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True Access: User Benefits to Water in Urban South Africa

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True Access: User Benefits to Water in Urban South Africa

Abstract

This thesis analyzes the management and governance structures for the delivery of water in South Africa since the decentralization of government. Previous views of access have been too focused on rights and have failed to take into account a user's ability to utilize those rights. In proposing a broader theory of true access to water, I set forth a method of analyzing a user's ability to continually benefit from public services through structural, relational, and ideological mechanisms. Two metropolitan municipalities of comparable size and development—Johannesburg and eThekweni (Durban)—serve as the case studies to which the theory of true access is applied. Levels of developed infrastructure to water in 2001 will be compared to the levels in 2007, while taking into consideration the web of mechanisms that affect the inclusive vision of true access. Thus, this thesis will assess the effectiveness of a fully corporatized model (Johannesburg) as compared to a ring-fenced, state-run model (Durban) of water management and delivery.

Keywords

Decentralization, South Africa, Service Delivery, Local Government, Social Sciences, Political Science, Tulia Falleti, Falleti, Tulia

True Access:

User Benefits to Water in Urban South Africa

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Undergraduate Honors Thesis in Political Science
University of Pennsylvania
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List of Acronyms and Abbreviations

ANC	African National Congress
BLA	Black Local Authority
DFA	Development Facilitation Act
DWAF	Department of Water Affairs and Forestry
eTWS	eThekweni Water Services
FBW	Free Basic Water
GNU	Government of National Unity
IDP	Integrated Development Plan
JW	Johannesburg Water
LGTA	Local Government Transition Act
LOS	Level of Service
MDB	Municipal Demarcation Board
MIIF	Municipal Infrastructure Investment Framework
NP	National Party
PSP	Public Sector Partnership

True Access: User Benefits from Water Services in Urban South Africa

Abstract

This thesis analyzes the management and governance structures for the delivery of water in South Africa since the decentralization of government. Previous views of access have been too focused on rights and have failed to take into account a user's ability to utilize those rights. In proposing a broader theory of true access to water, I set forth a method of analyzing a user's ability to continually benefit from public services through structural, relational, and ideological mechanisms. Two metropolitan municipalities of comparable size and development—Johannesburg and eThekweni (Durban)—serve as the case studies to which the theory of true access is applied. Levels of developed infrastructure to water in 2001 will be compared to the levels in 2007, while taking into consideration the web of mechanisms that affect the inclusive vision of true access. Thus, this thesis will assess the effectiveness of a fully corporatized model (Johannesburg) as compared to a ring-fenced, state-run model (Durban) of water management and delivery.

I. Introduction

In the mid-1990s, South Africa underwent an intense restructuring of the state. From the overhaul of the existing authoritarian racial state emerged a form of decentralized, democratic federalism that promised a more equitable and accessible form of governance. Whereas centralized governance informed exclusionary ideology and politics in the era of apartheid, the format of democratically decentralized governance in the new South Africa promised to give voice to citizens within the local sphere of decision making, as well as to ensure minority political rights.

Yet the new ruling party, the African National Congress (ANC), was initially reluctant to decentralize governance practices for fear of the stagnation that could ensue. One primary objective of the ANC was to redress the impacts of apartheid by ensuring a more equitable distribution of public services (Smith and Hanson 2003, 1517). Fearing that decentralization could serve to preserve the spatial and economic inequalities accrued under colonial and apartheid rule, the ANC opposed a decentralized, federalist structure in the initial constitutional

conferences of the 1990s. Despite these concerns, all parties participating in the Government of National Unity (GNU) transitional talks eventually agreed to a form of co-operative federalism which organized the state into three non-hierarchical spheres: local, provincial, and central.

Since the first democratic elections in 1994, the ANC has faced many challenges in terms of overcoming apartheid era spatial and legal inequalities. Not the least of these, the delivery of potable water, electricity and waste removal to all citizens has become a controversial issue in terms of extending access and recovering costs for infrastructure improvements. To deal with major service delivery backlogs and issues of basic access to water, the ANC passed the National Water Act of 1999, which promoted a move to private water management systems in the hopes of improving service delivery outcomes.

A few municipalities adopted, at the behest of the central government policy, water delivery and infrastructure systems that relinquished managerial control to private enterprise. Other municipalities have simply incorporated business-like models of management. Both types of management models have been undertaken in attempts to balance municipal budgets while making real strides in expanding access to water. These neo-liberal trends towards corporatization and privatization have been highly politicized. Citizens have contested municipal policies that relinquish government control, as such policies are at odds with a system that is, in theory, democratically decentralized to allow citizen participation in planning and development. The attempt to create a technocratic state, entirely devoid of politics, in a burgeoning nation that has an incredibly politicized history and engaged citizenry is surely peculiar.

In this thesis, I will compare the role different water utility management models play in affecting users' access to water. This thesis operates on the assumption that the South African government's narrow definition of access is not sufficient for understanding the complex web of

True Access

interests and powers influencing a user's actual ability to continually benefit from water consumption. Therefore, a new measure of access—known as *true access*—shall be established to promote thinking beyond the traditional ideas of access linked purely to *rights*.

In defining the variable of *true access*, this study will expand the definition of access to water beyond the structural and rights-based notions of property, incorporating notions of relational and ideological mechanisms at play in citizens' abilities to benefit from water resources. While the South African government ensures basic levels of access, as defined by the national government, this notion of access is thought of in the traditional sense of *rights* to access. This study is concerned with the many nuances affecting a citizens' ability to benefit from water resources in a sustained way.

Preview of the Thesis

This thesis develops a theory of *true access* to public services that will in turn be applied to the delivery of water in urban South Africa. Whereas the South African government currently defines basic access as 6 kiloliters of free piped water within 200 meters of the user's dwelling, the measure of *true access* put forth in this thesis relies on a wider range of factors affecting an individual's actual ability to benefit from the legally defined basic rights of access.

In the first section, the historical background of urban segregation and development is explored. It is necessary to view the modern South African city within the context of the country's *apartheid* past, as the intense segregation and racial hierarchies engrained in past development inform the current urban landscape and challenges faced by service providers. The deliberate channeling of privilege, capital and development to white regions left formerly black regions to suffer from a lack of basic services and infrastructure. Furthermore, this section notes

the levels of centralization and decentralization present in the National Party's control of municipal governance during the *apartheid* era.

After discussing the inequities of development in *apartheid's* cities, I then discuss the South African transformation to democracy that took place in the early to mid-1990s. The nuances of the democratically decentralized state that emerged through a series of transitional phases will be explored in relation to the delivery of services and the locus of administrative control. Decentralization was established in the 1996 Constitution and there ensued various transitional policies to ensure democratic mechanisms at all levels of government. Despite the ANC's tendency to promote democratic decentralization and participation, it will be shown that the party's technocratic tendencies have controlled much of the process of decentralization, largely sterilizing government agencies from politics.

Following this discussion of the peculiar nature of democratic decentralization in the South African context, I deconstruct the issues surrounding access to services from a theoretical standpoint. Utilizing Ribot and Peluso's "Theory of Access," the theory of *true access* is developed based on three types of mechanisms affecting a user's abilities to benefit from water rights (2003). A complete review of the parameters of *true access* is discussed in order to create a theoretical framework with which Johannesburg and Durban are ultimately analyzed.

The three mechanisms are defined as structural, relational and ideological. These three mechanisms will be used to analyze a user's ability to continually access from water resources in Johannesburg and Durban. Structural mechanisms include the measures of access currently used by the South African government, including the legal *rights* to water and the infrastructural measure of proximity to piped water. The relational mechanism considers user relations to the service provider, affordability of services, frequency of water cutoffs and accountability of

service providers. Lastly, ideological mechanisms involve how citizens perceive their rights to water. This mechanism regards citizens' willingness to pay for water services based on their belief systems and political ideology. Quantitative and qualitative data is utilized to gain a better understanding of the complexity of *true access* in these two municipalities. Lastly, I conclude by summarizing the main findings of this study, presenting the limitations of my research, and proposing questions for future areas of research.

Methodology and Case Selection

This study utilizes the most-similar case comparison method to examine the effects that different forms of corporatized management have on *true access*. These cases have been chosen based on their similarity in variables of interest to *true access*, with the one major measure of variation being that of water utility management systems (full corporatization versus ring-fencing of a public utility). In observing two different management models of water service delivery, this thesis will examine the abilities of two metropolitan municipalities in providing their citizens with *true access* to water. These two municipalities, the Johannesburg Metropolitan Municipality and the eThekweni Metropolitan Municipality, were selected based on their similar characteristics and because of their deviation in the variable of interest: water utility management. This study will undertake the comparison of these two municipalities based on variables pertinent to the measure of *true access* to water.

Unlike privatization, corporatization implies a business-like management structure in which the infrastructure remains publicly owned. A corporatized utility is a corporation that operates under a board of management like a private business, but for which the government is the main shareholder (Bakker 2003, 12). Fully privatized utilities are those that own and operate

the water supply infrastructure (Bakker 2003, 15). Corporatization is growing in prominence because it promises gains in efficiency comparable to fully privatized models while assuring a greater level of regulation by the state (Smith 2006, 1).

The Johannesburg Metropolitan Municipality is the first and only local government that has corporatized a water and sanitation utility through the legal system. This was undertaken in 2001, followed directly by the signing of a five year private-management contract led by the French-based Suez Group (Smith 2006, 15). This partnership resulted in the creation of Johannesburg Water (JW), the corporatized water utility responsible for delivery in the Johannesburg metropolitan region. JW was established with the hopes of making large strides in not only the availability of water to Johannesburg's more than 3 million residents, but also in reigning in the financial crisis underway at the city's water department and building capacity for long-term management gains.

Johannesburg, in signing a management contract with an external company, chose the highest level of corporatization, incorporating a private-sector partnership (PSP). This form of corporatization involved the development of a utility that remained municipally owned, but was completely operationally separated from the elected members of the city council (Smith 2006, 5). Full corporatization can be an end in itself (in the case of Johannesburg) and does not necessarily imply full privatization (Bakker and Cameron 2002, 23). In Johannesburg, the private management contract was undertaken to address apartheid era inequalities while building capacity within the utility.

South Africa's second largest metropolitan municipality, eThekweni (hereafter referred to as Durban)¹, chose a different route of cost-recovery, through a mere ring-fencing of the city's water utility assets. Ring-fencing is "the requirement to keep different parts of a business separate" (Bakker and Cameron 2002, 61). In the utility sector, ring-fencing is often imposed to keep monopoly business separate – or 'ring-fenced' – from contestable businesses operating in competitive sectors (Bakker and Cameron 2002, 61).

The management and administration of Durban's water department remains fundamentally public, despite its removal from the political realm. eThekweni Water Services (eTWS) came into being following the final local government transition in 2000; the service provider for the area was previously Durban Metro Water Services (Loftus 2005, 201). Durban's water and sanitation activities had been ring-fenced since 1992, when they were consolidated into a business unit within the municipality (Smith 2006, 1). Since this time, Durban has not made any moves to corporatize further, operating a financial and managerial ring-fenced utility.

This study regards changes over time from 2001 to 2007. The starting date, 2001, is a hallmark year for a few reasons. Most importantly, Johannesburg signed its private-management contract with the Suez Group in the year 2001. Thus, any census or other data existing from this year acts as a starting level of *true access*, prior to the introduction of the PSP. The DWAF implemented a national requirement for municipalities to provide 6 kl per household per month of Free Basic Water (FBW). Thus, following 2001, *true access* should have increased equally for all South Africans in the legal, rights-based sense, though actual outcomes and experiences will have varied across the country. The end date of the study, 2007, was selected because of the

¹ eThekweni Metropolitan Municipality was created following the incorporation of former tribal land into the Durban Metropolitan Area at the time of the final transition phase in local governance in December 2000. Despite the functional name given to the jurisdiction, it is still largely referred to as Durban (Loftus 2005, 201).

availability of Statistics South Africa's 2007 Community Survey, which measures access based on the South African definition of basic access.

Johannesburg and Durban are both metropolitan municipalities, meaning that they are charged with the promotion of the social and economic development of the jurisdiction, while simultaneously required to participate in national and provincial development programs (RSA 1996, Section 153). Although Johannesburg is the largest metropolitan region in the nation, with 3.8 million residents, Durban is a close second, with 3.4 million residing within its jurisdiction (StatsSA 2007a).²

An important variable that allows this study to operate as a most similar case comparison is the existing levels of developed infrastructure (i.e. housing, water, electricity, etc.) in 2001 in both regions. Due to the centralized and balkanizing development policies of the apartheid regime, both municipalities came into democratic governance in the mid-1990s with similar levels of existing service delivery backlogs. By 2001, both metropolitan areas recorded that only about 50 percent of their residents were living with piped water inside their dwellings (StatsSA 2007a). The level of housing infrastructure in 2001 was also very similar to one another, showing that a similar amount of informal settlements exist in both municipalities. Townships and informal settlements have been at the forefront of the anti-cost recovery movement because of frustrations with high levels of cut-offs and evictions and user inability or unwillingness to pay for services. Low-income areas of both jurisdictions suffer from high unemployment and are plagued with high levels of service debts.

Given these basic similarities between the two cases, the major variable differentiating these two cases will be that of their water management models. The outcome variables will include the change in access to water infrastructure and *true access* from the start of the

² See Table 3 in the Appendix for population data.

privatization contract in 2001 until 2007, when Statistics South Africa undertook their nationwide Community Survey.

II. Historical Background of *Apartheid* Urban Development

The term *apartheid* derives from the Afrikaans word meaning “apartness” or “separateness.” When surveying the modern South African landscape, this meaning should not be overlooked. Past separateness informs contemporary discussions of governance; any issues taken up in present-day South African government are highlighted by the spatial and developmental segregationist policies of the past. While the 1996 Constitution lays out an extensive framework for democratic and developmental local governance, lasting legacies of geographic inequality and distributions of wealth explain the present disparities of development and basic infrastructure. Years of colonial and *apartheid* policies that purposefully stunted the development of black urban areas have made redistribution incredibly challenging.

Attempts to fulfill constitutional mandates to extend basic services (e.g. water, electricity) to all citizens must be viewed within the context of political reform, not revolution. At no point were governance structures entirely dismantled through a coup or major political upheaval. The racially-organized *apartheid* state inherited much of its separationist framework from the preceding British rule, both colonial (prior to 1910) and under the Union of South Africa (1910-1948). The transition from British to National Party rule was a result of the 1948 parliamentary elections. Despite much political upheaval in the 1980s, the transition to democracy in the 1990s was ultimately a negotiated one as well. That is to say that the National Party ended *apartheid* as a political compromise, not by way of a major regime collapse (Huntington 1991, 160).

Thus the construction of the new South Africa in the mid-1990s cannot be understood as taking place in a political or structural vacuum. Rather, the terms of the negotiations and the very real implications of colonial and apartheid era spatial policies influenced the policies and governance strategies of the burgeoning democratic state. Attempts were made to balance minority and bureaucratic interests within the framework of an equitable and democratic state.

British Rule and the Union of South Africa (1800s-1948)

As early as the Glen Gray Act of 1894, British colonialists in South Africa restricted the ownership of land by Africans to ‘reserve’ (rural, unwanted) areas. In addition to enforcing a system of land tenure and taxation on the African populations, the Act restricted land ownership for Africans to rural areas. Following the creation of the Union of South Africa in 1910, land ownership and residence in urban South Africa was largely restricted to whites, with some designated areas for migrant labor housing on the outskirts of metropolitan areas. The Land Act of 1913 was decisive in legally designating a mere 13 percent of the Union of South Africa’s land for African populations—entirely in rural, underdeveloped areas (Harrison et al. 2008, 21). These Native Reserves were accurately named for their purpose: to act as a reserve of migrant workers to serve the labor demands of white society’s industrialized, urban areas.

The 1923 Native (Urban Areas) Act gave white municipalities the *ability* to proclaim sections of their territory ‘white’-only, thus forcing black residents to the segregated native locations (Harrison et al. 2008, 24). Most notably, Johannesburg was one of the few urban centers to implement the 1923 act, designating essentially the entire city as ‘white’. With this implementation, the municipality turned almost 50,000 Africans into illegal residents (Harrison et al. 2008, 24). While few other municipalities actually exercised this level of control, the Act

set in motion an increase in state intervention in the regulation of the urbanization process—a trend that would be continued by the National Party through its Grand Apartheid policies.

Purified National Party and Grand Apartheid (1948-1994)

This bifurcating development, which established a largely urban-rural divide between races, was the central feature of governance under the National Party's authority from 1948-1994—a period known as Grand Apartheid.³ The dominant white governance structure was highly centralized, leading to development of the country's urban and suburban areas through the promotion of a high standard of living in white communities, ensured through central planning and state subsidization of infrastructure and services.

Urban policy was also highly centralized to ensure uniform control of a growing urban black population (Wittenberg 2006, 332). While the Urban Areas Act of 1923 had *allowed* for the declaration of all-white areas, the National Party's Group Areas Act of 1950 *required* municipalities to follow strict racial zoning codes, leading to the bulldozing of entire black, coloured, and Indian neighborhoods in Cape Town, Johannesburg, Durban, and other major cities.

To control the majority of blacks in the country, the National Party continued the colonial practice of indirect rule as a means of governing blacks in South Africa's rural areas. Assigning traditional authorities substantial powers within the reserved Bantustans (homelands for black or "Bantu" peoples) was part of the National Party's plan to create racially organized homelands to serve as semi-independent reserves of labor. Young men were to travel to South Africa's urban areas as migrant laborers, while women, children, and the elderly remained in the Bantustans.

³ The term "petty apartheid" has been used to describe the period between the formation of the Union of South Africa up to 1948, signifying that policies prior to National Party rule were still segregationist.

The balkanization of these rural areas and the dense concentration of unemployment led to serious development problems and stagnation. In this sense, strategic decentralization of black political authority was a tool of control, employed in the hopes of eventually relinquishing political and economic control of the rural Bantustans (Wittenberg 2006, 332).

Despite strong movement controls and land ownership restrictions, unprecedented numbers of black South Africans migrated to the country's urban areas in the 40 years of Grand Apartheid. The increasing urbanization of blacks threatened white central planning, and raised considerable questions of how to physically and politically contain them within the urban landscape. Areas for urban black development were defined on the unincorporated perimeters of urban regions. Their control had always been informed by central National Party policy, but as apartheid progressed, the national government took increasing control over municipal planning in order to further control black urbanization. The Department of Planning was established in 1964, followed by the Physical Planning Act of 1978, adding new powers to the national government to dictate local planning (Harrison et al. 2008, 30). In 1972, the national government shifted control of black townships from municipalities to central government-controlled Administration Boards (Harrison et al. 2008,). The reasoning for this change in administrative control was to centralize and increase control of black areas (Cameron 1999, 79).

The stresses caused by urbanization and the unwillingness of the National Party to recognize black urban dwellers strained governance practices. In the late 1970s, the NP created black local authorities (BLAs) to accept the permanence of and secure tenure rights of the urban black middle class (Harrison et al. 2008, 43). As a strategy to provide a limited amount of self-government, the BLAs failed largely due to the intense backlash from grassroots resistance and financial crisis.

Under the National Party, minor attempts of reform had begun in the 1980s. At the local level of governance, regional services councils were created to begin development in urban black townships, which were rapidly expanding during the last decade of apartheid (Wittenberg 2006, 334). While these institutions were largely ineffective due to continued geographic segregation, their creation laid the groundwork for the transitional government's blueprint for a unified, democratically decentralized state.

III. Transition to Democracy and Devolution of Authority

Apartheid's ending was through compromise and negotiation. Because the transition to democracy was a negotiated one, not a military conquest, transitional changes were less abrupt. In what Huntington calls 'transplacement,' the transition was the result of a mutually perceived stalemate prompting negotiations between reformers in the state and democratic elements of the opposition (1991, 160). This allowed "important elements of continuity between the old and new orders," to linger in the new regime, thus "policies often represent forms of consensus rather than radical departures" (Harrison 2008, 37). Thus the racial, geographic and developmental legacies of apartheid-era decentralization are present in the new South Africa and greatly affected the demarcation process of municipalities, as well as the creation of a national governance framework.

Three Stages of Local Government Development

During the local government negotiations, the ANC was forced to concede many of their more radical viewpoints in order to achieve some sort of consensus with the National Party and other minority party leaders. The ANC was initially committed to a highly centralist state. Its

leadership had envisaged the delegation of powers from central to local government only for the purposes of more effective administration and democratic participation. An extensive devolution of administrative powers to lower levels of governances was seen as a mechanism to protect white privilege, which could prevent the essential redistribution needed to ameliorate inequalities caused by apartheid (Cameron 1999, 83).

The transplacement process in South Africa, as in many states, was quite long. Negotiations were interrupted by one party or another periodically retreating or breaking off (Huntington 1991, 161). The risk of a stalemate from the opposition parties was compelling enough to negotiate a more decentralized structure of democratic governance. A common interest and sense of common fate emerged in the negotiations as oppositional party leaders attempted to reach a compromise (Huntington 1991, 161). The final outline was a compromise between two opposing views: the ANC conceded to a greater level of decentralization than its leaders had initially anticipated, providing for autonomous local government (Cameron 1999, 84).

The structures of decentralization were instituted in a three-stage process that began with the implementation of the Interim Constitution in 1993 and the Local Government Transition Act (LGTA) of 1993. The three phases were known as the pre-interim, interim, and final phases. Instead of a federalist structure based on hierarchical tiers, three ‘spheres of co-operative government,’ which are ‘distinctive, interdependent and interrelated’ were to be put into effect throughout the 1990s (Atkinson 1998, 17).

The Pre-interim Phase: The LGTA would be operative until the first local government elections began in stages, seven provinces in 1995, and two in 1996. At this time, the LGTA did not apply to the independent regions (*homelands, Bantustans*) of the Transkei, Bophuthatswana,

Venda, and Ciskei, as they were not formally reincorporated and were under the leadership of traditional authorities. The Act provided for the creation of provincial demarcation boards, to be responsible for helping municipalities meet their constitutional obligations of service provision and to enhance local government financial viability (Cameron 1999, 91).

Important to the geography of new local governments was the Municipal Demarcation Board (MDB), which was established in 1994 and was charged with the task of creating a legal-spatial design to incorporate all regions of the country within a municipal jurisdiction. The board established three categories of municipalities, Categories A, B, and C (elaborated on further below). The MDB was most concerned with the political unification of previously racially divided areas—thus in urban areas, a crosscutting of municipal lines would incorporate formal and informal settlements into the same tax base as previously white-only suburbs (Cameron 1999, 232).

Metropolitan government was a topic of much debate in the pre-interim phase. While NP negotiators wished for a decentralized form of democratic governance, they did not envision a strong metropolitan government structure. The party had proposed that municipal authorities themselves should regionally decide which functions ought to be carried out jointly by metropolitan councils (Cameron 1999, 92). A centralized municipal level of governance could lead, as the National Party believed, to ANC strongholds in the local sphere of governance; for them, this would defeat the point of decentralization. The ANC, on the other hand, looked at the metropolitan tier with promise: a strong metropolitan council could coordinate the provision of city-wide services and allow for greater control over development (Cameron 1999, 93).

The final decision led to a form of metropolitan government combining ‘top-down’ and ‘bottom-up’ approaches. While subject to national legislation and co-operative efforts with

provincial governments, metropolitan regions also retained a sizable amount of responsibility (Cameron 1999, 95). The LGTA defines a metropolitan area as a region which is “densely populated,” “extensively developed or urbanized,” and “which, economically, forms a functional unit comprising various smaller units that are interdependent economically and in respect to services” (RSA 1993).

The Interim Phase: Beginning at the start of the first local government elections in 1995, this phase ended with the ratification of the final local government constitutional model in 1996 (Cameron 1999, 85). From a service delivery standpoint, the interim phase was marked by the Agreement on Finances, Services and Service Rending, signed by leaders of the ANC and National Party. Although this document was a moral, non-binding one, it set into place the ideological hopes of achieving equity in service delivery within 15 years of its signing (Cameron 1999, 103). This document set forth the notion of municipal finance for services being based on the principle of “one municipality, one tax base” (Cameron 1999, 103). Attempts were made to deal with the high percent of service users in debt, but these efforts were not adequate as the debt accrued during the *apartheid* era continues to plague cities to this day.

The Final Phase: The final phase began with the application of the final constitutional model at the local level, as drawn up by the Constitutional Assembly. In 2000, municipal elections were held simultaneously across the country’s nine provinces. The rationalization of over 800 “transitional councils” into 231 municipalities was meant to enhance the financial viability of municipalities through consolidation of their resources, demarcated geographically and cutting across previous racial lines (Wittenberg 2006, 336). Government pursuing deficit reduction has placed high importance on cost recovery for services (Friedman and Kihato 2004, 146).

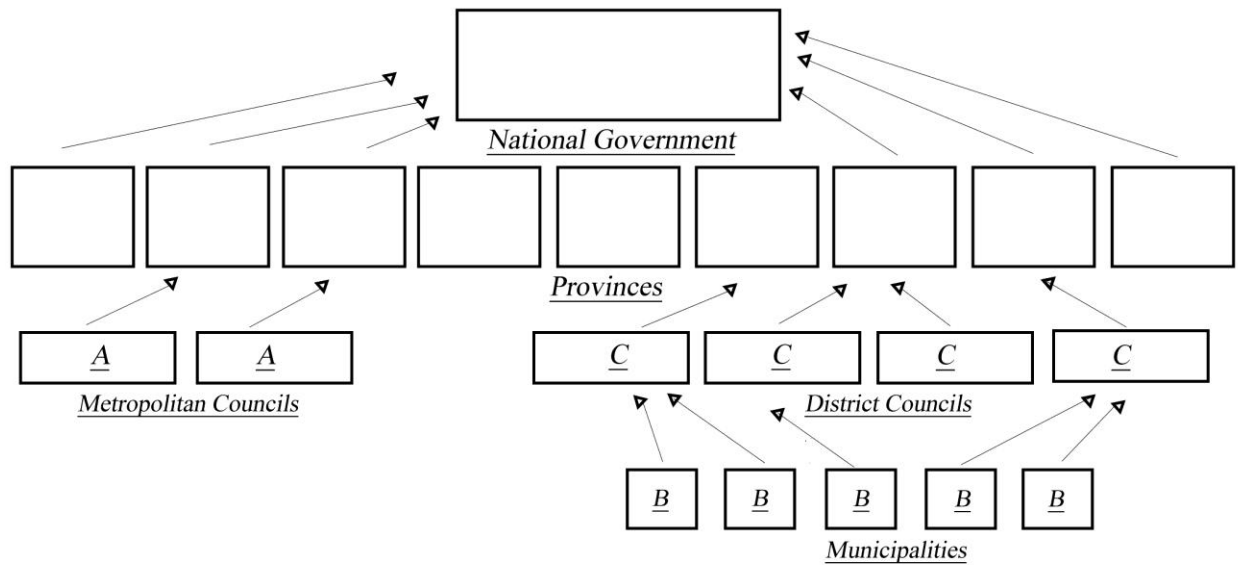
The New Constitutional Framework

The African National Congress is a strong, centrally controlled party that enforces a strict top-down structure of accountability. The ANC had hoped for South Africa's transition to democracy to establish a unified state. Rather, the ruling party conceded to minority parties' interests during the transitional phases. Heller suggests that despite such concessions, decentralized governance structures have been strategically co-opted by the center. Provincial and municipal structures are largely controlled by the center (2001, 135). Provincial elected officials, who are elected from a party list, are subject to accountability from above, not below, and have been removed from office repeatedly for failing to tow the party-line (Wittenberg 2006, 346). National legislation steers the ideological focus of best management practices on the municipal scale.

Heller compares democratic decentralization structures in Potro Alegre (Brazil), Kerala (India), and South Africa, noting that the African National Congress has failed to "deepen" democracy in the past decade (2001, 140). Although South Africa met the preconditions for successful decentralization, the ANC has developed into an "insulationist and oligarchical party" that maintains a high level of power within the state. This is due in part to the highly bureaucratic and centralized governance of the National Party during apartheid. In taking the place of the National Party, it has been suggested, the ANC may have envisioned controlling the state to the same extent, but with a more equitable distribution of services and resources.

Three spheres of governance exist as defined by the 1996 Constitution: national, provincial, and municipal. Each sphere of government has its own areas of responsibility or 'distinctiveness,' and also areas where it must cooperate with one or more other spheres based on

Figure 1: South Africa’s New Federalism



Source: Wittenberg 2006, 336.

the German co-operative federalism model. The Municipal Structures Act of 1998 established different scales of municipalities, as identified by provincial demarcation boards. These three categories of municipalities are labeled as A, B, and C (see Figure 1).

Category A municipalities are those that have exclusive municipal executive and legislative authority within its boundaries; specifically, these are the six stand-alone metropolitan areas. These will be the focus of this thesis, as Johannesburg and Durban are both metropolitan municipalities. A total of 16 million people (just over one third of South Africa’s population) live in Category A municipalities.⁴ Metropolitan councils administer legislative and executive control in these urban areas, as is the case in Johannesburg and Durban.

Category B municipalities share municipal executive and legislative authority in its area with a Category C municipality within which area it falls. These Category B municipalities are comprised of 234 local municipalities and 25 District Management Areas (DMAs). Category C municipalities, then, have municipal executive and legislative authority in an area that includes

⁴ Author’s calculation’s based on Statistics South Africa 2007 Community Survey data (StatsSA 2007a).

one or more municipalities. These Category C areas comprised of 47 district municipalities. Each district municipality is made up of a group of local municipalities and DMAs (Cameron 1999, 231; StatsSA 2007a, ii.)

The constitution outlines the objectives of municipalities and their responsibilities as vaguely described in the final 1996 document. Ensuring the provision of services to communities in a sustainable manner is one of these responsibilities. Theoretically, local government is tasked with the greatest burdens based on direct contact with citizens. The White Paper on Local Government describes how integrated development plans (IDPs) should carry out and identify strategies to meet development mandates (Friedman and Kihato 2004, 150).

Not only is the local sphere responsible for the services and infrastructure essential to citizen well being, it is charged with the task of ensuring growth and development of communities “in a manner that enhances community participation and accountability” (RSA 1998, 6). Thus IDPs are at once meant to be developmental, participatory, and encouraging of a realistic plan for coordinated governance. The overall shift in state policy from a more radical, planning and interventionist position in the early 1990s to a neo-liberal and market-led one following the 1994 elections made the full incorporation and realization of IDPs extremely difficult (Watson 2002, 78).

ANC Co-option of Municipal Government

Additionally, a whole slew of national tier legislation dictating the specifics of development planning have seemingly constrained the ability of local governments to plan based on local needs. Kauneckis and Andersson explain that a local politician’s incentive to respond to citizen demands in decentralized states is understood as conditioned by the institutional

incentives within the national political structure (2009, 26). In the South African context, the national political structure creates an emphasis on upward accountability, despite rhetoric suggesting a measure of citizen engagement and downward accountability in developmental local planning (Heller 2001, 157).

The ANC has pursued cost-recovery as the main policy of financing water infrastructure projects in all municipalities. Cost-recovery means charging consumers for full cost of a range of services, such as water and electricity (Smith and Hanson 2003, 1544). For publically owned services, a profit is sought above the cost of production for long-term operating costs; for private sector providers, the objective is to ensure a surplus profit. For the delivery of water, a service which can be measured volumetrically, cost recovery is accomplished by charging customers the full short-run marginal cost of production as well as a portion of long-term operating and maintenance costs (Smith 2005, 171).

Municipal governments receive very little in terms of central government financial transfers, and rely more on transfers from the provincial level of government—which receive a large percentage of transfer funds from the central government (Wittenberg 2006, 340). Autonomous sources of funding come from property taxes, regional service council levies, and user charges. The latter, user charges, are important because of the large amount of debt accumulated through unpaid consumer bills (some left over debts from apartheid era service boycotts), concentrated in poor areas (Smith and Hanson 2003, 1532). Seemingly, municipalities have no choice but to pursue cost-recovery as a means of financing infrastructure investments.

Further evidence serves to suggest that a grave disconnect exists between citizens' preferences and their understanding of billing and government policies. Smith and Hanson note that there are many reasons for non-payment of bills (for citizens who have taps in their homes

or in their yards) (2003, 1533). Based on citizen surveys in Cape Town, the authors found that citizen justification for non-payment included confusion about billing procedures (frequency/amount charged), a desire to express dissatisfaction over unmet expectations, unwillingness to pay for water at all (the "culture of non-payment" argument), and, most commonly, insufficient income to pay bills. Inability to pay these bills leads to large-scale water cut-offs or even removal of infrastructure—a trend that has occurred nationally. It is estimated that since the end of apartheid, more than 10 million citizens have been cut off (at least temporarily) from water. This has been concentrated in poor, urban areas, where *apartheid* era service backlogs plague water departments.

In focusing so much on ensuring basic access to water, the ANC and its local branches have forgone deepening democratic processes in favor of technocratic solutions. Yet in so doing, access has been defined in a narrow view. Heller suggests that because of the ANC's tendencies to embrace neoliberal policies, the party's emphasis on end outcomes and the greater push to privatize or outsource led to a failure in deepening democracy (2001, 135). This study also shows that this set of priorities has led to a lack of *true access* to water for many of the nation's urban residents. The discontinuity between central government policy and citizen participation in accountability structures is a relationship that must be explored. It will be explored in this thesis through the evaluation of the mechanisms affecting *true access* to water.

IV. New Models of Utility Management for Service Delivery

In the abstract, the devolution of administrative authority to lower tiers of government is almost always seen as a move towards democratic decentralization. That is, the government closest to the people would provide services to a specific population, to which that government

would be accountable. In order to function properly, devolution requires not only administrative decentralization but fiscal and democratic decentralization as well (Manor 1999, 7). In the South African example, democratic decentralization of administrative responsibility occurred in many sectors, most notably that of service delivery. The simultaneous ‘top-down’ and ‘bottom-up’ governance of metropolitan councils allows for national oversight of democratically elected local officials.

Manor notes that democratic authorities at the lowest level of government will struggle to implement development projects if they “lack powers and resources—meaning both financial resources and the administrative resources” (1999, 7). The ANC’s promotion of strong metropolitan councils, then, was essential to their realization of their redistributive goals. This section outlines the variation in decentralized governance of water service delivery in two metropolitan regions of South Africa as informed by top-down national policy and the financial restructuring. Devolution in service delivery has allowed for variation in water utility management across metropolitan regions.

Co-operative Governance in Water Service Delivery

Part of the new democratic model consisted of a major financial restructuring. The role of international actors such as the World Bank during the constitution writing period pointed ANC leadership toward neo-liberal concepts of development and governance. “The national government re-centralized financing mechanisms for service delivery, but decentralized the responsibilities, leaving local authorities in a situation where they had more to do but with fewer resources” (Smith 2006, 5). National government financing for essential services greatly decreased—by a full 85 percent between 1991 and 1997 (Smith 2006, 5).

The pressure of cost recovery in service delivery coupled with the fact that local governments are responsible for raising 90 percent of their budgets from their own sources makes local development challenging. Thus, despite being centers for trade and business, metropolitan municipalities such as Johannesburg and Durban have been forced to seek other ways of financing municipal projects. Whereas provinces are fiscally responsible for 10 percent or less of their own revenue, municipalities rely on the sale of ‘trading services’—the sale of electricity and water to businesses and households—in order to recover costs (Friedman and Kihato 2004, 146).

A disparity exists between local government capacity and what national law requires of municipal government actors. “Sustainable, efficient, and effective planning” is required to ensure that development is not only affordable to the municipal councils and communities, but is also responsive to citizens’ wants and needs (Friedman and Kihato 2004, 149). Furthermore, restrictions found within the Development Facilitation Act (DFA) call into question how much autonomy municipalities are actually allowed in local planning of IDPs (Cameron 1999, 230). DFA principles stipulate the end product of a municipal development plan through the incorporation of planning ethics and guidelines (Cameron 1999, 230). This speaks to the larger issue that local government is, as vaguely outlined in the constitution, subject to national and provincial legislation. With the ANC in full control of national legislation (they have been in the majority since the first democratic elections), the centralizing tendencies of the party are hardly restrained by the constitutional framework. As early as 1999, Cameron notes, there were concerns that the DFA could erode the autonomy of municipalities (1999, 230).

While national legislation serves to constrain much municipal planning, overly technocratic national departments also act as vessels for the ANC’s centralizing tendencies.

While it is important to set national standards for service delivery, certain bureaucracies have established large degrees of discretion, enabling them to micromanage municipalities, if those departments so choose. The DWAF functions are to establish policy for the provision of water services; monitor and regulate service provision; promote the planning and implementation of programs to achieve basic norms and standards (Atkinson 1998, 21). In so doing, much of the municipal variation which might arise from citizen participation is squashed by national policy.

Despite noting that the DWAF is committed to the principle of demand-driven development, a seemingly bottom-up method of planning, the Water Services Act of 1997 severely circumscribed local government autonomy. The Minister of Water Affairs can, on appeal, review and subsequently accept or deny any decisions made by municipal water authorities (Atkinson 1998, 22). Recognizing that the setting of national standards is important to ensure national equity, not just equity within municipalities, these grandiose powers seem antithetical to the ‘spheres’ notion of governance—as opposed to tiers.

As part of the transition to a democratic state, the GNU drafted a constitution to ensure that basic rights were enumerated and extended to all citizens, regardless of “race, colour [*sic*], ethnic or social origin, sex, religion or language” (RSA 1996, s37(9)). The 1996 Constitution’s Bill of Rights granted all South Africans “the right to have access to sufficient food and water” (RSA 1996, s27(1)b) and “to an environment that is not harmful to their health or well-being” (RSA 1996, s24). Increasing access to basic services has been a major focus of national, provincial, and municipal governments, particularly because of the lack of proper servicing associated with the apartheid-era.

In addition to the constitutionally mandated right to water, the ANC has legislated national standards for basic water services. The Water Services Act of 1997 ensures that all

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South Africans should have access to a “basic water supply,” based on national standard terms as set by the Minister of DWAF (RSA 1997). This national standard of basic access to piped water is defined as 25 liters per day per capita within 200 meters of the home (Smith and Hanson 2003, 1530). This amounts to 6 kiloliters per household monthly, based on a household of eight individuals. The World Health Organization has defined basic access at twice this amount—50 liters per day per capita (WHO 1993).

Furthermore, the South African government has chosen to provide free basic water, amounting to the defined minimum of access, for all households in South Africa. This provision was mandated by the DWAF’s Free Basic Water Program (FBW) in July 2001, commanding all local authorities to provide the first 6 kiloliters of water free to all South African households on a monthly basis. Despite the fact that central government financial transfers highly favor provinces, the national government directs some funding towards municipal spending. Equitable share revenue is divided among municipalities based on the number of poor households and is the sum of unconditional transfers (Mosdell 2006, 286). Part of that grant is designated as a *free basic-services grant* (Wittenberg 2006, 341). While the ANC cannot force municipalities to spend this grant on supplying free basic services, DWAF legislation mandating the delivery of free basic water does so in a roundabout way (Wittenberg 2006, 341). Yet, due to the massive decrease in central government transfers to the local sphere of government, financing endeavors such as free basic water is still largely the responsibility of municipalities.

By their own estimates, the DWAF estimated that FBW benefitted 26 million people in its first year, roughly 66 percent of those with access to water infrastructure throughout the country (RSA DWAF 2002). McDonald notes that while the extension of free services is potentially progressive, the actual benefit of such services in practice would appear “to have

made little difference to the lives of the urban and rural poor” (McDonald 2002, 29). For low-income households with relatively high average number of occupants, the promise of 6kl of water per household per month promises little financial relief (McDonald 2002, 29).

Peters and Oldfield suggest that the DWAF’s move to ensure FBW rights to all citizens has actually hindered the expansion of service delivery equity. They question whether or not FBW guarantees sustained and adequate access to water when implemented within a cost recovery mandate (Peters and Oldfield 2005, 314). Based on their findings in the Western Cape municipality of Theewaterskloof, FBW provides limited access to water, but it does not relieve households from the accumulating costs of municipal charges and past debts (Peters and Oldfield 2005, 331). Thus even structural mechanisms meant to act as an equalizing form of access have not led to levels of *true access*. This is seemingly true across municipalities due to the nature of the national legislation imposing FBW and cost-recovery ideology.

In pursuing poverty alleviating strategies, increased basic access to water infrastructure should not be the only goal of governance (Smith and Hanson 2003, 1518). Yet management of water service delivery has focused largely on expanding basic levels of infrastructure to all households, to suffice for a low standard of coverage. The South African government has defined access along these narrow lines of relative proximity and basic access. The rights- and property-based standards of access to physical water infrastructure and the ability to collect a minimum amount of water are not enough to promote social equity or upward mobility. Furthermore, a user’s proximity to physical water infrastructure does not ensure that users of water resources will be able to maintain access to these necessary resources, as will be discussed in section VI.

Cases Selection and Models of Corporatization

Under national guidelines set by the DWAF, municipalities have restructured or created water utilities in order to address major service backlogs and promote efficient financing. Various municipalities have restructured their water utilities to incorporate business-like models while others have incorporated private-sector partnerships (PSP). In measuring the effect of different management models on users' *true access* to water, this thesis constructs a most-similar case comparison of two municipalities in South Africa.

The two municipalities to be examined are the Johannesburg Metropolitan Municipality and the eThekweni Metropolitan Municipality (referred to as Durban in this study). These cases have been chosen based on their similarity in variables of interest to *true access*, with the one major measure of variation being that of water utility management systems (full corporatization versus ring-fencing of a public utility). In observing two different management models of water service delivery, this thesis will examine the abilities of two metropolitan municipalities in providing their citizens' with *true access* to water. Johannesburg and Durban were selected based on their similar characteristics and because of their deviation in the variable of interest: water utility management. This study will undertake the comparison of these two municipalities based on variables pertinent to the measure of true access to water.

Johannesburg is the largest metropolitan municipality in South Africa, with a population of 3,888,180 as of 2007 (StatsSA 2007a). The Durban metropolitan municipality is the second largest with a population of 3,468,086 (StatsSA 2007a).⁵ Rapid urbanization has been a key feature in the post-apartheid period following the elimination of movement restrictions at the end of the National Party rule. Therefore migration rates to both municipalities are estimated to be extremely high, though the exact rates of migration (internal and international) are difficult to

⁵ See Table 3 in the Appendix for population data.

calculate accurately and are not included here. However, an important measure that is accurate is the annual population growth rate in each municipality. In Johannesburg, the annual growth rate between 2001 and 2007 was 3.4 percent; over the six year period population grew by 20.6 percent overall.⁶ Similarly, in Durban the annual population rate of growth in this time period was 2 percent, a 12.2 percent growth rate overall between 2001 and 2007.⁶

More specific to this study are variables involving the overall governance structure of each municipality and the existing levels of basic access to piped water as of 2001. In both of these variables, again, Johannesburg and Durban are nearly identical. Both municipalities are what are known as metropolitan municipalities (as described in section III; see Figure 1). I have chosen to compare two metropolitan municipalities because of the spatial and developmental scars that apartheid-era policies left on the landscape. Also, as a strong local sphere of government, metropolitan municipalities are large centers for population and finance, and therefore power. Because both municipalities are institutionally similar in relation to other levels of governance in the South African co-operative federalist structure, both are equally subject to DWAF standards and other national legislation guiding water access and development. These regulations include the 2001 mandate to provide FBW to all households regardless of income and the 1996 Constitution's establishment of water as a basic right.

In relation to the existing levels of basic access in both localities, by 2001, Johannesburg had enough existing piped water infrastructure to service 97 percent of the total households within its jurisdiction, with 49.6 percent having piped water inside their individual dwelling (StatsSA 2007a). In 2001 Durban showed a similar, though slightly less developed, level of infrastructure. Whereas only 94.8 percent of households had access to some form of piped water,

⁶ Author's calculations of annual municipal population growth rate based on Statistics South Africa Community Survey 2007 information (StatsSA 2007).

just over 50 percent of households had access to piped water from an access point within their home (StatsSA 2007a).

The main variable of difference, and of interest within the context of this study, is that of the water utility management model employed by each municipality. While both municipalities shifted towards more business-like models of management in the 1990s due to the neo-liberal push of international agencies such as the World Bank and the ANC's own Growth Employment and Redevelopment campaign, the turn of the century marked a divergence of policy for the two cities. Johannesburg undertook a model of full-corporatization through the signing of a five-year private management contract. The management and administration of Durban's water department remains fundamentally public, though the operation of the utility is driven by cost-recovery mechanisms and the finances of that utility are ring-fenced from other municipal funds.

The literature describes levels of corporatization along a spectrum of utility management models, ranging from fully public to fully private. Privatization, or private sector privatization, was internationally promoted in the 1990s under the assumption that cooperation with non-state management bodies would promote greater efficiency and expansion in the water and sanitation sectors of developing nations (Budds and McGranahan 2003, 87; Smith 2006). Privatization is the most extreme form of institutional separation, removing service delivery from the processes of policy making and regulation (Krause 2009, 59). Divestiture, which describes the complete transfer of ownership to private actors, leads to the complete removal of the service provider's resources from the sphere of political governance (i.e., from public officials and bureaucrats). These resources are shifted to the sphere of private governance, subject to the incentives of profit-driven private investors (Krause 2009, 59).

The economic ideology underlying privatization of public services suggests that operational efficiency can be increased through the minimization of state influence or interference (Smith 2006, 1). Such separation from the government brings with it questions of regulation and accountability of private utility. Corporatization has been viewed as a step in the process to privatization but also as a viable management model in itself. That is, corporatization can encourage many of the same efficiency gains claimed from privatization while avoiding the political complications that inevitably ensue from full privatization (Smith 2006, 2).

Thus, in the midrange of the spectrum between fully private (divested) and fully government run (public) are the various forms of corporatization. Unlike privatization, corporatization implies a business-like management structure in which the infrastructure is still publicly owned. A corporatized utility is a corporation that operates under a board of management like a private business, but for which the government is the main shareholder (Bakker 2003, 12). Fully privatized utilities are those in which a private company has been contracted to *own* and operate the water supply infrastructure (Bakker 2003, 15). For corporatized public utilities, the municipal government still owns the infrastructure and becomes the sole client for a publicly owned, though institutionally separate, service provider (Smith 2006, 2).

Within models of corporatization, various levels of private sector involvement can occur (see Table 3 in Appendix). Corporatized models are often referred to as PSPs because the private involvement is limited in comparison to a direct private utility. Service contracts and management contracts involve the lowest amount of concessions to private companies—these contracts typically last no more than five years and only allow for the operation and maintenance of public services to be operated by the contracted company (Budds and McGranahan 2003, 89).

Corporatization is growing in prominence because it promises gains in efficiency comparable to fully privatized models while assuring a greater level of regulation by the state (Smith 2006, 1). In their own attempts to address issues of access to basic water infrastructure, Johannesburg and Durban have both chosen versions of corporatization. Johannesburg is the first and only local municipal government that has corporatized a water and sanitation utility through the legal system, and by way of a five year private-management contract led by the French-based Suez Group (Smith 2006, 1). This contract was signed in 2001 with the intention of not only making large strides in the availability of water to Johannesburg's more than 3 million residents, but also in hopes of reigning in the financial crisis underway at the city's water department.

Durban chose a different route of cost-recovery, through ring-fencing the city's water utility assets. The management and administration of Durban's water department remains fundamentally public. Johannesburg, in signing a 5 year management contract with an external company, chose the highest level of corporatization, incorporating a public-private partnership, developed a utility that remained municipally owned, but was completely operationally separated from the democratically elected members of the city council (Smith 2006, 5).

Corporatization occurs through three organizational steps. The first step is financial ring-fencing of the delivery of a given service sector. This involves separating all resources directly involved in the delivery of that service from all other service functions (McDonald and Ruiters 2005, 18; Smith 2006, 2). This creates greater financial transparency and reveals the 'real costs' and losses through exclusive accounting practices (McDonald and Ruiters 2005, 18). The next step involves insulating the management of the service provider from political interference. This involves transforming the provider into a business unit which can operate autonomously from the elected officials in that jurisdiction (Smith 2006, 2). The utility is then run by appointed officials

who operate at arm's-length from the elected officials setting standards for service (McDonald and Ruiters 2005, 18).

The third phase is the institutional removal from the state to clearly separate the politics of policy development from the operation of that utility (Smith 2006, 2). This is what is known as full corporatization. Full corporatization can be an end in itself (in the case of Johannesburg) and does not necessarily imply full privatization (Bakker and Cameron 2002, 23).

Corporatization has been described in the literature as favorable to privatization in that the government remains a shareholder and a regulator while still experiencing efficiency gains of a private partnership. Corporatization was chosen to enable the city of Johannesburg to retain control as the sole shareholder of the utility, but would also serve to devolve all operational issues to private management to allow them to operate as a business—outside of the administrative constraints of city council procedures (Smith 2006, 8).

In keeping with the ANC's technocratic trends described by Heller, corporatization in metropolitan municipalities has been undertaken to depoliticize major administrative responsibilities—though the public backlash has proved otherwise (2001, 133). Smith describes corporatization as a “seductive management model...precisely because it promises rigid credit control mechanisms *without political interference*” (2005, 172; italics mine). Corporatized management structures in essence create a service entity that is at arm's-length from the elected administrators of a given municipality (Smith 2005, 171). When ring-fenced financially and managerially, the service provider, in theory, becomes insulated from local politics.

As South Africa's second largest metropolitan municipality, Durban did not go as far as Johannesburg in corporatizing, remaining at the second step of managerial ring-fencing. Johannesburg, in signing a management contract with an external company, chose the highest

level of corporatization, incorporating a private-sector partnership. This form of corporatization involved the development of a utility that remained municipally owned, but was completely operationally separated from the elected members of the city council (Smith 2006, 5). In Johannesburg, the private management contract was undertaken to address apartheid era inequalities while building capacity within the utility.

The management and administration of Durban's water department remains fundamentally public, despite its removal from the political realm. eThekweni Water Services (eTWS) came into being following the final local government transition in 2000; the service provider for the area was previously Durban Metro Water Services (Loftus 2005, 201). Durban's water and sanitation activities had been ring-fenced since 1992, when they were bundled into a business unit within the municipality (Smith 2006, 1). Since this time, Durban has not made any moves to corporatize further, remaining at the second step of corporatization through managerial ring-fencing.

The comparison of these two structures is restricted to the years 2001 and 2007. Municipalities began to implement the DWAF FBW Program in early 2001. Furthermore, Johannesburg undertook its five-year private management contract in 2001. The Census data, as published in 2001, concerning basic access to piped water infrastructure was measured prior to the implementation of these two important factors. Thus, taking 2001 as the start date and utilizing Statistics South Africa's 2007 Community Survey data provides a measurable time frame in which access to water may or may not have increased. This window of six years allows for the observation of the effectiveness of the two municipalities in providing citizens with access to water services.

V. Theory of True Access

This thesis operates on the assumption that the South African government's narrow definition of basic access is not sufficient for understanding the complex web of interests and powers influencing a user's actual ability to continually benefit from water resources. In recognizing this, I seek to define a new measure of access known as *true access*. This new measure will incorporate the notion that access is more complex than the legal right to a service or the physical property from which to benefit. Ribot and Peluso (2003) have laid much of the theoretical framework for access analysis upon which I shall build my theory. The conceptualization of *true access*, as laid out below, is theoretical and should be seen as a mechanism for analyzing user access to any number of public services. I shall then apply my theory to the selected cases in order to analyze the variation between municipalities in terms of users' *true access* to water services and the effect that utility management models have on users' *true access*.

Review of Access Analysis Literature

The idea of gaining and maintaining access to a resource has been statically tied to the notion of property in most of the literature. In recognizing the limitations of property theorists' definitions of access, Ribot and Peluso seek to expand thinking about access beyond the traditional notion of rights (2003). Rather, the authors place emphasis on the actual *ability* of users to gain, maintain, and control access to services. Their intent is to draw attention to the wider range of social, political, and economic relations that effect an individual user's or group's ability to benefit from a given resource (Ribot and Peluso 2003, 154). This ability changes over

time in relation to the complex and dynamic webs of powers within which individuals and groups operate.

Ribot and Peluso define access as “the *ability* to derive benefits from things,” expanding property theorists’ classical definition beyond “the *right* to benefit from things” (2003, 153). In defining access as the ability benefit, one must view access as a far more fluid concept. Laws and customs establish user rights in a static notion, concerned only with the legal *right* to property or a resource. More broadly, a user’s *ability* to benefit can change continuously “depending on an individual’s or group’s position within various social relationships” (Ribot and Peluso 2003, 158). As the authors describe, property is just one of many factors in a large array of social and political-economic relations affecting the dynamics of access for individual users or groups (Ribot and Peluso 2003, 158). Thus, various political or economic circumstances can change the terms of access for a user at any given time.

To view access more broadly is to take into account the variety of means, processes and relations that can influence the ability of one user or a group of users to benefit from a given resource. Ribot and Peluso label these means, processes, and relations as mechanisms (2003, 160). Given a specific set of selected case studies and the resources to be studied, observable indicators of such mechanisms can vary greatly. In my own conceptualization of *true access*, however, three mechanisms will be introduced to guide those who employ the theory.

Conceptualizing True Access

In utilizing Ribot and Peluso’s inclusive view of access, which includes the important notion of a user’s ‘ability to benefit’, I seek to establish a theoretical measure of *true access*. Similar to the ideas put forth by Ribot and Peluso, *true access* analysis focuses on establishing a theory of access that moves beyond the rights-based notion of property or the physical notions of

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property itself. That is, *true access* recognizes that the actual physical ability of a user to benefit from access to a resource is highly constrained by factors outside of their legal right to do so.

True access analysis seeks to identify and utilize three mechanisms of interest to guide the theory's application to specific cases. The definition of *true access*, provided below, is broadly defined to allow for its abstraction and application to a variety of public service cases:

True access to a public service is the ability of service users to continually benefit from a basic level of use of that service.

Ability denotes a sufficient level of power or resources to accomplish a task or act. Service users are any group of individuals within a defined jurisdiction that can legally claim the *right* to access a given service. The notion of 'continuous benefit' describes the ability of a service user to weather the influences of various social, political, or economic changes while maintaining an average flow of and benefit from the service of interest. The defined "basic level of use" is extremely contextual. In some instances, governing bodies may have defined a legal right to a certain resource or a legal right to a certain amount of a given resource. In other cases, the basic level of use is more culturally or customarily defined. Ribot and Peluso note that property "generally evokes some kind of *socially acknowledged and supported* claims or rights" (2003, 156). This acknowledgement could be through law, custom or convention and is subject to change vis-à-vis other mechanisms.

True access analysis, then, can be used to evaluate governments' successes and failures in providing public services for users. Conversely, employing *true access* analysis could inform bureaucrats and politicians of the complex web of powers and relations outside the control of public policy that may influence one citizen's ability to benefit from a legally defined basic level

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of a given resource or service. Any such analysis should be utilized to gain a clearer picture of how citizens gain, control, and maintain continuous benefits from public services.

True access analysis entails three mechanisms of interest which help divide the study into component parts based on groupings of observable indicators. These mechanisms are structural, relational, and ideological. Structural mechanisms are the most static of the identified mechanisms. This category incorporates the rights-based property notion of basic access by observing any and all legal or customary assurances of basic levels of a service. As the ability to benefit from a public service derives from rights attributed by law, custom or convention, the involvement of the studied level of government to enforce a claim to rights is implied (Ribot and Peluso 2003, 162). In *true access* analysis, structural mechanisms can also include the physical property connected to governmental or administrative definitions of basic access. For instance, if a government is legally obligated to provide free public education services to students aged five through fifteen, the physical existence of a school building within a reachable distance would serve as an observable structural mechanism for a child's *true access* to education.

In addition to structural mechanisms, *true access* is informed by relational mechanisms, which in most empirical studies will be the broadest category to be observed. Whether between two individuals, two groups, a service user (citizen) and service provider (government), or any similar combination of roles, relations are complex and require much disaggregation to observe meaningful indicators of interest. Relational mechanisms are greatly affected by individuals' social, political, and economic capital as well as their standing in relation to the power of governing bodies. One user's ability to maintain a constant flow of benefits can be relationally affected depending on a variety of dynamic factors, including the nature of the user-provider relationship based on the legal and political context of that access. The makeup of political and

governmental institutions and how this informs a users' relation with the service provider is also an important relation to be observed and studied.

Lastly, ideological mechanisms define processes and relations which underlie all levels of relational and structural interactions. Ideological mechanisms can vary drastically for each group involved in the study or can be seen as more of a control variable. Religious, political and cultural norms factor into ideological mechanisms affecting *true access*. It may be instructive to view ideological mechanisms in the broadest terms as a worldview: a way of understanding and evaluating events and actions. Ideological mechanisms are defined in an attempt to understand the motivation of user or bureaucrat actions in relation to the structural and relational mechanisms defined above. This is certainly the most difficult to pinpoint of the three mechanisms, but is informative in understanding the motivations behind relations of actors.

Operationalizing True Access

In order to reach any conclusions about the *true access* to water in the selected cases, the *true access* definition is narrowed to fit the specific service and context studied. Thus:

True access is the ability of water service users to continually benefit from a basic level of water through municipally-owned infrastructure.

'Ability' is defined in the same theoretical terms in this conceptual definition as it was above. 'Water service users' are defined as households in this study because the household serves as the standard unit for measurement. That is, billing occurs for metered households, not individuals. Statistics South Africa also utilizes households as the unit of measurement in the Census (2001) and Community Survey (2007) to measure household access to services. The notion of a user's ability to 'continually benefit' describes a household's ability to access water

at any time without interruption due to missing a payment or inability to pay for water services, including the removal of water infrastructure due to lack of payment. Other complicating factors involved with continuous benefit could be the type of piped water access available to each household.

In the applied theory of *true access* to water, a basic level of water is defined by the South African standards set forth by the DWAF as well as national legislation. DWAF's Free Basic Water campaign undertaken in 2001 designated that municipal authorities were to provide each household, regardless of income, with 6kl per household per month (Smith and Hanson 2003, 1530). For a household of eight individuals, this divides down to roughly 25L per day per person.⁷ The Water Services Act of 1997 allows the Minister of the DWAF to set national standards for basic levels of service (RSA 1997). These standards have been set to define basic access as meaning piped water within 200 meters of one's dwelling.

Lastly, 'municipally-owned infrastructure' refers to water that is piped to an access point. As the national department in charge of enforcing national water standards and procedures, the DWAF identifies three types of piped access: (1) piped water inside the dwelling; (2) piped inside the yard; (3) piped water from access point outside the yard (StatsSA 2007b). The South African standard of basic access is constrained to one of these three connection types.

Now that a more applicable definition of *true access* has been enumerated for the purposes of this specific case study, it is important to clearly define the observable indicators of each mechanism (structural, relational, and ideological) that will be utilized in the final analysis:

Structural mechanisms incorporate the rights-based property approach of basic access as well as the infrastructural, or physical, property-based notion of access. In this study, observable

⁷ For discussion of the limitations this places on quality of life, see the end of Section IV: New Models of Utility Management for Service Delivery in this paper.

indicators of structural mechanisms will therefore include national water standards as defined by the Water Services Act of 1997 and DWAF's FBW Program. Also measured will be the availability of piped water for households within a municipality. The measurement of piped water will not be disaggregated into the three levels of piped water, but rather taken as a base level of access. Infrastructural variation (i.e. piped within the home, yard, or outside the yard) will be taken into account in the indicators for relational mechanisms.

Relational mechanisms will measure the complex and dynamic relationships between users (households) and the service provider. The main relation of interest in this study is between water users in low-income communities historically underserved during apartheid and the utilities that provide them water services in Johannesburg and Durban, respectively. Moving from the static notion of rights-based access, physical property itself can also shape the relations among people with respect to their benefit flow. Within the analysis of relational mechanisms will be included the types of piped water connections available to Johannesburg and Durban residents, respectively. The ability to maintain a constant flow of benefits can be relationally affected depending on the type of connection a household relies on for water. That is, meeting the standard requirement of piped water within 200 meters of one's home provides quite a different level of access than a kitchen sink.

Municipalities have largely adopted the basic needs approaches to service delivery in the extension of physical infrastructure to areas previously underserved or not serviced at all. The Municipal Infrastructure Investment Framework (MIIF) of 1997 prescribed urban policies that differentiated the levels of service delivery required according to household (Smith and Hanson 2003, 1531). The varying level of access was determined by household income, thus leaving the poor with lesser infrastructure as a starting standard. Richer neighborhoods and households

already had access to mostly in-home tapped water prior to the end of apartheid. The MIIF effectively required residents to finance the incremental upgrading and maintenance of their piped infrastructure (Smith and Hanson 2003, 1531).

Other relational mechanisms include the nature of the user-provider relationship based on the legal context of each municipality's management model. I will also discuss the effects of costs, the ability to pay, and a municipality's willingness to cut off service in response to non-payment in order to analyze the *true access* to water in the cases of Johannesburg and Durban.

Ideological mechanisms are the least concrete of the three types. In large part, it is beyond the scope of this thesis to fully address the ideological influences that inevitably affect a user's ability to gain, control, and maintain potable water resources. A brief discussion of the contested ideological arguments, however, will serve as a starting point for further research and analysis. One major ideological debate around water service delivery and cost-recovery has two very distinct sides. There are those who believe that poor users' actions are informed by a historical "culture of non-payment," which predetermines a household's willingness to pay any and all tariffs involved with water delivery. On the opposite side of the argument are those who believe that service providers operate within the "culture of non-servicing." The latter cultural argument is one which hinges on the notion that municipal water utilities practicing full cost-recovery only have their financial interests in mind, and are uninterested in creating equity in access. These arguments will be discussed in greater detail below.

VI. *True Access* Analysis

This thesis operates on the assumption that the South African government's narrow definition of access is not sufficient for understanding the complex web of interests and powers influencing a user's actual ability to continually benefit from water services. Therefore, a new measure of access is established to promote thinking beyond the traditional ideas of access linked purely to *rights*. Given the historical and theoretical background laid out in the previous sections, an analysis of *true access* in South Africa, and specifically Johannesburg and Durban, is undertaken in this section. Three mechanisms have been identified to understand how different actors gain, control, and maintain their *true access* to public services. The following section is an analysis of the web of powers underlying these three mechanisms of access (structural, relational, and ideological) in the South African context.

Structural Mechanisms Affecting True Access

Utilizing the rights-based notion of property, this section measures the structural mechanisms that affect *true access* to water in Johannesburg and Durban. The observable indicators are similar in both cases, showing that the ANC's top-down management of water service delivery through the DWAF has served to equalize distribution on a structural, rights-based level. Both Johannesburg and Durban were subject to DWAF legislation in the period from 2001-2007. This is due to the governmental structures of co-operative governance discussed in section III and as shown in Figure 1. Under the structural mechanisms identified in this section, all citizens in South Africa seemingly have the same rights to basic levels of access to a bare minimum of water and infrastructure.

Table 1: Structural Mechanisms

	Johannesburg Metropolitan Municipality		eThekweni (Durban) Metropolitan Municipality	
<i>Year</i>	2001	2007	2001	2007
<i>Delivery of piped water (% of households)</i>	97	98.3	94.8	97.6

Source: StatsSA 2007a.

Across South Africa, users are guaranteed access to water as a basic right outlined in the Constitution (RSA 1996). This right has been elaborated on in national legislation and DWAF policies (RSA 1997; 2002). As of 2001, both Johannesburg and Durban have been subject to the DWAF FBW Program as well as pre-existing national standards. FBW expanded basic access to be defined as 6 kiloliters of piped water within 200 meters of a user’s dwelling allocated without charge per month. In Table 1, delivery denotes piped water to an access point of this minimum standard of 200 meters.

Using the data presented in Table 1, one can roughly measure the gains made by each municipality is regarding the levels of piped water in 2001 as compared to 2007. Johannesburg began the measured period by providing water through piped infrastructure to 97 percent of its service users (StatsSA 2007a). Durban began the period with a slightly lower level of piped water service—94.8 percent of the service users in Durban had a defined basic level of access to piped water infrastructure of some sort. Durban then increased basic access to piped water infrastructure to 97.6 percent of all users by 2007 (StatsSA 2007a).

The gains made by each municipality in the six year period studied are notable, though Durban clearly surpassed Johannesburg in terms of the relative extension of service, whereas Johannesburg still led in terms of the overall number of consumers reached. Taking into account the rate of population growth in and migration rates to the two cities, the gains made in terms of

basic access are quite impressive in both cases.⁸ The continuous and rapid urbanization of South Africa's population has led to an increase in the number of families living in shacks in formal and informal settlements—areas which have historically been the most difficult to serve (Smith 2006, 6). It is necessary to note, then, that not only has the absolute number of those with *structural* access to water services increased but the percentage of citizens with a very basic level of access has also increased as population continues to grow in the country's two largest regions.

With the mandated free allocation of water and the extension of infrastructure, both municipalities have expanded basic access based on the South African standard. Because the study of *true access* incorporates these rights- and property-based notions of access, both municipalities have succeeded in ensuring some level of *true access*. The next set of mechanisms will be used to analyze the socio-economic factors that influence the continuous flow of benefits from a service provider to the users of that service. While basic access has been shown to exist for a high percentage of users in both Johannesburg and Durban, the *true access* definition sets a higher standard of access that largely hinges on the following relational mechanisms.

Relational Mechanisms Affecting True Access

Relational mechanisms are the most complex and thus crucial to fully understanding the *true access* experienced by service users in a given municipality and the variation that occurs given a user's socio-economic status. Historical levels of development affect the level of service (LOS) that can be expected from service providers. Additionally, the variation of LOS in terms of piped water access directly affects a user's ability to continually benefit from that water source. Despite the FBW Program, ongoing issues of payment in low-income communities only serve to exacerbate the high levels of debt and users' inability to adequately pay water bills.

⁸ See Table 3 in Appendix for population data.

<i>Table 2: Relational Mechanisms</i>					
		Johannesburg Metropolitan Municipality		eThekweni (Durban) Metropolitan Municipality	
<i>Year</i>		2001	2007	2001	2007
<i>Residents living in informal housing (% households)</i>		21.1	18.8	19.1	17.1
<i>Delivery of piped water (% households)</i>		97	98.3	94.8	97.6
<i>Water access point LOS (% households)</i>	Piped, inside dwelling	49.6	70.8	50.5	62
	Piped, inside yard	34.9	20.8	19.1	16.5
	Piped, from access point outside yard	12.5	6.7	25.2	19.1
	Other, non-piped access	3	1.7	5.2	2.4

Source: StatsSA 2007a.

Restrictions on a user’s continual access can occur through municipal installation of prepaid meters or flow restrictors, which restricts water consumption for users who often fall into debt. This relation of surveillance of the consumer by the provider creates tension.

As has been described in section II of this thesis, uneven urban development has been a lasting legacy of apartheid policies. The transition to democracy, while ideologically focused on redistribution, caused the ANC to face the realities of the segregated infrastructural development they inherited. Part of this realization was the acknowledgement that municipal service providers would have different levels of responsibility for service provision given a neighborhood’s base level of infrastructure and household income. The 1997 MIIF denotes that while municipal governments are responsible for providing all users with a basic level of access, any desired LOS

beyond the basic level of access is essentially the residents' responsibility to upgrade and maintain infrastructure (Smith and Hanson 2003, 1531).⁹

The 2001 FBW provision established the right of individuals to have access to a bare minimum amount of water, sourced within 200 meters of their home. Yet communal standpipes are both inconvenient and dangerous to access after dark, especially in low-income townships notorious for high rates of violence and rape. Two hundred meters is a far distance to travel for individuals, regardless of their access to transportation. Loftus points out that “free water standpipes limit consumption because of the limited capacity of the human body to carry loads of water” (Loftus 2005, 196). Taking into account the time and physical stress of traveling to and from an access point, 200 meters is a far distance to travel for such a necessary resource and cannot amount to *true access*.

Through the prescription of differentiated service delivery based on household income, patterns of inequality established under apartheid are seemingly preserved. Yet municipalities have not been wholly complacent in their expansion of services and delivery to users. In fact, the changes in LOS provided in both municipalities have been positive in terms of promoting greater levels of *true access*. Recall that *true access* to a public service is the ability of service users to continually benefit from a basic level of use of that service. One important measure of the ability to continually access water is the type of connection available to citizens.

Disaggregating the data for piped water delivery presented for structural mechanisms provides for a better view of the *true access* experienced by consumers based on the type of piped access point they utilize to obtain potable water. Table 2 shows that by 2001 in Johannesburg, only 46.6 percent of users had access to water from a piped access point within their dwelling (StatsSA 2007a). Durban had achieved slightly higher coverage, with 50.5 percent

⁹ For JW Business Plan's Level of Service for Water and Sanitation, see Table 4 in the Appendix.

True Access

of households receiving piped water inside their dwellings (StatsSA 2007a). Assuming that these consumers were able to pay for the volume of water necessary to sustain a healthy life (an issue discussed below), roughly 50 percent of each consumer base had *true access* to water in 2001.

By 2007, both municipalities had accomplished much in terms of extending *true access* to users, even if utilities were operating according to minimum standards set forth by a rights-based measure of basic access. Johannesburg decreased the number of users accessing water from a point outside the yard from 12.5 in 2001 to 6.7 in 2007 (StatsSA 2007a). Similarly, Durban made strides in decreasing the reliance on piped water outside the yard from 25.2 to 19.1 (StatsSA 2007a). The decrease in this LOS and the decreased use of a piped access point inside the yard was matched by each municipality's ability to greatly increase the percent of households with at least one access point inside their dwelling. Johannesburg remarkably increased the 2001 covering of 49.6 percent to 70.8, whereas Durban expanded this level of service to 62 percent of its users from the 2001 levels (StatsSA 2007a). In the measure of *true access* based on LOS, Based on the concept that piped water inside a dwelling allows for a more maintainable benefit flow than the other two forms of piped water infrastructure, Johannesburg was seemingly more successful in expanding the highest quality of access point to users in the period between 2001 and 2007.

In measuring the *true access* of South Africa's poorest populations, it is important to narrow in on the issues they face in regards to water delivery. Low-income users in informal areas collect their water almost exclusively from a free water standpipe, ground tank, or semi-pressure tank (i.e. from a piped water access point outside the yard of a user's dwelling) (Loftus 2005, 196). "Although not explicitly developed to provide a more limited quantity of water to poorer households, the semi-pressure tank has this effect by reducing the water to [the access

point] and restricting the volume that can be obtained over a certain period” (Loftus 2005, 196).

True access is clearly not achieved in these instances. Often, users cannot even collect the amount allotted to them by FBW because the flow at the access point is so low.

Statistics South Africa reported that in 2001, just over 21.1 percent of residents of Johannesburg lived in some type of informal dwelling (2007a). Similarly, 19.1 percent of Durban’s residents in 2001 lived in informal structures (StatsSA 2007a). The minor reduction in these numbers by 2007—18.8 and 17.1, respectively—serves to illustrate that for low-income users in informal dwellings, changes in *true access* to water may not have changed so dramatically (StatsSA 2007a). It should be noted that the small reduction in these numbers is partly because of the urbanization and migration patterns at work in South Africa. Many migrants to Johannesburg and Durban settle in the peri-urban formal and informal townships, maintaining a high percentage of residents who dwell in informal housing.

The next relational mechanism of interest is that of a user’s ability to pay. A major focus of *true access* is the concept of the continuous ability to maintain and control access to a public service. For South Africans of middle- to high-income, who reside in previously developed communities with a high LOS, bill payment or adequate LOS are rarely a concern. The problems of affordability and cutoffs are relational mechanisms directly affecting the quality of life of the lowest income groups and those individuals residing in formal and informal settlements.

A few factors influence a household’s lack of bill payment. Insufficient access to capital or employment explains the large number of unpaid accounts, especially in townships plagued by unemployment. Certain areas of the city are subject to higher rates of unemployment or underemployment. Seasonal or informal work is highly common for citizens living in African

townships that are still geographically disconnected from the formal economy, quality education systems, and other opportunities to gain capital.

Additionally, the severe backlog of debts carried over from the 1980s and 1990s has added to the bills, causing interest to accrue at a rate faster than most low-income users can pay. In Johannesburg, “many households were billed during the boycott period in the 1980s contributing to debts that have allegedly never been written off” (Smith 2006, 36). Given the larger percentage of low-income households that are in debt, the billing mechanisms of a municipality are extremely pertinent to *true access*. A lack of communication between local authorities and users in relation to the level of debt a user has accrued leads to high levels of non-payment. Monthly service bills are notoriously unclear and do not distinguish debt charges from regular water billing (Peters and Oldfield 2005, 327). Reasons for non-payment differ from township to township. Smith and Hanson found that many residents of townships in the Cape Town Metropolitan municipality had difficulty understanding their bills, which made them difficult to pay but also created resentment towards the service provider (2003, 1541). Because debts are often included in monthly service bills without explanation, many residents simply do not pay.

In the Johannesburg’s largest township Soweto, home to roughly 1 million residents, the payment rate of water bills is a mere 13 percent (Smith 2006, 27). Despite attempts made to subsidize billing for water users and the installation of a progressive block charges, many users simply cannot pay the required amount. Soweto’s unemployment rate hovers around 53 percent, with more than 80 percent of the population subsisting on an income below that of the national poverty line (Smith 2006, 35). For these individuals, payment for services is simply too costly.

Inability to pay creates a hostile relationship between the service provider and the user and has, in many cases, led to more punitive cost-recovery mechanisms, as will be described below.

Smith explains that Johannesburg's attempts to cross-subsidize the mandated FBW program have actually led to higher costs of water for most users, including low-income users (2006, 23). The first consumption block of water, less than or equal to 6 kiloliters, is provided free of charge to all citizens, as guaranteed by the DWAF's 2001 FBW Program. Yet, in targeting the second block of domestic consumers—those consuming 10 kl per month—JW raised the cost of water by 32.5 percent (Smith 2006, 21). Many low-income households consume at this level because of the high number of users relying on a given access point. Ironically, “poor high-density households have been hit hard by a policy that was designed to assist them” (Smith 2006, 21). Because the South African standard for basic access allows for only 6 kl of FBW per household per month, most high-density households consume beyond the first block and cannot pay the high fees associated with this level of consumption despite a subsistence lifestyle.

An example of a low-income community in Durban would be KwaMashu C, a formal township similar to Soweto's level of development. In this area, 54 percent of households are living with an income of less than R18,000 per year¹⁰, while a full 12 percent lack any source of income whatsoever (Loftus 2005, 195). Billing records in KwaMashu C indicate that most households are consuming above the metropolitan average of water. Loftus notes that consumption patterns in formal and informal townships can be attributed to large household sizes (2005, 195). Whereas consumption of water in Durban's high-income, previously developed areas is due more to water use for lawns, swimming pools, or cars, Durban's poor households have more individuals to support at a basic level of health and sanitation (Loftus 2005, 195).

¹⁰ R denotes Rand, the South African currency.

True Access

True access to water in Johannesburg has decreased in terms of the relational mechanism of affordability. Attempts to cross-subsidize FBW have in turn made it more difficult for poor high-density households to maintain a constant flow of benefits because of their inability to pay. In Durban, similar issues have persisted throughout the period. Unemployment rates in KwaMashu C were particularly high and average income inadequate for the payment of services. This community also suffered from high-density household consumption that went beyond the 6 kl provided as FBW. Thus, FBW policy may have actually reduced *true access* for many households in that 6 kl of water is not sufficient for most low-income households and has incentivized other finance structures that hinder *true access* through the inability to pay and the increasing debt experienced by users in township areas.

Basic access is legally ensured for users even if they are unable to pay. The Water Services Act of 1997 prohibits denying any person “access to basic water services for non-payment, where that person proves, to the satisfaction of the relevant water services authority, that he or she is unable to pay for basic services” (RSA 1997, s4(3)). Yet the inability of poor households to pay has led to more punitive cost-recovery mechanisms undertaken in both municipalities. Water cutoffs and disconnections as well as the installment of trickle-valves and other service limiting devices have become a way to manage households that have defaulted on their bills.

The service cutoff creates a punitive relation between the service provider and low-income users. As has been discussed, inability to pay for services is a very real problem in low-income townships in both municipalities. When a household’s water supply is cutoff due to non-payment of bills or debts, reconnection only occurs when the affected household is able to pay a reconnection fee in addition to paying the bill initially owed. Smith and Hanson note:

As a debt management strategy, water cutoffs have proved to be ineffective in motivating service users to pay the backlogs in their accounts. Furthermore, cutoffs are an unsustainable strategy from an administrative perspective; it costs the city too much in both billing and staff time to carry out the cutoffs and reconnections (Smith and Hanson 2003, 1542).

Given the inability of many households to pay their water bills upfront, which in many cases leads to cutoffs, it is not feasible for users to pay for reconnections requiring large amounts of capital. In the case when users are simply unable to pay, the extent of the disconnection could last for several weeks or even months. The use of cutoffs seems to have eclipsed the rights enshrined in the Water Services Act of 1997. Thus relational mechanisms of *true access* negatively interact with structural, rights-based notions of access to ensure an unfavorable outcome for South Africa's poorest individuals.

Durban's water utility, eTWS, has also experimented with prepayment mechanisms in the city's poor neighborhoods, though cutoffs and evictions for lack of payment have been the most politically contentious. Unofficial numbers suggest that in early 2003, 800 to 1000 'disconnections' were taking place across the municipality *daily*, amounting to roughly 4000-5000 per week, affecting as many as 25,000 people overall (Loftus 2005, 194). Another punitive recourse is the installation of trickle valves, in which some households are not cut-off entirely from the supply of water. These homes have their flow restricted, creating a problem of under-consumption of even the FBW allotment. Loftus notes that many KwaMashu C residents could stand at the access point for many hours before filling a tank of 10-15 liters (Loftus 2005, 194).

In Johannesburg, because of Soweto's low payment rate (13 percent) and the high existing levels of debt, the city's water utility decided to move towards a more controlled mechanism of access in the metropolitan townships: prepaid meters at the taps. JW hoped to accomplish two major reforms by introducing prepaid water meters. First, the utility promised to

write off \$1.5 million in debt owed by residents of Soweto in order to streamline billing (Smith 2006, 27). Second, JW protected itself from dealing with issues of debt in these townships again by ensuring that users would only have access to water beyond the free allotted amount if they had prepaid for this access. Thus prepayment has been used as a corrective and financially protective measure to ensure payment from all service users (Smith 2006, 26).

Consequences for the nonpayment of bills have been punitive against users who often cannot afford water services beyond the free 6 kl allotted to them monthly. The cutoff of service, disconnection of infrastructure, installation of pre-paid water meters, and even evictions allow for the service provider to establish a relationship of control and dominance over the country's urban poor. In Durban, cutoffs have been widespread as well as the installation of trickle valves to ensure users will not consume more than the free allotted amount if they cannot afford to do so. In Johannesburg, JW has struck deals with certain residents to install prepaid meters and write off debt in the hopes of turning over a new leaf for the city's financial control of water development. In both cases, the restriction of the continuous flow of benefits is greatly influenced by the ability of a user to pay for water services and the restrictions placed on their level of development.

True access will not be achieved for low income users in Johannesburg and Durban until the South African level of FBW is increased to more closely match the 50 liters per capita per diem suggested by the World Health Organization and the financing of this delivery does not penalize densely populated low-income households (1993). By increasing the amount of free water available for all citizens, especially low-income users, municipalities would be increasing *true access* to water for the most vulnerable citizens as well as promoting a better standard of

living, health, and sanitation. The various cost-recovery mechanisms operating in Johannesburg and Durban reduce the *true access* to water experienced by low-income users.

Variation in relational mechanisms exists between the managerial models utilized in each municipality. Whereas cost-recovery methods have been somewhat similar in both Johannesburg and Durban, the relation of the respective service providers to the city council as well as to citizens is an important variable of difference for study. The degree of autonomy that each city council affords its respective utility is important for understanding the relation of the city council to the utility managers and the priorities of each group.

In the period this thesis studies, Johannesburg created a fully-corporatized utility that was legally separated from the metropolitan government. While the management contract had dual goals of improving operational efficiency and shifting services to be more customer focused, the former seems to have led to an overly technocratic utility that has minimized the redistributive goals once held by the ANC (Smith 2006, 15). Johannesburg's city council, as the sole shareholder, appoints the board of directors and the managing director of the company. JW, jointly created with the French Suez company, operates fully as a business (Smith 2006, 11). The directors of JW are responsible for overseeing company operations and ensuring the economic viability of the utility. Simultaneously, JW's directors are to make certain the utility adheres to city policies. The city's constantly changing developmental visions are difficult to pin down and often not in alignment with the board of director's concurrent responsibility to establish financial sustainability in service delivery (Smith 2006, 12). This causes an essential clash of economic and social interests in which social goals are often minimized to the narrowest of interpretations while ensuring commercial viability.

In Durban, the financial and managerial functions of service delivery have been ring-fenced since 1992. While the city had separated these functions from the city's other service operations, Durban remains the owner and operator of infrastructure. A fundamental difference exists in the public nature of Durban's water utility, even if financial ring-fencing can establish financially driven performance targets (McDonald and Ruiters 2005, 18).

Smith draws almost no distinction between the corporatization models of Johannesburg and Durban because they have both commercialized water in ways that are almost entirely inaccessible to poor users (2005, 183). For the measure of *true access* among low-income users, it may seem no different to deal with a corporatized public utility than one that is run through a PSP. Thus the expertise that supposedly comes with a PSP, fully corporatized model could increase the operational efficiency of a utility and some level of *true access*. However, so long as both models seek to recover costs from even the poorest of users, neither model can increase *true access* in any meaningful way.

Additionally, the relations outlined above are largely subject to change. As of 2006, the DWAF was undergoing institutional transformations to enhance their regulatory functions, which will no doubt lead to more centralized and top-down mechanisms of accountability (Smith 2006, 9). While it is important for municipal utilities to be held accountable for their services, the ANC's continued efforts to increase operational efficiency can only continue to alienate hopes of deepening democracy through bottom-up accountability mechanisms.

As has been shown, relational mechanisms concerning *true access* are quite varied and extend beyond those outlined in this paper. The mechanisms outlined in this thesis, however, are those most commonly discussed in the corporatization and service delivery literature and are of

greatest interest for the purposes of this paper. It is clear that *true access* is quite limited in both municipalities, as cost-recovery has seemingly become a priority over basic access.

Ideological Mechanisms Affecting True Access

The last mechanisms to be addressed are those concerning the underlying ideologies that inform the actions of service users, utilities, and city councils. It is beyond the scope of this study to fully analyze the complex ideological mechanisms at work in the South African water service delivery debate. Thus, a few of the major ideologies will be discussed below in order to introduce the topic.

One ideology supposedly informing service users' relations with service providers is the "culture of non-payment." Local officials tend to view high non-payment rates in townships as a "cultural residue from the apartheid period" (Smith 2006, 4). During the municipal service boycotts of the 1980s, residents of poorly serviced townships protested the mismanagement and corruption of their local authorities. In response to deteriorating service delivery, citizens organized in a refusal to pay service charges because they viewed their government as illegitimate and unwilling to improve upon local conditions (Smith 2006, 4). The argument by local officials in post-apartheid South Africa is that this "culture of non-payment" from the 1980s is still present in many townships.

Pape and McDonald discuss an oppositional ideology known as the "culture of non-servicing" (2002, 7). Whereas the culture of nonpayment argument suggests that township residents do not value water as a precious commodity nor do they see the need to pay for water delivery services, the culture of non-servicing argument blames the service provider for hostile relations. Centered on the idea that better service and infrastructure development would greatly

improve the quality of life of township residents, the culture of non-servicing argument suggests that water utilities and city councils do not care about poor users and their lack of access to quality water connections (Pape and McDonald 2002, 7). The nonpayment versus non-servicing debate hinges on payment for services. City officials and utility managers believe that low-income users refuse to pay; low-income users believe that municipal service providers refuse to provide them with a higher LOS because they cannot extract any profit from the poorest communities. Both arguments are based on somewhat misguided conceptions of the other side, and neither serves to aid in extending *true access*.

Other ideological mechanisms involve municipal governments and their willingness to hear redress from low-income users. One anecdote from Durban is instructive. Christina Manquele, a 35-year-old mother of seven from Chatsworth, a township in Durban, filed suit against the Durban Transitional Metropolitan Council in 2001. She was contesting the disconnection of her water supply under the rights enumerated to her in the 1997 Water Services Act (Loftus 2005, 193). The court's final decision stated that Manquele had 'chosen' not to limit herself to the council's free water allowance (and instead used more beyond the allotted 6 kl) and furthermore had tried to reconnect illegally, that she had forgone any right to water. Directly following the case, despite the decision which essentially reserved the right to be able to disconnect users, the municipality stated that it would no longer disconnect users, but would rather install flow restrictors or trickle valves to restrict access to free basic allowances (Loftus 2005, 193).

The notion that service users have a choice is to suggest that they have a level of agency above and beyond the historical relational mechanisms which apartheid enforced or the patterns of unemployment and lack of access to capital in South Africa's poorest and most neglected

townships. One might call this ideology a ‘culture of cost recovery’ or perhaps the ‘culture of personal responsibility.’ At the opposite extreme might be those who believe that water, as a basic human right ensured by the 1996 Constitution, should be free and unlimited. This could be considered a ‘culture of free services.’ This ideology could be quite similar to that of the ‘culture of nonpayment’ and would have to be made distinct.

Structural mechanisms incorporated the rights of users and the legal responsibilities of the state and service providers. Relational mechanisms spoke to the complex socio-economic factors to consider when regarding *true access* for users, specifically low-income users. As a group, low-income users have the lowest levels of *true access*. Finally, ideological mechanisms of interest were introduced to begin thinking about the complex political arguments involved in the responsibilities of service delivery.

VII. Conclusion of Thesis

This thesis has presented a theory of *true access* to public services that serves to expand traditional thinking about user access. In applying the theory to two South African metropolitan municipalities, an empirical study of user ability to continually benefit from water services was undertaken. This most similar case comparison measured Johannesburg’s fully corporatized model of water utility management against Durban’s publicly-run corporatized utility. By incorporating notions of relational and ideological mechanisms at work in a user’s ability to benefit from water resources, this thesis has attempted to expand thinking about access beyond the property- and rights-based notions of property currently utilized by the South African government. While basic levels of access are constitutionally and legally ensured, the narrow

definition of access draws on traditional notions of *rights* to access. This study is concerned with the many nuances affecting a citizens' ability to benefit from water resources in a sustained way.

The initial discussion of apartheid's urban segregation and development set the stage for understanding the major challenges faced by the ANC in extending and equalizing service delivery. Apartheid's deliberate channeling of privilege, capital and development to white regions has left formerly black regions to suffer from a lack of basic services and infrastructure. The transition to democracy, which took place in the early to mid-1990s, emerged through a series of transitional phases. Most notably, decentralization was established in the 1996 Constitution through a co-operative federalist framework.

Despite the ANC's tendency to promote democratic decentralization and citizen participation in the transitional period, the party's technocratic tendencies have largely controlled much of the process of decentralization, sterilizing government agencies from politics. Nowhere has this been clearer than in the issue of service delivery. Constitutionally, municipalities are charged with the delivery of services such as water, sanitation, and electricity. ANC policies throughout the 1990s have encouraged PSPs as well as full cost-recovery, steering municipal governments towards utility management models that ensure the financial viability of delivery.

These top-down policies have guided Johannesburg and Durban's metropolitan service delivery practices. Although Durban's water utility was ring-fenced in 1992, the continuing corporatized management was further encouraged by DWAF and ANC policies. Johannesburg, in response to the financial crisis faced in water delivery and at the behest of national policy, fully corporatized its water utility through the legal system and by way of establishing JW, a PSP with the French-based Suez Group. This thesis then compared these two varying models of

corporatization based on their ability to provide their respective users with *true access* to water services in the period from 2001 to 2007.

Summary of Key Findings

In the study of *true access*, three mechanisms of interest were identified to analyze the successes of each municipality in increasing access to water from 2001 to 2007. Structural mechanisms, largely rights- and property-based measures of *true access*, were found to be almost identical in Johannesburg and Durban in the time period measured. Both municipalities increased rights-based access in the period from 2001 to 2007 due to the DWAF's FBW Program. Observing property-based access gains, Durban increased access to piped water from 94.8 percent to 97.6 by 2007 (StatsSA 2007a). Johannesburg had a higher starting level of piped water access (97 percent) and increased access to a level of 98.3 by the end of the studied period (StatsSA 2007a). Durban surpassed Johannesburg in terms of the relative extension of service, whereas Johannesburg still led in terms of the overall number of consumers reached. However, both can be acknowledged for increasing *true access* to users based on the indicators observed.

Relational mechanisms were the most pivotal for this study. First, disaggregating the forms of piped access users experience into the three basic types of piped access points (inside the dwelling, inside the yard, outside the yard) helps deepen one's understanding of the 'continuous ability' of a user to benefit from water resources. The data shows that a mere 50 percent of users in each municipality were able to access water from a piped access point within their home (StatsSA 2007a). Johannesburg was able to increase in-home access to an astonishing 70.8 percent of users by 2007 (StatsSA 2007a). Durban also made strides for this level of access, extending the highest form of access to 62 percent of users by 2007 from the 50.5

percent served in 2001 (StatsSA 2007a). Thus, in terms of this mechanism of *true access*, JW, the fully corporatized utility, seems to have surpassed the publicly-run eTWS.

However, other relational mechanisms at work in both municipalities inform the quantitative data presented above. A user's ability to continuously benefit from water resources hinges on that user's ability to pay for water beyond the amount allotted for free. High non-payment rates plague low-income townships and informal settlements across the country. Johannesburg's attempt to cross-subsidize FBW has ironically hindered access for high-density, low-income households because of the pricing strategy undertaken. Durban has many cost-recovery mechanisms which hinder a user's *true access* because of service downgrading or cutoffs. This data has been largely anecdotal or incomplete, and the limitations of the analysis will be discussed in the coming section. However, in terms of *true access* to access points which are convenient and therefore more likely to be utilized continuously, Johannesburg's users achieved a greater level of *true access* in the period from 2001 to 2007.

Lastly, the ideological mechanisms underlying *true access* in each case inform the political debates around access to and payment for water infrastructure and benefit flows. This thesis juxtaposed the 'culture of nonpayment' and 'culture of non-servicing' arguments to show just a few of the many ideological mechanisms at work in the service delivery debate.

True access has been defined as the ability of water service users to continually benefit from a basic level of water through municipally-owned infrastructure. Utilizing this definition, it is clear that cost-recovery mechanisms in both municipalities have hindered *true access* for low-income users. If viewed from a traditional rights-based standpoint, access to water has increased for users in both Johannesburg and Durban, and most notably the former. However, when viewed more expansively—with the criteria established in the theory of *true access*—it becomes

clear that much remains to be done in terms of pricing and poverty alleviation in order to really expand *true access* to those who are in desperate need of water resources.

Implications for Government Policy

This study has put forth a theory of *true access* to expand how policy makers and government officials can conceptualize access to the services they provide. While it is impressive that the South African government legally ensures the right to water, the complex web of influences affecting a user's *true access* to water (or any service, for that matter) must be taken into account when developing redistributive or poverty alleviating government policy. The theory of *true access* established here can serve as a guide by which structural, relational, and ideological mechanisms affecting *true access* can be identified.

Limitations of the Study and Future Research

The inevitable limitations of time, location, and data have restricted this study. My analysis of the relational mechanisms concerning cutoffs, restrictions on connections, and evictions was largely qualitative based on a lack of quantitative data. In order to fully understand the *true access* experienced by low-income users in Johannesburg and Durban, sub-municipal data measuring levels of *true access* in high-, middle-, and low-income communities would be instructive for intra-region comparison. Data concerning cut offs would be crucial to undertaking another study of this kind. Also, data regarding water quality consistency could be added as another structural mechanism affecting a user's *true access* to water. Quality, as well as quantity and proximity to an access point, have been guaranteed by DWAF legislation. Similarly, the anecdotal development of ideological mechanisms in this study could use a more depth, perhaps from conducting interviews with utility managers and users of various income groups.

Appendix

Table 3: Population Data				
	Johannesburg Metropolitan Municipality		eThekweni Metropolitan Municipality	
<i>Year</i>	2001	2007	2001	2007
<i>Municipality population (Number of Households)</i>	3,225,309 (1,006,742)	3,888,180 (1,165,014)	3,090,122 (786,746)	3,468,086 (833,859)
<i>Annual municipal population growth rate (2001-2007)</i>	3.4%		2%	
<i>Total municipal population growth rate (2001-2007)</i>	20.6%		12.2%	

Source: StatsSA 2007a; author's calculations.

Table 4: Level of Service for Water and Sanitation		
Level of Service (LOS)	Status of Settlement	Water Services
LOS 1	Impermanent informal	Communal Tank
LOS 2	Permanent informal or formal	Yard standpipe not connected at plumbing (unmetered)
LOS 3	Permanent informal of formal	Metered house connection

Source: 2002/2003 JW Business Plan (Smith 2006, 25).

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