that service delivery since 1996 encompasses an array of municipal services like housing, electricity, water, sanitation, refuse removal, roads, street lights, storm-water removal and drainage services, inter alia.

1.7.2 The concept of Cost-Recovery in Water Delivery

Kumar (1996) explains that the cost involved in operating a water supply system can be broken down into two components. The first is a fixed cost, which is mainly concerned with borrowed money from the financial institutions for the implementation of the project. The fixed cost contains mainly: the repayment of the principal amount borrowed and the repayment of interest on borrowed capital from these lending agencies. The second component involves variable costs in water delivery. These costs deal mainly with operation and maintenance costs of the system and sinking funds for the future replacement of the system. These costs include administrative expenses like salaries and wages, repair and maintenance charges, chemicals and consumables, electricity charges and depreciation charges.

¹ Bishop Mtsolo a well-known leader in the community and an anti-poverty activist.

1.7.3 The Concept of Municipal Billing Systems

Mazibuko (2014:1) explains that municipal billing, revenue collection, and administration could be seen as some of the important functions of municipal government and administration; however, this is the field of municipal financial management.

Mazibuko (2014) adds that these municipalities must have municipal billing systems as a financial application that can serve as mechanisms for municipal revenue collection. Without the municipal billing system, it means that manual collection of revenue will be the practice and as such bills or invoices have to be processed by hand. In these cases, these bills will not reach customers/residents in time. Mazibuko (2014) adds that incorrect bills can be generated through these manual invoicing systems and this can create problems and unending complaints from the customers who are also taxpayers. Thus, the billing system is of paramount importance as this can negatively impact both the revenue stream of the municipality and the residents in the community like in Litha Park.

1.7.4 The Concept of Inconsistent or Incorrect Water Billing

Schindlers Attorneys (2015) note that a water bill can be incorrect for many reasons and the most common reason is that the municipality has not recorded that a change of meters has taken place at the premises, and continues to bill based on estimated charges about a meter that has been removed and replaced by another meter.

1.7.5 The Concept of Public Administration

According to Mthetwa (2014), public administration happens when more than one person works together to accomplish objectives. It is the implementation of government policy and the academic discipline that studies the implementation and also prepares civil servants for working in the public service. Craythorne (1990:49-52) states that public administration is broad-ranging and amorphous, the combination of theory and practice to provide a superior understanding of government and its relationship with society, encouraging public policies more responsive to social needs, and situating managerial practices attuned to effective, efficiency and human need of citizens.

1.8 Chapter Summary

This chapter explored the background to the study, the problem statement, its aims and objectives, the overarching research question, the rationale of the study, its research setting and the organisation of the study and also an overview of the entire study.

The current chapter explored the background to the study where it was revealed that many Black South Africans were previously deprived of clean drinkable water. Post-1996 the system was overhauled through the enactment of the 1996 Constitution, which recognised water as a basic human right in its Chapter Two. The problem statement was discussed and an indication was that, privatisation of water negated the 1996 SA Constitutional aspirations of ensuring that all South Africans have access to clean water, owing to vast inequality and poverty.

1.9 Chapterisation

Chapter 2 examines deeply the literature review, which comprises the conceptual framework such as the concept of service delivery in South Africa, cost-recovery in water delivery, inconsistent water billing and municipal billing systems and also the concept of public administration. It also examined water policies, both national and international and the South African Constitution and its stance on the right to water and also international legislation supporting the provisioning of water to all. It also discussed water policy and law in post-1996 South Africa. It also explored the birth of Local Government and its role in delivering water and theories of New Public Management and the notion of water billing.

Chapter 3 examines the research methodology of the thesis. The concept of research methodology, research paradigm, qualitative research approach, research design, sample selection, data collection methods, data analysis, data collection methods, data analysis, data verification / trustworthiness, credibility and transferability.

Chapter 4 presents the research findings pertaining to the impacts of inconsistent water billing on the residents of Litha Park in Khayelitsha.

Chapter 5 concludes the study by presenting overall remarks and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

The preceding chapter explored the background of the study as it examined the problem statement, the overarching research question, its aims and objectives and the rationale of the study. This chapter will review the related literature on the main concepts like service delivery, cost-recovery in water delivery, inconsistent water billing and municipal billing systems and also the concept of public administration is examined and water policies both nationally and internationally are discussed. The researcher additionally examined the legislative framework supporting the provisioning of water to all. It will also examine the theories like New Public Management and water billing.

2.1 The Conceptual Framework

2.1.1 The concept of Service Delivery

According to Hemson & Awuso-Ampomah (2004:512), the concept of service delivery is more encompassing and includes not only the ability to provide users with services needed or demanded, but also a sense of redress; that the services should raise the standard of living of the majority and confirm their citizenship in the new South Africa. They add that in a society of growing inequality and uneven advances in education and training, service delivery is seen at times as an instrument for leaping over the contradictions and ensuring a 'social contract' with people, especially those who had been neglected for centuries.

According to Rakate (1995:118), service delivery is the provision of public activities, benefits, or satisfaction to the citizens. Besides Rakate (2006:20) points out that service delivery relates to both tangible public goods and intangible services and these services can be done by government institutions and organisations including private companies.

McLennan (2012:4) describes service delivery as the totality of goods and services provided by the state to the general public. She adds that these goods encompass social issues like education and health, economic, like the provision of child and old age grants, infrastructures like water, electricity, and toilets and also waste removal services.

In the context of Khayelitsha, where Nleya (2011:9) did her research she captures that service delivery, since 1996 encompasses an array of municipal services like housing, electricity, water, sanitation, refuse removal, roads, street lights, storm-water removal and drainage services, inter alia. Nleya (2011) contends that in these townships, service delivery is critical as during Apartheid blacks were denied these basic services. These services encapsulate all that the state provides to citizens as their rights and/or entitlements in the new democratic order.

2.1.2 The Concept of Cost-Recovery in Water Delivery

Cost recovery refers to the practice of charging consumers the full costs of providing services like water. As mentioned earlier, cost recovery is a simple one: the recovery of all, or most, of the costs associated with providing a particular service by the service provider. For publicly owned entities or water supply agencies, this may or may not include a surplus above and beyond the cost of production, while for private sector providers it necessarily includes a surplus or a profit. In both cases, the goal is to recover the full costs of production

Kumar (1996) explains that the cost involved in operating a water supply system can be broken down into two components. The first is a fixed cost, which is mainly concerned with borrowed money from the financial institutions for the implementation of the project. The method of debt servicing or repayment depends largely on the financing pattern of these institutions. The fixed cost contains mainly: the repayment of the principal amount borrowed and the repayment of interest on borrowed capital from these lending agencies.

The second component involves variable costs in water delivery. These costs deal mainly with operational and maintenance costs of the system and sinking funds for the future replacement of the system. These costs include administrative expenses like salaries and wages, repair and maintenance charges, chemicals and consumables, electricity charges and depreciation charges.

Whittington et al. (1991:179) explain that for most water agencies the actual water supply situation in the developing world is “typically something of a mystery” with limited knowledge of how households secure water, its use, costs, or how many households might be willing to pay for improved services.

The international experience underscores the fact that there are “obvious dangers in designing water supply systems without reasonable information on what services people want and for what

they are willing to pay” (Briscoe et al, 1990:128). According to the World Bank (1987:117), the design of water supply projects in rural parts has been overly supply-oriented to the neglect of crucial considerations concerning consumer demand, and their willingness to pay.

The World Health Organisation (WHO) (1990:56) adds that in many countries, the issues of cost-recovery and sustainability were ignored for a long time. As a result, tariffs set were unrealistic and frequently there has been an insufficient government subsidy to make up the shortfall in the costs of the service provided. The outcome is that the infrastructure has deteriorated and quality has declined.

On the contrary, inadequate cost recovery will result in an inability to operate and maintain existing supplies with a consequent increase in leakage, water supply interruption and likely deterioration in both the quality and quantity of the water supplied. This will lead to increased public health risks, morbidity and mortality rates and an increased burden on the health system.

2.1.3 The Concept of Municipal Billing Systems

As intimated earlier, following the end of Apartheid, the ANC embarked on reforms. These reforms led to the birth of the new Constitution and the creation of local government or the municipality closer to the people to deliver basic services. For these new entities being viable the legislative framework provides that the various municipalities in the country must be sustainable. Mazibuko (2014:1) explains that municipal billing, revenue collection, and administration could be seen as some of the important functions of municipal government and administration; however, this is the field of municipal financial management.

Mazibuko (2014) adds that these municipalities must have municipal billing systems as a financial application that can serve as mechanisms for municipal revenue collection. Without the municipal billing system, it means that manual collection of revenue will be the practice and as such bills or invoices have to be processed by hand. In these cases, these bills will not reach customers/residents in time. Further, Mazibuko (2014) adds that incorrect bills can be generated through these manual invoicing systems and this can create problems and unending complaints from the customers who are also taxpayers. In this light, the billing system is of paramount importance as this can negatively impact both the revenue stream of the municipality and the residents in the community like in Litha Park.

Mazibuko (2014) explains that the Municipal billing systems are critical instruments for the success of correct data, clean bills and positive revenue collection input into it and the improvement of public confidence in the system of the municipality. According to Allan (1993:25), the assessment and the billing of taxes and other revenue are the two most important tasks faced by local governments in their daily operations. If a municipality fails to accomplish these tasks, it reduces its revenue stream available to finance its activities and provides services to the residents like those in Litha Park.

The Nelson Mandela Bay Municipality (2006) elucidates that billing means invoicing on municipal accounts to an account holder of an amount or amounts payable for assessment rates, metered services, other municipal charges, levies, fees, taxes, or any other amount or amounts payable arising from any other liability or obligation. Mazibuko (2014) explains that the municipality defines the billing cycle as the time frame which dictates when a bill is generated for a selected account. The time frame for a billing cycle could conceivably vary from weekly to annually and may apply to all debtor accounts or selected subsets of these accounts.

According to Bell (2005), a billing system is a combination of software and hardware that receives call details and service usage information, groups this information for specific accounts or customers, produces invoices, creates reports for management, and records or posts payments made to customer accounts. Mazibuko (2014) expands that a billing system is an online tool, a real-time solution, which provides access to transaction processing, data and information at the point of use, ensures that data facilitates functionality improvement, integrated, has an open architecture that facilitates replacement or additions and intuitive to export data in a standard format from all parts of the system to standard office application.

2.1.4 The Concept of Inconsistent or Incorrect Water Billing

Schindlers Attorneys (2015) note that a water bill can be incorrect for many reasons and the most common reason is that the municipality has not recorded that a change of meters has taken place at the premises, and continues to bill based on estimated charges about a meter that has been removed and replaced by another meter. Another common cause of incorrect billing for water charges stems from the municipality failing to account for the number of households at the property in multi-dwelling settings.

According to Schindlers Attorneys (2015), there are three possible reasons why you may have suddenly received an unusually high-water bill:

- i. Overestimated the amounts that you should be charged for based on estimated readings;
- ii. Made a billing mistake on the account and it is not correct, or
- iii. You have a water leak at the premises.

2.1.5 The Concept of Public Administration

As intimated earlier, post-1996, the government introduced the local government as a new sphere to deliver water. Thus, these services had to be delivered by the municipality. This places this study within the realm of public administration as these municipal services have to be delivered by the municipality and its councilors.

According to Mthetwa (2014), public administration is dynamic as it happens where more than one person works together to accomplish objectives. It is the implementation of government policy and the academic discipline that studies the implementation and also prepares civil servants for working in the public service.

These endeavors are critical as the objectives of public and private management differ, and in public administration, there is the democratic influence that affects the way problems and needs are considered, analysed, and solved. It is sometimes tempting to adopt the business jargon of private sector management, but the danger of this lies in the possibility of introducing into the public sector methods that are inappropriate and not easily adaptable to democratic norms. The outcome could be a form of technocracy, which, in ignoring human values and societal norms, becomes cold and remote and self-defeating.

Craythorne (1990:49-52) states that public administration is broad-ranging and amorphous, the combination of theory and practice to provide a superior understanding of government and its relationship with society, encouraging public policies more responsive to social needs, and situating managerial practices attuned to effective, efficiency and human need of citizens.

Public administration is the accomplishment of politically determined objectives and it is more than the technique or even the orderly execution of programs (Cloete, 1988) and Dimock and

Dimock, 1969:13). However, public administration is also concerned with policy; for in the modern world, bureaucracy is the chief policy-maker in government (Marx, 1947). As public administration is problem-solving, it is as much involved with the formulation of the policies by which agencies are guided, as it deals with the execution of policies through the practical, down-to-earth, action-oriented program (Cloete, 1989).

2.2 Analysis of Selected Legislative Framework

2.2.1 South African Constitution in relation to Water Provision

Exploring water provision from a constitutional basis, the importance of service delivery to communities cannot be overemphasised as Chapter 2 of the Constitution and its Bill of Rights, Section 26 and 27 relates to rights to services that must be provided to citizens by all organs of the state.

These rights include food, water and social security (s27)

27 Health care, food, water and social security; (1) everyone has the right to have access to:

- (a) Health care services, including reproductive health care;
- (b) Sufficient food and water; and
- (c) Social security, including, if they are unable to support themselves and their dependents appropriate social assistance

(2) The state must take reasonable legislative and other measures within its available resources to achieve the progressive realisation of each of these rights.

(3) No one may be refused emergency medical treatment (Constitution of the Republic of South Africa 1996: 1255)

2.3 Examination of the Legal Framework and the Functions of a Municipality in relation to Water Provision

Before addressing these issues, it is helpful to set out briefly the legal framework governing the supply of water and the powers and functions of municipalities in relation thereto. In terms of the South African Constitution Act, 108 of 1996 s27, everyone has the right of access to ‘sufficient

food and water'. Also, the State is enjoined to take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights.

A municipality has the executive authority in respect of and has the right to administer . . . 'potable water systems' and must perform the executive and legislative functions within certain parameters set down in national legislation. In terms of s74(1) of the Systems Act 32 of 2000 a municipality is obliged to adopt and implement a tariff policy on the levying of fees for municipal services which complies with the Systems Act, the Municipal Finance Management Act 56 of 2003 and other applicable legislation. This was to ensure that water reaches all.

In terms of s74 (2) of the Systems Act, tariff policies must reflect various principles including (but not limited to) the following: (a) Users of services must be treated equitably in the application of tariffs; (b) The amount that individual users pay for services should generally be in proportion to their use of that service; (c) Tariffs must reflect the costs reasonably associated with rendering the service, including the capital, operating maintenance and administration and replacement costs, and; (d) Tariffs must be set at levels that facilitate sustainability of the services, taking into account subsidisation from sources other than the service concerned.

The general power of a municipality to levy and recover fees, charges and tariffs in respect of any service is sourced in s 75 (A (1) of the Systems Act. Section (2) provides that fees, charges, or tariffs are levied by a municipality by resolution. There is then the Water Services Act 108 of 1997 which, together with the Systems Act, enjoin municipalities to give effect to the right of access to water protected in the Constitution, subject to applicable norms and standards, including in relation to tariffs. The Act was to ensure that water reaches all the people.

[14] Section 11 of the Water Services Act imposes important aspects of the duty progressively to ensure access to water services on water services authorities. That makes expressly subject to 'the duty of consumers to pay reasonable charges which must be in accordance with any prescribed norms and standards for tariffs for water services.'

All these relate to the obligations of the municipality towards its constituencies. Therefore, citizens expect their municipalities to meet their service delivery needs. Especially as a municipality is the sphere of government closest to the people; they are elected by the citizens to represent them and are responsible to ensure that water is delivered to the community.

In terms of jurisprudence or Case law, one can also cite the case of the Capricorn District Municipality v South African National Civic Organisation (SANCO) (237/2013) [2014] ZASCA 39 (31 March 2014) which the Supreme Court of Appeal ruled in favour of SANCO with the view to compelling the Capricorn District Municipality to fix water leakages and supply water to the community.

2.3.1 Water Policy and Law in post-1996 South Africa

As mentioned earlier, post-1996 Water management in the country was placed under the ambit of two Acts of Parliament, which are the Water Services Act (WSA) and the National Water Act (NWA). While the WSA focuses on water services, on the other hand, the NWA is dedicated to water resources management.

As stated earlier, the principal objectives of the WSA are to fulfill the rights to basic water supply and sanitation and to set the standards for tariffs for water services. To achieve this goal, the Department of Water Affairs developed the SFWS in the country (RSA, 2003) to inform the development of detailed strategies for the water sector. Hence, the Strategic Framework for Water Services (SFWS) is the operational manual for the fulfillment of both the WSA and the Constitution as it relates to water services.

The SFWS sets the following targets pertaining to the attainment of universal access to basic water supply by 2008, universal access to basic sanitation by 2010, all schools to have adequate water supply and sanitation by 2005, clinics by 2007, all bucket toilets eliminated by 2006, free basic water available in all areas by 2005 and free basic sanitation by 2010. Interestingly, decades later, none of these ambitious targets has been attained and these failures have placed the South African government and the municipalities at odds with the citizens, leading to the rise of urban social movements (Abang 2019).

2.3.2 The Free Basic Water Policy 2001

South Africa's Free Basic Water Service policy was conceptualised by the ANC in the run-up to the 2000 local government elections and was subsequently endorsed by both the ANC and the Democratic Alliance as part of their campaign (McDonald, 2002; Muller, 2008).

As part of the policy, the ANC promised 6 000 liters of water and 50kWh of electricity, the so-called free basic water (FBW) and free basic electricity (FBE), respectively. For Muller

(2007:40), this policy represented a fundamental shift in ANC policy; from the RDP, which in his analogy ‘had avoided promising “a pie in the sky.” Mehta (2005) points out that the announcement of the FBW policy took even senior bureaucrats at the DWAF by surprise, and they had to work out the details of the policy afterward.

McDonald (2002a; 2002b) explains that the free basic policy is only a variation of the block tariff, which has the first step provided free of charge, with subsequent steps at gradually increasing tariffs. Though it was a progressive policy step to aid the poor by providing free lifeline water supplies, however, the policy has not been without problems. A large number of deserving citizens still have no access to free basic water. Also, it has been argued that the 6 000 liters per household per month are inadequate.

As explained earlier, the researcher notes that *L. Mazibuko and Others v. City of Johannesburg and Others* provided the first real opportunity to define the right content of the right to water. The result was that the Constitutional Court endorsed cost recovery as a key element of the financial sustainability of water service providers. It must be reiterated that the source of funds for free basic water is envisaged to be cross-subsidisation of ‘low volume’ consumers (presumably poor households) by ‘high volume’ consumers (presumably rich households). This Free Basic Service was to ensure that all South Africans have access to water.

2.3.3 The Strategic Framework for Water Services (SFWS) (RSA, 2003)

The Strategic Framework for Water Services (RSA, 2003) defines the aim of the Free Basic Water policy as ‘to assist in promoting sustainable access to a basic water supply by subsidising the ongoing operating and maintenance costs of a basic water supply service’ (RSA, 2003:29). The Department of Water Affairs and Forestry sees this policy as a reasonable measure within the available resources towards the fulfilment of the constitutional imperative of providing access to sufficient water. DWAF contends that South Africa’s economy is large enough to finance the fulfilment of the FBW policy (RSA, 2003).

The execution of the FBW policy has proved a challenge as Mehta (2005) explains that for many municipalities, lack financial and institutional resources remained the order of the day. Further, Mehta (2005) observes, that municipal bureaucrats have argued that the free basic water policy has impeded consumers’ willingness to pay for services. However, the FBW policy has been

reinforced by the courts as a means of concretising the right to access to sufficient water enshrined in the Constitution. This is supported by Jurisprudence or case law in *L Mazibuko v City of Johannesburg* where the Supreme Court of Appeal revised the 6 000 liters of free water per household per month upwards, to 10 080 litres per household per month.

Mehta (2005) points out more arguments that must be considered in the implementation of the FBW policy. She argues that rights-based approaches undermine the people they are supposed to empower, by fostering a dependency syndrome. Mehta adds that by failing to fulfil the financial obligation necessary to provide them with water, citizens are rescinding their responsibility. In response to this criticism, Mvula Trust, the main water and sanitation Non-Governmental Organisation states that although indigent cases deserve special treatment, they still require some form of input (like labour or participation in water user associations) to foster a strong sense of citizenship (Mehta, 2005).

For the pro-Free Basic Water group, the policy does not go far enough to uproot poverty and inequality as it does not address infrastructural inequities in the townships. McDonald (2002a) further argues that the 6 000 liters offer little respite or interval for low-income households, which are generally larger households than those of affluent families. This seems to suggest possible, unintended subsidisation of the affluent households. McDonald adds that implementation delays in some municipalities have denied many people in the townships free basic water services. This policy was to ensure that citizens have access to water.

2.3.4 The National Planning Commission (NPC)

The National Planning Commission was a panel of experts created by then-President Jacob Zuma in 2011 to identify the key development challenges affecting South Africa. In the course of their work, the commission then developed the National Development Plan (NDP) of 2030.

The national planning commission promises that before 2030, all South Africans will have affordable access to sufficient water and hygienic sanitation to live healthy and dignified lives. The NDP again hopes that while municipalities will retain responsibility for ensuring adequate service provision in its areas, regional utilities will provide services in areas where municipalities have inadequate, or technical and financial capabilities. The NDP also identified the provision of potable drinking water to residents as one of the key challenges that the government was facing

and advised that by 2030 efforts should be made by the various municipalities and water service delivery agencies to ensure that there is enough portable drinking water for all citizens and also enough water for hygiene and sanitation.

2.3.5 The Justification for Cost-Recovery

This section explores the rationale behind the introduction of cost-recovery on water supply. To respond to these questions two streams of arguments would be employed. The first is the fiscal and the second is the moral arguments for the cost recovery in the water supply.

2.3.5.1 Fiscal Argument

The most important reason advanced for cost-recovery in water delivery is the need to ‘balance the books.’ As the World Bank (1996:44) notes that it is “a matter of good public fiscal practice” allowing the government to reduce the tax burden and thereby attract and retain human and financial capital? In most cases, some have argued that cost-recovery in townships reduces the need for cross-subsidisation from industry and higher-income households. This makes the municipality a financially attractive place. Besides, cost-recovery is vital to sustaining services on a long-term basis. Without cost recovery, the state will not have the funds to invest in future services and infrastructure upgrades. Many see cost-recovery as pro-poor because it provides the fiscal basis for further service improvements and expansion (Brook and Locussol, 2002:37).

In South Africa, the government has adopted a similar line of argument which is stated in the White Paper on Water Supply and Sanitation Policy (RSA 1994:23) if the government does not recover operational and maintenance costs, there will be a “reduction in finances available for the development of basic services for those in the townships and low-income areas. In this light, it is not sustainable for any community to expect not to pay for these services as it is not the government that incurs the losses, but rather the poor with low-income.

2.3.5.2 The Moral Argument

The other argument emanates from the moral argument which stems from the liberal notions of rights and responsibilities. They argue that rights go with responsibilities and therefore if people have “rights” to a service like water, then they also have the “responsibility”.

As mentioned earlier, the 1996 South African Constitution and its Bill of Rights is a classic expression of this argument. “Everyone has right,” for example “to have access to sufficient food

and water” (Bill of Rights, section 27 (1) (b)). But these rights are met with obligations. In this light, the Department of Water Affairs and Forestry in 2000 published a newspaper advertisement titled “knowing your water and sanitation rights and obligations” in which it stated that one obligation is “paying your bills for services rendered”.

Also, the Municipal Systems Act (RSA 2000a s52 6) explains that this obligation applies across the board, with residents having the duty to pay and this obligation applies across the board, to pay for all of their municipal services like property tax, water bills, and others. Whittington, Laura and Mux (1991) add the willingness to pay literature which argues that most people in low-income households accept their civic responsibility to pay the full costs of service delivery, and are happy to do so as long as these services are reliable, affordable and of good quality. At this juncture, the study shall examine the merits and demerits of cost-recovery.

2.3.5.3 The Merits and Demerits of Cost-Recovery

Clean water supply services are known to provide benefits to communities in the form of health, opportunities for women and children and poverty reduction in poor communities. Hence, water services need to be improved, especially for those in townships that lack access to water services. Thus, long-term planning is needed on how costs can be recovered to ensure sustainability and costs are recovered from users, donors, governments, or others.

As mentioned earlier, cost-recovery is about consumers paying partial or full costs for their municipal services. MacDonald (2002:87) adds that municipalities use it to balance their financial books, avoid deficit financing, and to stabilise finances for service delivery. It is intended to generate revenue for future services, upgrades and extensions of water infrastructure.

Besides, cost-recovery can open opportunities for governments to sell services or for private companies to run. Since those companies would not be interested in buying utilities they lose money. In this light, cost recovery is often seen as a pre-condition for privatisation.

According to the Human Development Report (2003:120), cost-recovery in the water sector matters because although aid programs are increasingly multi-sectorial, urgent needs for health and education, along with high debt service levels within developing country’s governments, constrain traditional sources of funding for the sector.

The Human Development Report (2003:124) further indicates that cost-recovery principles matter in the context of governance, as the gaps in an institutional and administrative capacity in many government departments are wide, translating into less efficient planning and budgeting for the water sector. According to the Report, to reduce the gaps in service provision, cost-recovery should and does play a critical role. Drinking water programs and projects are known to bring wider benefits to communities in the form of health, opportunities for women and poverty reduction (Bhatt et al, 2002:67).

Given the overall societal gains that can be achieved, water services should be improved, especially for those in the townships. However, despite all efforts, internationally the number of people without improved water supply services remains practically the same in the past 10 years, and the majority of the people without services are those living in rural areas (WHO/UNICEF, 2000). Cost-recovery is a challenge towards sustainable drinking water as many cannot afford to pay (IRC-International Water and Sanitation Centre, 2001a).

According to Terry and Calaguas (2003:90), cost-recovery should and does play a critical role in the water sector to reduce the gaps in service provision. Without cost recovery, financially strapped local authorities are unable to finance network expansions into peri-urban and rural areas, to properly maintain the existing services. They further indicate that low service levels and poor water quality decrease the willingness of customers to pay, which in turn lowers the service level. Poor cost recovery can lead to the waste of a possibly scarce resource, an inability to maintain machinery (such as pumps), and possible health risks if people are compelled to use an alternative, and often unsafe, sources of water.

Hence, low levels of cost-recovery from users and other sources lead to insufficient income for the effective and efficient operation and management of the service. This implies a poor ability to invest in the sector, whether through human investment or capital investment. As a result, poor service leads to the dissatisfaction of users, thus decreasing willingness to pay, which, on top of the already poor cost-recovery levels, further exacerbates the system.

2.3.5 The Importance of Cost Recovery in Water delivery

The provision of clean water to consumers entails a cost both in terms of initial capital outlay of infrastructure and ongoing operation, maintenance, management and extension of water services.

However, because of poor planning of cost-recovery, a lack of government funding and inadequate tariff rates, the ability of the water services sector to recover costs is often limited even for routine operation and maintenance. This has led to problems in efficiently providing sustainable water services to townships in South Africa.

Hilary et al. (1999) note that cost recovery is widely recognised as an indispensable component in sustainable water service delivery. Cost recovery is only one of several conditions that must be present to ensure the continuation of benefits intended by community water projects. Nonetheless, it is an aspect that continues to draw an inordinate amount of attention, in the country, because of the swift impact that failed cost recovery can have on service provision and community development (Hilary et al, 1999). Cost recovery is crucial for long-term planning and sustainability of the water service sector that costs are recovered by some device, whether through an application of full-based charges to consumers or by government support to the water agency. In the event that cost-recovery and funding are being neglected, it will lead to deterioration of infrastructure, which could lead to the breakdown of systems, absence of an adequate water supply and an increased public health risk of diseases (Hazelton, 1997:34).

The inclination to pay for water services amongst consumers should be encouraged and maintained as this leads to a sustainable water supply. On the other hand, if consumers do not pay for services this would become problematic and later the sustainability of water provision will be compromised. Rogerson (1996) holds that for service quality to be maintained customers need to be encouraged to pay for water.

Though General Comment No.15 unambiguously states that 'water service is a public good fundamental for life and health' (paragraph 1), it does not exclude cost recovery for water services or public ownership of water supply. Bakker (2003) states that ownership of water services has fluctuated between public and private ownership throughout modern history, but the adoption of a set of four principles of the 1992 International Conference on Water and the Environment held in Dublin (the Dublin Principles) indicated the coming of age of a new water development model. The fourth principle in particular articulated the shift towards market approaches: water has an economic value in all its competing uses and should be recognised as an economic good (ICWE, 1992).

In the context of South Africa, the SFWS states that the vision of water services is to ensure that ‘all people living in South Africa with adequate, safe, appropriate and affordable water and sanitation services’ (RSA, 2003:9). Cognisant of the fourth Dublin principle, then-Minister of Water Affairs and Forestry Mr. Ronnie Kasrils pointed out that:

Water is treated as both a social and economic good. Once our social needs have been met, we manage water as an economic good, as is appropriate for a scarce natural resource. (Kasrils, 2003; cited RSA, 2003)

In keeping with this, the SFWS emphasises that tariffs should produce acceptable funds for maintenance, operations and investment needed for water provision, with due consideration for the affordability of water to the poor; and that water service should operate on sound business principles (RSA, 2003). The implementation of this cost recovery policy has been widely condemned as being detrimental to those in Townships like Khayelitsha. In one example, cost recovery policies were linked to a cholera outbreak in part of KwaZulu-Natal, when poor people were forced to rely on water from contaminated sources (Deedat & Cottle, 2003).

Similarly, Smith (2004) illustrates how water cut-off for non-payment in townships within the City of Cape Town was always experienced by low-income households, whose multiple-family plot occupancies inflate the bill to the shared water point. Water providers place a quality on compliance, without regard to the hardships experienced by those in the Townships. Hence it is vital to explore the debate on the non-payment of water services in South Africa.

Scholars have presented reasons to explain the non-payment of municipal services in South Africa, the most prominent being the ‘culture of non-payment’ argument (McDonald, 2002a; Chipkin, 1995). While rent and services, payment boycotts formed a potent political weapon during the anti-apartheid years. The mandates given to the ANC in the elections since 1994 make it incredible that the state lacks popular support (Chipkin, 1995); although Tapscott (2005) notes that South Africans have little faith in the workings of the municipality. In an investigation by Goldblatt (1999) in the low-income areas and their willingness to pay for municipal services like water, it emerged that poor payment levels were not due to issues of entitlement to free services; but rather wider political and economic issues.

2.4 The Different Mechanisms for Water Services Cost Recovery

2.4.1 Flat Rate

According to Sedikila (2008), this entails all households in a community contributing an equal amount. The literature adds that the advantage of this system is that it can be community-driven and requires limited investment. The literature also adds that the disadvantage of this approach is that household consumption does not play any role in the payable rate. The municipality is still responsible for the operation and maintenance of the service.

2.4.2 District Metering

Sedikila (2008) notes that with district metering consumption in a specific area like, a village or a community is measured. The literature adds that a reservoir or tanks and water can, therefore, be distributed more equitably among the various areas benefiting from a commonly shared water source. It further adds that the advantage of this system is that water usage can be measured and controlled to an extent, but it ignores the individual household' consumption patterns as it varies.

2.4.3 Prepaid Systems

Sedikila (2008) notes that in this system, the municipality should theoretically recover the operation and maintenance costs of water delivery and the system does this by providing a method of controlling free basic water through programming of the individual household tokens. Sedikila (2008) explains that the system ignored systems already in place at municipalities that previously were responsible for cost-recovery. The literature notes that in most cases, it requires the removal of conventional meters when there is a problem. This system relies heavily on good support infrastructures like electricity and telecommunication networks.

2.4.4 Conventional Metering and Billing

This system in the view of Sedikila (2008) is the most commonly used by many municipalities to implement cost recovery in water billing services. Sedikila (2008) adds that the system provides that all households are provided with a direct-metered connection and these meters are then read on a pre-determined cycle that may vary from monthly to say quarterly. Sedikila (2008) again adds that the data is then captured in a billing system and a bill is produced which is then sent to the consumer through the mail, hand delivery and any other means. The responsibility is on the consumer or resident to pay the bill at the nearest municipal offices.

2.5 An Exploration of Cost-Recovery Challenges in Municipal Billing in Post-1996

In terms of the White Paper on Water Supply and Sanitation Policy (1994:23) communities must pay for the operation and maintenance costs of water delivery to ensure both equity and sustainability in its delivery. Therefore, in the event that communities cannot pay and the government must cover these costs on their behalf, the result is a rapid reduction in finances available for the development of municipal services for those citizens who have nothing.

Hence, cost-recovery has not been the *modus operandi* or working method of the South African government. Interestingly, during apartheid, many White South Africans received subsidised services and infrastructure from the state. MacDonald (2002:10) explains that many White suburbanites and White-owned companies benefited from these subsidies, with service levels and subsidies in White areas that equaled, and often surpassed, many Western European standards. These subsidies came at the expense of black workers and consumers who generated the economic surplus and paid the taxes necessary for extravagant state spending in White areas, but even black community services that were delivered to them received some subsidies too.

MacDonald (2002:5) explains that since 1994 the new government claimed to have provided three million people with access to clean drinking water, connected two and a half million households to the national electricity grid, and built homes for another three million in its five years of office. However, this triumphant optimism fails to mention that millions of low-income households are unable to afford the prices being charged for this basic service-due to increase cost recovery, and are unable to benefit from the infrastructure being provided by the municipality. This is a challenge that ushered in problems in the rural areas.

MacDonald (2002:135) highlights that a case in point of the inability to afford services began in mid-2000 when the Provincial government in Kwa Zulu Natal began charging rural residents for water that they used to enjoy for free. Many low-income households could not afford to pay these high costs of water and began using nearby rivers, streams and stagnant ponds as drinking water sources. This led to a cholera outbreak, which cost the government \$3, 4 billion to arrest.

2.6 Theoretical Framework

This section explores the theoretical framework. These are the New Public Management and the Water Billing theories.

2.6.1 New Public Management

The concept “New Public Management” (NPM) is a label for recent administrative reforms first employed by Hood (1991) (Christensen & Lægreid, (2001:18). Christopher Hood’s 1991 document remains the most cited on this concept (McLaughen, Osborne, & Ferlie, 2002:38).

NPM is a comprehensive neoliberal ideology inspired global reform movement that Hood (1991) describes as a doctrine, or at least a label for a set of administrative doctrines which he and others identified as ‘new’ (Christensen & Lægreid, 2007). NPM emerged during the 1980s and 1990s to replace the traditional model of public management due to a response to the inadequacies of the traditional model (Hughes, 2003). NPM reforms are to improve the quality of public services, save public expenditure, increase the efficiency of governmental operations and make policy implementation more effective (Flynn, 1993).

Farazmand & Pinkowski (2007) view NPM as borrowing and applying concepts and techniques of private sector management in public sector management and reducing the functions of the public sector through contracting out and privatising. In this case of water delivery, it is because the City is utilising private contractors in the delivery of water and the municipality has to act as a management company to ensure that it is sustainable and able to run its finances efficiently. Farazmand & Pinkowski, (2007) criticise the concept as they counter that NPM betrays the public interest by subverting the authority of elected councilors in the municipal councils.

De Vries, Reddy & Haque (2008) state that the NPM model seeks to usher in streamlined and improved government, decentralisation and empowerment, customer satisfaction, and enhanced mechanisms for public accountability. NPM has been described as managerialism or market-based public administration. The NPM concept best practice that aims to improve the local government management is one-stop shops and agencies where citizens can deal with several public services at the same address and avoid the hassle of going to different departments.

The World Bank (2002) recognises four elements of good governance: a) Public Sector Management emphasising the need for effective financial and human resources management

through improved budgeting, accounting and reporting and rooting out inefficiency in public enterprises through restructuring b) Accountability in public services, including effective accounting, auditing, and decentralisation and generally making public officials responsible for their actions and responsive to consumers c) a predictable legal framework with rules known in advance, a reliable and independent judiciary and law enforcement mechanism and d) availability of information and transparency to enhance policy analysis, promote public debates and reduce the risk of corruption.

Caiden (1988) notes that in South Africa, post-1994 the new government embarked on administrative reforms as a managerial tool for re-organising the new state and its public sector to realise its expectations of the economy, efficiency, productivity, and effectiveness and responsiveness. In many parts of the world, these administrative reforms have flourished. Caiden (1988) adds that administrative reform hinges on the idea that man should not wait for changes to occur naturally rather he should expedite the process by artificial means, improvements in the world order.

Thus, NPM consists of deliberate changes to the structures and processes of public sector organisations to get them to run better (Pollitt & Bouckaert, 2000:8). The first strand of thought emphasises managerial improvement and restructuring which includes decentralisation, disaggregation and downsizing. In this view, Holmes and Shand (1995) describe NPM as “a good managerial approach,” contending that a good managerial approach is result-oriented (efficiency, effectiveness and service quality). Minogue (2001a) expands that NPM has brought the benefits of cost-efficiency and service effectiveness to public management and improved efficiency and obtaining value for money by focusing on performance management and auditing. Manning (2001) believes that NPM encourages governments to concentrate on the efficient production of quality services.

In addition, NPM replaces highly centralised hierarchical organisation structures with decentralised management because NPM involves restructuring and reducing the size of the public sector, re-organising and slimming down central civil services (Minogue, 2001b). The other strand of NPM ideas emphasises markets and competition, which include contracting out and adopting private sector styles of management practice. In this second strand, NPM can be defined as a set of particular management approaches and techniques which are mainly borrowed

from the private sector and applied in the public sector. It is perceived as an ideology based on the belief in the efficacy of markets and competition and business-like management ideas and practices (Ferlie et al., 1996).

Several criticisms have emerged about the NPM. The first is that NPM involves a paradox of centralisation through decentralisation. Kaboolian (1998) explains that giving public managers more authority to manage programs may result in concentrating decisions making them. Thus, NPM may lead to centralised decision-making by public managers, rather than encouraging decentralisation in public organisations as it claims to do thus reversing management.

The second criticism concerns applying private sector management techniques to the public sector. Whereas NPM seeks to encourage the use of private sector management techniques, there may be risks associated with adopting some private sector practices (Flynn, 2002). Pollitt (1990) claims that most areas of the public sector and administration have distinct political, ethical, and constitutional and these factors make the public sector different from the private sector. Besides, the relationship between public sector managers and political leaders is of a different order than any relationship with the private sector. Painter (1997) argues that there is danger in using private business models in the public sector because of the contextual differences. Cheung and Lee (1995) note that NPM has limitations in terms of using private techniques for public service. Third, Hughes (2003) argues that perhaps the new managerialism produced by NPM offers transparency so that corruption can be detected easily; the greater stress on measurable performance may impose its challenges.

2.6.2 Water Metering and Billing

This section of the study explores the different explanations about water metering and billing and the various metering theories. These explanations seem to suggest that theories of water billing originated in the United States of America (USA) and were aimed at ensuring that in allocating public service costs to consumers the costs are practical and clear to each consumer using the service. This is to avoid any forms of disagreements over payments as the study in Litha Park reveals.

2.6.2.1 The Aims of Water Metering

Lund (1986) explains that the cost allocation and collection based on actual services used requires metering. He again adds that metering also imposes different sets of costs, installation,

repairs, reading and processing of measurements. Since all these costs have to be taken into consideration, it is plausible that these costs may exceed the ability of users to pay. The literature again agrees that in some cases these costs may far exceed the value of allocating and collecting fees based on actual consumption by the users.

He also adds that while metering has become commonplace for the water supply cost allocation and it is the official policy of the American Water Works Association (AMWA 1983) many systems remain unmetered. This implies that the wisdom of universal water supply metering has not been entirely accepted in many countries, despite the benefits associated with this metering.

2.6.2.2 Benefits and Cost of Metering

Lund (1986) notes that a rational analysis of metering requires clear statements of its benefits and costs. Metering benefits range from the tangible decrease in production costs from conservation accompanying metered service to less tangible philosophical benefits associated with improving the equity of the distribution of system cost among consumers. Lund (1986) explains that metering cost includes financial costs to the utility to install and operate meters and costs for customers from lost water use.

The scholar adds that metering involves a direct financial cost to the municipality. Initial cost includes purchasing meters, meter housing, connection fitting and labour. Operating expenses include the cost of meter reading, processing metered water billing, and meter repair and replacement losses of power to replace meters. Lund (1986) explains that the major tangible economic cost of metering is the reduced consumption accompanying the introduction of metered service. The benefits of reducing consumption are reductions in the short-range. This cost reduction is equivalent to the service use time and the short-range marginal cost of service production. Lund (1986) adds that the conservation benefit of metering implies that consumers are taking action to reduce services used. He adds that metering also incurs direct financial costs like the initial costs, which include purchasing meters, meter housing and meter fittings and labor costs. Operational expenses include meter reading, processing metered billing, meter repair, placement, and losses of power to operate meters.

2.7 Implications of Water Metering in poorer townships in South Africa post-Apartheid

As mentioned earlier, the apartheid system denied many Blacks access to water. To address these inequities the new ANC government introduced the RDP in 1993 to provide water and sanitation to all (Bond 2000), but by June 1996 the government shifted to a new neoliberal macroeconomic policy known as GEAR. This new policy introduced drastic cost measures for public expenditure and instituted the privatisation policy in the country, which led to the introduction of water meters, which ensured that water delivery was privatised with the installation of water meters. These water meters ushered in new sets of challenges in Litha Park as this study would reveal.

As noted earlier, most of these communities' residents are still struggling to improve their socio-economic status as the Apartheid system denied them job opportunities. Smith (2003) points out that the challenges faced by residents in Khayelitsha in 2001 in accessing water and their inability to pay their water bills. The municipality was swift in cutting-off water in these communities while many are illiterate, unemployed and destitute.

Therefore, the globalisation of concepts of water metering without understanding the socio-economic conditions of these communities is one of the limitations of these water billing and metering theories. Also, the quality of water meters installed in American households is not similar to those installed in South African townships. This might be the driving factor for the inconsistent water billings experienced in the townships like Litha Park. In addition, one could factor in the diligent nature of the American meter readers who are quite aware of the consequences of poor meter readings leading to inconsistent water billing. But in South Africa, many meter readers are poorly trained and indisciplined, and in most cases are responsible for these inconsistent water billings in communities like Litha Park.

2.8 Chapter Summary

This chapter has examined the conceptual framework of the study as it unpacked concepts like service delivery, cost recovery, various legislative and policy frameworks governing water delivery in these communities and the international legislative framework supporting the delivery of water to the residents. The study then explored the theoretical framework which is the NPM and the water metering and billing theory. With this, the study navigates to chapter three which deals with the research methodology and methods of the study.

CHAPTER THREE

RESEARCH METHODOLOGY AND METHODS

3.0 Introduction

The previous chapter examined the literature review of the study, which comprised the conceptual and the theoretical framework. This chapter examines the research methodology and methods that were used in gathering the data on the impact of inconsistent water billing in Litha Park. The chapter explains the research methodology, the paradigm, research design, qualitative research design, case study, interviews, telephone interviews, document review, triangulation and analysis of the study and ethical considerations.

3.1 Research Methodology

The research methodology for Webster (1998:64) is the analysis of the principles of methods, rules, and hypotheses employed by a discipline; the development of methods; procedures to be applied within a discipline. Leedy (1993) reads a research methodology as an operating outline within which the facts are placed so that their meanings may be seen more clearly; it details the research design used in the study on the impacts of water billing in Litha Park.

3.2 The Research Paradigm

In conducting research, the researcher must be certain of the type of data to be gathered in answering the research question. Thus, research paradigms assist the researcher in making these crucial decisions. A research paradigm is an inclusive system of related practice and thinking that defines the nature of inquiry (TerreBlanche and Durrheim 1999).

In this study, the researcher utilised social constructivism and the interpretive paradigm to gain insights. Social constructivism in research is concerned with understanding the world or phenomenon from subjective experiences. Hence, this study used meaning (and not measurement-oriented methodologies), such as interviewing or participant observation, that rely on a subjective relationship between the researcher and subjects. “Interpretive research does not predefine dependent and independent variables, but focuses on the full complexity of human sense-making as the situation emerges” (Kaplan and Maxwell, 1994:6). Based on this

understanding of social constructivism the researcher employed a qualitative research method to make sense of the impact of inconsistent water billing.

3.3 Research Design

Miles and Huberman (1994:40) read research design as the bond that holds the research together as it enables the researcher to tie all the key parts of the research project together to assist in answering the central research question (s). Creswell (1994:21) agrees that a research design is a series of events that link the procedures for gathering the empirical data to answer the primary research question on the one hand, and to the ensuing data collection, analysis, and conclusions on the other. It is this design that relates to the practical aspects of how the study was conducted to answer the research question on what are the impacts of inconsistent water billing. The researcher employed qualitative research and used a case study as part of the research design.

3.4 Exploratory Research

The exploratory research is when we add more meaning to the theory's definition. Descriptive lay out a clearer consideration of main inter-connections in specialty areas in which we are of interest. Exploratory research is when the theoretical foundation is accessible for a study of a new compound and positive ideas not yet outlined by existing theories. Lukka and Kasanen (1995:77) highlight that there is a shortage of inductive reasoning about the data composed which distinguished the case study analysis and thus reveals its weakness even though several authors supported the application of this study design. Denzin and Lincoln (2000) counter that this method increases, the logic of the procedure of the study, adds reliance to its explanation and minimises errors that may arise from the usage of only one method.

3.5 Qualitative Research Approach

The qualitative research method is aimed at exploring the different cases and uncovering the quality of whatever is being investigated (Niewenhuis, 2007). This is echoed by Creswell (2014) who claims that several traits in an inquiry need to be effectively examined so that qualitative research can be assessed. This is vital as qualitative research uses multiple approaches and procedures for the collection of data. Maxwell (2005) adds that qualitative research should be guided by intellectual objectives so that an understanding of the meanings assigned by the respondent to events and situations, the specific context in which respondents are situated, and

the processes that contribute to situations, events and actions should be well exploited, thus qualitative research involves creative clarification of occurrence.

In the view of Maree (2011) the world is made up of people with different beliefs and assumptions, attitudes and values. The scholar further adds that by exploring the expertise of others about the occurrence, the reality of the matter will be known. In social sciences, qualitative research is thus an act of acknowledging, the interactive relationship between researchers and participants. Participants and their experiences and how they have constituted reality based on their experiences on the impact of inconsistent water billing at Litha Park.

This study employed a qualitative research method to give rise to in-depth views on the impact of inconsistent water billing. There are different approaches in qualitative research to gather in-depth data. These include narrative, life history, ethnographic, case study, self-study, etc. The researcher employed the use of open-ended emerging data with the primary objective of developing themes from the data. The researcher viewed this approach as suitable for the study. Also, the qualitative method provided answers to the questions about what, why and how.

Interestingly, qualitative research has some limitations. The first challenge with this method is that the generalisation of findings is not possible or not allowed, that is, findings emerging from a study cannot be generalised to a large population compared to quantitative research. Atieno (2009) explains that in quantitative research, findings can be tested to discover the statistical significance unlike in qualitative research. Also, in the qualitative method, conducting interviews for data collection is cumbersome and time-consuming. The analysis of the data also is a long process as these data are too voluminous and need to be arranged into themes. Besides, there is a challenge when it comes to proving the reliability and validity of the findings. Anderson (2010) notes that this is because one would have to redo research that has been conducted thus duplications and repetition is common and time-consuming.

Despite these challenges, the researcher views the qualitative approach suitable to gather and analyse data needed to understand the impacts of water billing in Litha Park. Also, this method was used due to the nature of research objectives and research questions which warrant an assessment of realistic outcomes. This requires an in-depth inquiry which was done by asking questions from the community on the impacts of water billing in the community.

3.6 Case Study Research

Flowing from the qualitative method, a case study was deemed suitable for this study. According to Yin (2008), a case study is a careful method of collecting information about a certain unit of analysis which may include, but is not limited to; individuals, groups, communities, organisation, or even a country. Miles and Huberman, (1994) note that the strength of case studies is that it is an intensive description and analysis of a phenomenon, social unit, or system bounded by time and place.

There are diverse types of case studies and the researcher employed a holistic embedded single-case design as noted by Yin (2003:42). He argues that when interested in looking at the same issue, but now captivated by different decisions made by different stakeholders within the same area, then a holistic embedded unit would enable the researcher to explore the case while considering the influence of the various variables and associated attributes on the phenomenon (Yin 2003:42). Case studies are designed to bring out the views of the participants by using multiple data sources. In this study, data were collected from multiple sources including community elites, Councilors and households at Litha Park.

3.7 Sampling of Participants

Miles & Huberman (1994) note that the sample size is the set of people or entities from which findings are to be generalised: the population must be spelled out in advance before a sample is taken. When a researcher identifies a target population for an inquiry it should consist of people who have the relevant information that the researcher is seeking (Guba & Lincoln 1995:5).

Research sampling refers to the choice the researcher makes on a given population that is seen as necessary for the research (Melville & Goddard, 1997:29). In qualitative research studies, purposive sampling and non-probability are commonly applied instead of a random sampling and probability method (Nieuwenhuis, 2007). This study adopted a purposive sampling approach as a suitable method for data collection. This is vital as the participants of this study were chosen based on the specific traits which distinguished them from the others since they are heads of households and they know firsthand the challenges of water billing in the community. The researcher resorted to utilising a purposive sampling technique to ensure that the best possible source of information could be gathered to answer the research questions.

According to Patton (2005), purposeful sampling is used when the focus is on selecting information-rich cases. The sample size of the study consisted of 17 households and 18 participants. The reasons for selecting these 17 households were that the researcher had anticipated that they would have valuable knowledge regarding the impacts of inconsistent water billing in Litha Park. There were a total of seven males and eleven females interviewed who all live in Litha Park and are homeowners.

In the course of the investigation as the researcher sought to locate or trace and track individuals and organisations that were directly linked to the investigation, he was then referred to other individuals and organisations that were either linked to the inquiry directly or had vested interest in the inquiry. This emerged as a snowball sampling, which Miles and Huberman (1994) hail as a productive strategy in research. This snowball sampling strategy enabled more participants to be involved in the investigation and yielded a high response rate of 100% as all participants who were invited to participate willfully did participate.

3.8 Data collection tools

The inclination of a specific approach to data collection is based upon the motive of assembling the data on the impact of inconsistent water billing. Every distinctive approach to data collection is of significance to secure standard information, even though every approach has advantages and disadvantages. With a different point of view considering specific data collection approaches. Nieuwenhuis (2007:78) opines that “there are respective concepts that apply to qualitative data analysis. Qualitative data rely on a realistic perspective that pursues to recognise the occurrence in circumstances or realistic situations and the aim to exploit the occurrence of enthusiasm by the researcher in general”.

3.9 Research Methods: Data Collection Sources

According to Dale & Volpe (2008:28), qualitative researchers are in most cases concerned about the validity of their messages and to reduce the likelihood of misinterpretation various procedures are used in collecting data. In this study, multiple methods were used in collecting data from existing literature (secondary data), in-depth interviews- telephone conversations and focus groups. The methods used to collect data are explained henceforth.

3.9.1 Literature Review (Secondary data)

To gain insights into the phenomenon the inquiry started by sourcing the literature from documentary sources otherwise known as secondary data. The process entails a collection and analysis of available literature on water, water policy in South Africa, and the stands of the constitution on water delivery and also the theoretical framework such as NPM and water metering and billing theories. This enabled the researcher to sharpen his conceptual framework which on the other hand assists in the theoretical framework. These were in most cases textually based and in some cases were available in electronic and physical format. The desktop method was the main method employed to gather the data from government documents, gazettes, books, newspapers, published articles, and minutes of meetings on the impacts of inconsistent water billing in Khayelitsha.

3.9.2 Interviews

According to Dale & Volpe (2008:29), the qualitative research interview is an attempt to understand the world from the subject's perspective, unfold the meaning of people's experiences and uncover their lived world. Patton (1990:1) observes that "qualitative interviewing begins with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit" interviews are of vital importance in that a legitimate way to generate data is to interact with people (talking and listening to them) thereby capturing their experiences in their own words (Dale & Volpe 2008:29).

3.9.3 Focus Group Discussions (FGDs)

For Kwame (2009) FGDs offer space for the researcher to sit with the various leaders and deliberate the several issues ranging from what they did, how they did it, and who else was involved? McDaniel and Bach (1994:4) explain that FGDs are used to gain insights into the active interactions of attitudes and opinions linked to current and projected human activity.

In line with FGD sessions, the researcher conducted a focus group discussion with nine heads of households who participated in the meeting with the Mayor of the City of Cape Town. These were the political leadership of the community, the Faith-Based Organisation (FBO) leaders and the South African National Civic Organisation (SANCO) leadership and the residential civics like street community heads in Litha Park. The selection of the members of these organisations

was vital in that these groups were made up of individuals who live at Litha Park and they had been involved in searching for solutions to this water billing.

The rationale for FGDs was driven by the principle of saturation of information. Teddlie & Yu (2007) describe it as a situation wherein in the course of gathering qualitative data, the researcher, after listening to a variety of ideas, reaches a particular point where there is no new evidence gained from conducting another session. Typically, the generation of new data declines the longer session is held. In this case, after three FGDs had been conducted, no new information was forthcoming from the participants on the main themes of the inquiry. At this juncture, the information was deemed to be saturated and the FGDs ended.

Focus Group Discussions in general allow “researchers to observe the group actions that underlie the construction of collective identity, collective action frames, and the emotional dynamics involved in the creation of oppositional values” (Blee & Taylor 2002:109). In this investigation, the FGDs assisted the researcher in gaining insights into group dynamics about the nature of collective action, especially for collecting information about specific sub-groups of the population and on issues that are of interest to the study (Della Porta 2014b:291). This explains why the researcher conducted FGDs with some of these sub-groups like members of the Litha Park community to gain insights into the impact of inconsistent water billing.

To shed more light on the benefits of FGDs, Sherraden et al. (1995:5) suggest that the social interaction within the group yields freer and more complex responses as a result of the interactive synergy, snowballing, spontaneity, and security of the participants within the group. This, in turn, implies that the participants tend to express views that they may not have expressed in other settings or if they were interviewed individually. Sherraden et al. (1995) maintain that, in FGDs, the responses have high face validity as a result of the clarity of the context and the detail of the discussion. Besides, Bryman (2008) asserts that FGDs offer the researcher the opportunity to study how individuals jointly make sense of a phenomenon and construct meanings around it.

Despite the above benefits of FGDs, Alatinga (2014:122) contends that they also have some caveats notable among these are methodological limitations which include the fact that the findings from the FGDs cannot be generalised. However, the main objective of qualitative studies is to understand how an individual perceives, organises, gives meaning to and expresses

their understanding of themselves, their experiences, and their worlds within a particular context—something which qualitative techniques are not able to offer (Mishler 1986).

3.9.4 Telephonic interviews

According to Vogl (2013:133), telephone interviews provide a more balanced power distribution between interview participants. This allows the interviewees to speak freely, exercise greater control, and thus direct conversation towards areas that are perceived as vital. Also, a face-to-face interview stands a risk of too much rapport which could divert discussions and thus losing their focus. As such, Tucker and Parker (2014) explain that interviewers are encouraged to maintain a certain degree of distance and formality with research participants. Turker and Parker (2014) further add that telephone interviews can reduce social pressure on participants while building rapport as many are always shy.

Holt (2010) conducted a study on the use of telephone interviews and found that many interviewees preferred the option of the telephone instead of a face-to-face interview. The author further states that these interviewees did not only prefer this option but were so much appreciative for giving them the preference to choose. The reasons these interviewees advanced were that they are more comfortable openly discussing individual experiences over the phone than talking to the interviewer face-to-face. New sub-questions or probes are common features that researchers often identify during qualitative interviews. Therefore, the lack of visual contact gives the interviewer to unobtrusively notate follow-up questions while the interviewee is speaking (Hermanowicz, 2002). Interviewees are often busy (Holt, 2010) and this group of participants is always willing to accept a telephone interview. This is so because, rescheduling and cancellation can be easy and convenient (Cachia & Millward, 2011).

The researcher's earlier contact with the community led to the identification of some key participants and through these engagements he was introduced to other community members and elites who are quite knowledgeable of the research problem. Following the outbreak of the Covid-19 pandemic some of these participants, especially the elderly felt that they were vulnerable due to their age and opted out of the interviews. But since the researcher needed their inputs they were telephonically contacted and they agreed to participate telephonically.

However, there are some limitations to this approach. Some authors argued that the lack of facial expressions has the potential to impact the communication process (Gillham, 2000). The author state that the lack of visual clues could create challenges for researchers. Firstly, there is the risk of misunderstandings due to a lack of visual cues and this can lead to a breakdown in the communication process (Hermanowicz, 2002:479). Secondly, body language is absent for probing, seeking clarifications and elaborations to answers given (Stephens, 2007:203). Thirdly, key non-verbal visual data are not recorded by the researcher (Novick, 2008) and this type of data collection is crucial in qualitative research. Fourthly, body language which is considered natural in conducting interviews would be lacking, thus the researcher is unable to seek clarifications or elaborations to answers given (Stephen, 2007).

Notwithstanding the above, the researcher considered this approach vital as the selection of participants is purposive and the sample size of the study is small. This allowed the researcher-to make telephone conversations with all the participants to clarify certain issues.

3.10 Document Review

Bowen (2009) reads the document review as a reliable data collecting tool that was used to collect qualitative data. For Creswell (2013) document review involves a researcher collecting and reviewing documents to obtain the required data. These documents for Amin (2005) may be management or official reports and court proceedings. In this inquiry, only official documents such as the Constitution of the Republic of South Africa Act 108 of 1996, the RDP 1993, the Municipal Structures Act, 117 of 1998, the Municipal Systems Act 2000, the Free Basic Services Policy (2001). Documents like the Integrated Development Plan (IDP) and the Indigent policy documents support free water.

Organisational documents are useful secondary records made or collected by others and cover a wide range of material (Hall and Hall 1996:212). The advantage of these documentary sources is that they can be processed faster and with a lower cost of retrieval compared to primary data, where respondents need to describe what is meaningful and salient without being confined to standardised categories.

3.11 Data Triangulation

To successfully answer the overarching research question, the researcher had to triangulate the data. Triangulation to Denzin (2012) is a process whereby the researcher analyses data from multiple angles. It is also useful in checking the validity of different types of data. This is so important in this research because the stories and lived experiences of the residents of Litha Park would be looked at from different angles. The researcher had to interview a ward councilor and the PR councilor who also has a story to tell which when analysed in comparison will give a clearer view. The researcher is fully aware of the difficulties that researchers encounter in getting to meet certain personalities. As a result, the researcher had made prior arrangements with Councilors, politicians and Community Elites and also heads of households in the community.

3.12 Data Analysis and Interpretation

For Kwame (2009:97) data gathered has to be organised, broken down, into manageable units, synthesised and patterns have to be searched to help discover what is important and what is not and what was learned about the impacts of inconsistent water billing at Litha Park. The interviews, telephonic interviews and FGDs were recorded and later transcribed word by word, as a result, the data were analysed by the researcher using a thematic data analysis approach.

The thematic analysis has been explained as a qualitative research approach that can be used over a variety of epistemologies and research to elicit useful information. This technique is used for describing, identifying, organising, analysing, and reporting the subject matter found in a data set (Braun & Clarke, 2006). The thematic analysis is described by Boyatzis (1998) as a translator to a researcher who speaks the language of qualitative analysis, allowing several researchers to be able to communicate even when using different research techniques.

The thematic analysis allows for a stronger, adaptable proposal that can be adjusted and improved to suit many studies, allowing a huge and completely detailed, though a complex description of data as illustrated by Braun & Clarke (2006). This analysis also offers a huge attainable form of data analysis, most likely for those in their early research career (Braun & Clarke, 2006), even though it does not need the full complete theoretical and professional technical knowledge like other qualitative approaches. The few recommended measures and procedures of the thematic analysis can prove to be an advantage to researchers who are unfamiliar with qualitative methods as it is easy to grasp and learn from (Braun & Clarke, 2006).

Braun & Clarke (2006) and King (2004) stated that this is a useful approach for assessing the perspectives of various researchers, emphasising similarities and imbalances, and creating unforeseen insights. It is also useful for outlining key features of huge collected information set by forcing the researcher to overlook and consider taking a clear methodological approach to data administration, to produce a final report that is organised and clear (King, 2004). Though the advantages of this method are important, it is vital to acknowledge the demerits.

The demerits of thematic analysis are visible when compared to coinciding qualitative research approaches. A newbie researcher's ability to manage and administer the thematic analysis can be affected by the lack of a shortage in essential literature. The thematic analysis does not allow claims about the language used by the researcher as stated by Braun & Clarke (2006). The flexibility of the thematic analysis can lead to less compatibility and a lack of coherence when developing themes derived from the research data (Holloway & Todres, 2003).

The above caveats notwithstanding, thematic data analysis is suitable for this study because it is uniquely flexible. Considering the complexity of the study, it is, consequently, logical for the researcher to apply this approach. The research sample is small and homogenous; therefore, thematic analysis is suitable. Marriam (2009:29) states that the investigator is the primary instrument of data collection and analysis. The researcher adopted the step-by-step thematic analysis of data as suggested by Braun & Clarke (2006). Ryan & Bernard (2003:103) note that all themes are of equal importance. Going with this line, the researcher sorted and marked common expressions and repetitions arising from the themes and sub-themes. The cutting and pasting coding techniques to process the transcribed text were used. According to Stewart et al. (2007), this technique involves the act of identifying important expressions and arranging them in themes. The researcher analysed this data and made systematic comparisons and aggregation of field notes on the impact of inconsistent water billing in the community.

3.13 Data trustworthiness

In the field of research, data trustworthiness is one of the main challenges that researchers are confronted with. This is so because the lack of trust in the data could result to discredit the study's reliability, credibility and conformability. The aspect of trustworthiness in research is imperative for both qualitative and quantitative research (Lincoln & Guba, 1985). The foundation for assessing trustworthiness in research is based on the above criteria. Information

dependability and data accuracy are called reliability in research. The transfer and information, applicability is what is referred to in research as data validity. This entails that the same research can get the same findings. Transferability implies that you can use the research findings in another setting. However, it is difficult to be objective in all cases, which requires that a conformability audit be conducted to determine whether research data supports the process (Lincoln & Guba, 1985).

To instill trust in the research findings, the researcher combined individual interviews with information from the participants and an analysis of written documents. As such, the data from interviews and the case study were verified to see if they pointed in the same direction. Also, the researcher gave all the participants a chance to verify whether or not the facts were what they gave to the researcher as data. This helped the researcher to establish whether the interpretations of what the participants had shared with him were true. To have control over the bias issue, the researcher avoided generalising the findings of his population. The findings were understood from a context and perspective. According to Neuman (2006:188), the validity and reliability of research form a key aspect of research measurement. Depending on the research approach applied, validity and reliability will have different meanings. For instance, in the qualitative research approach, validity is seen as the ability of research to be genuine and trustworthy (Neuman, 1997).

3.13.1 Reliability and validity

The approach used by a researcher depends on its legitimacy, effectiveness, and appropriateness and this is key to research validity (Bulmar & Warwick, 1983). Validity, therefore, is "the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration' (Babbie & Mouton, 2009:122)". Adequate reflection entails that a repeat of the study can be done by another researcher. Guion et al. (2011) argue that research validity can be achieved through other means of data analysis such as thematic techniques. Also, the researcher argued this claim by Babbie & Mouton has setbacks as the environment can change after the original research has been conducted.

According to Maree (2007:80), the use of two methods of analysis is involving several peer researchers to help with the interpretation of the data could enhance validity and reliability. For

the research to achieve validity, the research seeks the services of a peer researcher to check the process and make a comparison to identify similarities and differences in the text.

3.13.2 Conformability

According to Shenton (2004), the use of independent research mechanisms that are different from the skills and perceptions of the research is imperative for the conformability of the study. However, the author point out that it is difficult to display real objectivity as the researcher bias cannot be avoided in the process of setting interview questions. However, this does not deny the fact that the researcher can obtain some form of conformability in the study. Shenton (2004) went further to point out that the concept of conformability is the qualitative investigations comparable concern to objectivity. Thus, steps are required to ensure that the findings of the study can be assured. This is a call for the researcher as all the necessary steps were followed and the researcher was cautious not to put his bias into the research pattern.

3.14 Ethical considerations

Ethics in research involve the aspects of morality, especially in the context of dealing with humans (Shawa, 2017). Today, ethics extends beyond the issue of humans, meaning it now incorporates respect for and conservation of the environment. Also, ethics can be seen in human rights and democratic discourse. According to Shawa (2017), ethical questions are the subject of interdisciplinary deliberation. The ethical issues that may arise in the study include;

Informed consent: The consent holds a key place in the study and this concern the voluntary consent of the individual participants. For the researcher to deal with this issue participants' consent was first obtained so that participants understand the process, they are engaging in, why their participation is required, who will use the research findings, and how it will be reported.

Data confidentiality: The use of documentary data requires approval from the authority concerned; as such, the right of confidentiality and anonymity will be questioned. For the researcher to deal with these issues, the researcher has to explain to the various households and elites' concerns about the importance to keep the data confidential and anonymous.

3.15 Study Limitation

According to Price (2013:66), a study's limitation refers to the systematic bias that the researcher did not, or could not control and which could adversely affect the outcomes of the findings of the

study. Simon & Goes (2013) explain that limitations often start from research design choice and methodology. The authors state that each different option in methodology and research design has specific limitations. The limitation of this study, therefore, lies in the researcher's design choice. The data collected were confined to Litha Park and the sample size was manageable. However, the researcher's choice was mainly purposive and as such did not distort the research findings as also few families that were impacted by the inconsistent water billing were interviewed. Also, some participants gave limited responses to the interviews, making it difficult if not impossible for the researcher to generalise his findings. The researcher, however, made follow-up on such responses.

Although this study has contributed to the knowledge of the impact of inconsistent water billing, however, it has some inherent limitations as Ross & Bibler Zaidi (2019) argue that there are limitations involved with all investigations and potential weaknesses in the design and application often occurred. In this regard, the limitations of the study include the following:

Firstly, it should be noted that the sample was a purposeful small sample and therefore could not be generalised to the entire population of Litha Park. Second, the timing of the interviews was a challenge as all the interviews were conducted during the Covid-19 pandemic and there were issues of social distancing and the participants were wary of sitting with other people. Hence, the interviews were brief. Third, the interviews were done in the houses of the participants and most of them had other issues they needed to attend to and could have felt rushed to finish the interviews to give them time to continue with their chores. The other limitation was the cultural challenge in that being a research study for a Master's Thesis the student had to use the English language for the interviews whereas some of the participants are IsiXhosa speaking.

3.16 Chapter Summary and Conclusion

This chapter has explored the research methodology that was employed to collect the data on the impacts of inconsistent water billing at Litha Park. In this chapter, the researcher adopted a descriptive analysis and a qualitative research design to gather the data on the impacts of inconsistent water billing. The study also employed data collection tools and processes, data analysis, ethical considerations, trustworthiness, reliability, and validity, and the limitation of the study was discussed. The next chapter presents and discusses the main research findings on the impact of inconsistent water billing.

CHAPTER FOUR

RESEARCH FINDINGS AND ANALYSIS

4.0 Introduction

The preceding chapter reported on the research methodology that was employed to collect the data on the impacts of inconsistent water billing at Litha Park. This chapter presents the findings of the study. It also presents and interprets the data that attempts to respond to the overarching research question and research objectives on the impacts of inconsistent water billing. The data collected was meant to respond to the three specific research objectives of the study, which are linked to the main research objective of the study. The data analysis was completed through qualitative data and a thematic approach was applied as stated in chapter three.

Table 4.1 The Details of Participants and Code that were used to protect the identity of the participants from P1-P17

Name	Gender	Age	Position	House status	Duration residing
P1	Male	54	Religious Leader	Home owner	15
P2	Male	51	COCT	Home Owner	25
P3	Female	51	COCT	Home Owner	25
P4	Male	56	COCT	Home Owner	25
P5	Female	70	Pensioner	Home Owner	27
P6	Male	47	COCT	Home Owner	23
P7	Male	50	SANCO chair	Home Owner	25

P8	Male	55	SANCO Regional Secretary	Home owner	24
P9	Female	49	Ward Councillor	Home owner	27
P10	Male	50	Sub Council 10	Home owner	27
P11	Female	55	Unemployed	Home owner	19
P12	Female	74	Pensioner	Home owner	30
P13	Female	52	unemployed	Home owner	18
P13	Female	70	Pensioner	Home owner	20
P14	Female	72	Pensioner	Home owner	22
P15	Female	68	Pensioner	Home owner	25
P16	Female	68	Pensioner	Home owner	30
P17	Male and Female 48	50 and 48	Driver Unemployed	Home owner	15

Table 4.1 demonstrates the background information of the participants. As noted earlier, many of these community members are men and women of more than 50 years and above and some

are in their 60s. Most of them explained to the researcher that they bought their houses when the Litha Park community was being built in the mid-1990s. One of them is a clergy well-known in the Khayelitsha Township as an activist on poverty issues. Two of the political elites are Ward Councilors and four of them work for the City of Cape Town. Six of them are pensioners who rely on the state pension to run their households. Two of the participants were unemployed at the time interviews were conducted. Henceforth, the study outlines the research findings.

4.2 Research Findings

The section of the study explores the principal themes that emerged from the elite interviews with the community leaders at Litha Park. Therefore, the results of the investigation are presented using excerpts and quotations from these elite interviews into Litha Park. To achieve clarity the researcher connected and integrated the findings from this study in the literature which explained the study and the theories related to the research question.

In doing these the following themes and sub-themes were identified through a process of data analysis. In the course of the study, each theme or sub-theme was discussed and amplified by the use of quotations from the participants. In some cases, reference was made to the literature review and the theoretical framework of the study to give meaning to the results that are presented in the study. It is worth highlighting that such engagements in interviews cannot be free of grammatical errors which emerged in certain responses of the participants, as some of them preferred to respond in English, which is not their mother tongue as some subjects are IsiXhosa speaking. However, the researcher understood the subjects' responses as in many cases; they were clear and easy to comprehend and are quoted words verbatim to reflect their views.

Table 4.2 various research themes and sub-themes emerged from the study.

Research Objectives	Main Themes	Sub-Themes
Objective One: To investigate the main drivers of inconsistent water billing in	The issue of inconsistent water billing	Water billing inconsistencies
		Causes of inconsistent water billing

Litha Park	Causes of inconsistent water billing	Overestimated the amounts that you should be charged for based on estimated readings;
		Billing mistake on the account and it is not correct
		Water leak at the premises.
Objective Two: To examine how these challenges are impacting the community of Litha Park	The impact of inconsistent water billing on households	Residents are controlling water usage
		Others recycle water
		Others are turning to bore holes
	Impact on water usage	Drastic reduction in water usage
	Impact on salaries	This is impacting the incomes of residents
	Impact on house ownership	Residents are leaving the area.
	Impact on relations with the city	Created tension with the city.
Objective Three: To analyse the steps taken by the city of Cape Town to address inconsistencies in water billing	Community meetings and their outcomes.	First community meeting Second community meeting
	Community meetings with city officials and the Mayor	Meeting with city officials
		Meeting with the mayor

4.3 The Following Themes Emerged from the Interviews

Theme 1: Water billing inconsistencies

Theme 2: Causes of inconsistent water billing

Theme 3: How this is impacting households

Theme 4: Impact of water billing inconsistencies

Theme 5: Impact on salary incomes

Theme 6: Impact on house ownership

Theme 7: Impact on relations with the City

Theme 8: Community meetings and their outcomes.

Theme 9: Meetings with city officials and the Mayor

4.4 The study set out to investigate:

Objective One: To investigate the main drivers of inconsistent water billing in Litha Park

4.4.1 Inconsistent water billing?

The primary question posed by the researcher to Participants 1,3, 6, 12 and 15 sought to have a clear understanding of what is inconsistent water billing? The response was that:

“Inconsistent water billing is a system whereby our water bills are billed through our meter readings by the municipality. Every month we get a water bill statement from the municipality containing an estimate of water that was used”.

This seems to reveal that every month Litha Park resident pays a water bill to the municipality for their water usage.

Mazibuko (2014:1) agrees that municipal billing, revenue collections, and administration are some of the important functions of municipal government and administration. In addition, Mazibuko (2014) suggests that these municipalities ought to have municipal billing systems as a financial application that can act as mechanisms for municipal revenue collection. Mazibuko (2014) explains that municipal billing systems are critical instruments for the success of correct data, clean bills and positive revenue collection input into it and the improvement of public confidence in municipalities. Allan (1993:25) concurs that water billing and taxes are the two most important tasks faced by municipalities in their daily operations. If a municipality fails to accomplish these tasks, it reduces its revenue stream available to finance its activities and provide services to the residents.

4.4.2 The causes of inconsistent water billing

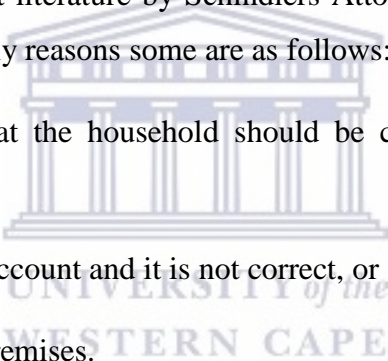
When the researcher puts it to the Participants 1, 2, 5, 8, 11 and 14 as to what the causes of inconsistent water billing? In answering this question participants explained that

They explained that:

“Inconsistent water billing is a system whereby their water bills fluctuate. Some months they get a bill of R2000 (two thousand Rand) and some months it goes up to R14000 (fourteen thousand Rand). These inconsistencies are affecting our incomes and household budgeting”.

This means that their water bills are irregular. Some months the bills are understandable and in some, they cannot explain what is happening. This irregularity is a financial challenge to many households.

This finding is in line with extant literature by Schindlers Attorneys (2015) which notes that a water bill can be incorrect for many reasons some are as follows:

- 
- i. Overestimated the amounts that the household should be charged for based on estimated readings;
 - ii. Made a billing mistake on the account and it is not correct, or
 - iii. You have a water leak at the premises.

When the researcher pressed for more details, Participant 2 said that:

“One day I saw the official from the municipality who was supposed to read my meter and I hide myself to see how the official was going to read my meter as it was inside the yard and I had a dog inside the yard. When I peeped to see what the meter reader was doing, I found him writing something on his device and when I asked him what he was doing he replied that he was writing a meter reading. Participant 2 further asked the meter reader how he was going to get an accurate reading without seeing the actual meter. That is when the meter reader informed me that he was going to put in the estimated reading that will be based on his previous readings”.

The finding from Participants 2, 4 and 6 suggest that the meter readers do not take the time to enter the premises and read these meters. It appears, therefore, that assumptions made by the

officials in reading the water meter are based on false estimated information which ends up financially costing the homeowner.

Schindlers Attorneys (2015) concur that an inconsistent water bill is an overestimated amount that a user should be charged based on estimated readings. If then this is standard practice, one could argue that this leads to a gross violation of basic human rights, where access to clean water is concerned.

Participants 2, 5, and 8 further stated that:

“The meter readers do not seek permission to enter the premises so that correct reading information is gathered”.

The issue of meter readers emerged as a serious theme from Participants 1, 2 and 5 who noted that:

“In most cases, these meter readers are not the City of Cape Town employees as they are hired by private companies to install, repair/maintain and read these meters for the municipality”.

The understanding here is that the municipality has outsourced some of its key functions to private companies to execute certain tasks for them.

This is in line with Lund (1986) who notes on theories of water metering that installation, repair, maintenance and the reading of these meters are emerging as a challenge in the City. Social Justice Coalition (2014) adds that the City of Cape Town has outsourced to private contractors some of their core functions and in exchange, the City pays millions of Rands to these contractors. The SJC needed to understand if these resources, improve the lives of home-holders, who in this case are the residents of Litha Park, in accordance with the provisions of the South African Constitution. It is paramount to note that the outsourcing of some of its core functions to private companies is an outcome of neoliberalism and the New Public Management (NPM) Theory which appears to contradict the South African Constitution. For example, New Public Management is labeled as administrative reforms that encourage contractualism and outsourcing of various services from private companies (Hood, 1991). The major issue about this is that it is a challenge to hold the contractors accountable for the poor work they conduct as one cannot locate them.

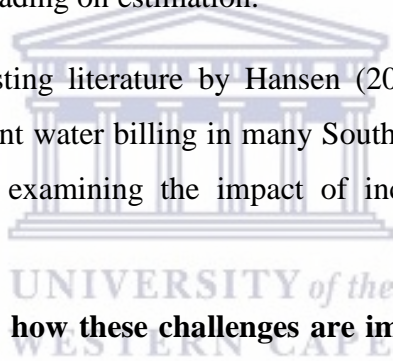
4.4.3 The researcher pressed to understand when this problem of inconsistent water billing started?

Participant 1 who is a Faith-Based Leader and also a community activist in the Litha Park states that:

“Our problems started when the City of Cape Town changed the meter boxes from the ones with black lids, to the current ones that have blue lids. One of the reasons that the residents of Litha Park saw as the cause of their problem was the system that was being used by the City to estimate, instead of the manual meter reading”

The understanding here is that the problem started when the City changed meter boxes from the ones with black lids, to the current ones that have blue lids. The residents of Litha Park noted that the second challenge was when the City changed from the manual meter reading to the automated one which based the reading on estimation.

This finding is in line with existing literature by Hansen (2005) which explains how meter readings are a cause of inconsistent water billing in many South African Townships post-1990s. The study then transcends into examining the impact of inconsistent water billing on the residents of Litha Park.



4.5 Objective Two: To examine how these challenges are impacting the residents of Litha Park

4.5.1 How inconsistent water billing is impacting residents in the community?

When the researcher puts this question to Participants 1, 3, 5, 9, 10 and 17 regarding how this inconsistent water billing was impacting them? Participants revealed that:

“It has changed the way we live. We are confused as some do not have ordinary drinking water, we cannot take a good shower, we cannot do laundry, we cannot wash our cars and we cannot water our gardens”.

This entails that many residents are not enjoying their basic rights to water, which is a municipal service as enshrined in the South African Constitution.

These rights to basic services are enshrined in the Constitution as elaborated earlier in which the Constitution, the Municipal Structures Act and the Systems Act enjoins the municipality to deliver water as a basic service to all the residents so that their rights to dignity is realised.

Williams (2005) expands that pre-paid water meters appear to be the instrument that generates increasing poverty among the black people. Ruiters (2002:5) adds that unlike other basic services such as electricity; water has no substitutes and almost always enjoys a 'natural monopoly'. Bond (2002) further stresses the importance of water for poverty alleviation or eradication. The United Nations Commission on Economic, Social and Cultural Rights (UNCESCR) considers water to be indispensable for leading a life of human dignity and a prerequisite for the realisation of other human rights' (UNCESCR 2002). This is congruent with the United Nations General Assembly 64/292 on water (UNGA 2000) and it illustrates how the City is violating International Law.

4.5.2 How Inconsistent Water Billing is impacting households?

When the researcher asks the heads of households how this inconsistent water billing is impacting households? It emerged from Participants 1, 3, 5, 8, 11, 13 and 15 that:

“Many of us are currently recycling water and others are using water sparingly to avoid exorbitant bills. Secondly, we are turning to use recycled water to flush our toilets and water our gardens”.

The understanding is that many households are recycling water to ensure that they do not run out of it. These exorbitant water bills have forced many community members to sell their houses and move out of Litha Park. This has also forced many tenants to leave the community.

This finding reveals that the high cost of water is a challenge as it impacts negatively on salaries and general upkeep of other rising costs.

To gain a good understanding of this inconsistent water billing it is helpful to set out briefly the legal framework governing the supply of water and the powers and functions of municipalities in relation thereto. Under the South African constitution, everyone has the right of access to 'sufficient food and water'. The State is enjoined to take reasonable legislative and other

measures, within its available resources, to achieve the progressive realisation of each of these rights.

A municipality has the executive authority in respect of and has the right to administer . . . 'potable water systems and must perform the executive and legislative functions within certain parameters set down in national legislation.

4.5.3 The Effect of Not Having Water

The other question the researcher put to Participants 1, 2, 4, 6, 8, 10, 14 and 17 was with regards to understanding the impact of not having water. For example, these participants lived with their partners and their two grandchildren, had an outstanding water bill, and such, their water was cut. These participants argued that:

“Some of us had to live without water for a few days as our water supply was cut by the municipality”.

This finding contradicts the efforts of the new government's Free Basic Water announced in 2001 by the then President Thabo Mbeki in his vision of a 'better life for all' (Williams 2009:21) as he announced that municipalities would provide poor households with access to sufficient water- free (DWAF, 2002b:7). To ensure that all municipalities abide by this and avoid excuses for lack of revenue the government introduced the Equitable Share which was created as a grant that redistributes tax revenue from the central government to the provinces. This Equitable Share was to ensure that municipalities can cover the costs of providing services, like clean water to their poor households (Department of Provincial and Local Government, 1999).

In practice, the City of Cape Town treats poor residents differently. This finding is congruent with extant literature which points to this noting that the research of Smith (2004) illustrates how water cut-off for non-payment in Khayelitsha within the city of Cape Town was always experienced by poor households. Water providers place a quality on compliance, without regard to the hardships experienced by the poor in the townships.

This is a problem as existing literature has revealed the problems that many communities in Kwa Zulu Natal (KZN) faced due to water cutoffs.

The implementation of this cost recovery policy has been widely condemned as being detrimental to those in the township of Litha Park. In one example, cost recovery policies were linked to a cholera outbreak in part of KZN, when poor people were forced to rely on water from contaminated sources (Deedat & Cottle, 2003).

MacDonald (2002:135) highlights that a case in point of the inability to afford services began in mid-2000 when the provincial government in KZN began charging rural residents for water that they used to enjoy for free. Many low-income households could not afford to pay their bills and began using nearby rivers, streams and stagnant ponds as drinking water. This led to a cholera outbreak.

4.5.4 How did the residents address their lack of water?

The next question the researcher put to Participants 2, 5, 8,10, 12 and 14 was how did the residents address their lack of water?

These Participants revealed that:

“For those who live closer to municipal facilities, they were able to access these premises and use ablution facilities like washing of clothes and bathing and fetching water for drinking. Thus, they had free water from these Municipal buildings”.

The understanding here is that community members who lived closer to municipal buildings since these buildings have open public taps were able to access water for months to use in their various homes.

The finding reveals that residents who reside closer to municipal institutions were able to use water for free in these municipal buildings for several months.

The researcher then probed what about residents who live far from these municipal buildings and how did they cope?

They explained that:

“Since they do not have any municipal facilities close by they pleaded with their neighbours to allow them to use their bathrooms to have a shower”.

They explained that they used the private spaces and houses of their neighbours to shower.

The finding is that they relied on their neighbours for ablution and drinking water. The inconveniences of using another person's private space to shower and clean your body are obvious. It is worth imagining the inconveniences and the lack of privacy inherent in such practices. This finding reveals how residents have to shower on their neighbours' premises and the lack of privacy in other peoples' homes. This was a humiliation to some as this meant that one had to beg. This was a short-term solution as one could not ask their neighbors to use their bathroom for more than two days.

When the researcher pressed for further details on how they were saving and recycling water?

Participant 3 who work for the municipality said that:

“I have devised water-saving strategies by having drums where I preserve recycled water so that it can be reused to flush the toilets or to wash cars”.

These approaches assist many families as they were able to recycle the water and use it in several ways.

The above view is not shared by Participant 6 who had a different view to the one of Participant 3 as he argues that:

“Water-saving didn't make any difference on my monthly bill, so I decided to water my garden and wash my car whenever I want”.

The understanding here is that some residents are still coping and do not see this seriously as others. This is normal in society as different individuals have different socioeconomic conditions.

The finding reveals that not all residents of Litha Park were experiencing this inconsistent water billing. This finding is crucial as it adds another layer of scholarship to the discourse on inconsistent water billing as it revealed that not all residents in Litha Park were experiencing it.

4.5.5 Effect of Inconsistent Water Billing on Household Incomes

When the researcher questioned Participants 1, 3, 5, 8, 11, 14 and 16 what were their water bills?

They note that:

“The residences bills differ as some of them owed around R14000 (fourteen thousand Rands) to R45000 (forty-five thousand Rand). Participant 5 who is staying with her partner and two of her grandchildren has an outstanding bill of R37.000 (thirty-seven thousand Rand)”.

The finding is that the amounts vary from household to household as different households adopted different coping strategies during this inconsistent water billing period.

When the researcher pressed for more details on how the city addressed the different water billing crises?

Participant 5 explained that:

“For those who are unable to pay the municipality, they are advised to apply for the free municipal services. This is catered for under the indigent policy”.

The understanding here is that the residents who could not pay were advised to apply for an indigent policy.

The study found that the city gave them an option to apply for an Indigent Policy. To qualify for the indigent plan one has to go through the means test and supply supporting documents.

The City’s indigent policy was adopted in 2003 to better the lives of the poor and to advance access to basic services for underprivileged citizens. This is in line with the constitution of the Republic of South Africa which makes provisions for the underprivileged families. Thus, the city had to devise policies to deal with the needs of the deprived citizens.

The South African constitution, section 27 (1) (c) guarantees that every citizen has a right to access social security. The government is compelled to assume reasonable legislative and additional measures, within the resources at their disposal, to undertake a progressive realisation of this constitutional right.

This explains why the city invited poor people, elderly, and disabled individuals to enroll for the indigent benefits including rates rebate. The City stressed that thousands of citizens who earn little or absolutely nothing, who are restricted by either age or disability from securing jobs, or

who are teenagers, enforced to lead households can and would benefit from the City's policy only if they are eligible to apply and successfully register.

City of Cape Town (2008b), noted that the rate-payers who own one property and whose overall earning is R2, 880 per month or below, or teenagers leading a household registered in the name of their deceased parent/s will qualify for a 100 % rate rebate when they enroll themselves as indigent (Poswa, 2008). It is vital to acknowledge that the city is duly supporting up to 10.5 kiloliters of FBW for the families that are entitled to benefit as poor from the City's Indigent Policy that was adopted in 2003 to help the underprivileged. The allowance of this water needs a household to install a Water Management Device (WMD) (Beck, Rodina, Luker and Harris 2016). The finding is in line with existing literature which explains that the municipality is responsible for supplying each household with 6000 liters of potable water, accessible within 200m of the home as per RDP standards, free of charge each month (Farrar, et al., 2014).

The researcher then questioned Participants 2, 4, 5, 6, 9, 11, 14 and 17 about how this inconsistent water billing is affecting the household incomes?

He explained that:

“This impacts the household income as we as homeowners are unable to budget as we do not know what the utility bill will come out the following month as they have been inconsistent”.

This means the inconsistent water billing affects the income of the households, and their ability to plan.

The finding is that their income is being affected by these inconsistent water billing and they do not have money to buy groceries and pay electricity bills. This has emerged as a problem in this community.

The researcher then questioned Participant 1 on what happened to those who negotiated to pay a certain amount towards their water bills?

He revealed that:

“Those who have negotiated to pay a certain amount towards their debt are discouraged from paying because they feel that they are paying but the debt is not reduced and some have reverted to not pay at all”.

The study revealed that residents who negotiated to pay certain amounts towards their water debts are discouraged despite payments their debts are not reduced. This emerged as a problem.

4.5.6 The Impact of Inconsistent Water Billing on Households

When the researcher questioned Participants 1, 4 and 6 how this situation was impacting their households?

Participants 1, 4, and 6 said that:

“Some of us had to live without water for a few days as our water supply was cut by the municipality. Also, we had to go to municipal facilities for those of us who live close-by to use ablution facilities and who do not have any facilities close-by will ask their neighbours for the use of the bathroom”

It reveals how many of them were facing challenges with water and others were moving to municipal buildings.

This finding reveals how residents became desperate and they had to rely on municipal facilities for their water needs and their ablution. Indeed, this was inconvenient for some residents.

4.5.7 Impact on House ownership

The researcher asked Participants 2, 4, 6, 7, 9, 10, 12, 15 and 17 to explain how this inconsistent water billing is impacting house ownership in the community?

These Participants explained that:

“Many residents in Litha Park were considering selling their houses and moving elsewhere and in some cases; many prospective buyers were avoiding the community due to this inconsistent water billing”.

The understanding here is that many house owners who are the ones carrying the burden of inconsistent water billing are exploring other options like leaving the area because these water billings are impacting the value of their properties.

The finding seems to reveal that this inconsistent water billing in Litha Park is hindering new buyers from entering the area and a challenge for others wishing to live in the area.

4.5.8 Impact on Pensioners

The next question was to ask the pensioners who are living on state grants and old age grants how the situation is impacting them. When the researcher asks this question to Participant 5 who is a former City of Cape Town employee notes that:

“The trouble started when I retired from working for the city as previously I never owed the city because as an employee of the city I could not owe the municipality so whatever I owed the municipality for the month it will be deducted directly from my salary”.

She reveals that as an employee of the city her water bills were deducted from their salaries and she never felt the impact. Therefore, it became a problem once she was retired and could not pay these bills and she had to join community members to engage the city to address these problems.

The finding reveals that life is easier generally for those who are working but for those who are unemployed or pensioners' things become very tough as their incomes are slim.

4.5.9 The Impact of Illegal Water Connections

The other question which emerged with **Participant 5** was the issue of illegal water connections.

When the researcher puts this question to Participant 5 he notes that:

“The inconsistent water billing crises led to many residents resorting to illegal water connections since they could not pay the money that was needed for them to be connected again. They pay a once-off amount to these people who connect them illegally. The people who are doing these illegal connections are former employees of the city of Cape Town, and others are still working with the city of Cape Town. Others used to work for the companies that were installing these water meters”.

The understanding here is that since many of these residents could not pay their water bills they turned to illegal water connections through former employees of the municipality who could assist them to connect their water illegally and they were paid for the re-connections.

The finding reveals how many residents of Litha Park resorted to illegal Reconnections after they were cut off by the municipality. This finding is not new as existing literature reveals how in 2001 many residents in Khayelitsha had their water disconnected.

4.6. Objective Three: To analyse the steps taken by the city of Cape Town to address inconsistencies in water billing

4.6.1 Special arrangements with the municipality

When the researcher puts this question to Participant 1 as to how the problem was being addressed?

Participant 1 informed the researcher that:

“The situation has not changed even though I collected over five hundred utility bills and delivered them to the office of the executive director for the water and sanitation department. Once that didn't produce the desired results the community of Litha Park decided to embark on mass action which was known as the Khayelitsha shutdown. They demanded that the sitting Mayor honorable Dan Plato should come and listen to their grievances”.

The finding is that despite all efforts by community members they are finally coming to terms that nothing is improving and there is no way forward on the inconsistent water billing in the community by Litha Park.

The finding reveals how these residents have no way forward on how to address their inconsistent water billing issues. This is a challenge as the municipality and its officials are not assisting them. This is a violation of their right to water as enshrined in the Constitution.

4.6.2 The Community Visits to Municipal Offices in Khayelitsha

The next step was to understand how the community mobilised to engage municipal officials on this issue in the Khayelitsha offices (Stock and Stock).

When I asked Participants 1, 3, 6, 10 and 15 about how they engaged the municipal offices in Khayelitsha on this billing problem?

These Participants explained that:

“When all these residents discovered the amounts of money that they were alleged to be owing to the municipality they mobilised and went to the local Municipal offices at Stock and Stock to inquire about what they took as a mistake as they could not have used the amount of water that they were alleged to have used. But they did not get any assistance as they were given different reasons for having a water leakage inside the yard or being asked if they own a car wash business as the amount of water that was used in one month could not have been used by a normal family. They were advised to get plumbers to investigate where the leakages in their yards were and they will be responsible for paying that plumber as the municipality was not responsible for anything that was happening inside one’s property”.

They jointly decided to mobilise and take action and they then engaged the municipal offices at Khayelitsha to express their frustration on the issue of inconsistent water billing.

These community engagements with the municipality on water issues should be seen as a form of community participation to improve service delivery in their locality.

These actions by citizens engaging the municipality to provide explanations for their services are community participation. This is in line with Abang (2019) who reveals how community members, led by the Social justice coalition and Ses’Khona’s Peoples’ Right Movement engaged the city to provide water, housing and sanitation in these areas in Khayelitsha.

To gain more insights into what transpired at the Municipal Offices at Litha Park the researcher then asked Participant 1 about how they were treated at the municipal offices?

He revealed that:

“We were met with hostility from rude City of Cape Town officials who did not even have time and behaved like they were doing us a favour by answering us. Even when you inquire where else could we take our matter, they just tell you to go to the civic center in Cape Town? You have to find your way to the civic center as we didn’t know where the offices were or which floor and who to speak to when you get there”.

The understanding here is that municipal officials in the Khayelitsha offices that they engaged with were not assisting them. This poor treatment led to them insisting to see the Mayor of the City of Cape Town

4.6.3 The Road to the Civic Centre in Cape Town

The researcher then puts it to Participants 1, 5 and 6 as to how did they approach these issues?

These three Participants revealed that:

“They had to organise a meeting with the city of Cape Town to address the issue. This meeting was organised and coordinated by the leadership of the South African National Civic Organisation and the city of Cape Town to discuss and resolve the issue of inconsistent water billing in the community”.

The understanding here is that SANCO in Litha Park mobilised the community members of Litha Park to meet the city of Cape Town officials in a bid to meet the then-Mayor Dan Plato directly and discuss this issue of inconsistent water billing in their community.

The study found that SANCO and the residents of Litha Park embarked on a mission to meet city officials and the Mayor to address their water billing problems.

This is in line with statutory laws which state that communities are within their rights to engage with city officials on matters concerning municipal governance.

This is in line with existing literature which reads these actions as efforts to compel the city to provide efficient, equitable and sustainable services through community participation. For Williams (2006:197) this is the process of involving ordinary citizens in the planning, governance and developments in their locality.

To address these inconsistent water billings the residents had to turn to the city of Cape Town which is the statutory body mandated in terms of the Constitution. Tissington (2011:21) illuminates that in terms of the 1996 Constitution Part B of Schedule 4 assigns municipalities with the task of the provision of water and sanitation services limited to potable water supply systems, domestic waste-water and sewage disposal. Tissington (2011:18) again adds that the

Municipal Systems Act, Act 32 of 2000 detailed that basic services constitute the right to municipal services which is enshrined in section 73 of the Act.

4.6.4 Impact on relations with the City of Cape Town

The researcher asked Participant 5 about how this is impacting their relations with the city?

Participant 5 notes that:

“The city started the problem by outsourcing the installation of the meters and changing them”.

The understanding here is that the community members alleged that the municipality started the problem by outsourcing the installation of the water meters to a private company and the municipality embarked on a project of changing these water meters.

The finding is that many residents believe that the city created the problem as the city is the only state organ mandated to deliver water and work with water meters. Since the municipality changed the water meters in the community and it was after the problem started.

4.6.5 Community meetings and their outcomes

The researcher then asks participant 1 how this triggered a meeting with the municipality?

Participant 1 revealed that:

“They had no choice but to engage the city and later the then-Mayor Dan Plato to visit the community and discuss the inconsistent water billing”.

The finding seems to suggest that the community members engaged in discussions on their water challenges with the municipality. This meeting is in line with existing literature that argues for the need for community participation in service delivery.

4.6.6 The First Meeting with the city of Cape Town Officials

The researcher later questioned Participant 1 about the outcome of their first meeting with the city?

Participant 1 explained that:

“The community was able to prove to the municipal officials that their water meters were faulty as during the meeting the community brought a water meter and placed it on the meeting table. During the discussions as the wind was blowing the meter was counting though it was disconnected from the water supply and the Mayor himself witnessed this error”.

It became evident to all the participants in the meeting, including the City of Cape Town officials and the Mayor that some of the water meters were faulty. The finding is that the community meetings revealed that the water meters were faulty.

4.6.7 Meeting with City of Cape Town officials and the Mayor

The researcher pressed for more details to understand from Participant 1 who had been so vocal on the inconsistent water billing and the leader of an FBO on how they tried to address the problem?

He notes that:

“The community had to summon the then-Mayor Dan Plato for a community meeting to explain to the community why they were experiencing inconsistent water billing and the entire community was pointing an accusing finger at the municipality”.

He explained that “the Mayor of Cape Town Dan Plato came and met them”.

“Mayor Plato honoured the invitation as the shutdown coursed havoc for the residents of Khayelitsha the previous day. At the meeting residents of Litha Park told the Mayor how the water bills were impacting their lives; they even suggested that the municipality should take them back to the old meter boxes with the black lids as they never experienced problems”.

The understanding here is that they met with the Mayor of the city and they presented their grievances to him. The Mayor explained that they should be negotiations and once a family qualifies for the indigent services their debt will be canceled.

The finding is that the Mayor advised the residents to apply for the Indigent Policy which was explained earlier. When the researcher pressed for more details on the meeting, noting that since it took place in 2019 what has changed?

The participant revealed that:

“The meeting did not bring anything new as many residents are still struggling with the high water bills and the City officials are not yielding to any suggestions from the community”.

The understanding is that the problem has not been resolved and many residents are still struggling with these water bills.

The finding seems to suggest some form of community neglect by the municipal officials. These neglects have served as the instigator for community protests against the municipality.

The researcher then asked that now that we are going to the local government elections are you going to vote?

Participant 1 revealed that;

“They will vote for someone else and the person must come from their community, not someone that they are given by the political party”.

Participant 4 notes that:

“It will take real convincing for them to vote because they have been voting, but they got nothing in exchange, but only empty promises”.

The understanding here is that this inconsistent water billing has impacted the relations between the community and the city as these residents have to vote for councilors.

The study reveals that there is a relationship between voting and the provisioning of basic services like housing, water and sanitation in the townships and within the city of Cape Town and in the country as a whole. Rodna and Harris (2018) research in Khayelitsha showed that the provisioning of water contributes to the understanding of notions of citizenship.

4.7 Conclusion

This chapter has examined the impacts of inconsistent water billing in the community of Litha Park. The chapter found that the inconsistent water billing is hurting the residents, the house owners and the community at large in many ways. These impacts infringe on their rights as South Africans and also their rights as house owners and their rights as residents in the community. The study will now transit to Chapter 5 to conclude the study.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The previous chapter of this research report provided an overview of the main research findings derived from the data presented and the analysis made in Chapter 4. In Chapter 5 a summary of the previous chapters, conclusions drawn from the findings, limitations and recommendations, conclusions and ideas for further research are presented.

The overall aim of this study was to examine the impacts of inconsistent water billing in Litha Park, Khayelitsha within the City of Cape Town from 2010 to 2018. The discussion of the findings of this study has been guided by the research themes that emerged from the results, based on the following research objectives and research questions.

5.2 Summary and Discussion of the Main Findings

The overarching research problem this study set out to understand was to assess the impacts of inconsistent water billing in Litha Park. The literature and the findings revealed that post-1994 the South African government through the Constitution and the Water Act sought to provide water to all South Africans. This was to be achieved nationally through the DWAF. But working within a decentralised space there was the creation of the municipality as the closest sphere of government to deliver basic services like water, housing, electricity, water, and sanitation to the citizens. Interestingly, by 1996 the government decommissioned the RDP, which was a socialist-leaning policy and introduced a neoliberal economic policy of GEAR which gradually saw the privatisation of public goods like water and electricity and with it the installation of water meters in communities.

These privatisations efforts led to the installation of water meters which made it difficult for some communities and households to pay for water and these installations were done by private companies. The outsourcing of municipal services to private entities emerged as a public-private partnership generally known as NPM and this is the theoretical framework of the study.

The study found that these water metering and billing concepts are borrowed from the United States (Lund 1986) and implemented in poor communities or townships without consideration of

the socio-economic conditions of these residents and their history of discrimination and apartheid which rendered them poor and some destitute.

This study, therefore, sought to understand how these are leading to challenges in water delivery. It is in this light, that this study attempts to gain insights into inconsistent water billing. To achieve this goal the study employed a qualitative research approach study using elite interviews, focus group discussions and telephonic interviews an extensive literature review, and reference to policy documentary evidence. To provide a coherent sequence in answering the research questions. To provide a coherent sequence in this section the researcher has aligned the research questions to the main findings.

5.2.1 The Research Question one was:

What are the main drivers of inconsistent water billing in Litha Park?

A major theme emerging from this research was what are the main drivers of inconsistent water billing in Litha Park?

- **What is water billing?**
- **What is inconsistent water billing?**
- **What are the causes of inconsistent water billing?**

The study found that the causes of inconsistent water billing could be any of the following or all of them. i) These are overestimated amounts that the household should be charged for based on estimated readings; ii) made a billing mistake on the account and it is not correct, or iii) you have a water leak at the premises

The study found out that meter readers do not have the patience to read the meters. The finding is in line with existing scholarship by Schindlers Attorneys (2015) who agree that an overestimated the amounts that you should be charged for based on estimated readings;

The other finding is that meter readers are not patient enough to read the meters. Also, the study reveals that the meter readers are inefficient and not effective.

The study also reveals that the municipality has outsourced some of its core functions to private companies. This finding is in line with the social justice coalition (2014) which notes that the

city has outsourced to private contractors some of its core functions and in exchange, the city pays millions of Rands and the SJC needed to understand if these resources improve the lives of right-holders who are the citizens of Litha Park.

5.2.2 Research Question two

- **How these challenges are impacting the community of Litha Park?**
- **How this is impacting households?**
- **The Effect of Not Having Water**
- **How did the residents address their lack of water?**
- **Effect of Inconsistent Water Billing on Household Incomes**
- **The Impact of Inconsistent Water Billing on Households**
- **Impact on Pensioners**
- **The Impact of Illegal Water Connections**

How these challenges are impacting the community of Litha Park?

In Chapter two in both the international and national literature, it emerged that water was a basic human right and therefore national and local governments have a responsibility in ensuring that citizens have access to clean drinking water.

In addressing this question the researcher investigated how this is impacting residents, households and water usage, impact on household incomes and impact on their properties? The study found that inconsistent water billing has changed the way they live as many are confused as some do not have drinking water. Residents cannot take a good shower, they cannot do laundry, others cannot wash their cars and many do not water their gardens. Many residents are not enjoying their rights to municipal services as enshrined in the constitution.

The study found that many households are recycling water to ensure that they do not run out of it. Also, the exorbitant bills have forced many community members to sell their houses and move out of Litha Park. This has also forced many tenants to leave the community. This finding reveals that the high cost of water is a challenge to many residents and landlords. This is a problem as the right to water is constitutionally enshrined in South Africa. The State is enjoined to take reasonable legislative and other measures, within its available resources, to achieve the

progressive realisation of each of these rights. A municipality has the executive authority in respect of and has the right to administer . . . 'potable water systems and must perform the executive and legislative functions within certain parameters set down in national legislation. In terms of s 74 (1) of the Systems Act 32 of 2000, a municipality is obliged to adopt and implement a tariff policy on the levying of fees for municipal services which complies with the Systems Act.

The finding is that many community members had their water cut-off by the Municipality. This finding is not new as extant literature point to this noting that the research of Smith (2004) illustrates how water cut-off for non-payment in Khayelitsha is always experienced. Water providers placed quality in compliance, without regard to the hardships experienced by those in the townships in Khayelitsha. Hence, it is vital to explore the debate on the non-payment of water services in South Africa.

This is a problem as in Chapter 2, the existing literature revealed the problems that many communities in KwaZulu Natal faced due to water cut offs. The implementation of this cost recovery policy has been widely condemned as being detrimental to those in the township. In one example, cost recovery policies were linked to a cholera outbreak in part of KwaZulu-Natal, when poor people were forced to rely on water from contaminated sources (Deedat & Cottle, 2003).

5.2.3 Research Question three

How the city of Cape Town is addressing the water billing inconsistencies in Litha Park?

- Special arrangements with the municipality
- Community meetings and their outcomes
- The Community Visits to Municipal Offices in Khayelitsha
- The Road to the Civic Centre in Cape Town
- Impact on relations with the city
- Community meetings and their outcomes
- The First Meeting with City of Cape Town Officials
- Meeting with city officials and the Mayor

The study found that both the city and the residents resorted to various ways to address these inconsistent water billings. The study revealed that the municipality went into special arrangements with the residents of Litha Park on the issue of the request for the indigent policy

They jointly decided to take action and they then engaged the City of Cape Town offices at Khayelitsha to express their frustration on the issue of inconsistent water billing.

The study found that SANCO and the residents of Litha Park embarked on a mission to meet city officials and the Mayor to address their water billing problems. This is in line with statutory laws which state that communities are within their rights to engage with City officials on matters concerning municipal governance. This is to ensure that their governance and or service delivery challenges are attended to or addressed.

This is in line with existing literature that reads these actions as community participation. Community participation for Williams (2006:197) is involving ordinary citizens in the planning, governance and developments in their locality.

To address these inconsistent water billings, the residents had to turn to the City of Cape Town which is the statutory body. Tissington (2011:21) illuminates that in terms of the 1996 Constitution Part B of Schedule 4 assigns municipalities with the task of the provision of water and sanitation services limited to potable water supply systems, domestic waste-water and sewage disposal. Tissington (2011:18) again adds that the Municipal Systems Act, Act 32 of 2000 detailed that basic services constitute the right to municipal services which is enshrined in section 73 of the Act. The vision was to ensure that services are closer to the people.

The finding is that many residents believe that the problem has been created by the City. Rightly so, as the city was the only state organ mandated by the constitution to deliver water and work with water meters. Since the municipality changed the water meters in the community and it was after the problem started.

This meeting is in line with existing literature that argues for the need for community participation in service delivery. These engagements were to compel the city to provide basic services. The finding is that the community meeting with the city officials revealed that the water meters were faulty as they could turn even when nobody is using the water.

They had no choice but to summon the then-Mayor Dan Plato for a Community meeting to explain to the community why they were experiencing inconsistent water billing and the entire community was pointing an accusing finger at the municipality.

5.3 Recommendations

Based on the above findings, the researcher has developed some salient recommendations that, if implemented, would enable the City of Cape Town to ensure that the residents in Litha Park, and Khayelitsha and the City do not in the future experience inconsistent water billing.

The recommendations are divided into three major sections and discussed as follows.

5.3.1 Recommendations for Litha Park Residents

The researcher made some recommendations for the Litha Park residents to improve the billing systems. The researcher believes that to improve the water billing system SANCO leadership should engage community members to identify the days of the months that the meter readers visit the community. Through this, they can inform street committee members to inform members of households to leave their gates open to allow meter readers to get into their premises. Secondly, residents who have dogs should get these dogs to the backyards of their houses to allow meter readers access to their various properties to read their meters.

5.3.2 Recommendations for the City of Cape Town

The researcher recommends that to improve the billing system the municipality should ensure that all those contracted that they have outsourced water billing to, should regularly train their personnel to be patient and efficient in reading water meters. They should be able to enter the various yards, have a conversation with a member of the household and explain their mission to them. They can even invite these members to read these water meters to them. Also, they can teach residents to monitor water leaks and burst pipes in the various households. Such improved communication could plausibly reduce water billing inconsistencies crises in the community.

5.3.3 Recommendations for further study

The study narrowed its scope to examining inconsistent water billing at Litha Park, and in the course of the research ignored other parts of Khayelitsha whereas there are many parts of Khayelitsha facing similar challenges. In this light, future researchers should investigate what are the specific water billing challenges facing these other areas of the township.

Future researchers should investigate whether it is the overestimation of the amounts that the household should be charged for based on estimated readings that are at the core of the problem or whether it is billing mistakes on the account that is not correct; or whether it's a water leak at the premises.

5.4 Summary of Previous Chapters

In chapter 1 the researcher introduced the overall purpose of the study by presenting a snapshot of the water problem nationally and how this problem is compounded by inconsistent water billing which may be the outcome of estimated water meter reading, a leaking pipe and wrong meter reading. The researcher also highlighted the research problem of the study, research questions, its objectives and its rationale and also the research setting which is Litha Park.

In Chapter 2, a referenced and comprehensive discussion on the literature review on which this study was based was provided. In this light, concepts like service delivery, cost-recovery in water delivery, inconsistent water billing and municipal billing systems and also the concept of public administration were examined and discussed and also water policies both national and international were also discussed. The researcher also examined the South African Constitution and its stance on the right to water to all and international legislation supporting the provisioning of water to all. Also, NPM and water metering theories were explored as the theoretical framework.

In Chapter 3 the researcher sought to explain the nature of the research methodology applied in the study and the reasoning grounding the appropriate selection of this strategy for this study's specific research question and its objectives. This research approach permitted the researcher to examine the impacts of inconsistent water billing on the residents of the community of Litha Park. The qualitative approach was deemed suitable for this research as there were substantially more data available in the community. This chapter included a discussion on the limitations of the research and confirmed the researcher's efforts to be ethically sound and to maintain the validity and reliability of the findings.

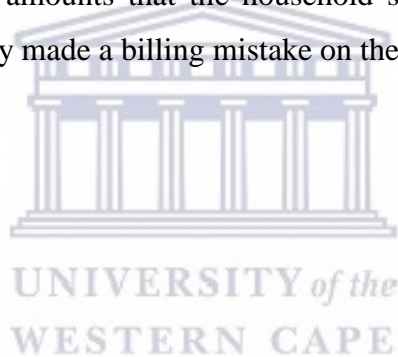
Chapter 4 presented and analysed the data collected from the field through elite interviews, focus group discussions and telephonic interviews, secondary literature and documents collected on water delivery policies in South Africa Post-1994. The focus of the analysis was on secondary

literature, interview responses, and documents. In this light, conclusions and recommendations could be drawn due to the emerging gaps identified in this chapter.

Chapter 5 presented a summary of the previous chapters and recommendations to the city of Cape Town on the findings outlined in Chapter 4. Concluding remarks of the study were given and the implications for future studies.

5.5 Conclusion

This chapter presented a summary of the previous chapters, the main findings and recommendations of the study to the residents of Litha Park, the City of Cape Town and recommendations for future researchers. The study concluded that the inconstant water billing can be addressed in most communities if meter readers are trained to be efficient and communities are mobilised to assist the meter readers to ensure that water meter readings are not based on overestimations of the amounts that the household should be charged for based on estimated readings or whether they made a billing mistake on the account and it is not correct.



6. Reference List

- Abang, Z.A. (2019). Community Participation in Service Delivery in the Low-income Areas: The Cases of the Ses'Khona Peoples' Right Movement and the Social Justice Coalition in Khayelitsha (Doctoral Thesis, University of the Western Cape).
- Allan. I. J. (1993), Revenue Collection Administration: A Guide for Sammler Government Finance Officers Association: North Michigan Avenue.
- Alence, R. (2002). Sources of successful cost recovery for water: evidence from a national survey of South African municipalities. *Development Southern Africa*, 19 (5), 699-717.
- Alshahwan, K. W., Herrera, I., Mthetwa, J., Fakudze, F., Osawa, T., Sachidanandan, A. R., ... & Rogov, E. (2014). *Therapeutic Innovation & Regulatory Science*.
- Bakker, K., & Munk Centre Program on Water Issues. (2003). Good governance in restructuring water supply: A handbook (p. 44). Ottawa, Canada: Federation of Canadian Municipalities.
- Barichievy, K. L. Piper and B, Parker (2005). Assessing “participatory governance” in Local Government: a case-study of two South African cities *Poletia* 24 (3)
- Barrett, S. M. (2004). Implementation studies: time for a revival? Personal reflections on 20 years of implementation studies. *Public administration*, 82 (2), 249-262.
- Bell, A.T (2005). Telecommunication billing Collection best practices: Virtual bookworm.com. Publishing Inc.
- Bhatt M, James A.J, Parikh M and Nanavatti R (2002), Transforming water into money: Participatory study of economics and gender in a semi-arid region in Gujarat, India, IRC International Water and Sanitation Centre, Delft, The Netherlands.
- Bond, P. (Ed.) (2002). *Unsustainable South Africa: Environment, development and social protest*. Pietermaritzburg: University of Natal Press.

Bond, P. (2000). *Cities of gold, townships of coal: Essays on South Africa's new urban crisis*. Trenton, NJ: Africa World Press.

Briscoe J, De Castro PF, Griffin C and North J. (1990). Towards equitable and sustainable rural water supplies: A contingent valuation study in Brazil, *World Bank Econ. Rev* 4.

Burnham, P., Lutz, K. G., Grant, W., & Layton-Henry, Z. (2008). *Research methods in politics* 2nd ed. New York: Palgrave Macmillan.

Butler-Krisber, L. (2010). *Qualitative Inquiry: Thematic, narrative and arts-informed perspectives*: Thousand Oaks, CA: Sage.

Calfucoy, P. Cibulka J, Davison, J Hinds, T. Park, M (2009) *Improving Free Basic Water Provision in South Africa*. Prepared for the Financial and Fiscal Commission, Republic of South Africa Workshop in International Public Affairs 2009

Chand, M. (2010). The impact of HRM practices on service quality, customer satisfaction and performance in the Indian hotel industry. *The International Journal of Human Resource Management*, 21 (4), 551-566.

Chipkin, I. (1995). Citizenry and local Government: a new political subject? *Indicator South Africa*, 13 (1), 37-40.

City of Cape Town's indigent policy of 2003

Cloete, J.J. (1995). *Public Administration Glossary*. Pretoria. Van Schaik

Cloete, J.J. (1993). *South African Local Government and Administration*: Pretoria. Van Schaik

Cloete, J.J. (1989). *South African Local Government and Administration*: Pretoria. Van Schaik

Cloete, J.J. (1988). *Introduction to Public Administration*. Pretoria. Van Schaik

Craythorne, D. L. (1990). *Municipal Administration: A Handbook*. Cape Town

Craythorne, D, L. (1997). *Municipal Administration: A Handbook*. Cape Town: Juta.

Department of Water Affairs and Forestry (1997). Implementing prepayment water metering systems, Pretoria, South Africa.

Department of Water Affairs and Forestry (DWAF) (1997). White Paper on a National Water Policy for South Africa. Department of Water Affairs and Forestry, Pretoria, South Africa.

Department of Water Affairs and Forestry (DWAF) (2002). Proposed National Water Resource Strategy. Department of Water Affairs and Forestry, Pretoria, South Africa.

Department of Water Affairs (DWA). (2014). Water Boards as Regional Water Utilities (Institutional Arrangements to Facilitate Turnaround) - Legal, Financial and Other Implications.

De Vries, Reddy, and Haque (2008). Improving Local government: Outcomes of comparative Research. Government and Management Series. New York: Palgrave Macmillan.

Dickens, C. W. S., Kotze, D., Mashigo, S., MacKay, H., & Graham, M. (2003). Guidelines for integrating the protection, conservation and management of wetlands into catchment management planning. Water Research Commission.

Dimock, M. E, and Dimock, B.R. (1969). Public Administration. 4th edition Hinsdale, Illinois: The Dryden Press.

Dyanti, R, and Frater, W. (1998). Local Economic Development Initiatives in Khayelitsha in Case Studies on LED and Poverty. Department of Constitutional Development, Pretoria.

Farazmand, A. and Pinkowski, J. (2007). Handbook of globalisation, governance, and public Administration. New Wales: Taylor and Francis.

Farrar, L., (with A. Prof. Ulrike Rivett). (2014). Is South Africa's Free Basic Water Policy Working? A Quantitative Analysis of The Effectiveness Of The Policy Implementation: Department of Civil Engineering, University of Cape Town (October)

Green Cape. (2014 a). Market Intelligence Report Water 2014.

Green Cape. (2014b). Smart meters survey Status of and barriers to the local manufacturing and roll out of smart and smart enabled prepaid meters 2013-2014 (March)

Green Cape. (2014 c). Smart Meters:-Technology Review and Role in the Western Cape 2013 - 2014 (March)

Goldblatt, M. (1999). Assessing the effective demand for improved water supplies in informal settlements: a willingness to pay survey in Vlakfontein and Finetown, Johannesburg. *Geoforum*, 30 (1), 27-41.

Hansen, J. D., Heidt, M. L., Watkins, M. A., Drake, S. R., Tang, J., & Wang, S. (2005). Evaluation of Radio Frequency–Hot Water Treatments for Postharvest Control of Codling Moth in Bing'Sweet Cherries. *HortTechnology*, 15 (3), 613-616.

Heller, N. E., & Zavaleta, E. S. (2009). Biodiversity management in the face of climate change: a review of 22 years of recommendations. *Biological conservation*, 142 (1), 14-32.

Hill, M., & Hupe, P. (2002). *Implementing public policy: Governance in theory and in practice*. Sage.

Kasrils, R. (2003). Forward to Johannesburg and hydro-solidarity. *Water science and technology*, 47(6), 77-81.

Kumar, N. (1996). The power of trust in manufacturer-retailer relationships. *Harvard business review*, 74 (6), 92.

Littlefair, K. (1998). *Willingness to Pay for Water at the Household Level: individual financial responsibility for water consumption*, London: Water Issues study Group School of Oriental and African Studies (SOAS) University of London.

Local Government: Municipal Demarcation Act, no. 27 of 1998:

Local Government: Municipal Finance Management Act, no. 56 of 2003 (“MFMA”):

Local Government: Municipal Property Rates Act, no. 6 of 2004 (“Rates Act”):

Lund, J. R. (1986). *Metering Utility Services: Theory and Water Supply Applications*. University of Washington: Department of Civil and Environmental Engineering. Water Resources Series. Technical Report number 108.

- MacDonnell, A. (2001), *People and Systems for Water, Sanitation and Health: Cost recovery at any cost?* Lusaka, Zambia.
- MacDonald, A. (2002). *You get what you can pay for: Cost Recovery and the crisis of service delivery in South Africa*, Volume 28, Number 3.
- Marx, D. (1947). *Elements of Public Administration*. New York: Prentice-Hall
- Mazibuko. G. P. (2014). *The Impact of Municipal Billing system on Revenue collection in selected South African Cities*. (Doctoral Dissertation, University of Pretoria).
- McDonald, D. A., & Pape, J. (2002). *Crisis of Service Delivery in South Africa*. London and New York: HSRC Publishers.
- McLennan, A. (2009). *The Promise, the Practice and the Politics: Improving service delivery in South Africa*.
- McLennan, A. (2012). *The promise, the practice and the politics: Improving service delivery in South Africa*. Online: http://www.capam.org/_documents/adjudicatedpresent
- Mehta, L. (2005). *The politics and poetics of water: The naturalisation of scarcity in Western India*. Orient Blackswan.
- Mgwebi, G. (2010). *South African Local Government: 10 Years Later*. *Local Government Transformer: The Journal for Development and Government Issues*, 16 (6), 1-2.
- Muller, M. (2015). *The 'nexus' as a step back towards a more coherent water resource management paradigm*. *Water Alternatives*, 8 (1).
- Muller, M. (2007). *Adapting to climate change: water management for urban resilience*. *Environment and urbanization*, 19 (1), 99-113.
- Ngobeni, P. (2016). *Co-operation with Pretoria Municipality*. [Personal Communication, 25th October]. Pretoria. (Unpublished)
- Nicholson, R., Chuang, D., Muallem, D., & Torchia, M. *Business Strategy. Smart Water Market Overview* (2012).

Nkomo, S. WESTERN CAPE. (2012). New water meters a curse, blessing. Retrieved June 8, 2016, from <http://www.iol.co.za/news/south-africa/western-cape/new-watermeters-a-curse-blessing-1401045>

northcoastcourier. (2014). iLembe water credits gone with the wind. Retrieved September 30, 2016, from <http://mybroadband.co.za/vb/showthread.php/784433-Ilembe-water-credits-gone-with-the-wind>

Ngabirano (2017). Case Study Review of Advanced Water Metering Applications in South

Nleya, N. (2011). Linking Service Delivery and Protest in South Africa: An exploration of evidence from Khayelitsha, Unisa Press, Africanus 50(1) pp 3-13 ISSN: 03 304-615x.

Ntwana, B. (2015). PLAAS SEMINAR: Impact of water management devices (WMDs) on poor households' access to water services: Case of Samora Machel, Cape Town. Retrieved June 8, 2016, from <http://www.plaas.org.za/event/seminar-impact-watermanagement-devices-wmds-poor-households%E2%80%99-access-water-servicescase>

Otieno, F., & Mwangi, P.N. (2002). Costing Calculations of Operation and Maintenance in Community Water Supplies to Ensure Sustainability- Case Studies (2002). Presented at the Biennial Conference of the Water Institute of Southern Africa (WISA)

Papier, M. (2009). Mitchell's Plain in a water-borne fury. Retrieved July 11, 2016, from <http://m24arg02.naspers.com/argief/berigte/dieburger/2009/02/24/PQ/7/mpw-atermeters.html>

Parliament of the Republic of South Africa (based on Statistics South Africa). (2012). City of Tshwane General and Regional Overview.

Pereira, T. (2009). Household Impacts of Water Management Devices -Summary of Initial Research. 26 November 2009 EMG Water and climate change seminar Presentation.

Peters, S. (2011). Municipal Consumer Debt in South Africa, Chapter 9 in Financial and Fiscal Commission. 2012/13 Submission for the Division of Revenue Technical Report, Midrand, South Africa.

Phaliso, S., & Naidoo, Y. (2010). West Cape News. Cape Town water meters leave poor high and dry. Retrieved June 8, 2016, from <http://westcapenews.com/?p=1729>

Rodina, L., & Harris, L.M. (2016). Water Services, Lived Citizenship, and Notions of the State in Marginalised Urban Spaces: The Case of Khayelitsha, South Africa. *Water Alternatives* 9(2): 336-355

Rogerson, C. M. (1996). Willingness to pay for water: The international debates. *Water Sa*, 22 (4), 373-380.

Ruiters, G. (2007). Contradictions in municipal services in contemporary South Africa: Disciplinary commodification and self-disconnections. *Critical Social Policy*.

Ruiters, G. (2005, October). Knowing your place: Urban services and new modes of governability in South African cities. In Paper for Center for Civil Society Seminar, University of KwaZulu-Natal (Vol. 6).

Smith, L., & Hanson, S. (2003). Access to water for the urban poor in Cape Town: Where equity meets cost recovery. *Urban Studies*, 40 (8), 1517-1548.

Smith, A. H., & Smith, M. M. H. (2004). Arsenic drinking water regulations in developing countries with extensive exposure. *Toxicology*, 198(1-3), 39-44.

Tapscott, C. (2005). Democracy, social capital and trust relations in local government in South Africa. Project.

The Water and Sanitation Programme (2008) Performance Improvement Planning Developing Effective Billing and Collection Practices 44119

Tissington, K. (2011). Basic sanitation in South Africa: A guide to legislation, policy, and practice. 1st ed. Johannesburg: Socio-Economic Rights Institute of South Africa.

The Republic of South Africa (2002), Implementation of free basic water in the remote rural communities, strategies and guidelines; Department of Water Affairs and Forestry,RS

The Republic of South Africa (1996), The Constitution of the Republic of South Africa-Act. 108 of 1996: Pretoria.

The Republic of South Africa (1998), The Municipal Structures Act, Act 117 of 1998

The Republic of South Africa (1993), The Reconstruction and Development Programme

The Republic of South Africa (2000), The Systems Act- Act No. 32 Pretoria

The Republic of South Africa, (1997), The Water Services Act, Act 108 of 1997, The Department of Water Affairs & Forestry. Government Gazette 18522, Government Printer, Pretoria. 68

The Republic of South Africa, (1998), Local Government: Municipal Demarcation Act, Act 27 of 1998, Government Gazette 19020. Government Printer, Pretoria.

The Republic of South Africa, (1998), Municipal Structures Act (117 of 1998) Gazette No. 19614, Notice No. 1650.

The Republic of South Africa, (1998), The National Water Act, Act 36 of 1998, The Department of Water Affairs & Forestry. Government Gazette 1982, Government Printer, Pretoria.

The Republic of South Africa, (2000), The Municipal Systems Act, Act 32 of 2000,

The Department of Provincial and Local Government. Government Gazette 21776. Government Printer, Pretoria.

The Republic of South Africa, (2003), Local Government: Municipal Finance Management Act, Act 56 of 2003, Government Gazette 26019. Government Printer, Pretoria.

The Republic of South Africa, (2010), National Water Services Regulation Strategy, The Department of Water Affairs, Pretoria.

Whittington D, Laura DT and Mux (1991), A study of water vending and willingness to pay for water in Onitsha, Nigeria, World Development 19, (pg.17).

Williams, J. J. (2009). The every-day in the Grassroots levels: Poverty, protests and social change in post-apartheid South Africa. Buenos Aires: Clasco.

Williams, J. J. (2005a). Community Participation and democratic practice in post-apartheid South Africa Rhetoric vs reality, *Critical Dialogue: Public Participation in Review*, 2 (1), 19-27, 05.

Williams, J. J. (2005b). The Grootboom case and the constitutional right to housing: the politics of planning in post-apartheid South Africa. In N Kabeer (ed.) *Inclusive Citizenship: Meanings and expressions*. London: ZED, 05. Press.

Williams, J. J. (2004). Citizenship, community participation, and social change. The case of area coordinating teams in Cape Town South Africa. *IDS*, 35 (2), 19-25.

White Paper on Water Supply and Sanitation Policy (1994), *Water-an indivisible national asset*; Cape Town, Republic of South Africa.

7. APPENDIXES

Questions for municipal water billing officials

Are you aware of the problem of inconsistent water billing in Litha Park?

- How did you become aware of the challenge?
- When did the community complain about the issue of inconsistent water billings?
- Which area first experience this challenge?
- How many households are involved?
- What is the highest water bill ever recorded?
- What steps have been taken to address this issue?



FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES

SCHOOL OF GOVERNMENT

CONSENT FORM FOR (INSERT RESEARCH INSTRUMENT/NAME OF ORGANISATION ETC.)

RESEARCH TITLE: Impact of Inconsistent Water Billings: The Case Study of Litha Park, Khayelitsha, City of Cape Town, Cape Town

I have read the information presented in the information letter about a study being conducted by (Zamile Zane Sangqu) towards a Masters degree in Public Administration, at the School of Government (SOG), the University of the Western Cape.

This study has been described to me in a language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered.

I understand that my identity will not be disclosed and was informed that I may withdraw my consent at any time by advising the student researcher.

With full knowledge of all foregoing, I agree to participate in this study.

Participant Name : MOWAKHE MADOKAZI

Participant Signature : [Signature]

I give consent for recordings to be taken:
Agree Disagree
[X]

Date : 06 August 2021

Place : KHAYELITSHA

Student Researcher : Zamile Zane Sangqu

Student Researcher Signature : [Signature]

Student Number : 3857040

Mobile Number : 0796659379

Email : sangqu51@gmail.com/3857040@myuwc.ac.za

I am accountable to my supervisor : Dr M. Makiva

Department : School of government

Telephone : +27 21 959 3832

Email : mmakiva@uwc.ac.za