How much water is enough? Domestic metered water consumption and free basic water volumes: The case of Eastwood, Pietermaritzburg

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Abstract

This article is based on an in-depth case study of urban water services to poor households in the community of Eastwood, Pietermaritzburg, in the province of KwaZulu-Natal, South Africa, for the period 2005-2007. The article adopts a mixed-methodological approach. Despite government progress in delivering water infrastructure post-1994, ability to pay for the service limited access. The free basic water policy, initiated by national Government in 2001, sought to provide all citizens, but particularly the poor, with a basic supply of free water. The concessions were envisaged to improve public health, gender and equity, affordability, and as an instrument of post-apartheid redress and poverty alleviation. Once free basic water (FBW) was declared a new imperative for local government the debate on exactly how much was enough, why 6 kℓ was chosen, the structure of the offering and broader state intentions opened up. This article positions the FBW offering within the prevailing international discourse on 'need' calculation. Through the exploration of actual water consumption patterns of urban poor households, the ideological assumptions and 'scientific' calculations underpinning this discourse were found to have ignored the fluidness of use as well as the value of water beyond mere physiological need. In this regard, access to FBW was conditioned on a small household size and further predicated the modification of normal water activities and lifestyle and carried a disproportionate social cost. The free basic volume of 6 kℓ was found to have no resonance with actual water volumes consumed by the majority of Eastwood households.

Keywords: free basic water, indigent, basic water requirements, water usage, municipal water services, urban poor household

Introduction

Before 2001 all water actually consumed had to be paid for, since the new Government only committed itself initially to the Reconstruction and Development Programme's objective of providing access (i.e. infrastructure) (ANC, 1994; DWAF, 2002b). People had to pay for all their water and their ability to pay restricted access even when infrastructure was offered (Kasrils, 2001). In 2001 free basic water (FBW) was introduced as a major 'pro-poor' intervention that forms part of the 'third way' between welfarism and neoliberalism. The FBW policy, on the one hand, seeks to provide all citizens, but particularly the poor, with a basic supply of free water (6 kℓ per household per month; 200 ℓ per household per day or 8 members per household using 25 ℓ per capita per day), but on the other seeks to school the poor in values of responsibility. The policy was initiated by national Government based on the principles of improving public health, gender and equity, to meet the constitutional right of South Africans to water and as a developmental concession in the context of post-apartheid redress and poverty alleviation (ANC, 2000; DWAF, 2002a). By 2003 the state argued that FBW was a component of the 'social wage' and was increasingly to be delivered to targeted populations on a means-tested basis through local municipal 'Indigent Policies' (RSA, 2000a; DPLG, 2005; Schreiner, 2007).

This paper explores the issue of the volumes of water received and required by poor households to meet their consumption needs. Via the optic of free basic water, this research considers how much, and how, water services are offered through the FBW Policy and the Indigent Policy. In this regard, municipal consumption records are analysed together with how women actually use water in the home, and through examining the effects of such concessions within the functioning of homes. This moves a step beyond the quantitative basic water requirement debates and contributes to a more robust picture of the water volumes within an understanding of the notions of water-related needs, dignity and gendered equity as perceived by poor women. Water services are understood as more than a resource and positioned within a closer proximity to poor households' notions of time, dignity and citizenship within the post-apartheid context.

This article explores notions and conceptions of water usage, the metered volumes of water used, comparisons across and within various defined groups, and problems around the adequacy of FBW volumes. The influence of restriction, tampering and payment scope on consumption levels is investigated; and the conditions of households' access to FBW is analysed. Problems around limited water volumes are positioned within the orthodox framework of basic water requirement and 'need' determinations.

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How much is enough – the water volume debates

Once FBW was declared a new imperative for local government the debate on exactly how much was enough and why 6 kℓ was chosen opened up (see, for example: Desai, 2001; Pape, 2002; McDonald, 2002a; McDonald, 2002b; Harvey, 2003; Smith, 2003; Bond, 2004; Cottle 2004; Ruiters, 2005; Smith & Green, 2005; Deedat, 2006 and Macleod, 2007; Schreiner, 2007; Muller, 2008). Two threads run through the debates on water requirements: the first is that of the influence of international domestic water quantity 'recommendations' and the second is that of the issue of scarcity. The former introduced scientific contestation within international and national discourse; the latter was even more vexed, with international scholars interrogating prevailing 'population-resources' ideological assumptions; which actually turned the notion of needs and 'resources' and public finance 'scarcity' on its head.

Over the years, a number of international agencies posted recommendations on water requirements of between 20 and 40 ℓ per capita per day (Gleick, 1998). For example: by the United States Agency for International Development, the United Nations High Commissioner on Refugees, the World Bank, the United Nations Development Programme and the World Health Organisation. Much of the literature that is available frames basic water requirements in rights-based or physiological and biological terms, that is, the volumes of water to meet absolute/emergency needs: prevent dehydration, cook a basic staple meal and ensure basic hygiene (Gleick, 1996, 1998). Moreover, very little justification, if any, is provided in how the water requirements were calculated. For example: the United Nations Development Programme, via its Human Development Report (2006: 65) advocated that 'every person has a human right to a minimum of **about** 20 ℓ each day' in terms of 'establishing social minimum provision levels' (emphasis added). No justification is given: '20 ℓ' is simply repeated in various guises 13 times throughout the text. Gleick (1996: 90) himself, albeit with notable omissions, had recommended a basic water requirement as a 'fundamental human right' of 50 ℓ per capita per day: allowing 15 ℓ for bathing, 10 ℓ for cooking, 5 ℓ drinking water and 20 ℓ for sanitation and hygiene.

Consistent with most of the international agencies indicated above, DWAF did not provide explanations for how it had calculated that 25 ℓ was enough to meet 'basic' needs. Instead, the key justification for DWAF's quantification of FBW offered is the World Health Organisation's (WHO) 'recommendations' of 25 ℓ per capita per day. The problem however is that the original source of these WHO 'recommendations' is elusive and has caused DWAF great consternation. Around 2003, however, DWAF distanced itself from the WHO 'recommendations,' stating '… the amount of 25 ℓ of water per person is not based on a World Health Organisation standard, but is a widely accepted and internationally applied norm' (Kasrils, writing in *The Witness*: 20 November 2003). This refutation coincided with a contestation from within the WHO itself. Howard and Bartram (2003) repudiated the claim that the WHO had issued recommendations on domestic water requirement standards and further suggested that the document referred to might be the Global Water Supply and Sanitation Assessment 2000 Report (WHO and UNICEF, 2000), which may have been misinterpreted by the conflation of actual water requirements with proximity of water source and water service level.

> 'Despite common claims of WHO standards relating to water quantity, WHO has not previously published specific guidance on the quantities of water as targets for health protection and promotion' (Howard and Bartram, 2003: 2).
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> 'The WHO/UNICEF Joint Monitoring Programme, which produces the Global Assessment of Water Supply and Sanitation data, describes reasonable access as being "the availability of at least 20 ℓ per person per day from a source within one kilometre of the user's dwelling" (WHO and UNICEF, 2000). However, it should be noted that this definition relates primarily to **access** and should not necessarily be taken as evidence that 20 ℓ per capita per day is a recommended quantity of water for domestic use' (Howard and Bartram, 2003: 1).

In 2007, in response to the *Mazibuko vs. City of Johannesburg* case and attempting to downplay the original claim of a link to the 'WHO recommendations', and moreover Kasrils's (2003) own claim, Schreiner (2007: 47) stated, 'At the time that South Africa's water policy was being established, the relevant international agencies had not taken a formal position on quantitative minimum standards.' Moreover, those involved in the conceptualisation of the volumes of FBW, in response to the seminal Howard and Bartram (2003) study which posited a positive correlation between improved service levels and higher volumes of use, further cited a decreased household size (4.48 in 1996 to 3.8 in 2001) and 'welfare policy of general application' (Schreiner, 2007: 41) and claimed that the WHO had 'come around' to the South African standard (see Muller, 2008:82).

The Howard and Bartram study (2003) actually did not resound with the South African standards; what it did was to show that water volumes consumed have more to do with proximity of water source and service level. For example: if the distance between the user and the water source moves from 100-1 000 metres to an on-site source then consumption would increase from 20 ℓ per capita per day to 50 ℓ, with subsequently lowered health concerns (Howard and Bartram, 2003: 22). That is, it highlighted the paradox of the South African case: improving service level and bringing infrastructure closer to the user whilst simultaneously limiting the water at the source, in other words, the construction of a system of access which at its final point, instead of the realisation of ('natural') increased consumption; provides ('unnatural') restriction.

Macleod (Durban's water manager) has argued that free basic water was invented in Durban by his Water Service Department. Prior to 1997 the Durban Metropolitan Council, under his leadership, was tasked with investigating the water access options of citizens residing in the burgeoning informal settlements springing up around Durban (Macleod, 2007: 3). Macleod (2007) noted that the chief means of water access for these citizens was via the purchase of water at local trading stores:

> '... at great cost. This manner of obtaining water was unsustainable and created significant social and financial problems in the area. This lead to destruction of water infrastructure and fire hydrants as illegal methods of connection were sought' (Macleod, 2007: 4).

This, according to Macleod (2007), required more thorough research which culminated in the provision of 200 ℓ per day instituted via the daily filling of a 200 ℓ household water drum

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at a minimal charge. During 1998 the eThekwini Municipal Council, as part of strategising around ways to ensure that poor households had permanent access to a water supply, assessed the bailiff-operated system implemented in Durban's informal settlements, and found that 'the amount of money that was collected by the Council for the water supply was in fact equivalent to or less than the costs of administering the collection of the amounts from the relevant communities' (Macleod, 2007: 4). The outcome was the decision to implement the drum water supply system, providing 200 ℓ per day or 6 kℓ per month, at zero charge (Bailey, 2003; Macleod, 2007). Macleod (2007: 3) states that during 1997 and 1998,

> 'eThekwini Municipality was instrumental in introducing free basic water to South Africa and in coming up with a measure for the amount of water that should be given free to indigent communities.'

In 2000, with ANC discussions regarding the provision of free basic water, the eThekwini Municipality experience became instructive:

> 'In my view [Macleod's] the experiences in eThekwini Municipality influenced Government policy when it came in 2000 to determine the amount of free water that should be provided by all municipalities. I was involved in that decision and I personally engaged with Minister Ronnie Kasrils, the then Minister of Water Affairs and Forestry, during this time' (Macleod, 2007: 5).

The former Water Minister and others close to Government have affirmed the influence of the Durban case on the conceptualisation of the Free Basic Water Policy (Kasrils, writing in *The Cape Times*: 19 July 2000; Sussens and Vermeulen, 2001; Bailey, 2003).

All of the above points to the possibility that the free 6 kℓ was based on an illusory, even flawed document, and, with the 'Durban experiment' setting a precedent, itself based on the conceptualisation of water on previous in-access (informal trading store or rural provision), shaped by technocratic methodologies and framed within a narrow economic milieu implored a more rigorous debate. Yet, South African scholars did not sufficiently interrogate volumetric concessions. Ignoring the implications of the Howard and Bartram (2003) study, national Government defended its policy by arguing that it had to first ensure that all households were connected to service systems before augmenting volumetric allocations to those already connected. This was dubbed the 'some for all rather than all for some' principle (Schreiner, 2007: 61). Conceptualising basic water requirements within similar frameworks of 'scarcity', the South African left attempted to calculate how much poor households 'really' need in contrast to the 25 ℓ per capita per day offered by the state (see Cosatu and Samwu, 2003; and Samwu, 2007).

In sharp contrast to the 'scientific' and ideologically 'neutral' discourse above, international scholars (Harvey, 1977, 1996; Illich, 1993) on the 'radical' left interrogated the assumptions underlying 'scarcity', 'resources' and 'needs.' In this, they drew on Marxist critiques that 'resources' must be understood as 'relational rather than absolute' (Harvey, 1996: 226 citing Ollman, 1971). That is, to declare resources as 'absolute' means that society has no control over them, when in fact resources are given value, transformed into utility by society, and defined in relation to a particular time (Harvey, 1996). For example: apartheid South Africa saw a particularly and peculiarly racialised notion of water need. This was reflected in the apartheid-era urban water architecture, which constructed different conceptions of need, and standards (see Mathewson, 1957). Core to this thesis then, is that, consistent with Marxist interpretation, needs are not purely biological, but also socially and culturally constructed (Harvey, 1977; Illich, 1993). Moreover, Harvey (1977: 236) conceives that scarcity is not inherent in nature but socially and culturally determined; scarcity is produced via human activity and managed via social organisation. Returning to the relational aspect of resources; Harvey (1977: 236) like Marx, in the context of a society dominated by elites posits its relationship to the 'mode of production' and notes, 'Scarcity is in fact necessary for the survival of the capitalist mode of production, and it has to be carefully managed, otherwise the self-regulating aspect to the price mechanism will break down.' Central to such an interpretation is that the prevailing views about the population-resources relationship as neutral, absolute and outside of 'our' control are in fact 'political in origin and have political effects' (Harvey, 1977: 237).

However, it is not Harvey's voice or even Marx's that imbues the local and international population-resources discourse, but Thomas Malthus's: there are simply too many people and not enough resources. Under the Malthusian assumption of 'overpopulation', someone or some people must be made redundant (Harvey, 1977). In a milieu of a society dominated by an elite or other powerful interests the question of who actually must bear the cost is quite simply 'them' – those people that have less power and 'less relevance for the economy' (Illich, 1993: 95); that is 'the non-elite invariably experience some form of political, economic, and social repression' (Harvey, 1977: 237). Indeed, throughout history purity and cleanliness have been used to categorise and distinguish different groups of people (see Douglas, 1966: 1-28); and by default the access to resources, particularly water, needed to facilitate this differentiation. An analysis of cleanliness and dirt is closely related to notions of fear, race and class.

Let us return to the free volume of 6 kℓ; contrived for the settlement of 'basic needs' or 'basic requirements.' Illich (1993) and Gronemeyer (1993) argue that the concept of 'basic needs' is a derivative of development which sought to split humanity above and below a measurable standard of decency and normality. Core to this was that 'basic needs' could be expressed, via technical measurements, in monetary terms which called in a '**new kind** of bureaucracy to establish [scientific] **criteria** for what was acceptable – and what was not" (Illich, 1993: 92, emphasis added). 'Needs,' divorced from the peculiar social, cultural and place/time context, are re-determined 'scientifically,' by 'experts' (Rose, 2006: 155), for the needy.

It is clear that the decisions regarding how basic water requirements are framed; who is responsible for requirement construction and indeed the purpose of such conceptualisation is politically significant and further highly subjective. Much of the justification for and defence of the final FBW volumes are consistent with the dominant discourse which frames 'basic' water requirements within a rights-based/humanitarian crisis approach which invoke a 'scientific' response to the resolution of physiological needs. This article will explore the appropriateness of such an approach within South Africa's developmental and historical context by analysing the water consumption patterns, water use preferences and values of poor households.

Methodology

This paper is based on a doctoral thesis, which sought to show that 'pro-poor' programmes often do not alleviate the poverty and struggles of poor households, but instead intensify the domestic, social and economic burden of the poor, particularly women (see Smith, 2009). The geographic scope of the article is one community, Eastwood, in Pietermaritzburg, KwaZulu-Natal, allowing for in-depth interpretation and analysis, primarily concentrated at the household level. Eastwood is urban and poor. The inquiry is limited to domestic residential households that received billed, metered and in-house water supplies before and after the introduction of the FBW and Indigent Policies. Typically housing is described as old apartheid council housing (tenement blocks, semi-detached houses and small single houses), homes had baths, no bathroom sinks, kitchen sinks, flush toilets (large cisterns of ± 11 ℓ), geysers, washing was done by hand in a basin or the bath. Pietermaritzburg's municipal authority is called Msunduzi Municipality (KZ225), a Category B1 municipality, which is located under the uMgungundlovu District Municipality (DC22). The data covered the period January 2005 to June 2007.

The study design incorporated a number of different paradigms and perspectives, consistent with a praxis epistemology. Primarily it was a contextual one, using the case study approach. The prime quantitative method was the survey approach to provide a framework of data, which was then enriched by qualitative methods of focused semi-structured interviews (life-stories), informal interviews, participatory observation, focus groups and house visits.

A combination of cluster and random sampling was used. Quantitative data was derived from the household surveys (n=336). Analysis was done in Statistical Program for the Social Sciences (Version 15.0). Descriptive and inferential analysis of statistics was undertaken. Significance was set at the 0.05 level. Values were considered as outliers if they exceeded the third quartile (75%) plus 1.5 (interquartile range) (q_3 +1.5iqr). Where necessary, figures were rounded off to 1 decimal point.

Data were sourced via 336 individual Eastwood household bills for the period August 2005 to December 2005 and for the tariff period 2005/06. The data garnered from the 3 bills per household, accessed directly from the municipality, were then augmented with the survey whose questions related to service package, FBW, consumption activities, restriction and demographics. In addition, data from Msunduzi Municipality and DWAF sources were employed.

In the results sections, the 336 households have been put into specific 'tariff or user groups' for substantive analysis: these are 'conventional,' 'indigent' (short for 'applied indigent'), 'tampered' and 'restricted.' To be clear, categories are qualified briefly: 'conventional' households are charged standard Msunduzi municipal tariffs – they are not registered as 'indigent' nor are they restricted. (Note that households charged at conventional/standard tariffs are not necessarily better off in a socio-economic sense than 'indigent' households; it simply means that these households are not registered as 'indigent'.) 'Indigent' households are those registered as 'applied indigent' thereby receiving water subsidies and they may or may not be restricted; 'tampered' households are 'bad' debtors charged standard Msunduzi tariffs and 'indigent' households that had tampered with restriction washers. (Note that 'bad' debtors simply means that the 15 households were restricted/tampered as per the survey; this does not mean the other 252 households from the 'conventional' group were not in debt – just that punitive action in the form of restriction had not been enacted for them.) 'Restricted' households are 'bad' debtors charged standard tariffs and 'indigent' that had not tampered with restriction washers. The reason 'bad' debtors and 'indigent' households were disaggregated into the 'tampered' and 'restricted' groupings was that these households exhibited characteristics atypical of the aggregated 'indigent' or 'conventional' group segmentation and required further scrutiny. The 'indigent' households were not duplicated in the sum total.

All monetary values referred to in this paper are in South African Rands (ZAR), hereafter referred to simply as Rands (R).

Conditional free basic water in Msunduzi, Pietermaritzburg

This section outlines the policy architecture, parameters and procedures for the delivery of free basic water in Pietermaritzburg (hereafter referred to as Msunduzi). In this regard, and explained in detail in the paragraphs below, Msunduzi applies 2 different options for free basic water delivery: if a household's consumption is equal to or less than 6 kℓ per 30-day period, or if a household registered and qualified as 'indigent.' Water volumes and tariff structures for households charged at standard tariffs and households registered as 'indigent' are described, and in the latter case uptake procedures are outlined. Credit control and debt collection policies and procedures are briefly presented with specific reference to water restrictions for 'bad' debtors and 'indigent' households. The policies described apply to Eastwood.

Although the policy is driven by the National Department of Water Affairs, the policy is interpreted and implemented by local government. Municipalities have 3 options when deciding how to implement the FBW Policy (DWAF, 2002a: 32):

- **Option 1** Provide a free allocation of water <u>just to the poor</u> free of charge (i.e. targeted)
- **Option 2** Provide a free allocation of water <u>to everyone</u> free of charge or
- **Option 3** Provide a free allocation of water <u>to everyone free of charge but if domestic users consume more than the free allocation than they must pay for the free allocation of water and any additional kilolitres consumed</u>.

On 1 December 2001, Msunduzi adopted the **third** delivery option: a universal application of free water for all domestic consumers **provided they remain** within the free volume allocation (≤ 200 ℓ per day per billing period: (i.e.) 30 days x 200 ℓ = 6 kℓ). The FBW volume offered to individual households each month is not uniform. It is dependent on the period between each monthly meter reading date. It is calculated as follows: number of days between meter reading dates x 200 ℓ = total free water volume for that particular month. If a domestic consumer uses ≤ 200 ℓ per day per billing period then water is free; if a domestic consumer uses more than the free volume allocation (> 200 ℓ per day per billing period) then free water is waived: such consumers will be charged for their 'free water,' and any additional kilolitres consumed (Msunduzi, 2001).

In July 2004, Msunduzi introduced the means-tested Indigent Policy. Msunduzi's FBW Policy was amended to incorporate Options 1 and 3. The emergence of the Indigent Policy as an instrument in targeting basic services and subsidies for vulnerable groups is of great consequence. The Indigent Policy applied in Msunduzi has markedly shaped the interpretation and application of free basic services in

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Msunduzi. There is no blueprint Indigent Policy; like the FBW Policy, municipalities are permitted space to interpret.

Indigent qualification conditions include total monthly household income, house and land values. Total monthly household income may not exceed R1 957 for 2005/6 (Municipal Consolidated Billing (MCB), 2005). Different categories of indigent households have been devised: automatic indigents – house and land valued under R30 000; applied indigents – house and land valued between R30 001 and R40 000; and applied indigents – house and land valued over R40 001. The different procedures for 'automatic' and 'applied' indigent uptake are important. The former is governed by administrative procedure, the latter by personal application and registration.

There is no application process for 'automatic indigents'. This category is automatically identified via computer systems and charged accordingly. Restriction devices are automatically installed in the homes of 'automatic indigents' (MCB, 2005). Households wanting to register as 'applied' indigents must meet income, house and land value qualification conditions and submit personal and residential information. Moreover, households must agree to the following: a reduction of amperage (20 A or less); a water restriction device (limiting water consumption to 12 kℓ per month); and sign an acknowledgement of debt (Application for Indigent Status, 2005). 'Applied' indigent households, once registered, must further abide by certain payment conditions. That is, they must pay their current accounts every month, in full and on time. Once a household has registered as an 'applied indigent,' they are only able to deregister after a year has passed. Indigent registration processes and conditions are typically arduous and humiliating (see Centre for Applied Legal Studies, 2008; Smith 2009).

Tariffs applied in this article cover the period 2005/6 (refer to Table 1). Current standard tariffs (2005/6) dictate that the first block of 6 kℓ is charged at R25.44 and the second block of 6 kℓ+ is charged at the standard tariff rate of R8.37 kℓ (all figures include Value Added Tax). In 2004, with the introduction of the Indigent Policy, the tariff structure and tariffs for standard users (defined in this paper as 'conventional') remained unchanged. The tariff structure for 'applied indigents' included 3 blocks: 0-6 kℓ (free regardless of whether more water was consumed); 7-12 kℓ at subsidised rate of R3.41/kℓ; and 12 kℓ+ balance at standard tariff of R8.37/kℓ. Note that the 'applied' indigent rates for 7-12 kℓ are cheaper than standard FBW (0-6 kℓ) rates per kilolitre (R3.41/kℓ versus R4.24/kℓ). The tariff structure for 'automatic indigents' remained unchanged (2 blocks); however the first block (0-6 kℓ) was guaranteed free (regardless of whether more water was consumed) and all kilolitres consumed thereafter were charged at the standard tariff of R8.37/kℓ. Indigent households (both 'applied' and 'automatic') were the only category of users guaranteed their free water regardless of volumes consumed, conditioned on the installation of a restriction device.

Restricting household water supplies and disconnecting electricity are primary credit control and debt collection strategies. As indicated previously, 'indigent' households are automatically restricted. 'Conventional' households are restricted for bad debt. Different types of restriction devices are installed: the type of restriction device chosen is dependent on the type of meter, the purpose of restriction and cost (MCE, 2005). The restriction washer is the cheapest device, most frequently used, easiest to tamper with and is the one used most prevalently in Eastwood (MCE, 2005). The copper restriction washer is coin-like with a small round hole in the centre. The flow rate through the 1mm hole provides on average '8.33 ℓ per hour' (MCE, 2005). The actual flow rate for each erf is unknown however, as flow varies for gradient, water pressure and dirt particles within the system (MCE, 2005). The washer reduces water flow to a trickle and only one tap is operable at any time.

Results and discussion

Variations in water consumption between groups in Eastwood

Household consumption data was garnered from municipal consolidated bills (billed water consumption component of bill over average of three consecutive months). This data originated from water meter readings, which although commonly held to be inaccurate (Baumann and Boland, 1998) are still the measuring instrument of choice. Noting this as well as the financial impossibility of actually installing new meters at every household surveyed, rigorous quality control measures were implemented. The large sample size further tempered against meter inaccuracies. Consumption patterns presented are however consistent against other variables. They suggest strong correlations and significances.

The next sub-sections will consider metered household consumption patterns within and across 'tariff and user' groups for the surveyed Eastwood households. The 'conventional' group will be presented first, where the prime focus will be on the relationship between household size and consumption levels. Thereafter volumes used by 'indigent' households will be presented and discussed, followed by a comparison between 'restricted', 'tampered,' and 'not-yet-restricted' water users, including consumption in relation to water access packages (specifically FBW), technical limitations and household responses to restriction.

Table 1
Msunduzi water tariffs for standard versus 'indigents': 2005 (inclusive of Value Added Tax)

User category	Consumption	1st block	Tariff	2nd block	Tariff	3rd block	Tariff	Free basic water
Standard tariffs*	Consuming ≤ 6 kℓ/month	0-6 kℓ	Free (conditional)	6 kℓ+	Not applicable	None	-	✓
	Consuming > 6 kℓ/month	0-6 kℓ	R25.44 @ R4.24/kℓ		@ R8.37/kℓ	None	-	×
'Indigent' tariffs	Automatic	0-6 kℓ	Free (unconditional)	6 kℓ+	@ R8.37/kℓ	None	-	✓
	Applied	0-6 kℓ	Free (unconditional)	7-12 kℓ	@ R3.41/kℓ	13 kℓ+	@ R8.37/kℓ	✓

Source: adapted from Msunduzi Tariff Policy (2005/06).
** Note that households charged at standard tariffs are not necessarily better off in a socio-economic sense than 'indigent' households; it simply means that these households are not registered as 'indigent.'*

Table 2 'Conventional' group: mean household and per capita consumption by household size ≤ 6 (n=194)					
Household size (HHs)		Consumption per household (HH)		Consumption per capita	
	n	per month (kℓ)	per day (ℓ)	per month (kℓ)	per day (ℓ)
1	8	4.4	147	4.4	147
2	17	8.8	283	4.4	148
3	63	12.5	417	4.2	139
4	59	15.3	512	3.8	128
5	35	17.9	596	3.6	119
6	12	18.5	617	3.1	103
Total	194	14.1	467	3.9	131

'Conventional' group: metered water consumption

This consumption analysis is based on the 252 households included in the 'conventional' tariff grouping where consumption is not limited by any technical or administrative means. The analysis excludes a minority of households with more than 6 members per household (23) since the sample numbers were too few to render a meaningful average; and excludes a further 35 households which incurred bills that indicated meter reading disputes and errors or major consumption inconsistencies over 3 total bills. Unlike bill totals, which households are expected to pay regardless of error, consumption inaccuracies distort average household consumption volumes. The final household tally in this analysis is therefore 194.

Testing a number of relevant demographic variables (age, gender, illness status, socio-economic status, employment status, social security status, time at home etc.) and keeping the housing types constant against consumption patterns (see Baumann and Boland 1998: 22-26), it was found that the variable of household size had the strongest correlation with water consumption (1.000, sig. (1-tailed) $p<0.0001$). In light of this, it was clear that merely calculating an average for this group was going to miss much of the consumption dynamics. Consumption patterns were therefore calculated within household size groups.

There are significant consumption differences between small and larger households (refer to Table 2). For example: households with 2 members use half the amount of households with 6 members. That is, there is a positive correlation between household size and monthly/daily household consumption; as household size increases so too does monthly/daily household consumption. There is however, an inverse correlation between household size and per capita consumption. The data showed that as household size increases, household monthly consumption also increases, but each member within the larger household uses less per capita per day (and month) than smaller households (also see Baumann and Boland 1998: 22-26).

There are significant differences in variation for per capita consumption between household sizes. (average consumption for the surveyed Eastwood households 14.1 kℓ/month – mean household size of 3.7 members). Households with 3-6 members benefit from economies of scale; with increasing benefit derived with each additional member. For example: sharing baths, washing clothes, cooking, cleaning home etc. It is important to note however, that sometimes, even with larger households, economies of scale do not cover all water activities for all age, gender or illness demographics. For example: baby's bath water is not shared and baby's clothing is washed separately; boys and girls up to their teens may share water but after this age boys typically don't share bath water but girls continue to share water with sisters, aunts or mothers; men typically do not share bath water; if a member is very ill, bath water and washing is typically not shared, after urination toilets are immediately flushed, special food in separate pots may need to be prepared; menstruating women have to flush immediately and bath separately (or after someone); young women (older teenage girls) tend to flush fastidiously; toilets have to be flushed after defecation, for most people at least once a day (Life-story interviews and survey data, 2006). In this regard many different factors affect how water is used in the home (not just household size); typically usage is fluid and consistent with particular household demographics, cultures, dignity values, time and the broader socio-economic environment (Ibid., 2006).

'Indigent' households: metered water consumption

This consumption analysis is based on the 35 households included in the 'indigent' tariff grouping where consumption is meant to be limited by technical means. One 'indigent' tampering household was excluded from this analysis as it had a major leak and drastically skewed mean data. The final 'indigent' household sample size used in this analysis is 34. However, as noted, households have responded to such limitations in different ways. Eleven 'indigent' households are 'not-yet-restricted'. Interviews with several such households suggested that they had 'chased the municipal employees away when they came to restrict us' (Life-story interviews, 2006). Such a situation of unlimited access could however also be due to delayed administration procedures and hence 'not-yet-restricted' households will in all probability be restricted in future. The other responses include tampering with restriction washers.

The mean consumption for the 'indigent' group was 10.4 kℓ per household per month (refer to Table 3). There were however acute differences within this 'indigent group' (household size as a factor in determining tampering will be explored later). 'Restricted' households consumed ± 8 kℓ (65%) less than 'tampered' and 'not-yet-restricted' households (mean for 26: 12.3 kℓ) and their 'conventional' group counterparts respectively.

Water restrictions to less than 6 kℓ take on a special type of significance for 'indigent' households. The Msunduzi Indigent Policy contract stipulates that water be restricted to 12 kℓ. The problem is that calculated flow rate of the restriction washer used for 'indigents' is 6 kℓ (if a tap is left on 24 hours a day) (MCE, 2005; DWAF, 2007). 'Restricted' 'indigent' households consumed 4.3 kℓ per month; this is 1.7 kℓ less than the 6 kℓ free water allowance. 'Restricted' indigent households noted that the savings of ±R18 (if there were no FBW or Indigent Policy at all in Msunduzi) were not perceived to adequately compensate for the negative social consequences of a reduced

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Table 3 'Indigent group': mean household and per capita consumption per restriction status (n=34)				
'Indigent' households [34]	n	Household size	Consumption per HH per month (kℓ)	Consumption per capita per day (ℓ)
'Restricted'	8	2.9	4.3	53
'Tampering'	15	4.8	13.4	101
'Not-yet-restricted'	11	4.2	10.9	99
Mean for all	34	4.1	10.4	89

Table 4 'Restricted' and 'tampered' group: mean household and per capita consumption per restriction status (n=36)				
'Restricted' group [36]	n	Household size	Consumption per HH per month (kℓ)	Consumption per capita per day (ℓ)
'Restricted'	11	2.9	4.1	49
'Tampered'	25	4.5	14.4	117

supply (Life-story interviews, 2006). For example: restriction washers severely reduced the water pressure in household water systems: a flow rate of 8.33 ℓ per hour implicated that filling a 20 ℓ bucket of water meant ±2 hours spent waiting. Only one tap was operational at a time. Water usage activities therefore had to be performed sequentially – a woman, the traditional homemaker, could no longer multitask. Instead of performing a myriad of water activities simultaneously; for example: running her children's bath, rinsing the potatoes for supper, filling the kettle, soaking her children's school shirts and flushing the toilet; when her water is restricted – she can only do one thing at a time. A direct result of this was that a restricted household typically had a scattering of containers of all shapes and sizes around the house: used either to save dirty water for re-use elsewhere to flush the toilet manually, bath water to soak clothes or to store clean water to be used to bath, wash clothes or drink. Water was recycled until the smell could no longer be tolerated. Homes smelt – the smell of urine waiting for the cistern to fill, seeped through the home. Water could not be used freely. That is, at the time it was needed, in sufficient volumes required and in the mode preferred. Every water activity had to be consciously thought about, calculated, planned and timed (see Smith, 2009).

The 'not-yet-restricted' 'indigent' group consumed less than the 12 kℓ subsidy cap so they did stand to benefit from a net saving of ±R25 in the 2nd indigent block. 'Tampering' households also, despite marginally exceeding the 12 kℓ cap, saved ±R30 in the 2nd indigent block although they paid the full 'conventional' tariff of R8.37 in the 3rd tariff block (13 kℓ+ used). That this benefit in the latter case is derived from tampering may itself be a paradox: one has to cheat the policy to benefit. However, both groups tend to limit consumption voluntarily and consumed less (±25-29%) than their 'conventional' group counterparts.

Restricted and tampered: metered water consumption comparison

This consumption analysis is based on the 28 'tampered' and 11 'restricted' households. Three 'tampered' households were excluded from this analysis for major leaks, bringing the total for the group to 25. The 'restricted' household numbers remained the same (11).

There are significant consumption differences between 'restricted' and 'tampered' households. 'Restricted' households consumed ±10 kℓ (72%) less than their tampering counterparts (refer to Table 4). Yet, this difference tells us more about the modest consumption levels of 'restricted' households than the excessiveness of 'tampered' households (see later). 'Restricted' households should be consuming around the ±12 kℓ mark consistent with 'conventional' households of equivalent household size. Yet they were not even able to access the minimum 6 kℓ since 'restricted' households consume 32% less than their FBW allowance.

'Tampering' households consumed 14.4 kℓ per month. For all groups of tampering households, across service packages or punitive measures, tampering is conducted out of the need to secure normal water volumes. This suggests the existence of a consumption threshold beneath which it is very difficult to function adequately. Moreover, that 'tampering' households are not over-consuming but actually consume ±2 kℓ **less** than their 'conventional' household size equivalents means that the value of water does not appear to be less simply because it is accessed via tampering. Indeed, the myth of reckless water usage or deviant behaviour in relation to tampering does not appear to hold sway among these Eastwood households. This article has shown clearly that households typically do not waste water. Water **is** valued and the more it is held up as a public good, with popular pressures to value it as such, the more volumes will be kept within appropriate levels. The implementation of technical limitations as evidenced in this limited sample is therefore unnecessary and, as the comparison between 'not-yet-restricted' and 'tampered' 'indigent' households showed, counterproductive.

Consumption and payment correlations

There is a general perception (particularly at the municipal and national level) that households that do not pay or partially pay their total bills are feckless and use **more** water than their paying counterparts (Komives and Prokopy, 2000; Cardone and Fonseca, 2003). Testing the independent variables of payment (full, partial, no-pay) against the dependent variable of monthly household consumption (for bill '1' and then bill '2') and per capita per day consumption; no significant differences (across all 'tariff and user' groups) were found in variances between households that paid in full, in part, or did not pay bill '1' and bill '2'. Refer to Table 5 by way of example.

This is a powerful indicator: normal volumes are consumed regardless of payment. This again reaffirms the thesis of a consumption threshold below which households cannot function

Table 5 'Tampered' households: consumption and payment correlations (n=25)					
'Tampered' [N=25]	**Response variable**	**n**	**Consumption per HH (kℓ) per month [bill '1']**	**Consumption per capita per day (ℓ) [bill '1']**	**Mean household size**
Paid bill '1'	No-pay	12	14.6	105	4.1
	Full-pay	8	14.2	118	4.8
	Partial-pay	5	18.5	145	5
'Tampered' [N=25]	Response variable	n	Consumption per HH (kℓ) per month [bill '2']	Consumption per capita per day (ℓ) [bill '2']	Mean household size
Paid bill '2'	No-pay	9	12.9	115	3.9
	Full-pay	13	15.3	131	4.5
	Partial-pay	3	15.1	77	6

adequately – regardless of ability to pay in full for such volumes. Indeed, inability to pay in full does not equate with reckless or excessive water usage – water consumption remains moderate. These results indicate that myths of 'cultures of non-payment' and 'irresponsible behaviour' are unfounded.

It appears that dignity and needs, and not economics, are the major determinants of water value. The assumption that poor households will suffice themselves with wretched volumes of water just because payment is a problem is somewhat naive; nor is the ability to pay for water a fair instrument in determining how much water is needed. This assumption is also particularly racialised and classist. While poor households with fewer water-using appliances, fewer taps and toilets and bathrooms, and typically limited gardens; will use less water than wealthier equivalents – they place a high value on hygiene. Indeed, dignity is fiercely guarded and poor households have clearly rejected notions of water as commodity (Life-story interviews, 2006).

Access to free basic water: Eastwood

In Msunduzi, FBW is **only** guaranteed to 'conventional' households that consume equal to or less than 6 kℓ per month (voluntarily) or households registered as 'indigent.' If 'conventional' households do not pay, their water may be restricted to 6 kℓ, while, in the case of 'indigent' households restriction is a **condition** of access. This condition implies that the 'access to' FBW may not necessarily entail a 'benefit' since restrictions may carry social and health burdens. The term 'access to' is intentionally employed. It is not to be confused with 'benefit from' or even 'beneficiaries.' The terms carry different connotations; the former 'access to' is qualitatively neutral and, in this context, simply means that the household is receiving the free volume of 6 kℓ at zero charge, whereas the latter distinctly implies a qualitatively positive attribute.

Data for 'who is getting FBW' is determined by consumption levels of equal to or less than 6 kℓ per 30-day period (or 200 ℓ per day over billing period) for all 'conventional' and 'bad' debtor groups (registered as zero charge) and for the 'indigent' group, if the 6 kℓ part of total consumption is levied as free (zero charge). One 'indigent' tampering household was excluded due to a massive leak. In this regard, all other households excluded from previous consumption analyses due to meter reading errors, inconsistencies, leaks and household size were included, in order to explore the free basic access phenomenon as it presents itself in reality. This FBW analysis is based on the 335 Eastwood surveyed households.

As shown in the diagram (Fig. 1), of the sample of 335:

- 264 (79%) households **never** accessed FBW
- 14 (4%) households **sometimes** accessed FBW
- 57 (17%) households **always** accessed FBW.

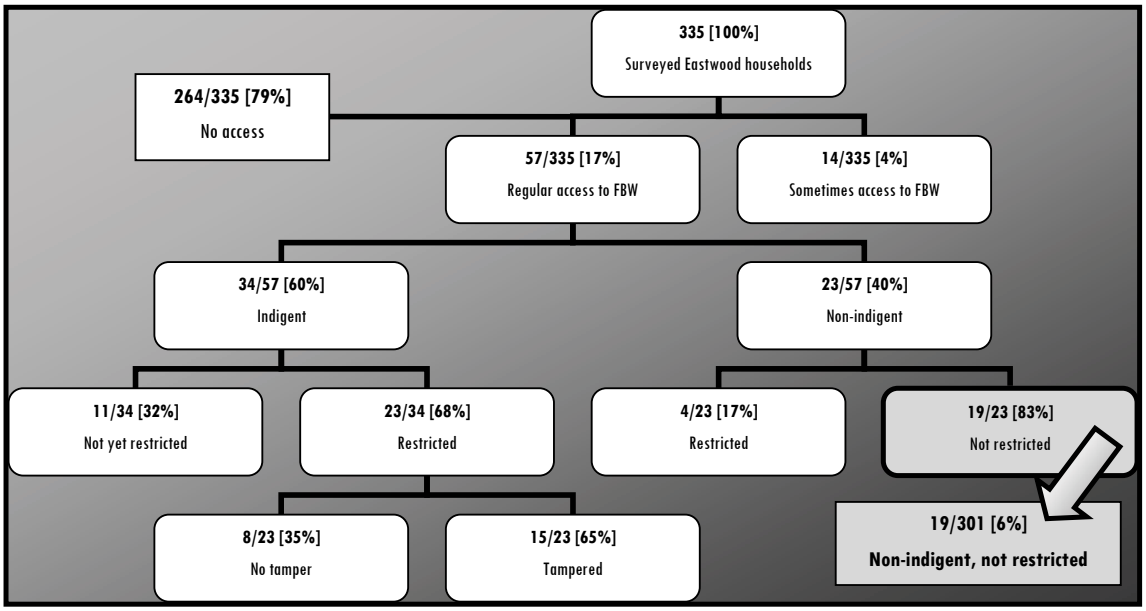

Figure 1
Surveyed Eastwood households with access to free basic water (n=335)

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Of the 57 households that always accessed FBW, 40% (23) were found to be non-'indigent' and 60% (34) were found to be 'indigent.' The non-'indigent' were households with an average of 2.2 members. Four non-'indigent' households (from 'bad' debtor group) were found to have been restricted due to high levels of debt (mean debt R11 000) and therefore, by virtue of pain, were able to access FBW. This left 19 non-'indigent' households (6% of total sample), which always accessed FBW voluntarily (this group will be further explored below). All 34 'indigent' households accessed FBW. 'Indigent' households comprised on average 4.1 members. Of the 'indigent' households which had been restricted at one or other time, 65% had tampered with their restriction washers.

The size of the non-'indigent' household and free basic water: Eastwood

It is evident that the access to FBW by 19 'conventional' households is closely correlated to living in a small household (p<0.0001). The mean household size for the group is 2.1, yet the range differs between 1 and 4 members. This suggests that the relationship between household size and FBW is slightly more nuanced then suggested by the group mean.

Of the 19 households getting FBW, 47% live alone; 16% live in households with 2 members; another 16% with 3 members; and the remaining 21% live in a household of 4 members. Single-member households did not appear to be self-limiting and consumed at optimal levels. In contrast, the 10 remaining households, comprising 2, 3 or 4 members used less water per capita per day than their 'conventional' household equivalents (refer to Table 2). Households comprising 2 members used 41% less per capita per day than their 'conventional' group counterparts (mean 87 ℓ compared to 148 ℓ); with 3-member households using 68% less per capita per day (44 ℓ compared to 139 ℓ) and 4-member households using 70% less per capita per day (38 ℓ compared to 128 ℓ) when compared with their equivalent counterparts. It is evident that as household size increased; daily water consumption per capita dropped. Yet the reduction is not consistent with the incremental economies of scale indicated in Table 2; these decreases are far more pronounced and indicate, especially in the 3-4 member households, that major self-limitations are occurring in order to secure a free water supply.

It is further useful to consider the above consumption patterns in relation to the 200 ℓ per household per day FBW offering based on 8 members per household using 25 ℓ per capita per day. In this regard, even the largest household group of 4 members always accessing FBW exceeded the 25 ℓ per capita daily allowance. This hints at the incongruity between free volumes offered and the difficulty of actually consuming within volume parameters even if households substantially reduce consumption. Such a finding has import not only for administration options (free only if use ≤6 kℓ per month) but also delivery options which privilege small households whilst simultaneously discriminating against larger ones. These findings suggest:

- The limited scope of access via non-'indigent' delivery
- The inadequacy of the free 6 kℓ volumetric cap

Returning to the distinction made between 'access' and 'benefit,' clearly, single-member households and small households able to self-limit but still maintain appropriate volumes have **benefitted** from FBW. That is, only 6% (19) of all non-'indigent' surveyed Eastwood households potentially benefit from FBW. This figure is relatively consistent when compared to the total number of Msunduzi households, both metered and billed (n=36 431), who potentially could access free water via standard (conventional or non-'indigent') tariffs. In this regard, the data (Msunduzi Municipality, 2007) received in response to a PAIA (Promotion of Access to Information Act: RSA, 2000b) request indicated that only **3 729** Msunduzi households or ±10% consumed less than or equal to 6 kℓ per month thereby accessing FBW (no qualification e.g. household size or restriction status unknown). That is they do not pay a cent for water. Hence ±90% of Msunduzi households billed at standard tariffs did not get FBW since, by using more than 6 kℓ, they have disqualified themselves.

'Indigent' household access to free basic water: Eastwood

Free basic water, delivered via the instrument of the Indigent Policy, appears more able to widen the scope of access by accommodating more households and importantly larger households – not by offering higher volumes of free water but simply by **not removing** it if 6 kℓ is exceeded. This enables more households and larger households in particular, consuming volumes in proportion to size, to still access the financial benefits of FBW despite using more than 6 kℓ. 'Indigent' households had approximately twice as many members as non-'indigent' households similarly accessing FBW (4.1 versus 2.2). Moreover while indigency is still skewed, with 60% of all 'indigents' living in 'small' households (1-4 members); the ratio of beneficiaries is better spread compared to non-'indigent' households. Nevertheless, a uniform free 6 kℓ volume is always going to discriminate against larger households, so although a small financial benefit is gained, the volumetric equivalent is not equitable to household size. This means that while the Indigent Policy is better able to deliver FBW than the 'conventional' package, the scope is still too small. Larger households are treated unequally. Arduousness of uptake and administration procedures (etc.) further limits ability to deliver FBW. Moreover, conditional restriction actively subverts potential monetary and poverty alleviation gains by substantially reducing consumption.

Where household size does appear to have an impact is on the decision to tamper. Larger 'indigent' households (5-8 members) tampered more than smaller households. For example: of the 10 large households with restricted access, 9 tampered. In contrast, less than 50% of small households tampered. Significantly, tampering seems the most likely response to 'indigent' restriction across all households. That a rise in household size makes this action more likely is most typically attributed to substantial deprivation caused by restricted water supplies.

Indeed, where 'indigent' access to FBW comes unstuck, consistent with non-'indigent' access, is at the point of restriction. 'Restricted' households (8) consumed 53 ℓ per capita per day compared to 'not-yet-restricted' and 'tampered' households, who together (26) consumed a mean 101 ℓ per capita per day. In the case of 'restricted' households, the access to FBW comes with acute deprivation. For example: the sole 'restricted' household in the larger household group, comprised 6 members – each member consumed 20 ℓ per capita per day. It is therefore unsurprising that the majority of 'indigent' households (small and large) have rejected the imposition of restriction washers.

Ironically, tampering might just be the Indigent Policy's salvation. Tampering facilitates, in most cases, improved access to normative volumes (not optimal but closer).

Moreover, tampering ensures that the legitimate contract to enable the access to 12 kℓ is righted as per the stipulations of the Indigent Policy. The removal of the technical limitation together with a guaranteed free 6 kℓ supply with further subsidisation from 7-12 kℓ all ensure that not only are greater volumes of water accessible, but also that water is more affordable. In sum, households in the best position to truly benefit from FBW and indigent subsidies are those that tampered.

Nevertheless, regardless of restriction status, 'indigent' households still consume less water than their 'conventional' household equivalents. That is, the Indigent Policy has, instead of ensuring augmented consumption, actually implicated decreased consumption. If this was the underlying intention of the Indigent Policy then it has succeeded; but the philosophy of the Indigent Policy is actually the contrary, as with free basic services. Both aim to improve the quality of life of poor households. A reduction in consumption, particularly to levels of acute deprivation, is incongruent with broader goals of transformation, equity and alleviating the fundamental constraints characterising wretchedness.

Conclusions

Orthodox attempts to measure water requirements based on the 'scientific' determination of universal physiological needs have been found wanting when tested against the actual water consumption patterns and value notions of poor urban households. Indeed, the problems of reducing water volumes to their basic physiological usages, severed from context and value of use were stark. The findings on household water use patterns and notions of need reinforced Harvey's (1977; 1996) assertion that values around water usage and needs are not universal. Indeed, not only is the usage and quantity of water within a domestic context fluid, but also distinctly personal. How much and how and when a household uses water is subjective, contextual and often particular to the individual household doing the using. Moreover, the proximity of notions of humanity and dignity to water's access and delivery modes were found to be particularly acute in the post-apartheid context.

Attempts by the state to help the poor but at the same time instruct on how and how much water is used are very problematic. Capping water volumes at very low levels was discriminatory and unresponsive to the water requirements of poor households. FBW benefitted only 6% of Eastwood and 10% of Msunduzi's non-'indigent,' not restricted billed domestic households. Msunduzi's interpretation of free water, whereby a household could only access a guaranteed FBW allocation if consumption was equal to or less than 6 kℓ per 30-day period, or if a household qualified as 'indigent,' severely curtailed its scope. All households in the 'conventional' group, with the exception of 'restricted' households and a minority of small households exceeded the free 6 kℓ water offering, implicating that all water used had to be paid for. The free basic volume of 6 kℓ had no resonance with actual water volumes consumed (households within the 'conventional' service package consumed ±14.1 kℓ per month – mean household size of 3.7 members) nor the value or fluidness of usage by the majority of Eastwood households. Moreover, tampering and non-payment were unrelated to consumption volumes. Consumption, across household size and service packages, was moderate. The article showed that assumptions of irresponsible and reckless usage, in this sample, were incorrect.

The access to FBW for 'conventional' households was conditioned on small household size (1-4 members). However, a small household was not enough to secure access alone; households with 2-4 members further had to reduce consumption (41-70%), predicated on the modification of normal water activities and lifestyle. That is, single-member households appeared to be in the best position to benefit from FBW, whereas all other households may access FBW, but only at a disproportionate social cost. A starker example of this latter scenario was the case of 'restricted' households, which although accessing FBW; did so via a technical limitation. Water delivered via a restriction washer provided only 4.1-4.3 kℓ per month (a direct contravention of the Water Services Act) which was ±65% less than what equivalent 'conventional' households were consuming. The negative implications of severe water reductions, coupled with the low flow rate, meant that such households derived no benefit from FBW but more significantly – FBW acted retrogressively not only on water supplies accessed but also more broadly on quality of life. In this regard, it appears that in Pietermaritzburg, FBW has been used as a pseudo-justification to limit the water volumes of households struggling to meet full and timely total bill payments. That is, where affordability or technical measures prevented households from accessing as much water as they perceived appropriate to meet their water requirements, any limitation was always going to be seen as containing the poor.

The Indigent Policy, as an instrument to augment the FBW Policy, widened the scope of FBW access – not by offering higher volumes of free water but simply by not removing it if 6 kℓ was exceeded – thereby accommodating not only more households but larger households as well. Nevertheless, the capacity of the Indigent Policy to bring real relief was limited by uptake procedures, which acted as a disincentive to application; conditional water services restriction as well as the uniform delivery mechanism, which discriminated against larger households. 'Restricted' 'indigent' households felt that the financial saving (±R18) entailed disproportionate social deprivation. Ironically, 'indigent' households, which tampered, salvaged the FBW benefits. That the locally-manipulated social policy necessitated 'criminality' to exact legitimate gains, served as a broader parody of the policy and delivery apparatus.

It is thus clear that the measurement of basic water requirements cannot simply be one of uniform physiological quantitative calculation, but must include a careful, contextualised and socialised qualitative component. The diverse values placed on water by citizens and waters' centrality to the functioning of homes, to livelihoods and to gender equity, to dignity, citizenship and humanity, implore much greater caution, sensitivity and scholarship when attempts are made to ostensibly improve and secure access for poor populations. If FBW is to make any progress in achieving its objectives than uniform standards would have to make way for a range of augmented volumes which do not limit but accommodate the subjective water requirements and size of households. An augmented water supply would have to reflect these ranges (where households do not have the money to pay for their full appropriate water requirements) and ensure these ranges are affordable, facilitated by direct tariff reductions and appropriate tariff restructuring (where households have some money to pay for their full appropriate water requirements). In this regard all the required water does not have to be offered free. Of greater import is that an augmented water supply be accompanied by a substantial restructuring of tariff structures (prices, block numbers and block parameters) which prioritise affordability to facilitate appropriate access (especially where water systems are already in place) and absorb affordability constraints. Central to any

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re-determination is that the volumes and payment procedures chosen should reside with the people themselves – within their contexts and preferences, within their control.

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