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ANALYSIS OF WATER SERVICE DELIVERY AT WHITE CITY TOWNSHIP IN SOWETO

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A research report submitted to the faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management (in the field of Public and Development Management).

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ABSTRACT

Water purchase is impacting negatively on the communities in Less Developed Countries (LDC), in Africa and in low-income areas in South Africa. This has resulted in resistance to pay for improved water services by poor consumers in White City, in SOWETO. The purpose of the research was to investigate the challenges facing White City community regarding water purchase. The research methodology used in this study was qualitative and involved data collected from three focused groups at White City Community in SOWETO. The findings suggested that the privatisation of water services is unlikely to lead to sustainable improvement in service delivery in poor communities and may well worsen the situation for some. The study also found that there is high level of non-payment which is associated with perceptions that water should be provided for free and lack of information on water policy issues as well as lack of education.

DECLARATION

I, Charlotte Witbooi, declare that this research report is my own unaided work. It is submitted in partial fulfilment of the requirements of the degree of Master of Management (in the field of Public and Development Management) in the University of the Witwatersrand, Johannesburg, South Africa. It has not been submitted before for any degree or examination in any other University.

_____

Charlotte Witbooi

_____day of _____, _____

DEDICATION

This work is dedicated to my mother Brenda Witbooi, my two brothers, Stanley and Selby for their encouragement, patience and financial support, and my nephew Inga for his inspiration.

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I am deeply indebted to Dr Horácio Zandamela, my supervisor for his invaluable guidance, insightful ideas, and encouragement in compiling this research report. He has gone the extra mile with his availability, for discussions, suggestions and critical review.

I also wish to thank Mr Tshepo Makgethe, the representative from Johannesburg Water, and Willy Nkutha, representative from Rand Water, for their valuable informative contribution. My gratitude goes to: Alice Gqibithole for editing this research report, White City township residents, my family, friends and colleagues (especially Rachel from the advanced studies in governance course) for their support, without their assistance, this research would not have been possible.

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LIST OF ACRONYMNS

ANC:	**African National Congress**
CMAs:	**Catchment Management Agencies**
DFID:	**Department for International Development**
DWAF:	**Department of Water and Forestry**
EU:	**European Union**
GEAR:	**Growth Employment and Redistribution**
HIV/AIDS:	**Human Immune Virus / Aquired Immunne Defficiency Syndromme**
IFIs:	**International Financial Institutions**
IMF:	**International Monetory Fund**
JW:	**Johannesburg Water**
LDCs:	**Less Developed Countries**
NGO:	**Non- Governmental Organisations**
RDP:	**Reconstructions and Development Programmes**
SACP:	**South African Communist Party**
SALGA:	**South African Local Government Association**
SOWETO:	**South Western Townships**
USAID:	**United States Aid for International Development**
WB:	**World Bank**
WBs:	**Water Boards**
WSPs:	**Water Services providers**

CHAPTER ONE: INTRODUCTION TO THE STUDY

1.1 Introduction

The South African government recognizes that there is both a political and developmental imperative to improve service delivery, particularly access to municipal services like portable water and adequate sanitation.[1] This is reflected in the Finance Minister Manuel 's Budget Speech (2000, p.4), which states

> Increases of spending on…municipal infrastructure…[and]
> Steps up assistance to communities to improve access to
> affordable basic services…[as part of the] key interventions
> in support to development and the war against poverty.

The provision of municipal services is, however, hampered by residual deficits in infrastructure that persist in post-apartheid South Africa (MacLennan, 2002; Bond, 2000). Overcoming these to ensure universal access to water services, should have a positive effect on women's use of time (World Bank, 2000; Hemson, 2000; Bond, Moellendorf and Mogale, 1998). Thus Kaika and Swygedouwn (2000) suggest that improving access to technologically advanced infrastructure, and the associated high levels of service delivery, carry*,'* the promise and dream of a better society and a happier life*'*.

Contrary to the above perspective the South African government got on the band wagon of market-based approach to water delivery. Inherent to the concept of market-based water delivery is: privatization, commercialization (pricing), commodification and corporatisation. This principle was resisted by the majority of the population in South Western Townships (SOWETO), especially people from the low-income group because this approach hits hard on the poor. It was mentioned in one of the focus groups that the community was not consulted about the new policy for water, that is, to put a price on water. As a result, the

[1] The provision of drinking-and waste-water facilities is together called 'water services'.

community has participated in several campaigns related to purchasing of water services, including boycotting purchasing of water.

The research focused on the White City Township in SOWETO. According to Statistics South Africa, this township has a population of about one third of SOWETO's 1.5 million population. It is one of the many townships in SOWETO indirectly facing the appalling laws of cost recovery, and profit making by water providing sectors. This move was not explained to them and they do not understand the policies. The community needs to be educated about this approach.

The research will provide a background insight into why this topic needs to be studied and will highlight the limitations of the study. The research used a qualitative method to explore and evaluate White City residents-as-consumers' expectations about and resistance of water pricing as service delivery. This process measured their levels of dissatisfaction concerning water pricing services. Thereafter, issues related to price, value and payment behaviour were explored and quantified. A simplistic quantitative method was used to calculate the percentages of the respondents.

1.2 Background of water pricing in the country:

Johannesburg Water (JW) is the water and sanitation service provider for the city of Johannesburg. The company is 100 percent owned by the City and was created to serve the city. This organisation has embarked on the first phase of a large scale intervention project known as 'Operation Gcin'amanzi', a multimillion project to improve service delivery that will address the severe water losses in SOWETO.

The survey conducted by JW in 2001 established that current water purchase figures from Rand Water indicate that water supply per SOWETO family unit is about 60 kiloliters per month. Survey results pointed to defective plumbing, leaking mains and inefficient water usage by residents, as contributing factors to this high consumption figure. Consequently JW was mandated by the government

to address the water supply problem in the areas as well as the creation of an environment conducive to payment for water and sanitation services.

According to an Interview with the JW representative on 18 August, 2006 the project will be implemented over four years. It will include a range of intervention measures to reduce the levels of unaccounted for water wastage. The project's function will be to install district water pressure regulating valves, pre-paid meters and the refurbishment of faulty reservoir outlet meters. These measures attempt to reduce water losses experienced in the area, calculated at about 68 Mega-litre per annum.

JW representative alludes that they will start installing free-payment water meters, suggesting that they aim to give the owner a daily basis peace of mind concerning household water consumption amount. This is to ensure that the consumer is not taken by surprise by water cuts when they occur or surprised by high bills when they are expected to buy more water at the end of the month. They claim that a free-payment meter is able to provide other important information to the consumer such as to detect water leaks on the property as well as indicate to a credit amount when it needs to be purchased in order to refill more water.

According to the Johannesburg Water (2006) another big component of the project was to focus on community education programmes. The objective was to address issues such as unaccounted for water, familiarity with water metering, billing of customers, network rehabilitation, and private property water leaks within the municipal network and water usage habits. In this process consumers will be taught how to use the free-payment meters wisely, that is, they will be taught how to manage their consumption to less than 6000 litres per month, in order not to pay for water and sanitation. The user manual suggests that the pre-payment meter will remain open every day and dispense water as required whilst they are still within their free water allocation. Consumers will pay or buy water only when they use more than 6000 litres. In order to prevent purchasing every month they will need to ensure that there is a credit amount on their meter, for

example R1 (one rand) which buys them more than 200 litres of clean-water, under normal circumstances.

The researcher notes that the above approach was developed following the neo-liberal economic advice of the World Bank (WB), the International Monetary Fund (IMF) and various Western governments, which concentrates on cost-recovery and profits accumulation. Following the approach the South African government drastically decreased grants and subsidies to local municipalities and city councils and supported the development of financial instruments for privatised delivery of water.

The Growth Employment and Redistribution (GEAR) policy which was introduced in 1996 located the policies of water and other basic needs within a neo-liberal macro-economic policy framework. This policy framework was advice from the WB and other International Financial Institutions (IFIs) to water delivery by the South African government. This meant that it would no longer use the local municipalities as the sole executors in water delivery, but now would involve international institutions and private companies in water delivery (Bright, *et al.,* 2003). This approach effectively forced local government to turn towards commercialisation and privatisation of basic services as a means of generating the revenue no longer provided by the national state. This action by the South African government was headed for complicated implications in the country. These will be highlighted later in the report.

Many local government structures began to privatize public water utilities by entering into service and management 'partnerships' with multinational water corporations (Wimpenny, 1994). As early as 1994, the South African government introduced its policy on water in direct violation of the Reconstruction and Development Programmes (RDP) commitment to lifeline supply. This gave the water bureaucrats the authority to provide water only if there was a full cost recovery of operating, maintenance and replacement costs (Marais, 1998; African National Congress (ANC) 1994). Hence pre-paid meters were introduced in SOWETO.

One of the Johannesburg Water Corporation's advertisements states its objectives as:

- Providing drinking water and sanitation services to all;
- Providing all households with 600 free litres of water per month;
- Maintaining existing, and building new, infrastructure;
- Improving customer orientation and contact (Cox and Dishy, 2001), was compromised by the new form of water service delivery.

From 2000 water delivery was under purchase policy free supply ended in many SOWETO townships. Water purchase came as a big shock to many people in this area because there was no prior warning or consultation about the changes in water delivery. On the other hand one of the RDP's objectives of poverty alleviation was violated because poor people were expected to pay for water. This is not addressing the poverty problem. Instead it is an assumption that people can afford to pay for water.

Poor families un-able to pay have been cut-off from water supplies - more than ten million by the latest count. In addition, over 2 million have been evicted from their homes, often as part of the associated legal process to recover debt from poor 'customers' (Gleick, 1999). Poor communities without previous access to clean water have either suffered the same fate once infrastructure was provided or have simply had to do with sourcing water from polluted streams and far-away boreholes.

Cutting-off people from their water supply by water providers was inhuman and illegitimate because this action worked contrary to the promise of the right to adequate amounts of free and clean water which was guaranteed in the South African Constitution (1996, section 27.1), and operational through a range of policy documents.

One in six Gauteng residents who had insufficient water was in a dilemma because such people could not afford to purchase enough (NEDLAC, 2000). This assertion is understandable, since water cut-offs rose steeply during 1997. The rate of reconnection did not follow suit. In fact the rate of disconnection increased faster than the rate of reconnection. The percentage of disconnected services that were reconnected declined, despite the increased number of reconnections, see (Table One) below. Thus, though an unusual high percentage of Gauteng residents have access to the infrastructure necessary to provide sufficient water, consumption of this public commodity seems to be hampered due to financial constraints at household level.

Table One: Household Water cut-offs and Reconnections in 1997

Cut offs	512	932	1210	5470
Rate of Cut-offs	-	182%	236%	107%
Reconnections	252	449	613	1064
Rate of Reconnections	-	178%	243%	422%
Ratio Reconnect: Cut-offs	49%	48%	51%	19%

(Source: Letsie and Bond, 2000, p.3)

1.3 Problem Statement

The policy of 'cost-recovery' by Rand Water through the introduction of water purchase in the townships has seen the price of water rising, hitting poor communities very hard. The water purchase approach is impacting negatively on communities in South African townships in SOWETO, in the Less Developed Countries (LDC), including most of the countries in Africa. This approach is causing an uproar, opposition and non-payment or non-purchase on the part of the majority of people in these places, particularly low-income groups in these areas. Meanwhile there seems to be no education of the communities on water services by the water providers.

As a result of privatization water has ceased to be a public commodity that is accessible and affordable to all South Africans, especially in poor areas. Instead, water and sanitation have become market commodities to be bought and sold on a -profit basis. The 'free' 600 litres of water per month, per household is not recognized by the communities. It is perceived not enough to cover basic water needs by the communities. Households are charged more for every additional drop they use, in-order to recoup the income foregone due to the first 600 liters provided.

Although Rand Water has introduced the Gcin'amanzi project whose aim is to educate people on the processes of water pricing, very little is known about its functions by the community. They don't see this approach as contributing to poverty reduction as a component of development because they are overpowered by price hikes and large-scale water disconnections (Winpenny, 2003).

1.4 Purpose of the Research

The purpose of the research is to investigate the challenges facing the White City community regarding water purchase. The residents do not seem not to understand the new policy concerning privatisation; that the cost recovery policy that underlies privatization is driven by profit rather than the notion that people have a constitutional and human right to water Boyle and Anderson (1996) (in Gleick, 1999). The providers forget that the communities are stakeholders in this process. Thus the residents feel betrayed by the ANC government.

The research wishes to also add its voice to other researcher's motivation that the policy of cost recovery be reviewed as it has many short comings that questions its viability in the context of South Africa. This report argues for community education concerning water purchase, and state intervention through regulation agencies.

1.5 Research Questions

The research study explored whether the level of the consumer dissatisfaction about the service delivery was related to their ignorance of what it means to pay for water. In particular, it proposed that the officials disclose to the public, reasons behind water purchasing. To do this, it explored the following sub questions:

- How did the community know about water purchase?
- What is the community's understanding of water pricing?
- What challenges does the community have to face with this approach?
- What steps have the officials taken to educate the community about the process and procedures of water pricing?

1.6 Significance of the Research

The current relationship between the communities and water providers is a fragile one. Since the introduction of pre-paid meters, there have been conflicts and anger directed to JW by the SOWETO residents. The actions of the residents against the water providers plague positive relationships that could be created between them. Educating the community about the dynamics and expense involved in water services could appease the community. The importance of the research is to motivate for state intervention to encourage water providers to educate the communities about the processes and procedures of water pricing so that the communities should understand the role they have to play in water service delivery. In this way this approach could not be hampered by the communities that lack knowledge of water purchase service delivery.

The research will be significant as a voice for the aforementioned communities, to the water providers since water policy issues have had a negative impact on SOWETO residents recently. The consequences of water commercialization have or are still hitting very hard on municipalities, the poor and the government.

Probably the approach is not achieving what it was meant to achieve (cost recovery and profits), instead it is perceived negatively by the society.

The results which come out of the findings will perhaps help the Johannesburg Water to have a better understanding of what it needs to do with policy formulation or working hand in hand with the government and the community regarding water management in townships. Educating the community need not over emphasised. It will provide voice to SOWETO communities.

1.7 Limitations to the Research

Leedy (1997: p.59) points out that 'the researcher can be easily beguiled by discovering interesting information that lies beyond the precincts of the problem being investigated.' In order to ensure that a framework is set to assist the researcher, not to fall into this trap the limitations of this research need to be identified.

The research looked at the community in one township only in SOWETO, that is, White City Township. The researcher comes from this area. This could pose some difficulties because participants might be reluctant to voice give their real feelings concerning this issue. The progress of the study could be jeopardised. Having said this, the researcher completely avoided travelling by herself. Two male friends would accompany the researcher to conduct a focus group interview because mob psychology could spoil the progress of the research.

Due to the politically sensitive nature of the topic under discussion, and in order to protect the confidentiality of water provider representatives, further reference to the interviewee was by means of the acronym of the organisation. The research has been constrained by limited access to primary information such as water pricing reports and financial indicators such as non-payment rates. The researcher repeatedly visited the Johannesburg Water Heard quarters in central Johannesburg, with the hope of having an interview with one of the top officials.

All was in vain. Instead she was sent from pillar to post. Eventually she could speak to ten people.

The researcher was refused an interview on questions which were loosely structured around the key question about why putting a price on water services for efficiency or effectiveness? so that the impact would benefit the public. In addition questions which probed the interviewees' perceptions of the reasons for pricing the services, and why the interviewees believed the system was the best option, for the poorest of the poor? Or alternatively not the best option, for this group. The intention is to draw out interviewees' interpretations of the circumstances that resulted in the decision to turn water to a commodity from being a free merit, also and to elicit their views of the roles of the government versus the public sector in relation to providing basic services.

Interviews were converted into a conversational form concerning the functions of the officials in the sector. Notes transcribed from the mobile phone were written as a record and sent to the interviewee who was invited to comment and to make alterations if he felt it was necessary.[2]

Informal and unstructured interviewing took place with two junior representatives from JW and RW. The interviewer was refused appointments with the appropriate senior staff members who could answer questions on water pricing. First there had been a previous clash between the JW representatives and the Phiri township community from SOWETO who were the first group to fight against water pricing. Second tension between JW and one student from WITS, who was the first student to ask for an interview on water pricing with the JW representatives, and was turned down, the matter ended up in court. The interviewer was perceived to be from Phiri and working on behalf of this community since she introduced herself as a student from WITS University. This meant that a comprehensive survey approach, involving structured questionnaires could not be used to provide useful information about the impact of water pricing.

[2] The interview notes are attached as appendix four, five and six.

The interviewer ended up asking the respondents from the water providers about their functions in water services.

1.8 Contents of Chapters

To ensure a comprehensive presentation this research report will be divided into main chapters as follow:

Chapter One Introduction: sets its context, by illustrating the background of water delivery history in South Africa, and by describing water service management in this country. It provides the summary describing the problem purpose of the research and the significance of the study.

Chapter Two Literature Review: Sets an analysis of literature on the role of the institutions to water service delivery. It will give an illustration on the impact of the service delivery to the community. One body of work discusses privatisation largely in terms of its economic rationalism.

Chapter Three Research Methodology: Shows the nature of the research methodology and the methods used in data collection and analysis. It will elaborate on the manner in which data was collected, and analyzed.

Chapter Four Presentation of Data:

Will inform on collection of data and interface data collected with the literature review. It will give organized and categorized data. It will conclude by giving the delimitations and the limitations of the research, that is, what research mechanisms worked well in compiling the research work, and what did not work well. It will give reasons as to why some strategies worked whereas others didn't work.

Chapter Five Results: This section will discuss data collected from the interviews and will provide the results of the research.

Chapter Six Conclusion and Recommendations: The final chapter will discuss the conclusions that arose from this research, and conclude with the recommendations of the study. A set of recommendations is made that reflect actions that might be taken by regulators to work hand in hand with the private sector to confront challenges of privatisation as a development initiative. Finally suggestions on potential areas for further research are made.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

For the purpose of analysis, the literature reviewed here can be categorised into two broad, but not necessarily distinct groups. One body of work discusses privatisation largely in terms of its economic rationalism: that is, privatisation is the most efficient way of managing resources and services because the market is the most efficient mechanism for distributing goods and services. This literature tends to focus on the savings to the state through privatisation. A core assumption of this literature is that the market remains the most effective mechanism for the distribution of many services traditionally provided by the public sector. The question for privatisation centres on the nature of the privatisation and the regulatory environment that needs to be in place, rather than on whether privatisation has developmental merits.

In the above category several Policies and Acts on water and sanitation were examined, with particular reference to their perspective on service delivery, privatisation and their developmental impact.

The second category of literature examined the impact water pricing has had on water service delivery and how it is affecting poor communities negatively in Less Developed Countries (LDCs), payment or purchase behaviour. It reviews the historical and current levels of water service provision, and the evolution of policy in South Africa and how it operates on a range of policy documents. The literature is examined through a developmental lens and is being drawn on to determine the advantages and the disadvantages of privatisation as a strategy for service delivery to poor communities. Thus this section contextualises the origins and extent of the problem of inadequate service delivery by pre-paid meters in White City Township in SOWETO.

2.2 Policy and Legislation Impacting on Water Service Delivery.

This section will examine several Policies and Acts directly relating to water service delivery: the 1997 White Paper on a National Water Policy for South Africa; the 1997 Water Services Act; and the free Water Policy, with specific reference to their perspective on service delivery and privatization, and their developmental impact.

The above policies were selected because they contain the core guidelines for water supply service provision.

2.2.1 1997 White Paper on a National Water Policy for South Africa

The 1997 white paper provided the basis for the 1998 Water Act and, as such, did not elaborate in much detail on the provision of services other than to discuss the need for a pricing policy that reflects the economic value of water, that is, user pays. It did, however indicate that this pricing policy should be balanced against equity and the socio-economic circumstances of people in communities. The white paper also referred to the interfacing of the water policy with GEAR and the scope for the involvement of the private sector in water and sanitation service provision.

2.2.2 1997 Water Services Act

This act focused on setting out the institutional arrangements for the supply of water and the regulatory framework for the operation of those institutions (Water Service Act, 1997). The Act authorized the Minister of DWAF to set national norms and standards in relation to tariffs and standards of services. It was left to the relevant water authorities (municipalities) to determine the detail of such tariffs and standards within these broad guidelines.

According to the Water Services Act 1997 water authorities were to develop water services development plans for their areas of jurisdiction. However, a water authority did not have to be a water provider as well as the Act provided for

alternative arrangements, such as joint ventures and contracting, and therefore opened a way for private sector involvement. The Water Services Act (1997) empowers the Minister of Water Affairs and Forestry to regulate various dimensions of the provision of water services. Regulations have already been promulgated for the provision of these services, the pricing of the services and to govern contracts for the provision of these services.

In addition, a potentially powerful provision of the Water Services Act requires the production by Water Services Authorities (the designated municipalities) of Water Services Development Plans within the framework of the Integrated Development Plans now required by Municipal legislation.

2.2.3 The Free Water Policy

The then Minister of Water Affairs and Forestry, Ronnie Kasrils, announced in May 1999 the provision of a free basic supply of water amounting to 6000 liters per month, per house hold[3], 10 months before the second democratic local government election held on 5 December 2000.

This announcement received mixed reactions. On one hand it was welcomed as a long overdue recognition, that across the board user pay policies in the water sector were anti poor and unworkable. On the other hand, organizations that had spent the last seven or so years working with the communities to convince them of the merits of paying for water and establishing structures to manage schemes at local level, were unimpressed even if drawn to the social justice aspect of free water. The free water promise also appeared in the ANC's local government election manifesto.[4] The ANC did not provide any guidance on how this promise might be turned into reality.

To deal with the challenge of delivering in this policy, a 'Free Basic Water Task Team' was established, involving the Department of Water Affairs and Forestry,

[3] 6000 liters equals 6kiloliters that is also written as 6kls.
[4] The ANC's local government election manifesto also promised a free basic supply of electricity.

National Treasury, Provincial and Local Government, Mineral and Energy, as well as the South African Local Government Association (SALGA), representatives from the NGO sector, and the Development Bank of Southern Africa (DBSA).

The guidelines for free basic water for municipalities were subsequently prepared. They suggest ways in which delivery of free water mandate may be instituted. In municipalities where there are high-level consumers, it is suggested that charging rising block tariffs with the first 0-6kl free is the simplest method. It is suggested that poor consumers can be identified for provision of free water by either targeting individual house-holds with credits on their water accounts for up to 6 kls per month, or a method such as providing vouchers with which the consumers will pay for the first 6kls of water each month. Alternatively, a municipality could identify certain areas that will receive free water and sanitation service received.

Ultimately, how municipalities choose to implement the free water policy appears to be largely their own decisions and arrangements. See below the tariffs guidelines for the SOWETO municipality.

Table Two: 2006 / 2007 Tariffs

Kiloliters	Water-R/K (incl. VAT)	Sanitation (Incl. VAT)	Total Cost (Incl. VAT)
0 up to 6	Free	Free	Free
>6 up to 10	R3.65	R2.11	R5.76
>10 up to 15	R4.33	R2.39	R6.73
>15 up to 20	R6.73	R3.82	R10.55
>20 up to 40	R9.23	R5.30	R14.54
>40 up to 50	R11.29	R6.38	R17.67
>50	R11.29	R2.11	R13.40

Source: JW tariffs guideline (User Manual)

It is suggested that charging rising block tariffs with the first 0-6kl free is the simplest method. It is also suggested that poor consumers can be identified for provision of free water by either targeting individual house-holds with credits on their water accounts for up to 6 kls per month.

In summary the White Paper promoted the need for a pricing policy that reflected the economic value of water, that is, user pays. It did, however, indicate that this pricing policy should be balanced against equity and the socio-economic circumstances of people and communities, which were ignored by the officials, hence the poorest of the poor from the communities acted against the approach. The white paper's embrace to the interfacing of the water policy with GEAR and the scope for the involvement of the private sector in water and sanitation service provision further encouraged the neo-liberal policies of privatisation.

The 1997 Water Service Act authorised the Minister of DWAF to set national norms and standards in relation to tariffs and standards of services. It was left to the relevant water authorities (municipalities) to determine the detail of such tariffs and standards within these broad guidelines.

2.3 South Africa's Water Policy Review

The right to adequate amounts of clean water is guaranteed in the South African Constitution (1996, section 27.1), and operationalised through a range of policy documents. This section details policy development in the post-apartheid era, with particular emphasis on the question of 'free basic water' and its provision, since it is particularly pertinence to poor people. It will be highlighted in the constitution, the Reconstruction and Development Programmes (RDP) and Growth, Employment and Redistribution (GEAR).

The housing white paper (1994) first introduced the concept of a 'free lifeline' of water (Bond, 2001), which was endorsed by and expanded upon in the, Reconstruction and Development Programmes (RDP) (ANC, 1994). The RDP

suggested a system of rising block tariffs and cross-subsidization to augment the public good (ANC, 1994).

The Bill of Rights contained in the Constitution (1996) states that everyone has the right to sufficient water and food (Republic of South Africa, 1996, p.13). The privatisation of water violates that constitutional (and human) right in every way imaginable (Bright, *et al.* 2003). In the constitution local government has the responsibility to ensure the provision of services to communities and to promote a safe and healthy environment (ibid, 1996, p.81). Both these requirements would necessarily include providing adequate, safe water supplies and sanitation. Moreover, local government should structure and manage its administration and budgeting and planning processes to give priority to the basic needs of the community (Ibid, 1996, p.81). Water and sanitation fall in the category of basic needs.

2.3.1 The RDP

The purpose of the RDP, completed by the ANC just prior to the first democratic election since April 1994 and the subsequent formation of the Government of National Unity (GNU), was to provide an 'integrated, coherent socio-economic policy framework,' (RDP, 1994, p.1). This framework set out the guiding principles for meeting basic needs; developing human resources; encouraging economic growth, and democratising key institutions and the different spheres of government.

The RDP (1994, p.16) also, significantly set standards for basic service provision, for water and sanitation, these standards are:

- In the short-term a national water and sanitation program will aim to provide all households with a minimum of 20-30 litres per capita per day (lcd) of safe, clean water within 200 metres of the household as well as an adequate and safe sanitation facility per site.

- The RDP's long-term goal is to provide every South African with accessible water and sanitation.

Further, the RDP (1994, p.25) recommended the following approach to the national tariff structure for water and sanitation:

- A lifeline tariff to ensure all South Africans can afford water to meet basic health and hygiene requirements;
- Progressive block tariffs in urban areas to allow for cross – subsidisation to ensure affordability for the poor;
- The tariff in rural areas should cover operating and maintenance costs. Capital costs should be recovered via cross subsidisation from urban areas where necessary.

A 2005 review of the RDP acknowledges delivery of water services to at least 3 million people since the 1994 democratic election. However, the review claims that interpretation of the RDP into law has resulted in the minimum standard of 25 lcd's becoming the standard instead of being a stop-gap measure to meet basic needs while efforts are underway to improve infrastructure and service delivery (Bond and Khosa, 1999, p.14). This suggests that the progressive improvement of water services as an objective has been replaced by the need to conform to budgetary constraints and increasing pressure for cost-recovery in the delivery of services.

2.3.2 GEAR

GEAR was released in 1996 with the purpose of providing a macro-economic policy framework that would promote economic growth, employment creation and poverty reduction. GEAR as a macro-economic policy determined an approach taken by the government towards basic-service provision. At the same time this policy recognised a need for an expansionary public infrastructure investment programme to address service backlogs and create an environment more conducive to economic growth and employment creation. In the GEAR

policy the fiscal discipline was a strong message throughout this policy outlined in the document to reduce the deficit from 5.1 percent in 1996 to 3.3 percent by 2000 (GEAR, 2006, p.4).

The implication of GEAR for the water and sanitation sector, for all basic services, is that there will be no significant government funding dedicated to either infrastructure or service delivery, certainly not on the scale to achieve universal access. Achievement of major expansion of services will necessarily require local government authorities, which are responsible for ensuring access to water and sanitation, to seek other solutions such as private sector involvement.

Finally, to recognise a need for an expansionary public infrastructure investment programme to address service backlogs and create an environment more conducive to economic growth and employment creation. The RDP was to provide an 'intergrated coherent socio-economic policy framework.' This framework set out the guiding principles for meeting basic needs; developing human resources; encouraging economic growth, and democratising key institutions and the different spheres of government.

The researcher could not link any compatibility in the objectives contained in the three beliefs of GEAR, the RDP and the constitution. GEAR's policy largely reflects the neo-liberal perspective that wealth merely needs to be created and the markets will then take care of meeting needs. The acceptance of the GEAR strategy as representing the best way forward for the country has never had universal approval. Instead it attracted hostility among other political parties, probably because it over-looked the formation of a micro-economic policy framework that would promote the participation of Small Medium and Micro Enterprises (SMMEs) to generate an economy that would meet the needs of the people in a more equitable manner. A belief carried by the RDP, which significantly set standards for basic service provision, that is, in the long term goal the RDP was to provide every South African with accessible water and sanitation.

2.4 Privatisation an Efficient way to Manage Resources

Water privatization is complicated to be analysed because the researcher views that there are many prevailing definitions, thoughts and misconceptions about it. Definitions of this practice differ from: corporatisation, commercialization, water pricing and water privatization. Since the South African government has embraced the advice of the World Bank (WB) to privatize water in this country, the paper will focus on water pricing.

Few pro-privatisation authors examined in this literature review were as blatantly and wholeheartedly convinced of the merits of privatisation. This section will highlight the thoughts of pro-privatisation authors. It will give the analysis in such areas as: privatisation, a driver of growth; evidence by pro-privatisation followers; the inherent efficiency of the market over the state. It will also give the summary of their position.

2.4.1 Privatisation a Driver of Growth

The rise of privatisation is a result of the dramatic change in thinking among donors and LDCs about the roles played by the private and public sectors in driving economic growth. An emerging mainstream consensus is now assigning the primary development and employment role to the private sector, with the public sector creating the environment and setting the policy framework so market forces can act (Zank, 1991, p.168).

Zank follows the theme of increasing the influence of market forces in the provision of services that may have traditionally been delivered by the public sector. He notes that privatisation is the major focus of USAID's bilateral foreign assistance programme, a direction he sees as being taken by other donors as well. He stresses the need for adequate government institutional frameworks to regulate and monitor the performance of the privatised enterprises.

The water sector being a kind of infrastructure and systems required to deliver these services simply do not lend themselves to market forces in the same way of those for other goods, like Electricity, Transport, Tele-communications do. The reporter views that, a private sector monopoly on water and sanitation provision may have worse outcomes than a public sector monopoly because the private sector will lack the environment of competition than supposedly maximises operational efficiencies. It will lack the drive for positive social benefits that a public sector entity may have, such as improved public health outcomes.

2.4.2 Evidence by pro-Privatization Followers

The World Bank released a first draft of its 'Source Book' (World Bank, 2000) which is on Community Driven Development in the Africa Region: Community Action Programs'. This vision for the water sector includes the ideal of villages and towns managing their water and sanitation systems as local industries. To achieve this vision, the Bank has identified three areas of action on its part, for assistance in bringing the vision to realisation. The Bank must boost its own staffing on its Regional Water and Sanitation Groups in Africa. It must ensure that all countries have clearly defined policies and national strategies for water supply. Preferably, it would seem that these policies should lean towards privatisation. But the Bank accepts that work is still needed with political leaders in some national governments, to move away from the concept of free water for all and to define the best financing mechanism for the country situation.

The Bank goes on to declare that it does not engage in major investment in a country if there is no reform of the urban water supply sector. The nature of the reform depends on the starting point in the country, but generally involves some form of private participation, and establishment of sound regulatory practices to assure the quality of the delivery and implementation process (World Bank, 2000, p.73).

A number of articles have been published under the auspices of its 'Public Policy for the Private Sector' series, which is produced through the finance, private

sector, and infrastructure Network of the World Bank. The articles while supportive of the private delivery of water and sanitation services, indicate that there are problems, mainly to do with the regulation and financing of privatised water utilities. However, in relation to water and sanitation, the article acknowledges that whilst financing water and sanitation 'can be especially attractive' to long term private investors, water and sanitation projects represent a 'special challenge' due to unique risks. These risks relate to technical considerations, such as the difficulty in assessing the state of the infrastructure before purchase or the signing of long-term contracts (most water infrastructure is underground); socio-political issues such as the desire by governments to extend access to services to supply as many people as possible in order to maximise health benefits (even if many of the new recipients are unlikely to be able to pay); currently risks associated with customers paying in a currency that may not match the currency of the internal debt; and limited scope for direct competition.

2.4.3 The Inherent Efficiency of the Market over the State

According to Dinavo (1995, p.2) privatisation will bring economic development and democracy in developing countries because privatisation has indeed become a viable development and economic policy option for most of the developing countries. Dinavo alludes that government should not be entrepreneurs and producers of goods and services. They need to delegate these functions to the private sector. Thus, privatisation may be the solution to economic weakness and influences, poverty, mismanagement, deficits and huge government payrolls. Based on the outcomes of the public enterprises for the last few decades, the developing countries should think of how to privatize and not wonder whether not to privatise.

Dinavo's position is not necessarily representative of the mainstream of pro-privatisation because it provides a clear overview of the key assumptions that underlie much of the thinking that is driving the global impetus for privatisation. His assumptions are based on a neo-liberal worldview that holds:

- Publicly managed enterprises, at least in the LDCs context, are anti-democratic because they are protected from direct accountability to their clients. This is largely due to an imbalance of information in favour of the state run concern. Citizens are granted access to very limited information with regard to real cost as of delivery and the corresponding relationship with service charges, nor are they privy to decisions as to the conditions under which services are supplied to particular constituencies at particular levels.
- State control also brings with it rent seeking and power-broken on the part of politicians and bureaucrats whose ultimate objectives are to retain and expand personal or organisational power and perks, and who therefore fail to focus on the core business of the particular enterprise. Hence, state run enterprises and utilities are inevitably over-staffed. They hire inadequately or inappropriately skilled personnel, and are not kept on their toes by the influences of competition.
- The provision of certain services in an adequate and universal sense, for example, water and sanitation requires massive injections of capital that are beyond the means of most governments of developing countries'. They have neither the capital, nor the capacity to raise it.

- State delivery of goods and services is poorly managed because there is no incentive, that is, much as a profit motive, to ensure efficiency.

A principal premise common to all these assumptions is that the market can resolve these flaws through competition. A primary objective, therefore, of economic policy in developing countries should be the progressive liberalisation of the economy towards complete attainment of free market conditions, coupled with decentralised decision-making.

Dinavo also stresses the need for adequate government institutional frameworks to regulate and monitor the performance of privatised enterprises, to assume the quality of the delivery and implementation processes.

2.4.4 The Private Sector as a partner in Development

Users do not, in general, treat water as a scarce commodity, and the market is insufficiently used as a means of solving a problem of scarcity (Winpenny, 1994. p.8), describes a problem central to water service management.

While Winpenny, (1994) appears to believe that privatisation is more likely to achieve market efficiencies, he does not claim that it is the only option and does acknowledge that: huge numbers of people still lack access to safe drinking water; the cost of under-provision is revealed in disease, and human and financial costs of people making their own alternative arrangements (DFID, 1997, p.2, in Winpenny, 1994).

Winpenny recommends that aid be used as a catalyst to involve various stakeholders. This would include the private sector, in water and sanitation delivery, wholesale and in water and sanitation management. He is not suggesting the handing over of water and sanitation delivery wholesale to the private sector. However, he maintains that public sector as it currently stands needs to be changed in order to achieve economic efficiency and the capacity to meet human needs.

Richards Franceys of the WEDC group at Loughborough University for DFID holds that private sector participation (PSP) in water affairs with particular reference to low-income groups, is a valid option. Like Winpenny, Franceys is advocating neither full privatisation nor that the solution rests with concession type arrangements with large multinational water companies, although he acknowledges a role for these companies.

However Franceys believes the limitations of the large multinationals to be that they tend to focus on large cities and middle-upper income countries where there are comfortable margins for cross subsidisation. He continues to comment that LDCs, particularly in Africa, which are characterised by large, poor, often

informal, settlements are not comfortable margins to such companies. Even in situations where cross-subsidisation is viable, it is problematic for private sector entities because it conceals the real cost to the company of service delivery. It means penalising the better-off, and often bigger consumers. He asserts that, this is contrary to 'rational' economic behaviour, whereby higher consumption should be renewed with lower prices. Franceys is interested in exploring the scope for small-scale private operators in the sector and there-by creating employment and income generating opportunities at the same time.

In the spectrum of PSP options are focused on the lower-income groups and the smaller urban and more distant rural areas implies an emphasis on using private artisan and suppliers, services contracting and the smaller-scale Private Sector Participation approaches with future potential for management and leasing contracts. These PSPs consequently have a higher risk of project failure which justifies the initial support of a development organisation rather than a development bank (Franceys, 1997, p.26).

It would seem that the DFID's official position on water and sanitation supply in LDC's generally reflects the view outlined in both Winpenny's and Franceys' papers. The DFID is promoting the involvement of the private sector in water and sanitation supply in LDC's on the basis that it is beyond the capacity of the public sector in most countries to provide adequate services.

Private sector commercial management and customer relations skills are well suited for the firm, but fair approach is required in order to bring about improvements. A private company pays for inefficient and non-paying customers out of its profits, and consequently, will be far more determined and effective in minimising these conditions. It could create efficient water supply and sanitation services (DFID, 1999, p.4).

It is now accepted by most governments that tariff levels must provide for full cost recovery for the services, and that subsidy, if continued, must be targeted as close to the needy customer as possible (DFID, 1999, p.11).

In short an over-view of the neo-liberal literature has revealed a view of privatisation that can be summarised as follows: Firstly, privatisation view holds that the private sector is, fundamentally, a more efficient provider of goods and services than the public sector. In other words, the private sector generally does it better than the public sector with less because market forces ensure that this is the case. Private providers are concerned with customer satisfaction and keeping costs to a minimum. The flip side of this overview is that the public sector is generally overstaffed with inappropriately skilled personnel, unable to respond to specific conditions, as they are bound by bureaucratic and often national level policies and rules.

2.5 Public Sector Transformation

The government has embarked on a process of redefining its role in relation to the ownership of assets and the delivery of certain services. This is a process that many countries throughout the world have undergone during the past decades. It reflects the notion of a political and economic paradigm that regards the free market as a key to economic success. It consigns to the state the role of ensuring an 'enabling' environment for the private sector by carrying out those functions that the private sector has no interest in because they are unlikely to be profitable.

Public sector has been changed from being the main and the only institution to deliver water for its citizens. The government adopt the neo-liberal policies to water delivery for the country. Traditionally, the main task of the state had been to provide public goods and services, such as education and water reticulation systems, to its citizens. However, the role of the state is changing (Peters and Savoie, 1998). Civil servants are increasingly becoming project and operations managers who coordinate the efforts of several service providers, instead of being

primarily responsible for providing citizen's rights with public goods and services (Rockman, 1998). However, MacLennan (2002, p.5) describes this change as follow: 'There is a trend away from seeing [the provision of municipal] services as a right, to seeing them as a financially sustainable business'.

Indeed, management improvements in the public sector have yielded significant improvements (Pierre, 1980; Paquim, 1998). However, managerialism also has limitations, since it lacks political vision and steering capacity (Pollit, 1998). Modernisation has not always resulted in social welfare improvements (Bond, 2001), and public servants now pander to various publics, servicing niche markets within society. Thus this approach is insufficient for good governance (Pollit, 1998).

Rockman (1998, p.35) suggests that the managerial belief in the virtue of markets is associated with privatisation, deregulation and globalisation, and results in governments' attempt to: 'segment and splinter publics [into niche markets] rather than integrate them'. This is contrary to the objectives of the RDP in this country.

In addition, managerialist rhetoric suggests, 'it is progressive to redefine the citizens who interact with public sector organisations as consumers or customers' (Pollit, 1998, p.56). This raises the concern that the 'citizen-as-customer' logic could result in specific user fees being introduced to recover the cost of provision of public goods and services, and ultimately replace broad-based taxes as the state's main source of revenue (Klein, 2000; Rockman, 1998).

This observation reflects how the market-orientated, global, 'neo-liberal' perspective is replacing the one based on 'social justice' and local social welfare. It also demonstrates the difference between the two discourses on governance, that is, 'management politics' and 'socio-economic politics' (Mc Carney, 2001). Bond (2001) alludes that the difference between the so called mainstream and the critical perspectives influences policy, resource allocation, institutional arrangements, implementation, and equally importantly, a consideration of the

communities' role, and the externalities associated with water service provision. However, Mc Carney (2001, p.15) argues that both approaches agree that the demand for basic infrastructure 'needs improved local government fiscal capacity and management efficiency, accountability and legitimacy for its citizens (rather than better policies, new technologies, or different kinds of institutional arrangements) that offers our societies the best chance of material progress'.

In the case of water services in White City, consumers' usage and consumption patterns, as well as their buying behaviour, might be consistent with the so called 'culture of entitlement' (this term suggests that people expect to get something for nothing). Moreover peoples' perception and or their misconception defines what their norms are, influences how they themselves behave in their own social context (Higher Education Centre, 2001). In White City, the perception that the boycott of purchase is ongoing in some townships, like Phiri, Mofolo North and in other townships, may influence the continuity of non-purchase and illegal connections.

Further more, in the case of water services, all stakeholders should be regarded as different consumer segments, and their expectations and requirements of the social product and its pricing should be clarified. This research will do so for one niche group, - the poor, urban, previously disenfranchised people. In essence, this involves evaluating service delivery from the consumers' perspective particularly given their expectations.

Similarly, exchange theory holds that the physical and psychological 'cost' of social goods influences consumers' perception of their value. Social Marketing techniques like consumer research could be used to gain insights into consumers' preferences, and develop appropriate pricing strategies for social goods (Prizzia, 2001). The acceptability of introducing of specific user fees to augment public funding could also be investigated using social marketing research, including surveys and test marketing.

2.6 Water Provision Players

The transformation of the public sector and the dominance of managerialism have resulted in the privatisation of many public goods including water services. In general, this privatisation approach has yielded 'modest' economic benefits and 'mixed and uneven' social ones (Prizzia, 2001).

Table Three: Presents the outline of the different water providers and their functions due to the public sector transformation with the introduction of managerialism.

Department of Water Affairs and Forestry (DWAF)	• Custodians of water resources and overall policy maker and regulator (there is no independent regulator) • Oversees the activities of all water sector institutions • Responsible for national/international resource planning and allocation • Licenses water use and discharges and collects abstraction and discharge fees • Manages water resources infrastructure (for example, dams) and also some water services infrastructure
Catchment Management agencies (CMAs)	• Water resource planning and management at the catchment level (where CMAs are not established, DWAF fulfills these functions)
Water Services Authorities (WSPs)	• Provision of water services within their appointed areas. Includes Metropolitan municipalities, many district municipalities and authorized local municipalities. May contract out service provision to external water service providers
Water Services providers (WSPs)	• Operational water provision and/or sanitation services (as a bulk or retail service)
Water Boards (WBs)	• Regional or bulk water services providers (sell water to, or accept wastewater from, other water services providers). As WSPs, the Boards are accountable to WSAs, as organs of state, the Boards are owned , controlled and regulated by DWAF and National Treasury (NT) under the terms of the Water Services Act, 1998 and the Public Finance Management Act, 1999.

(Source: National Treasury Report (2004)

The table above signifies that there are many different players in the provision of water and sanitation services in South Africa (SA), the water sector does not have a distinct or independent regulator. What has happened in SA on debates around water policy is that the focus is placed on 'policy delivery' (operational matters) rather than policy itself. The policy is thus not open to debate, as it is seen as the

'truth' by the South African government. This is also the reality for many other developing countries. What makes the South African issue interesting is the seeming about-turn by the African National Congress (ANC) when it became government in 1994. From an avowed commitment to addressing the (water) inequalities of the past through redistribution, the organisation has radically shifted to a neo-liberal approach to water delivery. This shift has not occurred through lending pressure, as is the case with other developing countries, but seems to be 'voluntary' (Van Rooyen, 2002).

As the pro-privatisation scholars mentioned above, the South African government has taken the advice of the multinational companies to adopt or join the neo-liberal approach to water delivery, which promotes water pricing and ignores the feelings of the majority of the public directly affected by the new policy to water delivery.

As was discussed above, the government's policies relating to basic service delivery are underwritten by a tension between the objectives of socially and developmentally sound service provision and the drive to cost-recovery. This tension is apparent at both the broad framework level and the sector level. The RDP was essentially a vision for development that placed the needs of the poor majority of citizens at the forefront. GEAR was focused on creating an environment for economic growth that would, as the then Deputy Minister, Thabo Mbeki put it, make the RDP possible through fiscal discipline and a free market approach. The goals of both these frameworks were similar to improve the living conditions of the majority, but the ideological positions informing the approach to achieving this goal differed markedly.

GEAR, which followed the RDP, indicated the ascendancy of a more conservative approach aimed at reassuring world markets and encouraging foreign investment that would, it was hoped, result in economic and employment growth. Policies addressing specific sectors such as water and sanitation also carry this dual mandate of enabling universal access to services and redressing past inequities

while simultaneously ensuring budgetary constraint; which means, providing services on a cost-recovery basis.

2.7 Cost Recovery

The South African government perspective on cost recovery in the water sector is expressed by DWAF in its water Supply and Sanitation Policy White Paper DWAF, (1994, p.7), on the basis that attempts at free service for all have generally resulted in 'some service for few and little or none for most', the DWAF (1994, p.7) has adopted the principle of the 'user pays' for services as one of its principles for water supply. This is in line with the new consensus around a demand-driven approach that appears to be developing amongst South African policy-makers in the water and sanitation sector. This attitude, which places a strong emphasis on cost-recovery, is further supported by various scholars of anti-privatisation like Jackson and Davies (1995, p.32) who say that, 'while there is a clear imperative to correct the wrongs of apartheid and to redress the past unequal distribution of municipal services, the speed at which this can be done, must be in keeping with the capacity of local, regional and national economies to support it'.

2.7.1 Full Cost Recovery

This local consensus which is around a demand-driven approach is in line with current international thinking on financial policies for water supply, which sees water supply primarily as a private commodity. The DWAF (1994) supports this principle and have said that the basic policy of government is that services should be self-financing at a local regional level. They have made an exception that where poor communities are not able to afford basic services, government may subsidise services costs but not operating the maintenance costs.

Water pricing and commercialization followed the same principles of 'full cost recovery' - including price hikes and large-scale water disconnections, in all

Southern African countries studied. Johannesburg, Maputo and Cape Town were already 'firmly committed to privatization' (Cottle, 2002).

The 'full cost recovery' principle was originally introduced as a World Bank conditions for obtaining credit, and it remains an absolute condition among the Bank, the International Monetary Fund (IMF) and recently also aid agencies such as USAID, and the European Union (EU) including many other international donor agencies (Pitman, 2002).

The reasons for the lowered access to water after commercialization are two fold. First, the 'full cost recovery' model, which means cutting water to those not paying water bills, property and eviction from residents' homes can be part of the legal process to recover debt from customers (Cottle, 2002).

Second, tariffs generally increase during the commercialization phase prior to privatization, only to increase after privatization. The black townships in Fort Beaufort, for example, saw an increase in service charges by 600 percent between 1994 and 1996, the time of privatization. Similar trends have been noted in most towns and cities where water utilities are being commercialized (Van Rooyen, 2002).

The devolution of revenue is a critical issue as government functions on taxes for their revenue unlike the private sector that depends on profits. Therefore, it becomes imperative that jointly these two branches of government come up with a formula to satisfy the citizens with policies that affect them directly because the cost-recovery approach affects citizens negatively.

2.7.2 Critiques of Cost-Recovery

The DWAF (1994) refers to the limiting of cost recovery to only the operating and maintenance costs as a 'lifeline or social tariff'. This would be done so as to ensure that every person has at least a basic level of service. The concept of a life-line tariff, covering only recurrent costs for a set maximum quantity of water, has

widespread acceptance. Such a system is based on cross-subsidisation within the water supply system where 'the additional revenue can be used to subsidise a cheap life-line tariff for the smallest consumers, or the supply of water free of charge from public standpipes' (Winpenny, 2003, p.118). A combination of this approach with a rising block tariff system appears to be a likely future tariff arrangement in South Africa. Such a system, however, leaves some issues unresolved.

In its desire to rapidly implement cost recovery, the DWAF (1994), in the White Paper on water and sanitation policy, has neglected to consider those indigent urban residents who may not even afford a life-line tariff.

This problem is not restricted to South Africa. Such a concern about the indigent within urban communities is supported by Cairncross (1992) who says that in all service delivery schemes where cost recovery is promoted, consideration should be given to those within the community who are simply unable to pay.

In summary, on the basis that attempts at free service for all have generally resulted in 'some service for few and little or none for most', DWAF has adopted the principle of the 'user pays' for services as one of its principles for water supply.

The 'full cost recovery' principle is the brainchild of a WB and other international donor agencies including the IMF, and the aid agencies such as, USAID and the EU.

A more recent analysis of privatisation in the South African context, with particular reference to municipal services comes from Bond (1998). Bond is concerned that the privatisation of municipal services was a WB agenda rather than a policy that has emerged as a genuine and democratically supported response to identify problems associated with the provision of municipal infrastructure and services. An important point raised by Bond relates to the rates

of return that private investors expect and aim to get from their investments, which he states to be in a vicinity of 30 percent.

The reasons for the lowered access to water after commercialization are two-fold. First, the 'full cost recovery' model which means cutting water to those not paying water bills, property and eviction from resident homes can be part of the legal process to recover debt from customers. Second, tariffs generally increase during the commercialization phase prior to privatization, only to further increase after privatization.

2.8 The Effects of Water Privatisation on Low Income Communities

2.8.1 Renewed Aspects

The study presented by (Cottle, 2002) of the Johannesburg based Rural Development Services Network, holds that, 'the consequences of water commercialization in Less Developed Countries, will hit hardest on Africa's millions of poor. With cementation of a 'full cost recovery' approach to water utilities all over Africa, poor households stand less chance of getting access to safe drinking water, or they may lose water access they had'. Poor households may also not afford to pay the costs because they may choose to buy food instead, with the restricted money they have. Worst of all, the poor could take a most damaging approach to avoiding the tariffs. They may resort to unclean water.

With privatisation, sustainable development of water provision can be ensured. The privatisation approach has proved to have failed to deliver the services as would be accepted by the community. Water pricing activists argue that, privatisation increases poverty and confusion because greater cost recovery makes water less accessible and less affordable to low-income communities. They see this approach as contributing to poverty accumulation rather than being a component of development. The boon overwhelmed by price hikes and large-scale water disconnections (Winpenny, 2003).

With the high-rate of unemployment facing the majority of South Africans especially poor people, some uneducated and semi-skilled residents are hit hard by water pricing. No one represents the poor communities in board room discussions on water service delivery. This is where policies are formulated and decisions taken. No one voices what the implications of the decisions will be on the poor. Such exclusion also hit hard on their health. When they are faced with water cut-offs, many resort to impure water from rivers, streams and old boreholes. This is a hazard to their health.

2.8.2 Health Consequences

The worst example of the health consequences of less access to clean drinking water in South Africa was given during the outbreak of cholera in the year 2000. Cottle, (2003) told afrol News that there was a direct connection between the installation of prepaid meters and the unprecedented spread of cholera in Kwa-Zulu-Natal. Over 120,000 people got infected and 290 people died during the outbreak. Studies showed that in the most affected areas, many people had returned to the use of unsafe water sources as they could not afford safe water because of high charges.

The studies on water commercialization hold that this limitation of access to clean drinking water had already led to a return to the use of unsafe water sources all over Southern Africa. A rising consume of sources that contain discharge water are the consequences, studies had shown Cottle, (2003).

In effect, the prepaid meters are just another way of worsening the poor living standards of the large number of poor households that are cut off from water supply, Cottle, (2003) alludes that as people disconnect themselves from water services, one could now say that 'the responsibility for having access to water has been individualized'. Gone are the days of public response and subsidies.

The Free Water Policy implemented by the South African government since July 2001 was not a solution to the growing problem, Cottle, (2003). The scheme's free allocation of 6000 litres of water per household per month 'does not even meet basic sanitation requirements,' given that the average poor household had eight members. The approach is undermining the human rights of people.

2.8.3 Human Right to Water

The term 'right' is used in the sense of genuine rights under international law, where States have a duty to protect and promote those rights for an individual. The question of what qualifies as a human right has generated a substantial body of literature, as well as many organizations and conferences. The initial impetus to human rights agreements was to address violations of moral values and standards related to violence and loss of freedoms. Subsequently, however, the international community expanded rights laws and agreements to encompass a broader set of concerns related to human well-being. Among these are rights associated with environmental and social conditions and access to resources. The extent to which environmental rights are either found in, or supported by, existing human rights treaties, agreements, and declarations has been the subject of a growing literature, Boyle and Anderson, (1996) (in Gleick, 1999).

Without water there can be no life and no development. Broadly speaking water fulfils economic, social, cultural, political and ecological roles in improving people's quality of life. Access to water is important for development; for health (drinking and use for domestic consumption), for generating livelihoods (food production, mining, industrial use), for gender equity, for its environmental value and its spiritual value.

Rights, understood by the researcher are what government policies have explicitly put in their paper of policies, being the right to education, good health, housing, protection from abuse of any type, the right to good government morals. The water policy is in violation of human rights so far as the water provision is

concerned. If the rights of people are tempered with, the presence of a regulator to protect the rights and safety of people is necessary.

There is a marked absence of any formal economic regulation of water tariffs throughout the water cost chain. No formal economic regulatory function exists in any part of the water sector. Self-regulation is evident in a number of cases where the same institutions sets tariff level and regulates.

In summary water pricing activists argue that privatisation increases poverty and confusion. Greater cost recovery makes water less accessible and less affordable to low-income communities. This contributes to poverty accumulation rather than being a component of development. The privatisation approach has failed to deliver meaningful services to the community.

2.8.4 Pricing Water Services

Pricing is a marketing tool that requires its own tactical programme (Andreasen, 1995; Kotler and Robert, 1989).The objectives of the pricing strategy adopted for any social product should be clarified from the outset. This could involve maximising profits, cost recovery, the number of participating consumers, and social equity, as well as conserving water, improving its allocation, and redistributing income (Kotler and Roberto, 1998; Dinar, 1997). The tactics to implement these strategies include volumetric pricing, non-uniform tariffs, metering, abolishing minimum prices and introducing pollution taxes, as well as introducing incentive suppliers and consumers of water to behave in a socially desirable manner (Dinar, 1997). Indeed, when costs are passed on to consumers in a bid to ensure sustainability, the trade-off results in a range of different service levels being offered (Lavendo, 1991), that is, the social price can influence the proffered range of social products.

In addition, consumers' sensitivity to price is influenced by factors like the social product's perceived uniqueness, in quality and inherent value, the perceived difficulty of use, the difference between 'sunk' investments and shared costs and

the level of awareness of the range of substitute available (Nagle, 1987, in Kotler and Roberto, 1982). Thus considering consumers' total expenditure for the end benefit of the water service they receive is an inadequate indicator of their perceptions of whether this constitutes value-for-money or not. This study will explore the issue of price, value and payment behaviour for water supply by the meter system, in an attempt to clarify the situation in White City Township. Finally, it is important to note that water pricing remains controversial in South Africa today. The reason for this is that the private sector is unable to set a price for water services (Chad, 2001).

In summary Andreasen (2001) alludes that pricing is a marketing tool that requires its own tactical programme. He points that the objectives of the pricing strategy adopted for any social product should be clarified from the outset, simply because if pricing matters are not clarified, the procedure causes misunderstanding on the part of consumers. It creates an uproar and violence, as well as non-payment.

2.9 Debates on Water Pricing and the International Perspective

Debates on water sector reforms both in the country and elsewhere are seen as an entity that transforms the lives of all the citizens in that country (Wimpenny, 2003). While informal institutional arrangements operating at the micro level will receive attention, the major focus will be on the formal institutional arrangements that are operating at the national and regional levels.

A Public Policy for the Private Sector note (Van den Berg, 1997), comments on water privatization in England and Wales. In this policy Van den Berg relates that the British government had argued for privatization of publicly owned services for two reasons: firstly, privatization would result in more efficient utility companies and, secondly, privatization would bring the necessary capital to upgrade deteriorating infrastructure and meet the tighter water quality standards that had

been decreed. The British government chose to go the full divestiture route for water and sanitation companies and publicly floated the government owned utilities because they wanted the sale to be favourable to shareholders, in order to achieve this, the Government wrote off most of the debt on these companies' books, and as a result of this action, the costs of privatization exceeded revenues gained; with Government left with the net of 1.3 billion pounds.

On the other hand In October 2004, the Uruguayan people endorsed a the Comisión Nacional en Defensa del Agua y la Vida (CNDAV) initiative that amended the Constitution in an election victory backed by more than 1,440,000 Uruguayans, almost 65 percent of the poll. The amendment stated: 'Water is an essential natural resource for life, access to drinking water and the sewage system constitute a fundamental human right' (Sontos and Villarreal, 2005).

The Amendment of Article 47 of the Constitution (Rights, Liabilities and Guarantees section) says that the public management of the water resources ought to be based on the criteria of citizen participation and sustainability (Ibid). The direct democracy mechanism was fostered by the CNDAV. This commission was established in 2002 as a reaction towards the letter of intent signed between the Uruguayan government and the International Monetary Fund, in which the former committed to expand the privatisation of the drinking water and sewage services throughout the country.

2.10 The Role of Regulators

2.10.1 The need for state regulations intervention

Alongside greater private sector involvement in water services, there is broad agreement that the nature of the market for water requires continuing state regulatory intervention (Mitlin, 2004, p.326).There is already a relatively well developed regulatory framework in place for water services. The Water Services Act (1997) empowers the Minister of Water Affairs and Forestry to regulate various dimensions of the provision of water services. Regulations have already been promulgated for the provision of water services, the pricing of water services and to govern contracts for the provision of water services (Muller, 2003).

In addition to regulating the Water Services Authorities, the Water Services Act provides a comprehensive framework for the oversight and regulation of the Water Boards established as a family of regional public utilities under the authority of the Minister of Water Affairs and Forestry. It also provides a framework for the collection and publication of information about water services which may come to be one of the more powerful regulatory tools available to national government. The reason for a regulator intervention is that, there is monopoly in the supply of water, and the fact that water is a merit good with the implications that consumers may under purchase being unaware of the benefits, are all reasons for public sector intervention.

The regulatory task is: price control, promotion of operating efficiency, service standards, control of externalities, maintenance of public good functions, ensuring that assets can be serviced over time. Ensure development of essential infrastructure, control over unfair trading practices, promotion of efficient use and ensuring responsiveness to consumer needs (Mitlin, 2004, p.326).

2.10.2 The role of other service providers

Considerable attention has been paid to the issue of private water service providers as well as the mechanisms by which regional public utilities enter into service provision agreements with municipalities. An important issue particularly in rural areas is the role of non-profit Community Based and Non Governmental Organisations in the provision of services.

At present, while it is a matter of experience that large district municipalities may sometimes be unable to provide services effectively to scattered rural communities, there are many administrative and regulatory barriers to the involvement of CBOs and NGOs. While the Water Services Act are enabling and does not exclude such arrangements, municipal systems and procurement frameworks are less supportive and there is a danger that a vital source of organisational energy may be lost to the poorest communities.

2.10.3 Tariffs and subsidies

A key issue for regulation is the setting of subsidies and the management of subsidies. Here, the situation is only just beginning to clarify since the final distribution of powers and functions was made and it is now clear which municipalities are water services authorities.

While national government, using the instruments provided in the Water Services Act has directed that a policy of Free Basic Water should be followed in order to give effect to rights of access to water, the mechanisms for implementation of this policy have not yet been finalised in all local governments. This is in part because a substantial proportion of the funds distributed to municipalities are channelled through the equitable share mechanism which is largely used (although the Constitution is explicit as to the duties of municipalities and therefore, it could reasonably be deduced, gives direction as to how they should prioritise the use of their financial resources.

While the framework does not provide simple service provision models, within the present institutional framework, the diversity and complexity of the sector require a wide range of options. Unless there are major policy shifts that are required, the challenge would appear to be to make this system work rather than to further elaborate upon it at this stage.

The regulator's intervention could be a safety net for the consumers since there is no education or consultation with community on the side of water providers. The intervention of the regulator will prevent the monopoly that could be applied by the water providers on the communities. Maybe somehow the communities will have an understanding of what it means to pay for water as time goes on, and have a somewhat understanding of the concept of cost-recovery.

Finally, the National Water Act provides the framework of environmental protection and promotion of optimal use of water in the public interest which may substantially impinge on the way in which water services are provided.

2.11 Conclusion

The literature review reveals that privatisation is open to a plethora of definitions, depending on the variety of economic development approaches. Community education concerning the changing policies was not taken to any consideration. Social justice issues such as ensuring that people have access to enough water to meet needs and standards of health, even when they cannot afford to pay, were not dealt with by the inclusion of the community in the social policy formulation decision-making liberty rights such as freedom of expression and participation in decision-making.

In this category where several policies and acts on water and sanitation were examined with particular reference to their perspective on service delivery and privatisation and their developmental impact, the importance of the need for a

pricing policy that reflects the economic value of water, that is, user pays, was unilaterally agreed upon and accepted by the officials.

This section highlighted the importance of the need for a pricing policy that reflects the economic value of water, that is, user pays. It stresses that policy should be balanced against equity and the socio-economic circumstances of people and communities.

Firstly, the view holds that the private sector is, fundamentally, a more efficient and efficacious provider of goods and services than the public sector. In other words, the private sector does it better with less because market forces (competition and the drive for profits) ensure that this is the case. Private providers are concerned with customer satisfaction and keeping costs to a minimum.

Due to these concerns, the private sector is usually more appropriately skilled, in a technically and administrative sense, to deliver particular goods and services that it produces. The flip side of this view is that the public sector is generally overstaffed with inappropriately skilled personnel, unable to respond to specific conditions, being bound by bureaucratic and often national level policies and rules.

The second theme that emerges in this category of literature is that, water is an economic good. What that means is that, water, like any other commodity, should be provided on the basis of what it costs to deliver, rather than as a right. It is not a welfare issue, it is a market commodity and at the least, full recovery of the costs of supplying water to consumers should be the aim. Only by allowing market forces to be the driver of provision, will people learn to use it in a demand driven, as opposed to supply driven-manner because they pay for what they use. People consume only what they can afford to consume to meet their needs and wants.

Another important consideration for the proponents of privatisation is that of gaining access to the capital necessary for expanding and upgrading the water and sanitation infrastructure in developing countries. When the private sector takes over the role of developing infrastructure and delivering basic services, positive externalities that may result from such investment become of secondary importance. Governments, conscious of the need to address many pressing development issues, may design infrastructure and services with the aim of maximizing spin-offs such as job creation, local economic development, enhancement of gender equity, improved public health outcomes and the like. Private sector will design services along the lines of profit maximisation.

It is debatable whether privatised water or putting a price to water services can adequately meet the need for universal provision of services at an adequate level to poor consumers. The existence of large numbers, the majority in LDCs, of poor communities are at odds with the imperative of private companies to realise a profit.

The protection of the poor, and the achievement of public health and social objectives desired by government in such countries, requires expert regulatory authorities and skills, usually at local government level to design, manage and monitor complex contracts. In absence of such arrangements in place there is no guarantee of success.

Further, a privatisation policy fails to account for the positive externalities arising from universal access to safe and adequate drinking water, such as public health gains, as well as skills development, creation of jobs and other income generating activities. It also fails to consider the benefits that women, in particular, may derive from the presence of good water and sanitation infrastructure.

This section introduced the concept of a ‘free lifeline’ of water, which was endorsed by and expanded upon in the, Reconstruction and Development Programmes. The RDP suggested a system of rising block tariffs and cross-

subsidization to augment the public good. Progressive block tariffs in urban areas to allow for cross – subsidisation to ensure affordability to the poor; in the constitution, local government has the responsibility to ensure the provision of services to communities and to promote a safe and healthy environment.

In addition, managerialist rhetoric suggests, 'it is progressive to redefine the citizens who interact with public sector organisations as consumers or customers' (Pollit, 1998, p.56). This raises the concern that the 'citizen-as-customer' logic could result in specific user fees being introduced to recover the cost of provision of public goods and services, and ultimately replace broad-based taxes as the state's main source of revenue (Klein, 2000; Rockman, 1998).

The 'full cost recovery' principle is the brainchild of a WB and other international donor agencies including the IMF, and the aid agencies: USAID and the EU. A more recent analysis of privatisation in the South African context, with particular reference to municipal services comes from Bond (1998). Bond is concerned that the privatisation of municipal services was a WB agenda rather than a policy that has emerged as a genuine and democratically supported response to identify problems associated with the provision of municipal infrastructure and services.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction – Research Strategy

Locke, *et al.,* (1993) holds that the empirical research should clearly illustrate the research design to be adopted and the sample that will form part of the investigation. The discussion of the methods would encompass sources of data, data collection and analysis.

This chapter will consider how the above process was followed in this research of consumer resistance and dissatisfaction about water purchasing which lead to non-payment for water service delivery. Specifically, it describes the nature of the research, data collection, data analysis strategies as well as assumptions of the study approach. The methodology is designed to help analyse the community's perceptions about water purchasing which is the results of privatisation, as the unit of analysis in order to respond to the research question. The focus is on water purchasing as service delivery and its linkage, effect and impact in community development. The purpose of this study as noted earlier is to investigate the challenges that the community in White City township faces with water payment and water supply.

3.2 Nature of the Research.

The study will be exploratory and descriptive in nature, which Durrheim defines as 'used to make preliminary investigations into relatively unknown areas of research' (1999, p.41). It will use a qualitative methods approach for collecting and analyzing data. Neuman (2003) holds that qualitative research provides a means through which a researcher can judge the effectiveness of the particular policies, practices or innovation. Although the research is mainly using a qualitative approach, some elements of simple quantitative approach are used.

There is a trend emerging in exploratory management studies, in which the qualitative study method tends to be preferred over the quantitative survey

approach (Larsson, 1993). Qualitative approach is conducted through an intense or prolonged contact with a field or life situation. These situations are typically 'banal' or normal ones, reflective of the everyday life of individuals, groups, societies and organizations (Punch, 1998).

Neuman (1997, p.420) holds that a researcher using qualitative methods 'develops explanations or generalizations that are close to concrete data and contexts, but more than simple descriptions'. It also allows the researcher to understand how the subjects who are being researched understand their situation and their role in a particular context. The study was qualitative as the data was collected in field work form, taped, transcribed and then the text was coded.

According to Peshkin, (1993, in Leedy, 2001, p.48) qualitative research studies typically serve one or more of four purposes: descriptive, interpretative, verification and evaluation. A descriptive and exploratory research style will be used for this study. A descriptive research study 'presents a picture of types of people or of social activities', Neuman (1997, p.20) in the case of this research, the pictures of the community in protest of the approach would be provided, if all goes well, and interviews and results from a survey was provided.

3.3 Data collection

This section used two types of data collection, that is, primary and secondary data collections.

3.3.1 Primary Data:

In a primary data a questionnaire was formulated, for three focus groups interviews, with sixteen members of the community, five each with the first and second focus groups and six people with the last group. General, non-threatening questions; in that case respondents were asked personal questions in the first session, while the second session focused on water pricing. It targeted water providers' representatives: One member from DWAF, one member from Johannesburg Water, and one person from the Water Board sector.

The researcher also attended meetings held at White City on an observation basis. Discussions at these meetings focused on the water issue.

3.3.2 Secondary Data

Merriam (1998) defines secondary sources of data as reports on a phenomenon experienced by those who have not directly experienced the phenomenon. She further indicates that documents of all types can help the researcher uncover meaning, develop understanding, and discover insights relevant to the research problem

Secondary data was collected through documentary data. Journals and newspapers were gleaned for additional information. Literature review including information gathering from formal university libraries as well as resource centers was done. Internet searches: Online Computer searching through the Internet Google search scanning on the World Wide Web for additional resources.

Relevant documents largely from the Johannesburg Water were used. Library reference material and other material sourced from the Internet and the archives, served as the research's unit of analysis.

In Bailey's words (1994) using document sources provides unique advantages such as

1) **Inaccessible subjects**. He argues that one of the basic advantages of document-based studies is that the method allows research on subjects to which the researcher does not have physical access, and hence cannot be studied by any other method.
2) **Confession** in a sense that participants may likely confess in a document, particularly one to be read only after the survey or research, unlike in an interview or mailed questionnaire study. The study of such documents may be the only way to obtain such sensitive information.

3) **Relatively low cost** in a sense that documentary analysis is inexpensive compared to large-scale surveys. Normally, documents are gathered in a library where the researcher can study them.
4) **High quality.** Even though documents vary in quality, many documents are written by skilled social commentators.

3.4 The Research Instrument

There are three key areas of concern regarding questionnaires as research instruments, viz. their content, construction, and the related issues of reliability and validity (Du Plooy, 2001).

3.4.1 Validity and Reliability

Validity and Reliability are important techniques to be considered in research measurement.

- Validity

For David (2005), validity refers to the accuracy of a measurement. All assessments of validity are subjective opinions based on the judgements of the researcher. For Bailey (1994), the validity of a research is increased by the fact that documents are often first-person accounts of events or feelings experienced by the authors of the documents. Thus our research methodology complied with these standards and expectations by selecting a research topic from a real life situation so that the reader too can feel that the answers are credible.

Despite the above privatisation writers' acceptance, to varying degrees, of the validity of privatization as a development strategy, the caution expressed by some of them should be noted. It has been argued that private models of service delivery can revamp inefficient services and reduce public expenditure, yet a number of these writers admit that the evidence of the superiority of private sector delivery is ambivalent and points to the necessity of safety nets for the poor consumers and of strong, independent regulatory authorities that ensure the

national developmental objectives relating to the sector are met not compromised in favour of unfettered commercialization.

For David (2005), reliability is synonymous with repeatability or stability. A measurement that yields consistent results over time is said to be reliable. Scott in Bailey (1994) suggests four criteria for assessing documentary evidence: authenticity, credibility (sincerity and accuracy), representative-ness (survival and availability), and meaning (literal and interpretive understanding).

- Reliability

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Thus, our research methodology makes a clear statement in using secondary data only as a data collection technique.

3.4.2 Logistics

The researcher piloted the research instrument, used those findings to refine the questionnaire, and conducted a four focus group in the Dlamini Township plus five additional individual respondents, to get a different perspective from that given by the focus groups.

3.4.3 Questionnaire Construction

The questionnaire used simple, uncomplicated, language, and phrased questions in a way that reduces ambiguity. This was necessary to overcome the language barrier English which has difficult concepts to be understood by people without a higher education.

The questionnaire included open-ended questions (particularly for eliciting qualitative information) as well as fixed-alternative questions, about dissatisfaction with services and satisfaction respectively. This was necessary due to poor, previously disenfranchised, disadvantaged people's general reluctance to express negative opinions. Several types of attitude measurement were employed, including open-ended ones (with pre-coded results).

3.4.4 Questionnaire Content

The research question demands that broad areas need to be explored, and thus the following categories of data which was collected:

- Their understanding of water pricing;
- Their satisfaction with delivery of water services in their township, and
- Their payment or purchase behaviour regarding water services they consume.

3.4.5 The Questionnaire

A copy of the questionnaire can be found in Appendix Two. It is entitled 'Questionnaire to the Respondents'. The researcher introduces herself to the focus group, and the reason for the meeting, asks the opportunity for spontaneous answers, comments and answers to be clarified. When the researcher talks to the participants she would make them aware that there are no right or wrong answers; confidentiality will be applied, so that they are free to respond to the questions. The meetings will be discussed and arranged with the township counsellor to make sure of best way to approach the community.

The personal information section used demographic questions to screen the age group, gender, educational level and to measure awareness about the water pricing service delivery. In the conceptual section, respondents were asked about their understanding of three social products: 'Batho Pele', 'Free basic Services' and 'a better life for all'. This was asked to establish respondents' awareness about the

social products and their perceptions of water service delivery levels before and since the 1994 general election. It probed what service level would be considered acceptable.

The third section focused on qualitative issues including, price, the value and payment behaviour for the services. A monetary value for the consumed amount of water was elicited. The purchase process was addressed next, - how different was the amount perceived to be paid each month and what it meant to their understanding. The concept of value-for-money was then illustrated.

The fourth and final section explored respondents' perceptions of the relationship they should have with the water providers. Concluding remarks were provided at the end.

3.4.6 The Sample

The population under consideration is poor urban dwellers of previously disenfranchised groups who have adopted the practice of non-payment for municipal services in general, and water services in particular. They stopped purchasing water instead they resorted to illegal pipe connections to receive water.

3.4.7 Sample Size

The recommended minimum sample size applied was N=16 (Lowry, 2001). A sample of that minimum was chosen because the research was conducted through three focus groups comprising of five people in the first and second groups, the third one had six people to complete the sample of sixteen. The number of people chosen in the focus group was obtained by visiting four houses in a row of eighteen houses, which were chosen from two streets in a block, out of four blocks. The introduction was read to thirty two members of the target population, that is, respondents whose houses were randomly selected based on entering every fourth house from the left side of the row in a selected street, and substituting a house by moving to the left side of that house if there is nobody in the first

selected house, and moving to the right side of the first house if there is still nobody in the left side house. The houses were chosen from two streets in each block, out of four blocks. The randomly selected age group was between 18 and more than 57. The researcher did not arrange to have a number of specific ages. She wanted to let respondents participate freely. The groups were made up of both males and females in the White City Township. The results of these introductions are reflected in table four below

Table Four: Results of Screening Process

Issue	Total	%	% Respon-dents
People Approached	32	100	100
Non-Response (Declined)	11	30.55	2.7
Non-Residents (Disqualified)	9	25	2.8
Respondents	16	44.44	2.6
Full Name Disclosure	16	100	6.25

The researcher targeted thirty two houses for visits and not sixteen because she was making allowance for those who would decline the interview like the eleven potential respondents who declined for a number of reasons. Some of the reasons were mistrust of the researcher considering the murder of well-known 61-year-old Orange Farm Water Crisis Committee activist Emily Lengolo, in the early hours of 8 February 2003. Some of the residents declined because they said they would not like to discuss anything about water. They feel that they have been betrayed by the government of the ANC. One man maintains that 'the government promised us that water is a basic right, 'but now they are telling us our rights are for sale.'

The sample was made up of White City residents. Of the nine disqualified respondents, five were visitors and four were baby-sitting while the parents of the babies had gone to do laundry for other people. The fact that all sixteen

respondents were free to reveal their names to the researcher shows that they trusted the researcher because they usually meet with her in the ward meetings. They also said they are the voice of the people who are afraid to express their feelings.

3.4.8 Sampling Oversight

Some members of the sample population especially those with higher education, declined to participate in the research. This compromised the response to concepts like knowledge of privatisation. Most of the respondents were not familiar with the terms. When they were asked about any interest to take part in the decision-making of policy formulation, they were not sure because they did not have a clue about the activities of the teams.

3.4.9 Field Work

The research process was conducted over a period of five months. The pilot study served as a good guide because after it was conducted some of the questions were changed and made simpler for instance, in the personal section questions like, 4) What do you understand by privatisation? Would you like to participate in a policy decision-making team? 5) Why would you be selected to be in the team? Some were eliminated because they were viewed as asking for too much as some of the respondents said these questions did not make sense to them because they do not understand the concepts. The questions should be directed to Parliamentarians. They are the people who would understand them.

The researcher conducted interviews with two focus groups at her house. It was convenient for her as the group knew her place. She provided some refreshments. The last two were conducted at a nearby school where the residents had come for their ward meetings with the area Councillor. All this was done during the month of June.

Chapter Four: Presentation of Data

4.1 Introduction

Data analysis is the process of bringing order, structure and meaning to the mass of collected data. Qualitative data analysis in a search for general statements about relationships among categories of data; it builds grounded theory (Marshall and Rossman, 1989, p.112). The study analysed the data by means of analytical induction, that is, to determine similarities to the respondents' answers, and apply constant comparisons.

This section focuses on the process that was followed in the interpretation of data and the presentation of themes that were used to analyse collected data. The following are themes in which the data was categorized:

- What is the community's understanding of water pricing?
- What is their perception of value for money?
- What steps have the officials taken to educate the community about the process and procedures of water pricing?
- Whose interests are served by pre-paid meter for water supply?
- Do pre-paid meters contribute to the development of the poor?

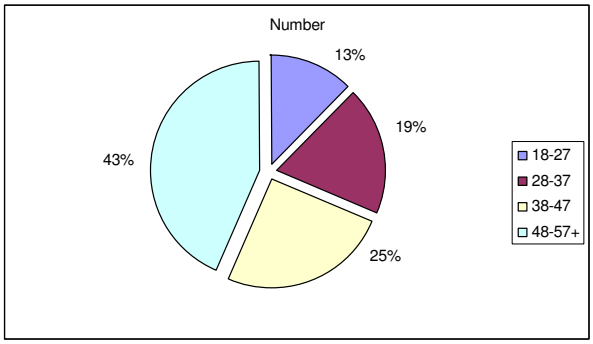
These themes are limited to the research questions that facilitated the focus of the study and ultimately towards the understanding of the community's perception of water purchase.

4.2: Profile of the Respondents

4.2.1 Section One: Personal Information

Graph 1: Age of respondents

Age	Number	Percentages
18-27	2	13 %
28-37	3	19 %
38-47	4	25 %
48->50	7	43 %

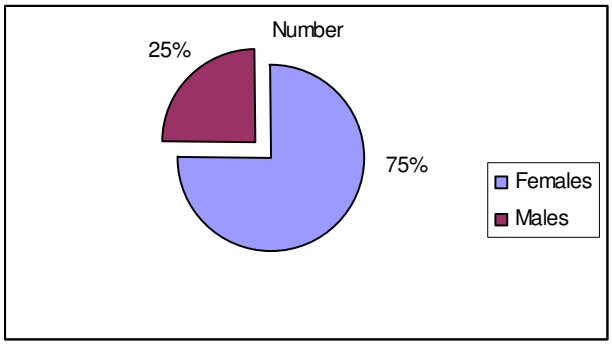


Demographics which classified respondents according to various age group categories, - 18-27--- 28-37---38-47--- 48->57, reflected that the community had people of a diverse age group. The respondents' ages ranged from 18 to >57.

The majority of the respondents (50 percent) who participated in the research were between the ages of 48->57. A total of 25 percent respondents were between the ages 38-47. About 15 percent of respondents were between the ages 28-37, and finally 10 percent only were between the ages of 18-27.

Graph 2: Gender of the Respondents.

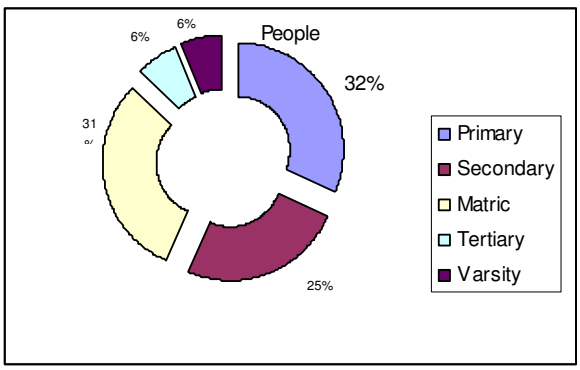
Gender	Number	Percentages
Females	12	75 %
Males	4	25 %



In the Gender category there were 4 males and 12 females who were willing to participate in the focus group. The majority of the respondents who participated in the research were females 12 (67 percent), whilst 4 (33 percent) were males. The percentage of participants confirms that females are the most affected population by the new water service delivery.

Graph 3: Education Status of the

Education	People	Percentages
Primary	5	32 %
Secondary	4	25 %
Matric	5	31 %
Tertiary	1	6 %
Varsity	1	6 %

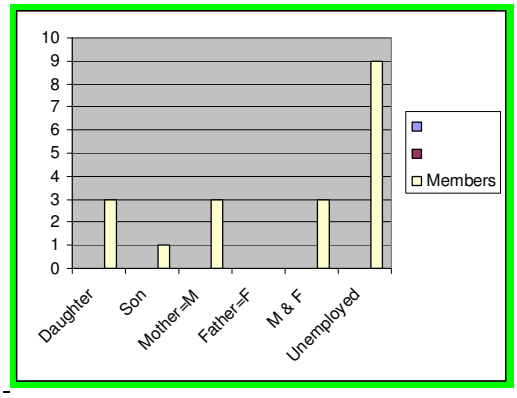


The respondents are at different educational levels. The levels ranged from primary (N=5), Secondary (N=4), Matric (N=5), Tertiary (N=1), Varsity (N=1). The education level was requested to ascertain their capacity to understand water purchasing concepts.

Graph 4: Status of Family Members Employed

Employment questions were formulated to establish means of living in a family and who takes care of families. Thus would lead to the understanding of consumer purchasing behaviour, and the house hold income. The payment behavior was obtained towards the end of the interview, when respondents felt more relaxed with the researcher. The majority of the respondents are unemployed.

Members Employed	Number	Percentage
Daughter	3	16 %
Son	1	3 %
Mother	3	16 %
Father	0	0
Mother & Father	3	16 %
Unemployed	9	47 %



The number of people per house-hold: Two households had (N= 4) members each, five households had (N= 5) members each and six households had (N= >6) members each. Family members employed were classified as follows: Houses

with Mother and father working (N=3), Mother only employed (N=2), Daughter only (N=3), Son only (N=1) and No people employed (N=9). Large families had many unemployed people, their household incomes ranged from zero (N=7) to over R1 500 per month (N=3).

Importance and performance rating techniques are based on the premise that both these issues influence consumers' perceptions, and thus their levels of satisfaction (Kotler, 1982). The technique uses a four-point scale for evaluating importance and a five-point scale to rate performance levels, then compares results to establish where the service priorities should lie.

4.3 Section Two: Conceptual Issue (Exploring the Social Products)

This section deals with establishing awareness levels of various social products, operation 'Gcin'amanzi', 'Bato Pele', 'a better life for all', 'relationship with water authorities (municipality) and 'free basic services'. This is to establish consumers' awareness of the meaning of social terms and in effect in their everyday lives. Respondents were allowed to comment on each of the terms.

4.3.1 Respondents Awareness About Operation Gcin'amanzi Project

All respondents thought that **'Operation Gcin'amanzi'** project had brought about ideas of pre-paid meters which are adding misery to their unemployment frustrations. They feel that they are forced to buy water, which they cannot afford. The project forces them to use water only for their basic needs such as cooking and drinking tea. They cannot take daily baths, each member of the family takes a bath once every four days, some claim that they flush toilets once every two days, sometimes they use water they wash dishes with or wash themselves with to flush their toilets. They use a wheelbarrow to fetch water 3 kilo-meters away from their homes twice a day.

4.3.2 Respondents' Relationship with Municipality

All respondents in this community expressed disappointment and frustration with the way in which local authority was dealing with the issue of service delivery. While there were expectations that services would improve post-1994, most interviewees stated that there is no cooperation or support from Johannesburg Water concerning the installation of pre-paid meters. They say they were never made aware of the implications they would face in future In connection with uncared for leaks.

Three percent (N=3) only of the respondents thought there was a good relationship between them and the water providers. Their problems concerning water cuts were satisfactorily addressed. 97 percent thought there was no relationship at all because they don't know who these people are and they believe that the water providers (JW) have formulated what they claim is an unconstitutional and unlawful water policy. They are ready to challenge the legality of the pre-paid water and the limit of free basic water supply for service delivery to 6 kiloliters per house-hold per month. They feel that 6 kiloliters is too little (if it is ever provided).

4.3.3 What is their understanding of the concept 'a better life for all?

Most respondents defined the term in different meanings including: community environment development, streets, street lights; housing, education, transport and many other aspects of their lives.

One respondent mentioned the need for the provision of chemicals by the government to clean water in their home by the government. The respondent explained that clean water for all could prevent cholera and diseases which are the results to drinking dirty water because of water cuts.

The need for adequate accommodation, expanded social services, employment, health improvement and reduced living expenses, also featured as part of the better life social products, were each mentioned by two respondents. Safety issues were also brought up by some of the respondents. A few of the respondents were unable to define the concept.

4.3.4 What do they understand about 'free basic water'?

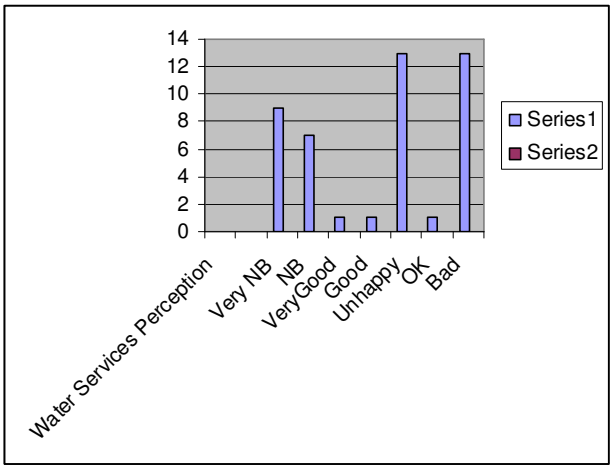
All the respondents (100 percent) who have heard of the 'free basic services' defined it as not having to pay for services at all especially water. One respondent commented that the term mean that free water is not of good quality compared to the one bought from the stores because people have to pay for it, therefore the respondent compares water purchase with good quality.

4.3.5 Have they heard about the term 'batho pele'?

Social marketing strategy and the tactical campaign could eliminate the practice of non-payment, by identifying and meeting consumers' needs correctly, in accordance with the **Batho Pele** principle which promotes the recognition of people first in the promotion of service delivery. The sixteen respondents who were able to define 'batho pele' term mentioned ten topics to define it. Five respondents linked it to caring for people concerning basic services like water, sanitation, shelter and food, while three respondents remembered that it was related to putting people first as one of them heard that ' the government should deliver services in the communities'. The remaining respondents could not define the term.

`Graph 5: Rate of water importance

Perceptions	No. of People	Percentages
Very Important	9	20 %
Important	7	16 %
Very Good	1	2 %
Good	1	2 %
Unhappy	13	29 %
Okay	1	2 %
Bad	13b	29 %



A number of (N=9) respondents consider water services to be very important, while the rest (N=7) all consider it to be important. The distribution of the performance reflected a wide range of experience, with (N=13) regarding it as bad, (N=1) finding it to be OK, (N=1) finding it good and (N=1) rating it as very good. Respondents had misgivings about the services, (N=13) reported being very unhappy.

4.4 Section Three: Qualitative Issues

4.4.1 Introduction

This section aims to measure respondents' water consumption, worth, purchase and value for money. In this section respondents were requested to explain their

understanding of monthly water consumption as supplied by Johannesburg Water. They were asked about what their opinions are concerning daily consumption of water and also to explain their perception of the current level they receive. They were also to determine whether the actual and expected levels of water services experienced by respondents in their homes are understood, subsequent to the education on pre-paid meters operation. Gcin'amanzi project officials from JW promised to conduct educational sessions so that the communities should feel comfortable about water purchasing

Further, this section will investigate respondents' understanding of meter reading for water consumption. This will include:

- satisfaction with the amount consumed,
- perceived worth,
- satisfaction with the price paid,
- purchase status,
- payment frequency

4.4.2 Question 1: What are your perceptions of your daily consumption of water following the Gcin'amazi project education? Is the consumption good value for money?

All respondents 100 percent (N=16) are on pre-paid meter system. They access water is gained through pre-paid water cards. They receive no bills, and they are on a cash sale for water system, which means that they can only consume water on purchase. All respondent (100 percent, N=16) did not know how much water they consumed because they claim that they were not taught well to read the meters. The background section in an earlier chapter pointed that JW started installing free-payment water meters with the aim to give the owners peace of mind by knowing on a daily basis what the house-hold water consumption is. In this process consumers will be taught how to use the free-payment meters wisely. They will be taught how to cut down their consumption to less than 6000 litres per month, so that they will even not to have to pay a cent for water and sanitation.

The respondents' comments do not match what the officials are claiming because consumers are not satisfied with monthly water supply by the providers. They think that they are receiving small amounts. This concludes lack of education by the officials to the community.

4.4.3 Question 2: What is your perception and understanding of your purchase behaviour? Do you buy every month? Is price of any value?

In this section respondents were requested to explain and give their understanding of the pricing issues as they perceived them, to state their perceptions of value and their payment experience, as well as the purchase process. How different is the amount perceived to be paid each month compared to the supply they get. What does this means to their understanding and experience?

They assume that monthly supply by JW seem not to be equal what they pay for. They think that they receive small amounts of water because water cuts always come when they don't expect it. This is frustrating and annoying 13 percent (N=3) believe that the amount of water they use is worth a maximum of R50. They regard the volume they use as sufficient for all their needs. On the other hand 87 percent (N= 13) find themselves buying water twice or thrice times a month for R20 or more. They feel that they consume less than the stipulated amount for the free lifeline. Conversely, 90 percent (N=14) of respondents thought that water services were not good value-for- money.

4.4.4 Question 3: How would you rate your satisfaction with the services regarding your household or the township?

There are two research techniques which could be used to establish consumer's opinion about water service delivery, viz. either measurements of their image of the service provider, or their satisfaction with the service (Kotler, 1982). This research aims to measure a perception, thus it is related more to the service itself

than to the provider thereof. Some measure of satisfaction is the more relevant measure for perceptions of service delivery. There are three possible levels of satisfaction, namely, highly satisfied, when the expectation is exceeded; satisfied, when the expectation and performance match; and dissatisfied, when the performance falls short of the expectation (Kotler, 1982).

Graph 6: Respondents Satisfaction with Water

Feeling	People	Percentage
Dis. satisfied	10	62 %
Satisfied	2	13 %
Highly Satis.	4	25 %



Derived dissatisfaction data can only be manipulated to a limited extent. Simple addition of individuals' ranking scores shows that 10 people have a greater derived dissatisfaction score for their own house-hold than for the township, while two people rate their houses and the township the same. Four other people rate the township highly dissatisfied because they maintain that the pre-paid meters have created a high rate of crime. People illegally connect themselves and steal water from other people's taps. In a nutshell, respondents are not satisfied with the water services.

This research used two techniques to establish which of these levels best describes White City residents' experience and particularly their feelings about water services delivery. Directly reported satisfaction relies on consumers to report their

levels of satisfaction or dissatisfaction accurately using a five-point Likert scale (Kotler, 1982). This part of the survey required respondents to quantify their current level of satisfaction with the delivery of the water services.

4.4.5 Question Four: What problems do you experience with water services?

This section requested the respondents to explain the problems they encountered with water cuts, how much they know about the block tariff system. They should also explain the gender group they think suffers more because of the problem. A second table was formulated for unexpected comments from the respondents.

Table 5: Problems Experienced with Water Services

Issues	Number Mentioned	Number & Respondents %
Water cuts hit hard on the poor mostly.	16	16 – 100%
It is women who suffer a lot.	12	12 – 60%
Little education was done about the block tariff system	5	5 – 25%
Anti-Privatisation Forums which lead to demonstrations over water.	6	6- 30%

Table six was established for unexpected comments that arose from the respondents.

Table 6: Summary of Unexpected Comments

Issue	Comments	Respondent	Respondents Percentage
Violent crime	People connect themselves. Others fetch water from other people's taps.	8	50%
HIV Infections	No one cares about people who are HIV because We need to clean them often, water cuts cause problems	5	20%
Social Problems	Who initiated water pricing? Most of us are unemployed, and we cannot afford to pay for water.	1	10%
General	When the visitors come in 2010 they will find us fighting for basic needs like water.	1	10%
Status of Researcher	Who do you work for? Are you not a spy?	1	10%
Total		16	100%

Three respondents made significant concluding remarks. The first one voiced that 'the problem is not that we do not want to pay for water, it is that we cannot pay.' The second one respondent suggested that there should be an indigent rate whereby residents would be expected to provide proof of income via an affidavit with the municipality in order to qualify for the indigent rate. The last respondent thought that the water policy has to be changed after the Johannesburg Water, and the Department of Water Affairs have reviewed it.

4.6 Water Providers Interviews

The starting question with the Johannesburg Water representative was about the reasons to put a price into water. He answered that, the introduction of metered consumption to the area in the form of free-payment meters wish will lead to a stronger sense of ownership of consumption among consumers. This will enable consumers to see exactly how much water they use every month, which will allow them to budget beforehand. He added that the main objective is to reduce water

losses in the township because water is a scarce resource in South Africa. Another objective is to make water free for those who use less than 6000 litres per month. He gave examples of the cost of two other liquid consumptions, he said that milk costs R5.30 per litre, and cool drink costs R5.50 per litre, he contends that, these liquids costs much higher than a litre of water, but he finds people affording to buy these liquids instead of paying for water.

The representative was asked about the involvement of the private sector arrangement as DWAF is considered as such, to water service delivery, the picture he gave was that these agreements are aimed at achieving improved and greater levels of service delivery, and do not result in the undermining of municipality capacity to provide these services in the future.

Dealing with the relationship with the community, the representative highlighted that as part of the project, JW is also embarking on comprehensive institutional and social development programmes. This includes campaigns to address the political, social and consumer related issues which are addressed through the **masakhane** campaign that directly and indirectly contribute to the runaway water supply and consumption problem in SOWETO. What the representative is claiming is not in line with what the community experience regarding the relationship they have with officials. The community voiced that the only time they see people from JW is when they come to install the pre-paid meters. In terms of the government's free basic service programme, he was convinced that consumers will not fall into debt traps as the free-payment system will allow consumers to manage their consumption.

RW

When the manager from RW was asked about his sector's function in the water services, the manager indicated from the beginning that his company had not been involved in the process of water pricing. The functions which the sector was responsible for were transferred to JW during the democratic government. RW deals with the reticulation systems and accompanying operations and maintenance

systems because their focus is on the bulk supply systems where the purification of raw water they get from the Vaal Dam takes place and transported to the industries, mining and to JW reserves.

The structure of the water supply system can be divided into three functional elements which are normally encountered in all water supply systems regardless of their physical characteristics. These elements are acquisition, treatment and delivery to the consumer through JW.

Acquisition includes the sub-functions of sources of supply, bulk storage in reservoirs and bulk transmission, while delivery includes the sub-functions of pumping, storage, transmission and distribution. Not all functions need necessarily be carried out by the same authority. Thus in the Gauteng province which is supplied by my department (RW), acquisition is primarily the responsibility of the Department of Environmental Affairs through the directorate of JW. Treatment and bulk transmission is carried out by RW and delivery to individual consumers is the responsibility of JW.

DWAF

The officer indicated that the department has not been part of the pricing system from the beginning, but his department's core function is to ensure that all South Africans have equitable access to water and sanitation, and that the country's water resources and forests are managed in a sustainable matter. DWAF does this by providing bulk systems to the boards, and takes care of the reticulation systems and the maintenance systems. The process was initiated to commerce by November 2004, where 10 million people have had access to a clean water supply.

Having mentioned the above statements, DWAF has in the past few years seen a number of achievements in the management of water resources in South Africa and the implementation of the National Water Act (Act 36 of 1998).

The officer further stated that by mid-2004, the Department was in the process of substantial restructuring, which is expected to be completed in eight to 10 years' time. The restructuring process included: establishing catchment-management agencies (CMAs) to perform water-resource management functions currently performed by the Department's regional offices transferring the management of commercial plantations and indigenous forests to appropriate agencies and institutions, transferring water-services delivery and operations to water-services authorities.

Chapter 5: Interpretation of Data

5.1 Introduction

The objective of this chapter, therefore, is to explore issues that have emerged throughout the report and to discuss how these reflect on the above questions

This chapter will present the interpretation of data, which are organized along specific research questions previously stated in the introductory chapter. The questions were set on the following themes:

- How did the community know about water purchase?
- What is the community's understanding of water pricing?
- What challenges does the community have to face with this approach?
- What steps have the officials taken to educate the community about the process and procedures of water pricing?

The means of investigation have included; an assessment of literature on the issue of privatisation, with particular reference to water; an appraisal of the relevant policy environment in South Africa; focus groups conducted to investigate the perception of the White City community concerning water pricing; and a conversational interview with three officials from: JW; RW and DWAF.

5.2 Profile of the Respondents

Before specific questions were raised some personal information were posed as presented in the previous chapter form.

- In the personal information of the respondents, people between the ages of 47->58 comprise 50 percent of the respondents. This is the reflection of the people who are more concerned and affected by the water pricing. This

group was loud and concerned about the new policies. Respondents mentioned that 'not that we don't want to pay but we cannot pay because we are not employed'.

In the gender category the majority (75 percent) of respondents were females. The researcher noted that this does not confirm that females are more affected or concerned about the services because the service delivery policies affect everybody, females, males and children.

- Emanating from the education results, most respondents who participated in the research had low education levels: primary (N=5), secondary (N=4). The issue of education is essential because it gives an understanding of how the respondents engage in the research; on the other hand, their understanding of the issues around service delivery. The researcher compared the views from people of lower education and with those of higher education. Views of lower education level were also taken into cognisance.

- Employment status was taken inconsideration. The unemployed respondents could talk to ward councillors in ward committees, water forums and door-to-door campaigns. This where ward councilors explained how water services operated and the importance of being registered as poor if the household earned below R1,100 per month or they are unemployed. This information is known by the researcher through attending ward meetings. The advice came after one woman complained that 'I am unemployed and cannot afford to purchase water. The government is not doing anything for us'.

Ward councillors also took the responsibility of protecting poor households from having their water services disconnected because they could not afford to pay. They accompanied the community liaison officer from Authority Water Services (AWS) on his or her rounds to inform service users about this policy. If

households were too poor to pay, the councillor encouraged the service user to register as poor so that they could receive a state subsidy. This was done so as that their water supply would be restricted rather than cut off.

5.3 Conceptual Issues (Exploring the social products)

From the observation made by the researcher, it was ascertained that the promise by the officials to solve the problem of unaccounted for water which is caused by leaks, was never fulfilled. The community was never taught about 'Gcin'amanzi' project where the officials promised they would solve the problem by installing new mains in the road reserves. This would replace the current system of mid-block mains because some of these are fifty years old and no longer in proper working condition. On the other hand the community say that cut-offs struggle for water had intensified since the introduction of pre-paid meters.

5.3.1 Understanding the Concept 'a better life for all' and 'free basic water'

Consumers' definition of the social products 'a better life for all' and 'free basic services' in the conceptual questions above, reflect their high expectations of services from the municipality. None of the respondents was aware of the massive advertising campaign the Department of Water Affairs and Forestry launched for free basic water. This illustrated the level of political commitment there was for supporting this policy. Thus the low awareness of campaigns could be due to communication principles. This is the same as over reliance on electronic media, instead, novel communication channels, like education and endorsement by word-of-mouth through various social networks could be employed.

There is a great deal of overlap between the respondents' perceptions of these social products. In particular, municipal services were mentioned several times in the definitions of both social products. The service delivery of the municipality is thus considered a definitive component of each of those social products. Therefore

it is probable, that municipal services are perceived as tangible indicators of larger social products. If that is so, the level of water services provision could be perceived as reflecting the extent of the government's provision of a better life for all. This perspective is confirmed by some respondents' spontaneous comments, like those in table 5, p. 65, which put blame for non delivery on the state.

The researcher notes that many of the water sector's problems originate in its weak organisations, which often reflect the wider political, administrative and financial problems of the societies in which they operate. Waiting to solve these problems, and making good governance a precondition for further international support to the water sector, would make the Millennium timetable unattainable and abandon many of its intended beneficiaries to their fate.

5.4 Understanding the term 'Batho Pele'

In the interview with an official from Johannesburg Water in appendix 3, p. 92 he outlined the framework that had been developed cooperatively by the government and Johannesburg Water through the then Constitutional Development. Basically this position was that the municipality should adopt the principle of Batho Pele (the guiding principles for the civil service in the delivery of services) in order to ensure that services are delivered to the people in an efficient, cost-effective and people-centred way. The researcher noted that, the 'batho pele' principles were undermined by JW. The community knew very little about the principles of 'batho pele'. This revealed that the official's service delivery is not people-centred. The officials have to practise efficiency in a cost-effective way by educating the community. Thus the managerial approach, combined with a centralized recognition of the developmental imperative, should result in material progress for the poorest of the poor.

The researcher's observation is that the South African policy on water services has evolved from the post apartheid period. It now claims that it aims to meet consumers' needs. However, this theoretical situation is not in operation as yet. It

should be operationalised and implemented consistently. The motivation should be translated into action, by including the community in the social policy formulation.

5.5 Respondents' Relationship with Municipality

The researcher noted that in many instances, the situation of lack of education of the community about new policies was made worse by the apparent uncaring attitude of municipalities. Perhaps the most common phrase in all of interviews was that municipality was not interested'. Surely this is a sign of an immense gap between local government and their constituency.

The researcher believes that South Africa's privatization approach in water services illustrates the potential for addressing some of the critical difficulties local governments face in delivering water services to the poor. Another problem is the great difficulty in trying to balance cost-recovery imperatives with the constitutional requirements to extend equity to previously disenfranchised households.

The majority of South Africans, made up of the poor and working class, fought and died not just for political freedom from apartheid, but for socio-economic freedom and justice; for the redistribution of all 'national wealth'. An integral part of that national wealth is water, a natural resource essential to all life majority of South Africans gave political victory to the ANC in 1994. They were also giving the new government the power to fulfill the charter and ensure natural resources like water would be controlled by, and be accessible to all citizens irrespective of race or class. This popular mandate was captured in the Reconstruction & Development Programme (RDP) 1994, which formed the basis of the people's contract with the new, democratic government. However, it did not take long for the ANC government to abandon that popular mandate by unilaterally deciding to pursue a water policy that produced opposite results by making access to water use difficult.

Taking the World Bank's advice to introduce a 'credible threat of cutting service', the Johannesburg city council and other councils across the country began cutting off water services. People could not afford the increased prices. The full-cost recovery model punted by the World Bank – tariff revenue sufficient to meet operations and maintenance costs, without any public subsidies to keep prices in check has seen water services of over 10 million people being cut off. In Addition, more than two million residents have been evicted from their homes, often as part of the associated legal process to recover debt from poor customers

The collective impact of water privatisation on the majority of South Africans has been devastating. The desperate search for any available source of water has resulted in cholera outbreaks that have claimed the lives of hundreds. In response to these privatisation measures, communities in large urban areas such as Johannesburg, Durban and Cape Town, as well as many smaller towns and peri-urban areas across the country, have responded with active resistance. One of the new social movements that has taken the lead in this resistance is the Anti-Privatisation Forum (APF), an umbrella organisation for grassroots groups primarily located in Gauteng province (which includes Johannesburg and Pretoria). Formed in 2000, APF's guiding principle has been that basic needs, such as water, are a fundamental human right. This is not a privilege to be enjoyed only by those who can afford it. Throughout the privatisation process, APF (alongside other social movements and, to a lesser extent, the union movement) has mobilised and organised poor communities and workers to oppose it. Educational and legal initiatives have been combined with regular mass action aimed at empowering ordinary people to assert their right to free basic services (water, electricity, education and housing). As a result, the Coalition Against Water Privatisation (CAWP) was formed in late 2003, bringing together a range of social movements and progressive NGOs, in a collective effort to turn the tide against water privatisation.

Water pipes have been re-routed to allow free access to water, in the process, strike a grassroots blow for the 'decommodification' of water and self-empowering of the community has been struck a blow. In some communities, residents have destroyed pre-paid meters. This is an overt act of defiance against privatised water displaying their contempt for the constitutional and human rights of the poor.

5.6 Rate of Water importance

All the respondents interviewed regard water services as important. Moreover, JW was a definitive tangible component of the term 'Gcin'amanzi' which they perceived as responsible for water cuts and sufferings. Most of them regard it as performing very badly. They all agreed that importance and performance should be both high, 'yet in our country importance is high and performance is not' said one man. This feeling implies that there is a need for improved service delivery. The expectation is that the quality of water services should be high. They expect to have free water. They do not understand why democracy is introducing water pricing while the previous apartheid government delivered water freely.

5.7 Qualitative Issues

5.8 Respondents perception concerning their daily consumption, value for money

Most respondents interviewed reported that they do not have access to sufficient water because water is cut-off unexpectedly. Over 70 percent do not understand the distribution of the free 6 kilo liters per month due to their households free of charge. The knowledge acquired through Rand Water's managerial and administrative experience has not been transferred sufficiently to JW in order to strengthen its own capacity to manage the sector or to better monitor a new service delivery agreement better.

As a result, it has been possible to enumerate the poor to ensure that their monthly access to 6000 litres of water free of charge is not denied. But when poor households, most of are big family units, are reduced to trying to survive with a trickle of water. Their dignity enshrined in their right to water is lost. This raises further questions about national guidelines and the local authority implementation of six kilolitres as a basic minimum. Thus is simply insufficient for a poor household to manage its needs.

All respondents thought that there is no improvement in water service provision after the 1994 elections. They believe that the municipality is not interested in the welfare of the community. Some respondents suggested that if they could be educated about what water pricing means by the water providers that might improve the water service delivery. According to them the conflict is created by that ignorance.

Based on the researcher's observation, it was noted that although JW claims to have consultation with the community concerning the pricing of water in this area, this is not what the community is expressing. Therefore, there are gaps and loopholes in what JW states about educating the community about the Gcina'amanzi project.

Critical to those gaps and loopholes, is the issue of lack of consultation on the part of JW with the community to discuss matters about the new water policy. The researcher noted this short-fall. Communication should not be limited to matters of cut-offs only when house-holds have used all the 600 kilo liters due every month and have to pay more money. Johannesburg Water should also go through the process and procedures that are carried forth in installing pre-paid meters. The community say that only conversation they had about pre-paid meters, was the day the officials came to install pre-paid meters.

Based on the United Nations, 1977 report cited in Gleick, 1999 all peoples, whatever their stage of development and their social and economic conditions, have the right to have access to drinking water in quantities and of a quality equal

to their basic needs. The right to development had increasingly come to be considered as a universal and inalienable right and an integral part of fundamental human rights.

5.9 Perception about Respondents' Purchasing Behaviour

A comparison of perceived value and amount they buy reveals unwillingness to buy water. A third of the respondents were willing to buy more than they currently do, one third of respondents thought water was not worth paying for. They were against water purchasing. They preferred flat-rate because that allows them un-metered and un-limited water supply. Two thirds wished that water should be free and one third were not sure.

In the case of water services in White City, consumers' usage and consumption patterns, as well as their buying behaviour, reveal the so called 'culture of entitlement' (this term suggests that people expect to get something for nothing). Moreover, peoples' perception or their misconception defines what their norms are. This influences how they themselves behave in their own social context (higher Education Centre, 2001). The White City community, holds the perception that the on going boycott of water purchasing in some townships, like Phiri, Mofolo North and other townships, may influence the continuity of non-purchasing and illegal connections in their township.

Finally, the pricing process presents a major challenge. Almost 100 percent of respondents could not pay, since they claim that they could not pay because they cannot afford, and because most of the members in the household are unemployed or the house is headed by a pensioner. Thus, in this survey, the rate of unemployment in the poor areas was a major determinant of non payment behaviour. The researcher noted from the respondents that the practice of non-payment could be countered by introducing small business enterprises near the townships to employ semi skilled people or uneducated people to participate in

the businesses in order to earn money that could help them pay for the services rendered.

5.10 Rating services regarding house-hold

- Most consumers expect higher service levels than they receive, for their households;
- Consumers associated the quality of water services with their monetary costs;
- Consumers seem not willing to pay for water services and are generally not aware of the policy to provide free basic amounts of water;
- The single biggest determinant of consumers' purchasing behaviour is not perceived quality, but is whether water is available in their taps. This means that they still have units in their accounts, or whether water is stopped, which means there are no units in their accounts

In many instances, the situation was made worse by the apparent uncaring attitude of municipalities. Perhaps the most common phrase in all the interviews was that 'the municipality was not interested', surely a sign of an immense communication gap between local government and their constituency.

This analysis further concludes that, there is no consultation with the communities as there is no independent regulator in place. Essentially, universal access to the expected full levels of water services should be improved. The consumption of 6000 free liters of water per house-hold per month, could be understood by the community if there is education given by the water providers.

5.11 Water Providers

Eight attempts were made to establish interviews with JW stakeholders all to no avail. An attempt to report the matter to the Gauteng MEC Mrs Mahlangu was not successful. Eventually the interviewer was able to have three interviews with three

water providers' stakeholders, one from Johannesburg Water and one from Rand Water, plus telephone interview with an official from DWAF.[5]

The Substance of Johannesburg Water Interview

The purpose of the meeting was to obtain Johannesburg Water's perspective to the water pricing system.

The representative of the Johannesburg Water maintained that their function is to address severe water losses in SOWETO. Their aim is to gain cooperation and support from the community concerning the installation of prepaid meters. They claimed that they had consultation with the community concerning the pricing of water in the townships. This is opposed by the community when they say no consultation took place with them by the officials concerning the installation of meter. The only time the community knew about pre-paid meters was when people from the Johannesburg Water came to their houses with papers to be signed for pre-paid meters installation. They also spoke to them when they came to install the pre-paid meters.

The representative asserted that, a fundamental aspect of this project was the introduction of metered consumption to the area in the form of free-payment meters. The aim of installing meters was to build a stronger sense of ownership of consumption among consumers. He further asserted that the approach will enable consumers to see exactly how much water they use every month, which will allow them to budget beforehand. He added that the main objective is to reduce water losses in the township because water is a scarce resource in South Africa. Another objective is to make water free for those who use less than 6000 litres per month. Even if more than free portion is used, it will still be affordable to all, as water costs less than half a cent per litre.

[5] The list of interviews is attached as appendixes three.

Consumers are angry with the pre-paid meter system because they maintain that they don't understand how the meters work, as one man said 'we have been given pre-paid meters, they don't make sense to us because we can't read them'.

When the researcher visited JWs offices in the central city to seek information about water pricing she was denied such information . The officials claimed that their offices are not the right place to provide such information. Water pricing is suggested and decided by DWAF. They are the regulators and the bulk providers of water, so they have the right to set water prices. The same response as the one given by DWAF was given by an RW official when he said from the beginning that his company had not been involved in the process of water pricing.

On the other hand, in a telephonic conversation with a DWAF officer it was established that the decision to go the route of water pricing was the municipality's (JW), not DWAF's because it is the municipality's responsibility to deliver services. The Water Services Act 1997 allows for a range of options that local government may choose in order to deliver services, including water pricing. None the less, from DWAF's perspective, the advantage of water pricing is the private capital that such agreements bring to the table. The officials are playing a blame game. These departments need to address this question and work out a programme that will assist in the water service delivery. In this way they will be able to meet the requirements of providing the 6 kls per house-hold per month and they will educate the consumers to understand the process taken. That will extend to all consumers and make sense to the consumers.

As mentioned in the background section of this research, JW's function is to address severe water losses in SOWETO. They hold that one of the most vital aspects of such a project is gaining cooperation and support from the community on the installation of pre-paid meters. JW does not keep its word because some of the respondents maintain that water pipe leakages have not been attended to for a long time after reporting the problem to the sector, until they do the fixing themselves.

The involvement of the private sector arrangement in water service delivery, aimed at achieving improved and greater levels of service delivery. It is said that it does not result in the undermining of municipality capacity to provide these services in future. Pro-privatisation scholars mentioned in the literature review that the South African government has taken the advice of the multinational companies to adopt or join the neo-liberal approach to water delivery. Such an approach promotes water pricing and profit making and ignores the feelings of the majority of the public. This is directly affected by the new policy to water delivery as the consumers are sidelined in terms of information about new policies. Some of the questions eliminated from the questionnaire to the respondents are evidence of the ignorance of the consumers about policies. When consumers were asked about their desire to participate in the decision-making meetings, they refused because they maintained that they do not understand the concepts, and they do not understand the meaning of pre-paid meters installation.

As was discussed in the literature review, the government's policies on basic service delivery are underwritten by a tension between the objectives of socially and developmentally sound service provision and the drive to cost-recovery. This tension is apparent at both the broad framework level and, the sector level.

The researcher embraces what Zank, (1991, p.168) the pro-privatisation scholar alludes to that an emerging mainstream consensus is now assigning the primary development and employment role to the private sector, with the public sector creating the environment and setting the policy framework so market forces can act. As a result the rise of privatisation is turning uneducated consumers to scape-goats and yet they are excluded from the participation in decision making.

Zank (1991) follows the theme of increasing the influence of market forces in the provision of services that may have traditionally been delivered by the public sector. He notes that privatisation is the major focus of USAID's bilateral foreign assistance programme, the direction he sees as being taken by other donors as

well. He stresses the need for adequate government institutional frameworks to regulate and monitor the performance of the privatised enterprises.

Public sector was changed from being the main and the only institution to deliver water to its citizens. The government adopted the neo-liberal policies to water delivery for the country. Traditionally, the main task of the state has been to provide public goods and services, such as education and water reticulation systems, to its citizens. As mentioned in the background section of this research, their function is to address severe water losses in SOWETO. Johannesburg Water holds that one of the most vital aspects of such a project is gaining co-operation and support from the community in the installation of pre-paid meters, an ongoing process. JW claims that they have had consultation with the community concerning the pricing of water in this area.

Chapter 6: Conclusion and Recommendations

6.1 Introduction

The main purpose of the research was to investigate the challenges facing the White City community regarding water purchasing. The following sub-questions were explored to accomplish the above investigation.

- How did the community know about water purchasing?
- What is the community's understanding of water pricing?
- What challenges does the community have to face with this approach?
- What steps have the officials taken to educate the community about the process and procedures of water pricing?

This part of the research will focus on the concluding remarks based on the collected evidence. The concluding remarks will then be followed by the recommendations made by the researcher on how Johannesburg Water can improve its services that can lead to understandable water purchasing by the community, if they will ever develop some understanding in purchasing water.

6.1.1 Conclusion

From the literature review conducted, the following factors were identified as critical for the transformation of the public sector as a service delivery entity for the social needs of the community.

6.1.2 The Water Sector

The water sector has many facets, which creates some problems for the sector from seeing water as a resource to be managed and developed for the benefit of all its functions and users, and water as a service to be provided to its many users, freely. The water sector in South Africa is influenced by the global community to

adopt trends it cannot maintain because of large deficits. The sector expects poor people to purchase water because the water infrastructure is paid by water users, taxpayers or aid donors. There is lack of governance.

6.1.3 Governance

The following issues seem to be important:

- Lack of intervention by the central government to water sector issues
- Poor management structures
- Lack of transparency to the public on policies by officials
- Lack of community participation in decision-making as they are excluded
- Resistance to cost covering tariffs

6.1.4 Government Policy

The government's policies relating to basic service delivery are underwritten by a tension between the objectives of socially just and developmentally sound service provision and the drive for cost-recovery. This tension is apparent at both the broad framework level and the sector level.

The RDP which was essentially a vision for development that placed the needs of the poor majority of citizens at the forefront was undermined in favour of seeing the community as consumers. GEAR was focused on creating an environment for economic growth, make the RDP possible through fiscal discipline and a free market approach. The goals of both these frameworks were similar, that is, to improve the living conditions of the majority, but the ideological position informing the approach to achieving this goal differed markedly. Policies addressing specific sectors such as water and sanitation also carry this dual mandate of enabling universal access to services and redressing past inequities while simultaneously ensuring budgetary constraint which means providing services on a cost-recovery basis.

All of the respondents thought that **'**Operation Gcin'amanzi' project, came with the pre-paid meters which are adding more misery to their unemployment frustrations because they are forced to buy water which they cannot afford. These approaches brought serious challenges to the communities in SOWETO.

6.1.5 Pricing Water Services

Kotler, *et al.,* (1989) allude that the objectives of the pricing strategy adopted for any social product should be clarified from the outset. This could involve maximising profits, cost recovery, the number of participating consumers, and social equity, as well as conserving water, improving its allocation, and redistributing income. Also involved in are the tactics to implement these strategies which include volumetric pricing, non-uniform tariffs, metering, abolishing minimum prices and introducing pollution taxes, as well as introducing incentive suppliers and consumers of water to behave in a socially desirable manner

Another pool of respondents believes that the amount of water they use is worth the maximum of R50 per day because they regard the volume they use to be sufficient for all their needs. On the other hand 87 percent (N=13) find themselves buying water two to three times a month for R20 or more money, they feel that they consume less than the stipulated amount for the free lifeline. Conversely, 90 percent (N=14) of respondents thought that water services didn't represent good value-for- money.

The provision of 6kls of free water causes the potential for public interest to be undermined. In the analysis section the majority of the respondents expressed ignorance as to how and when the 6kls of free water is consumed. The researcher elicited that no education was conducted concerning water allocation as was mentioned by the JW officials.

The researcher felt that there are many gaps in the communication standards of the officials to the consumers. JW should create a platform for information so that there is transparency for regulatory accountability within the sector which will protect and encourage the education of the consumers.

6.1.6 Regulatory Environment

Though there is legislation that governs the provision of water and sanitation through Water Service Provides (WSP) arrangements, this is not developed to the extent that it offers clear, systematized and unbiased protection of consumers' knowledge about the role of players in the water provision sector, or other stakeholders' interests.

In the 1997 white paper which provided the basis for the 1998 Water Act it is illustrated that there was a need for a pricing policy that reflects the economic value of water, user pays. However indicate that this pricing policy should be balanced against equity and the socio-economic circumstances of people in communities. Further the Water Services Act (1997) empowers the Minister of Water Affairs and Forestry to regulate various dimensions of the provision of water services.

Considering the above information about the role played by DWAF in the water services, there appears to be a considerable gap between the point at which DWAF and JW jurisdiction is resolve issues, and the point at which a higher authority steps in, and what this higher authority might be. For example, there are many players in the water provision service delivery who are not known by the public. When the community was asked about the relationship they have with the official, the response was that, they don't know who these people are. The policy is in violation of human rights so far as the water provision is concerned. If the rights of people are tempered with, the presence of a regulator to protect the rights and safety of people is necessary.

6.1.7 Impact on Low-Income Group

The interview has provided information from which a general conclusion regarding the effect of water service delivery by pre-paid meters on poor communities can be drawn. Emanating from the data relating to payment and cut-offs rates it was identified that water privatization is prevalent or common in low income areas. The effect is reflected in White City township which is characterized by wide spread-poverty and unemployment with almost 40 percent of the respondents is even below the belt of poverty.

It is too early to draw definitive conclusions about whether the 'operation Gcin'amanzi' project will be able to fulfill its mandate of upgrading defecting plumbing, leaking mains and inefficient water usage by residents; with the hope of expanding services to poor households and making a profit. It is known that non-payment is a major issue and the causes of this are subject to different interpretations. Lack of affordability is an obvious cause given the cost of water and the low-income levels of many house-holds in the researched township. However, other factors may include confusion, ignorance or lack of education over the free water policy. This is largely to an imbalance of information gap.

As mentioned in chapter three, the issue of non-payment for services received was mainly pointed to the fact that citizens are exposed to inadequate information regarding real cost of delivery. Contributing factors are the relationship with service charges, lack of education about tariffs, not taking part in the decisions reflecting conditions under which services are supplied to particular constituencies at particular levels.

Local authorities are increasingly adopting more business like ways of operating. The consumer is regarded as a customer and not a consumer anymore. In many respects this can be a positive development when it results in services delivered more efficiently.

There is no argument that water providers needed to drastically improve their attitudes and practices towards the people they apparently served considering the rate of non-payment. However, when water providers refer to the management of basic service delivery, in large part the issue at stake is that of non-payment. It is the shifting, if not actual resolution of this problem that as much as anything is being sought. If people don't pay they don't get services. This might make good business sense but it certainly does not contribute to social and developmental objectives that could be progressed as a result of universal access to water. Poor households will obviously be much harder hit by this approach to service management than middle class and rich households.

In the interview which was held on 18 August with the Johannesburg Water representative, he claimed that the introduction of pre-paid meters, has aside from infrastructure improvement, had some positive spin-offs for local business people and previously disadvantaged contractors as well as unemployed people and has resulted in the creation of temporary jobs, something which local unemployed people are not in favour of, because all of the respondents thought that 'Operation Gcin'amanzi' temporary employment offered lasts for as long as the time frame of installing pre-paid meters is reached, they conclude that the officials are dangling a carrot in front of them because their wish is to find permanent jobs. The broader, positive development outcomes, so urgently needed across South Africa, cannot be addressed by an approach that is commercially driven, with accountability being to shareholders rather than communities.

6.1.8 Health Outcomes

Water is a basic resource that is serving many functions, it is expected to pursue conflicting aims. The social and public health benefits of providing adequate clean water may be incompatible with cost recovery and financial self sufficiency. A water and sanitation project driven by the requirement to maximize health outcomes, for example, ensuring that all households had access to at least 6kls per day. Employment creation outcomes are of vital importance to ensure labour

intensive choices in all infrastructural development. Subsidized water to low-income house-holds is not likely to realize profits for the project itself, but will generate savings to local, provincial and national water supply budgets and contribute to poverty alleviation, and to a good care of people suffering from HIV/AIDS.

6.2 Recommendations

More questions have been raised than answered by this research. Further research on the privatization (pricing) of water should be conducted to establish the plans of the Johannesburg Water concerning disclosing information about the pricing of water because it created the limitations of this research to accessing the information.

Based on the research findings some recommendations are proposed. The use of the equitable share and cross-subsidization as funding mechanism for free water, need careful monitoring to ensure that it is transparent and that it is ring-fenced from the water management's other income streams. This will at the same time reveal the extent to which free water can be funded in this manner, and the extent to which government needs to supplement the costs of providing it.

Water providers should form an education strategy that they will use to inform the community about the challenges the officials are facing with severe water losses in SOWETO, to gain cooperation and support from the community about the system of the installation of pre-paid meters, so that conservation can therefore be promoted by rationing based on price because the price of water is to convey a valid signal to the consumers as to the true cost of water use, and it should incorporate both the cost of water supply and the cost of waste-water disposal.

Community inclusion in the decision-making policies could encourage the participation of all stakeholders in the adoption of new policies in the water services sector. The state should make an overhaul of the RDP principles, which

were essentially a vision for development that placed the needs of the poor people at the forefront. Perhaps water providers would change from seeing consumers as customers, to seeing them as the public that needs services without any conflicts.

The historic method of water supply, for example, block tariffs and cross-subsidisation, is likely to result in an artificially low price for water that give rise to excess demand and resulting to economic inefficiency. The true cost of supplying water is best represented by the marginal opportunity forgone in supplying one additional unit of water. This basis of pricing will result in the most efficient allocation of resources.

Due to limitations inherent in existing metering methods and procedures, from the interview conducted by the researcher the majority of respondents revealed ignorance with the day to day functions of the meters and in the interest of simplicity and greater revenue stability, the tariff structure should not make provision for price variations based on peak and seasonal demands. Some of the respondents mentioned that they experience water cut-offs on week-ends.

On the other hand, the structure of the water industry within Rand Water supply area, with different bodies being responsible for the bulk supply of water and for distribution to the end user, is not conducive to the implementation of a marginal cost pricing system. Since the demand for water is relatively inelastic with respect to price, price increases alone are unlikely to achieve a substantial reduction in the demand for water and supplementary strategies to reduce water usages such as the promotion of public awareness and the use of water-saving devices should also be utilized. Effective demand for water is a function of the price of water, the higher the price for water, the lower the demand.

The communication and information gap could be conquered by the introduction of workshops and imbizos; where the community will be taught about, the real cost of delivery by the officials and education about tariffs, the introduction of

new policies to water service delivery, and where communities will be given a platform to voice their concerns, problems and desires about pre-paid meters.

The introduction of social marketing strategy and a tactical campaign could eliminate the practice of non-payment, by identifying and meeting consumers' needs correctly, in accordance with the 'Batho Pele' principles. Essentially, this should result in universal access the expected full levels of water services, the consumption of 6000 free liters of water per house-hold per month, and house-holders' contribution of specific user fees to augment the national budget's allocation of funding infrastructure.

Water providers need to drastically improve their attitudes and practices toward the people they are apparently serving .The lack of interaction with the public causes a tension and conflicts when matters are not understood by communities.

The results of the study lead to suggest that is important that the government should intervene in water service delivery, by appointing a team of independent regulators, to regulate the water services.

6.3 References

African National Congress (1994) The Reconstruction and Development Programmes. Johannesburg: Umanyano Publications

Andreason, A.R. (2001) Social Marketing Institute. Retrieved November 21, 2005 from http://www.social-markerting.org/sm/html.iley, D. K., (1994) Methods of Social Research. New York: Free Press, 4th Ed.

Bond, P. (1998) Privatisation, Participation and Protest in the Restructuring Municipal Services. Urban Forum, 9(1) 37-75

Bond, P. (2001) Against Global Apartheid: South Africa meets The World Bank, IMF and International Finance. UCT Press.

Bond, P. and khosa, M. (Eds.) (1999) An RDP Policy Audit. Pretoria: HSRC

Bond, P, Moellendorf, D., and Mogale, T. (1998) Infrastructure Investment and the Integration of Low-Income People into the Economy. Development Bank of Southern Africa Discussion Paper # 4

Bright, P, Mckinley, D. and Bond, P. (2003) Water Privatisation: South African Coalition Formed.

Chand, J. (2001) Johannesburg Water – City of Johannesburg's New Public Utility. Black business Quartely, Vol.3, No.3, Third Quarter, pp60-61.

Cottle, E, (2002) 'Will the ANC really give people '6000 liters of free water'?' Anti-privatisation, Retrieved December 02, 2005, from http://www.iwmi.cgiar.org

Cox, A. and Dishy, C. (2001, June 20) Aiming to Make a Big Splash among Rich and Poor alike. The Star, Business ed.

David S. W. (2005) Elements of a research proposal and report. Retrieved August 20, 2005 from http://www.statpac.com/research-papers/research-proposal.htm

Department for International Development (1999) Better Water Services in Developing countries: Safeguarding the Interests of the Poor. London.

Department of Water Affairs and Forestry (1994) Water Supply and Sanitation Policy White Paper.

Dinar, A. (1997) Water Pricing Experiences: An international Perspective. World Bank Technical Paper, No. 386 Washington, D.C. : World Bank. Retrieved January 10, 2006 from http://www.un-urbanwater.net/resource/awareness.html

Dinavo, J.V. (1995) Privatisation in Developing Countries: Its impact on economic development and democracy.

Durrheim, K. (1999) Research Design in Terre Blanche, M. and Durrheim, K. (eds.) 1999. Research in Practice: Applied Methods for the Social Sciences. University of Cape Town Press. Rondebosch.

Du Plooy, G.M. (2001) Communication Research; techniques, Methods and Applications.

Franceys, R. (1997) Private Sector Participation in the Water and Sanitation Sector. Water Resources Occassional Paper No3. London: DFID.

Gleick, P. (1999) The Human Rights to Water: President, Pacific Institute for Studies in Development, environment and Security.

(GEAR) (2006) Growth, Employment and Redistribution: A Macroeconomic Strategy. Retrieved
11 July 2006 http://www.polikty.org.za/godocs/policy/growth.html.

Hemson, D. (2000) Accelerated Delivery? Rural Women and Water. Unpublished paper, Social Policy Programme, Unirvesity of Durban-Westville

Higher Education Centre (2001) 'Social Norms and Social Marketing'. Review of Theory and research. Retrieved on 14 December 2005 from
http://www.edc.org/hec/socialnorms/

Johannesburg Water (2006) User Manual: Operation Gcin'amanzi .

Kaika, M. and Swyngedouw, E. (2000) Fetishing the Modern City: The Phantasmorgia of Urban Technological Networks. International Journal of Ur ban and RegionalResearch, 24(1), pp.120-138.

Klein, N. (2000) No Logo. London: Flamingo

Kotler, P. (1982) Marketing for Non-Profit Organisations (2nd Ed.). New Jersey: Prentice Hall, Inc.

Kotler, P. and Roberto, E.L. (1982) Social marketing: Strategies for Changing Public Behaviour. New York Times: The Free press.

Larsson, K. (1993) Case Study Methodology: Quantitative Analysis of patterns Across Case Studies, Academy of Management Journal, December, vol.36.No. 6, pp 1-29

Lavendo, D. (1991) Principles of tariff Design for water and Waste Water Services. Washfield Report, No. 348. Arlington, USA: Water and Sanitation for

Health project. Retrieved 03 June 2005 from http://www.un-urbanwater.net/resource/awareness.html

Leedy, P.D (1997) Practical Research: planning and design, (6th Edition) Upper Saddle River, New Jersey. Prentice Hall Inc.

Letsie, D. and Bond, P. (2000) Debating Supply and Demand Characteristics of Bulk Infrastructure: Lesotho-Johannesburg Water Transfer. In Khosa, M. (Ed.) Empowerment Through Service Delivery. Pretoria; Human Science Research Council, pp.191-246

Locke, L.F., Spirduso, W. and Silverman, S.J. (1993) Proposal that work: A guide for planning, dissertations and grant proposals, Third Edition Sage Publications, Inc.

Lowry, R. (2001) Vassar Stats Fisher's Exact probability Test. Retrieved 10 December 2005 http://Faculty . vassar.edu/lowry/fisher.html

National Treasury Report (2004) Water Service Delivery.

Mac Lennan, B. (2002, Feb. 22) City Services Slammed for 'Racial Bias in Resources'. The Cape Times.

Marshall, C. and Rossman, G.B. (1989) Designing Qualitative Research. Newsbury Park, California: Sage Publications.

Manuel, T. (2002, Feb. 21) Budget 2002 – Achieving Solidarity by Consolidating Gains. Business Report.

Marais, H. (1998) The RDP: A Programme for Transformation. In The Political Economy of Transition. London: Zed and Cape Town: University of Cape Town Press.

Mc Carney, P.L. (2001) Thinking about Governance in Global and Local Perspective: Consideration on Resonance and Dissonance Between two Discourses. Urban Forum.

Merriam, B. S. (2001). Qualitative Research and Case Study Applications. Education Second edition. San Francisco: Jossey-Bass publishers

Mitlin, D. (2004) Competition, regulation and the urban poor: a case study of water. In Cook, P., Kirkpatrick, C., Minogue, M. and Parker, D. (Eds.) Leading Issues in Competition, Regulation and Development.

Muller, M. (2003) Regulation in the Water Services Sector a Government Perspective: Privatisation, Competition and Regulation in South Africa.

NEDLAC (2000). The Infrastructure Database project. Retrieved 5 January 2005 from http://www.nedlac.org.za/research/projects/ infrastructure database project.htm

Neuman, W. L. (1997) Social Research Methods-Qualitative and Quantitative Approaches. United States: Third Edition, Allyn & Bacon.

Neuman, W.L. (2003). Social Research Methods: Qualitative and Quantitative Approaches, Third Edition, Pearson Education. Inc.

Peters, B.G. and Savoie, D.J. (Eds.) (1998) Taking Stock-Assessing Public Sector Reforms. McGill-Queen's University Press: Canada.

Pierre, J. (1980) Public Consultation and Citizen Participation : Dilemma's

Prizzia, R. (2001) Privatisation and Social Responsibility-a Critical Evaluation of Economic Performance. International Journal of Public Sector Management, Vol. 14, No. 6, pp.450-464.

Paquim, M. (1998). Innovation in Public Sector Management. In Peters, B.G. and Savoie, D.J. (Eds.) Taking Stock- Assessing Public Sector Reforms. McGill-Queen's University Press: Canada.

Pollit, C. (1998). Managerialism Revisited . In Peters, B.G. and Savoie, D.J. (eds.) (1998) Taking Stock-Assessing Public Sector Reforms. MdGill-queen's University Press: Canada pp. 137-163.

Punch, K.F. (1999) Introduction to Social Research. London: Sage Publications.

Republic of South Africa. (1996) The Constitution of the Republic of South Africa.

Republic of South Africa (1997) Water Service Act, (No. 108 of 1997)

Rockman, B. (1998) The Changing Role of the State. In Peters, B.G. and Savoie, D.J. (Eds.). (1998) Taking Stock-Assessing Public Sector Reforms. McGill-Queen,s University press: Canada pp.20-44.

Statistics South Africa (1999) October Household Survey. Pretoria.

Sontos, C. and Villarreal, A. (2005) Reclaiming Public Water: Uruguay: Victorious Social Struggles for Water

Van den Berg, C. (1997) Water Privatisation and Regulation in England and Wales. Public Policy for the Private Sector, Note Number 115. Washington: World Bank.

Van Rooyen, C. (2002) "Whiskey's for drinking; and water is for fighting about": IFI's and the water globalisation of water apartheid. Department of Anthropology and Development Studies, Rand Afrikaans University.

Winpenny, J. (1994) Managing Water as an Economic Resource. London: Routledge.

Winpenny, J. (ed.) (2003) Financing Water for All – Report of the World Panel on Financing Water Infrastructure. Camdessus, M.: Third World Water Forum, Kyoto.

World Bank (2000) Sourcebook on Community Driven Development in the Africa Region. Community Action programmes.

Zank, N. (1991) in Ott, A.F. and Hartley, K (Eds.) Privatisation and Economic Efficiency. Hants: Edward Elgar Publishing Limited.

APPENDIX 1

LIST OF INTERVEEWS

1. Three focus groups from White City Township in SOWETO
2. One representative from Johannesburg Water. He is involved in the Gcin'amanzi campaign. He is a community representative manager.
3. One representative from Rand Water, a general manager responsible for the water transportation transactions.
4. One representative from the Department of Water and Forestry, he is a junior communications officer (DWAF).

APPENDIX 2

Questionnaire to the Respondents

Personal Questions

1. How old are
   18-27…..
   28-37….
   38-47….
   48-57+

2. Male…. Female….

3. Education Status
   Matric…..
   Tertiary….
   Higher Education…

4. Are you employed?

5. How important is water consumption to you?

Conceptual Issues

6. Have you heard about operation Gcina'manzi project?

7. Do you understand ‘a better life for all’ concept?

8. What do you understand about the free basic water term?

9. Have you heard about the ‘Batho Pele’ term?

10. What relationship do you have with the municipality?

Qualitative Issues

11. What is your perception of your daily consumption of water?

12. What is your understanding of your purchase behavior? Do you buy everyday? Is it valuable?

13. How would you rate your satisfaction with services?

14. What problems do you experience with water services?

APPENDIX 3

Questionnaire to the officials

1) Gender: Male---- Female----

2) Age: 18-25--- 26-35 36-45 46-55

3) Educational Level: Matric---- Tertiary---- Varsity---- Other

4) What is your function in the system of service delivery?

5) Why did you decide to put a price to water services? Was it for efficiency or effectiveness of the services? Please explain.

6) Who were the stakeholders?

7) Was there any consultation to the public? Why, or why not?

8) What were your expectations, your desires or hopes in putting a price?

9) Being aware of the resistance of water pricing by the public, what decisions will you take?

10) How are you planning to correct the resistance?

11) What does water pricing mean to you? and to the public?

12) Are the prices sensitive to people from the low-income areas? How

13) If you were to have relationships with the public, what would you do?

- Whose interests are served by pre-paid meter for water supply?

- Do pre-paid meters contribute to the upliftment of the poor?

APPENDIX 4

NOTES FROM A MEETING WITH THE JW REPRESENTATIVE

Time and Date: 11hrs:00 am, 18 August, 2006
Venue: Offices of JW in Avalon, SOWETO

Background

The representative is the manager in the Gcin'amanzi department. This department has been deligated by JW to provide management support during the transition process of transferring water and sanitation services provision responsibilities from DWAF to the local municipalities. After the democratic election of 1994, it was the new national government's policy that water and sanitation service provision would become the responsibility of the municipality.

The purpose of the meeting was to obtain a JW perspective background to water pricing system. The interviewer had contacted several people in this department including Lesego, Charmaine Croine, the communications department manager, Baldwin Manaka the JW spoke-person, Monique Taaljaard, a communications officer, to name a few. All these refused an interview. The interviewer was told to fill in a form where R30 had to be paid by everybody seeking information in this department. The form would be taken to the CEO of the company for scrutiny, the reply comes after two months and usually it is a no for WITS students.

Substance of the Meeting

As mentioned in the background section of this research, their function is to address severe water losses in SOWETO. They hold that one of the most vital aspects of such a project is gaining cooperation and support from the community concerning the installation of pre-paid meters, which is an ongoing process. What they are claiming is that, they have consultation with the community concerning the pricing of water in this area.

They plan to combat the problem by reducing the high levels of unaccounted for water in the area. They allude that they will do this by the installation of new mains in the road reserves which will replace the current system of mid-block mains because some of these are fifty years old and no longer in proper working condition.

Answering the issue of water pricing, the representative asserted that, a fundamental aspect of this project is the introduction of metered consumption to the area in the form of free-payment meters wish will lead to a stronger sense of ownership of consumption among consumers. This will enable consumers to see exactly how much water they use every month, which will allow them to budget beforehand. He added that the main objective is to reduce water losses in the township because water is a scarce resource in South Africa. Another objective is to make water free for those who use less than 6000 litres per month. Even if more than free portion is used, it will still be affordable to all, as water costs less than half a cent per litre. He gave examples of the cost of two other liquid consumptions, he said that milk costs R5.30 per litre, and cool drink costs R5.50 per litre, he contends that, these liquids costs much higher than a litre of water, but he finds people affording to buy these liquids instead of paying for water.

The representative outlined the framework that had been developed cooperatively by the government and JW through the then Constitutional Development. Basically, this position was that the municipality should adopt the principle of **Batho Pele** (the guiding principles for the civil service in the delivery of services)

in order to ensure that services are delivered to the people in an efficient, cost-effective and people-centred way.

The representative was asked about the involvement of the private sector arrangement as DWAF is considered as such, to water service delivery, the picture he gave was that these agreements are aimed at achieving improved and greater levels of service delivery, and do not result in the undermining of municipality capacity to provide these services in the future. He indicated that if municipalities are going to consider involving the private sector in the delivery of services, they should seek advice or an assistance from the Municipal Infrastructure Investment Unit's (MIIU) to ensure that they negotiate appropriate contracts.

Dealing with the relationship with community, the representative highlighted that as part of the project, JW is also embarking on comprehensive institutional and social development programmes. This includes campaigns to address the political, social and consumer related issues which are addressed through the **masakhane** campaign that directly and indirectly contribute to the runaway water supply and consumption problem in SOWETO.

The upliftment of the local community is another social aspect of the project receiving much attention. He holds that as much as 25percent of the work is undertaken by small, medium and micro enterprises hailing from SOWETO, this is to fulfil the requirements of the second economy that has been spoken about so deeply. He emphasised that to date more than 1400 people have been employed in the project.

When explaining the effectiveness of the project, he described that the project will in a most effective way disperse 6000liters of free basic water in each household in terms of the government's free basic service programme. He convinced that consumers will not fall into debt traps as the free-payment system will allow consumers to manage their consumption. He added that, the system also ensures

that leaks do not go undetected for too long and in this way will assist in reducing water losses.

He described the free-payment water meter as a meter which gives the owner a peace of mind when knowing what the household water consumption is on a daily basis.

APPENDIX 5

NOTES FROM A MEETING WITH THE RW REPRESENTATIVE

Time and Date: **14hrs:00 pm, 18 August, 2006**
Venue: **Offices of RW in Zuurberkom, in Western Area**

Background

The representative from RW occupies the general manager position. He is responsible for the bulk allocation of water to various clients including mining, industries and to the JW. The purpose of the meeting with the representative was to explore and understand their function and to discuss the implications of the presents of the free 'lifeline' supply of water because the community wanted clarity on that, they don't believe it is fairly distributed to them, if supplied at all.

Substance of the Meeting

The manager indicated from the beginning that his company had not been involved in the process of water pricing. The functions which the sector was responsible for were transferred to JW during the democratic government. RW deals with the reticulation systems and accompanying operations and maintenance systems because their focus is on the bulk supply systems where the purification of raw water they get from the Vaal Dam takes place and transported to the industries, mining and to JW reserves. He indicated that their function is to conserve clean water for the country because since the relatively low precipitation, the rainfall in South Africa is also unevenly distributed. Precipitation levels decrease from east to west with the highest rainfall occurring on the mountains of the eastern escarpment. This already unfavourable situation is further aggravated by the fact that the areas of relatively high rain fall do not

coincide with the areas of high water demand. As a high result these high demand areas are expected to experience water deficit long before the turn of the century.

According to the representative the Gauteng and the Free State provinces (incorporating the Pretoria, Gauteng, Ekurhuleni and other areas complex and Bloemfontein) already accounted for approximately 59 percent of water used in the country as a whole. Considering the Gauteng province, the water resources of the Vaal River catchment area are already inadequate to meet the local demand for water.

In order to meet the projected demand for water in the Gauteng province various options to increase the supply are under investigation. The structure of the water supply system can be divided into three functional elements which are normally encountered in all water supply systems regardless of their physical characteristics. These elements are acquisition, treatment and delivery to the consumer through JW.

Acquisition includes the sub-functions of sources of supply, bulk storage in reservoirs and bulk transmission, while delivery includes the sub-functions of pumping, storage, transmission and distribution. Not all functions need necessarily be carried out by the same authority. Thus in the Gauteng province which is supplied by my department (RW), acquisition is primarily the responsibility of the Department of Environmental Affairs through the directorate of JW. Treatment and bulk transmission is carried out by RW and delivery to individual consumers is the responsibility of JW.

In terms of free water, so far are broad statements about the 6 kiloliters of free water that will be given to household free of charge. We have no details at this stage and there is no legislation in place, just statements. These statements have been made without a great deal of thought. For example, what if people use 7 kiloliters? Do we bill them for this additional kiloliter, which is hardly cost effective, or are people billed for the extra consumption every three or so months?

If people don't pay for water they waste it. One way of dealing with the free water issue is that it is subsidized by government, but you can't ask the company to do that. I am a great believer that the user should pay. Bi-water made it work in Indonesia. Low income earners were subsidized and it worked. Free water means wastage.

The degree of complexity associated with each system varies widely and depends on such factors as topography, hydrologic conditions, and sources from the point of supply, the quality of the raw water resources, the density of urban development and the nature of the demand on the system. The uniqueness of each water supply system, it is desirable to formulate a water pricing policy to suit the particular circumstances of each system.

APPENDIX 6

NOTES FROM A TELEPHONE INTERVIEW WITH A REPRESENTATIVE FROM DWAF

Time and Date: 8hrs: 30min, 10 October 2006

Background

The representative is a junior communications officer. He is partly responsible for addressing questions about the function or the role played by this department in water distribution in the communities, industries and in the mines. He also focuses on addressing questions about sanitation matters in the townships and in the urban and the rural areas.

The purpose of the meeting was to obtain DWAF's perspective on the background to the water pricing in the townships. I had contacted a Director at the Bloemfontein offices to try and arrange an appointment with him to discuss DWAF's perspective on the water pricing system. The director referred me to the junior communications officer in Pretoria, who although a junior in the department, had been intimately involved from DWAF's side from an early stage to provide good perspective concerning the department's involvement in the water pricing system.

Substance of the Meeting

The officer indicated that the department has not been part of the pricing system from the beginning. The Department's core function is to ensure that all South Africans have equitable access to water and sanitation, and that the country's

water resources and forests are managed in a sustainable matter. Also the focus of the department is to provide access to water to within 200 m of every South African household. . DWAF does this by providing bulk systems to the boards, and takes care of the reticulation systems and the maintenance systems. The process was initiated to commerce by November 2004, where 10 million people have had access to a clean water supply.

Having mentioned the above statements, DWAF has in the past few years seen a number of achievements in the management of water resources in South Africa and the implementation of the National Water Act (Act 36 of 1998).

The officer further stated that by mid-2004, the Department was in the process of substantial restructuring, which is expected to be completed in eight to 10 years' time. The restructuring process included: establishing catchment-management agencies (CMAs) to perform water-resource management functions currently performed by the Department's regional offices transferring the management of commercial plantations and indigenous forests to appropriate agencies and institutions, transferring water-services delivery and operations to water-services authorities.

Catchment Management Agencies

CMAs aim to ensure equitable, efficient and sustainable water-resource management. They are required to establish governing boards, which are responsible for integrated water-resource management and the development of a CMA strategy. Thus RW serves as a bulk water supplier to JW who have been established as service-providers that report to the Minister of Water Affairs and Forestry. These boards manage water services within their supply areas and provide potable water to households, the industries and to the mines at cost-effective prices. In the past, the Department has been an important financier of water infrastructure as well as operational and maintenance costs. Currently this responsibility has been transferred to the boards by DWAF.

The boards have to represent the various sectors of society within that specific water-management area and will consist of water users, potential water users, local and provincial government, and environmental interest groups. By March 2003, some 15 water boards were in operation.

The officer pointed out that after 1994 elections and the incorporation of urban and rural areas to the provinces the responsibility increasingly shifted away from the Department and was assumed by the Municipal Infrastructure Grant (MIG), the local government equitable share, and the Capacity-Building Grant. The DWAF's role was then to ensure that water and sanitation projects are sustainable and that the agencies that manage these services can maintain and expand access to these resources.

The Department will remain focused on the phased implementation of the National Water Act, 1998, with a particular emphasis on implementing a new organisational structure, which includes:

- ensuring compliance with dam-safety regulations and enhancing public safety at water-resource installations

- investigating and implementing appropriate institutional arrangements for the optimal management of the interdepartmental Working for Water Programme
- building national capacity to monitor the state of water resources, so that accurate information is used in decision-making about the use and management thereof
- investigating the creation of a National Water Resource Infrastructure Agency to manage and develop national infrastructure.

- establishing, for the first time, the National Water Resource Strategy, which will set out the procedures, guidelines and overall strategy for managing water resources

- developing and testing a strategy for compulsory water-use licensing to facilitate equitable access to water resources for historically disadvantaged individuals (HDIs)
- enhancing water-use efficiency ensuring compliance with dam-safety regulations and enhancing public safety at water-resource installations

The implementation of the National Pricing Strategy for Raw Water began in 2002 to ensure that, as far as possible, the costs of the management of water resources and water-supply infrastructure are borne by water users. The majority of water users are paying the water-resource charge or cost for which they are accordingly billed. However, there is still a considerable under-recovery of costs.

Action has been taken against a number of illegal water users across South Africa in response to growing concern about an apparent increase in the rate of illegal water-use in some catchment areas.

DWAF do not see themselves as long term service providers. Both the Water Service Act (1997) and the National Water Act (1998) indicate this distancing from direct service provision. However, DWAF does have an over-sighting role and a responsibility to ensure that water services are provided in a sustainable manner. Ultimately, if water service systems fail, DWAF is accountable. Hence, it is in this department's and the national interest, for the transfer of responsibilities to the municipality to be done in such a way as to ensure the long term viability.

The officer points out that the decision to go the route of water pricing was the municipality's (JW), not DWAF's because it is the municipality's responsibility to deliver services. The Water Services Act allows for a range of options that local government may choose in order to deliver services, including water pricing. None the less, from DWAF's perspective, the advantage of water pricing is the private capital that such agreements bring to the table.