Free basic sanitation in informal settlements: An ethnography of so-called communal toilet use & maintenance

Report to the

by

Lina Taing
Kerry Vice
Matthew Schroeder
Andrew D. Spiegel

Anthropology & Public Administration
University of Cape Town
Private Bag Rondebosch, 7701
South Africa

WRC Report No. 2120/1/14
ISBN No 978-1-4312-0551-6

Obtainable from:

Water Research Commission
Private Bag X03
Gezina
0031

orders@wrc.org.za or download from www.wrc.org.za

DISCLAIMER

This report has been reviewed by the Water Research Commission (WRC) and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the WRC, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

Executive summary

Introduction: Urban sanitation implementation challenges

South Africa's national government adopted a Free Basic Services policy in 2001 so that poor households' inability to pay would not affect their access to water, electricity, sanitation, drainage and refuse removal services (DWAF 2003; Still et al. 2009). Local government was then provided with national government subsidies to cover the services' capital and operation and maintenance (O&M) costs. It was intended by national government that O&M costs in this context would include provision of off-site services, and that on-site services, including simple repairs, maintenance and cleaning, would be the responsibility of users (DWAF 2008). National government also gave parameters for the provision of free but limited (basic) services to poor households (DWAF 2003, 2004). The then Department of Water Affairs and Forestry (DWAF 2007, 2008) provided additional support and guidance to local government officials needing to develop their respective free basic water and sanitation implementation plans.

Thirteen years after the Free Basic Service policy's introduction, provision and maintenance of sanitation services in urban informal settlements still constitutes a very significant challenge for South African local authorities. One reason is that such settlements are difficult to service because of geo-physical, economic, legal and socio-political challenges. Sanitation provision in many such settlements consequently tends to take the form of toilets in concrete cubicles along the edge of a settlement, clustered throughout a settlement between residents' homes, sometimes alongside a standpipe, or in ablution blocks offering other facilities alongside toilets. In such cases, fewer toilets are provided than there are domestic dwellings in the settlement. This means that, other than the occasional case where a household has commandeered a toilet by locking it, each household's residents have either to share a toilet with residents of other households, or they have to rely on public toilets that are accessible to all, including other settlement residents, their visitors and passers-by. Such circumstances have often led to filthy and dysfunctional toilets, which, according to users, is not their responsibility to clean or maintain.

Authors of previous Water Research Commission (WRC) studies and research reports about various South African municipalities' urban sanitation interventions have considered why these types of toilets in informal settlements tend to fail in providing a sufficient service. Generally those authors have argued that social and institutional problems are to blame, and that they stem from a combination of (a) municipalities' misalignment, non-compliance or poor interpretation of national legislation/standards due to their incapacity or inability; and (b) residents' lack of hygiene awareness or lack of involvement in a supply-driven technical process. The recommendations made in the aforementioned reports tend to centre on behaviour change measures such as (a) altering a municipality's coordination practices and participatory processes so that officials can rapidly provide services whilst following the principles outlined in DWAF's *Strategic Framework* (2003) and rights-based approaches (SAHRC 2013, 2014), and (b) empowering communities to take 'ownership' of the facilities (Naidoo et al. 2007; Naidoo et al. 2008; Mjoli 2010; Lagardien et al. 2013). The authors' emphasis on municipal authorities' and residents' presumed faults suggests, however, that they were perhaps not considering policy itself, or its shortcomings, or recognising the extent to which

free basic sanitation implementers, and their beneficiaries, are constrained on a day-to-day basis, especially in informal settlements.

The present report's authors propose that South Africa's current urban sanitation crisis exemplifies, as do many other similar examples, how a well-intentioned policy has failed disastrously in its implementation due to government officials' use of a top-down approach and its strong emphasis on using technological and social engineering methods to achieve its aims. A top-down governance approach is one where persons involved in the higher levels of a hierarchical system institute policy, direct practice and determine the extent to which "legally-mandated objectives… [are] achieved over time" (Sabatier 1986: 22). This is opposed to bottom-up approaches, which are popularly are depicted as being inclusive, people-driven forms of governance constituted by a large number of persons and groups collaboratively interacting to make decisions and strategies together (Sabatier 1986; Allison 2000; Mcewan 2003; Pillay et al. 2006).

Sabatier (1986) has noted that despite there being significant overlap between top-down and bottom-up approaches in practice, the two are nevertheless depicted as fundamentally distinct in popular and academic literature, especially in discussions relating to government reform. This is the case in South Africa where there have been recent calls to reform public service delivery through the use of bottom-up decision-making models (Allison 2000; Mcewan 2005; Charlton & Kihato 2006; Pillay et al. 2006; Schulze et al. 2007; M. Muller 2009; Ashipala & Armitage 2011; Lagardien & Cousins 2004). The authors of the present report argue similarly that the current top-down modus for sanitation delivery needs to be adapted to accommodate the needs of users and everyday maintainers – i.e. to take a bottom-up approach. However, instead of interpreting a bottom-up or grassroots perspective as meaning consideration of only the interests of supposed communities or their representative groups (Lagardien & Cousins 2004; Tapscott 2010), the present report's authors consider a bottom-up perspective to include also the interests of all the various people who use free basic sanitation facilities as provided by public institutions, and who are responsible for managing them.

Research scope & objective

From the outset, the study explicitly planned to build on the work undertaken in the WRC K5/1827 study, '*TIPS for sewering informal settlements*' (**WRC Report No. TT 557/13**). That study concluded that technology choice is less significant than the social processes that underlie: (a) the provision and management of free basic sanitation systems; and (b) officials' and users' responses to provided facilities, particularly if they are accessible and open to the general public (Taing et al 2013). Moreover, it showed that those responses were driven by residents' expectations that, if no individual household systems are provided, public access facilities should be fully subsidised and serviced by (or through) an outside authority – namely the responsible municipality. To realise such an expectation would, it was argued, mean implementation of a policy requiring that all toilet facilities shared by more than one household in urban informal settlements should have municipally funded janitorial services – a goal that would have significant costs and administrative consequences for municipalities already struggling to provide free basic toilet facilities. The expressed objective of the present follow-up WRC K5/2120 study was to document the social and institutional constraints

on implementation and management of municipal janitorial services for full-flush toilets, with a focus on three Western Cape informal settlements; and to understand those from the perspectives of those that used, managed or were responsible for the facilities on a day-to-day basis. The research team defined a *constraint* as being a limitation or obligation; *social* as being people's practised relationships and adopted norms related to practices and perceptions; and *institutional* as being organised and officially imposed systems of structures and processes.

Ethnographic research methods

The report presents evidence based on ethnographic research about provision of janitorial services in three informal settlements (two in Cape Town; one in Hermanus). Ethnographic research intends to discover and to interpret multiple readings of cultural contexts and social behaviours in order to understand the various and diverse ideas that lie behind them. In doing that it develops rich, nuanced and multivalent accounts of 'social realities'. A five-member team with academic qualifications in Integrated Water Management and Anthropology undertook the research. An ethnographic approach was used to generate data offering insight into the perspectives of:

- People who use public access toilets in informal settlements and how they experience sanitation services when such public access toilets are all that is available to them;
- People whose task it is to take care of such toilets – in the sense of monitoring both the use and the condition of these toilets as well as cleaning them and reporting maintenance needs; and
- Those in local authority (municipal) structures whose job it is to ensure the provision and continuous functioning of the facilities provided to deliver basic sanitation services.

Ethnographic research entails using a series of methods that, in combination, aim to provide a detailed description of researched people's own sense of their experiences and relationships in particular contexts, and what diverse meanings they give those experiences (O'reilly 2005). Much of the data from residents, janitors/cleaners and officials comprised extended narratives based on interviews and observations. Other data came from documentary sources including official documents, newspaper articles, electronic correspondence and other similar sources. Data on national standards was sourced from state documents and interviews with state policymakers.

Key research findings

- Persons involved in using and/or providing toilets in informal settlements had diverse and thus different expectations of what constitutes a free basic sanitation service, and of what should comprise the associated responsibilities of users and of various kinds of service providers. Each party also experienced fear due to imagined and real health and safety risks, which affected their access to (i.e. having the right to enter, get near, or make use of) toilets in informal settlements.

- Public janitorial services are generally more effective/reliable than communal cleaning and maintenance systems in informal settlements because, with those being provided, officials and residents had similar expectations of who could access the facilities and who was responsible for maintaining the services. In addition, despite being under-resourced, municipalities seemed better equipped than residents to manage cleaning services.
- Officials preferred to establish centrally administered and standardised systems, while janitors and residents preferred to be able to initiate situation specific systems.
- Municipal authorities and contract workers (e.g. service providers and janitors) can be held legally accountable and responsible for delegated operational tasks, whereas resident users cannot be legally bound to fulfil O&M responsibilities.
- The effective implementation of free basic sanitation is impeded by a lack of guidance from national policymakers for providing informal settlement services, as well as by municipal incapacity and inflexible institutional processes. Residents' alternative sanitation practices often negate the beneficial outcomes of measures established for provision of Free Basic services.

This report shows what national policymakers and municipal officials have missed by focusing primarily on the top-down concerns and objectives highlighted in state policy. In establishing janitorial services, municipalities such as Overstrand and City of Cape Town as well as eThekwini (in KwaZulu-Natal), have set a precedent in rendering local government responsible for all O&M tasks and costs incurred when providing publicly accessible free basic sanitation facilities in informal settlements. That these publicly funded and supported janitorial services have been created and have proven to be needed also demonstrates that, in assuming that users would maintain and clean facilities provided in their residential areas, national authorities have misjudged the extent that such users would reasonably contribute to O&M tasks. It also indicates that they have overlooked critical aspects of local government's administrative and financial needs, particularly in the former's conceptualisation of the Free Basic Services' sanitation component.

The data presented above are evidence of a disjuncture between the state's top-down policies that dictate municipal practice, and the on-the-ground reality in informal settlements. It thereby suggests that sanitation policy at both national and local government levels needs to be rethought to meet ordinary users' and municipal implementers' needs. What the relatively recent institutionalisation of janitorial services for municipal toilets in informal settlements shows is that municipal officials have to adapt their local minimum free basic sanitation policies – which were largely informed by national government's standards – in ways that were not originally considered by policymakers. This occurred through the input of elected municipal level officials and of senior (executive) municipal management who then issued directives. Similarly, advocacy and pressure from civil society groups has produced adaptations to national policy in its implementation at local government level. A further influence that has led to adaptations in practice of national policy has come from the expressed needs of those responsible for implementing service provision (e.g. junior-level municipal officials, contractors, janitors, etc.) whose concerns have arisen from their experiences on the ground and from their observations of users' practices.

The above points illustrate, as renowned anthropologist David Mosse (2005) has previously argued, that on-the-ground developers' practices – such as those of municipal officials – and their interactions with, and what they learn from, their target populations in the course of their engaging in development interventions have the capacity to lead to policy change that can accommodate those on-the-ground practices. This finding suggests that, like municipal policy adaptations, national discourse can similarly be adjusted through dialogues and interactions with users and with persons who are directly engaged in providing sanitation facilities and services in informal settlements as well as with those directing sanitation measures from municipal offices.

Conclusion

The use of ethnography was selected as a research approach for investigating bottom-up concerns related to sanitation provision in informal settlements. The following has been shown through the presentation of often contrasting perspectives on such services:

i) All too often, what policymakers and designers of sanitation services imagine is appropriate – in terms of technology and resource availability – is considered socially and culturally unacceptable and inappropriate by users and those tasked with caring for such facilities (e.g. on-the-ground residents, janitors and their immediate supervisors, or local authority officials responsible for their operation and maintenance).

ii) There is a diversity of everyday sanitation experiences in urban informal settlements, information about which is presently not being drawn upon by those who design sanitation facilities and their operation and maintenance procedures. It is suggested that such design processes should take cognisance of those diverse experiences and should become iterative processes that take serious account of all stakeholder concerns and are flexible enough to accommodate changing demands over even short periods of time.

Among the necessary reasons to stress these points is that the trajectory of sanitation provision in South Africa, as also that of housing over the last 65 years, reflects far more continuity of a national commitment to top-down technological and social engineering approaches than it does to change. Repeated uncritical adoption of these approaches reinforces top-down institutional policies and interventions that take little real cognisance of ordinary people's perspectives and concerns which themselves derive from the experiences, particularly, of users and on-the-ground municipal workers in urban informal settlements.

By considering the various and often quite different perspectives of national policymakers, municipal officials and informal settlement residents, the report reveals a range of problems that suggest an urgent need to reform the sanitation component of the South African Free Basic Services policy in order to take account of the competing rationalities at work in sanitation planning and provision, and of the diversity of these rationalities or perspectives. That is because that diversity of perspectives is as much a fundamental constraint on introducing and implementing sanitation as are technical concerns; indeed it may possibly be even more of a fundamental constraint. Understanding the underlying factors of this facet of what constrains introducing and implementing sanitation in

informal settlements is, moreover, necessarily central to any attempt to encourage a sense of shared responsibilities for public amenities and shared resources.

Lastly, a particular concern of this report has been to explain some reasons that janitorial services for municipally provided toilets in informal settlements are needed. Yet achieving that goal will likely have significant consequences for municipalities that are already struggling to provide free basic toilet facilities. This report has indicated that existing municipal janitorial programmes have been hamstrung by various institutional, fiscal and legal challenges, and that municipalities are expected by their national government counterparts as well as by those employed as janitors to uphold principles that are outlined in labour legislation. This is the case even though there are major gaps in national labour legislation for what labour researchers have described as non-standard work arrangements. This applies labour legislation as it affects all employees doing non-standard work, whether they are directly employed by a municipality, indirectly employed through a labour broker (temporary work employment agency) or part of a contractor's work force. Based on a review of relevant literature and difficulties that municipal officials, contractors and residents themselves have reportedly experienced, the report concludes that any municipal labour-employment decision made to provide janitorial services is, and will continue to be fraught as a consequence of the complex nature of labour legislation that governs employment relations between informal settlement residents, municipal contractors and the contracting municipality – a complexity that is not readily provided for in existing national legislation. What this suggests is that the problems that might be addressed through attempts to employ labourers for janitorial service programmes may turn out to be 'wicked problems' in the sense that any immediately created 'solution' will likely create another set of problems or challenges.

Recommendations: Bottom-up political & practical adaptations

Following are some bottom-up focused political and practical recommendations that might contribute, if implemented, to long-term provision and management of free basic sanitation services in South African urban informal settlements.

Using lived experiences to inform informal settlement servicing

The report's findings show that an assumption of residents' lack of hygiene education and awareness misdiagnoses the primary sanitation problems plaguing people daily in informal settlements. Assuming that unclean environments in informal settlements are caused by residents' lack of personal hygiene leads to a top-down approach to introduce initiatives to 'educate' those people and make them aware of 'good' practices. Such an assumption effectively lays blame on residents rather than seeking to understand the structural contextual constraints on their lives, constraints which include inadequate servicing of informal settlements (Taing, Armitage, et al. 2013). That there are: too few toilets situated away from residents' homes and providing inadequate means to dispose of night soil, greywater and solid waste; and that infrastructural functionality is not sustained through responsive and preventative O&M measures are circumstances that influence residents' adoption of unsanitary practices. Such circumstances, and people's interactions with those

circumstances, impact significantly on their and others' decision-making and behaviour. They also point to a need to provide, alongside janitorial services, additional infrastructure and systems enabling safe removal of all human organic and inorganic waste. To achieve such goals, a constructive 'bottom-up' informal settlements sanitation initiative would go beyond patronising residents through social engineering campaigns. It would require regular and well facilitated dialogue between users and services providers at all levels, dialogue that aims realistically to address the daily circumstances and difficulties that both residents and municipal officials experience with using and sustaining informal settlement sanitation services.

Financing skilled expertise, multi-disciplinary managers & support staff

One of the report's findings is that implementation of a functional free basic sanitation service in informal settlements requires establishment of municipal janitorial services. It also shows that, to do that, local governments require national government funding for more than just capital infrastructure and off-site O&M costs. Funding is also required for on-site O&M costs, building and maintaining human resource capacity for creating local site-specific plans, and for local government officials to administer their Free Basic Services operations. In other words, what needs to be avoided is regarding provision for such policy, planning and operational responsibilities as an indirect rather than a direct and essential cost of sanitation delivery.

Another finding of the report is that it is misplaced to depend exclusively on technical professionals, with engineering or urban planning backgrounds, to achieve the goals of providing sustainable sanitation services in informal settlements. While such skills are undoubtedly necessary for providing services in challenging contexts such as informal settlements, the dominance of such personnel seems to have resulted in repeated adoption of technology-driven approaches which fail to recognise social, cultural and institutional constraints. Arguably that is one reason that the challenge of servicing urban informal settlements remains unresolved, and why trained social facilitators and policy analysts are needed to work hand-in-hand with technical personnel in South Africa's urban infrastructure sector. Important too is to recognise that these are specialist fields not readily serviced by just anyone. Simply because all people, technologists included, live among others and have to deal with social, cultural and institutional circumstances does not mean they have the capacity or training to analyse historical and contemporary socio-political phenomena critically or to draw on those analyses to rework policy, to redesign plans and to engage with service users, implementers, planners and policymakers alike so that they in turn can understand and come to accept that producing interventions and adapting them to particular local socio-cultural and socio-political conditions is necessarily an iterative process that occurs over extended periods of time. Just as one would not employ a political analyst to design a reticulation network, one cannot expect technically trained personnel to engage in social-cultural analysis and to work on the ground with service users, implementers, planners and policy makers. As noted by Funke et al. (2014: 34), combining social science and political approaches with current technical methods can potentially steer water-sector officials "away from the practice of propagating buzzword concepts or panaceas."

In addition, as the findings of this report suggest, personnel who are familiar with managing multi-disciplinary teams are also needed: in this instance to help integrate various perspectives and

to mix and match diverse sector tools in order to address the "disparity between the different disciplines" (Parry-Jones, 1999: 3).

A further recommendation is that municipal officials responsible for free basic sanitation require supporting programme and administrative staff, service monitors, data collectors, logisticians and human resource administrators (if necessary outsourced), to sustain services provided to informal settlements. Ideally, particularly for larger municipalities, such support staff should be employed permanently to ensure their continued familiarity with the established systems and processes unique to each institution and so as not to interrupt service provision on the ground.

Establishing a *Free Basic Public Services* standard

The data gathered in this study support previous research findings that there is a lack of practical guidance for providing public toilets (that is toilets shared by residents of more than one household) in dense urban informal settlements (Mjoli & Bhagwan 2008; Mjoli 2010). This gap suggests an implicit neglect of or lack of concern with the sanitation challenges within urban contexts. Moreover, as various municipal officials complained, DWAF's (2001, 2003, 2008) focus on providing for rural dwellings resulted in its basing national standards of household sanitation provision on sparsely-populated rural contexts. While this is understandable, given the radical underdevelopment of most South African rural areas during the apartheid era, it is crucial now that the national government develops and adopts a *free basic public service* definition for toilets shared by multiple households in urban informal settlements. A consequent recommendation is that a bottom-up perspective – based on the experience of those who use, clean and manage free basic toilets on a day-to-day basis – should inform the conceptualisation of this new standard, and that it not be written as if in stone, but rather that it is flexible enough to permit a wide range of local adaptations that, as they are developed, inform the standards, the writers of those standards and those who advise them, as well as those who draw upon the standards. Given the kinds of digital technology now available for dissemination of such standards, and of policy, a further recommendation is that all such standards and policy be not only recorded digitally for ease of access, but also that the institutions that produce such standards be required frequently to update them in light of experience from around the country. This could be a function of a dedicated WRC research and development task team.

It is significant to note that the writers of the DWAF (2003: 46) *Strategic Framework* had, in 2003, stated that their "definitions will be revised in the [sic] future once greater progress has been made in addressing the existing backlog in services provision." Given that over a decade has passed since the *Strategic Framework for Water Services* was published, it seems to be a propitious time to review and amend these national standards so that they reflect the diverse and complex realities of contemporary South Africa. Further, it is recommended that provision be made for those standards to be reviewed and reformulated on an on-going basis, and that, as they are amended, their content is advertised and made accessible to local government officials so that they in turn can both draw upon and comment on them in light of their experiences in attempting to implement them. Doing that will help guide the further reformulation of the standards in a thoroughly iterative process that recognises the expertise of all those that have a direct interest in ensuring that the standards are useful for their own practice.

Table of contents

List of figures

List of tables

Abbreviations & glossary of terms

Abbreviation and/or term	Expanded phrase or definition/description
Ablution block	A single building that is usually fully sewered and has both toilet and shower facilities
Access	Having "the right to enter, get near, or make use of something" (Merriam-Webster n.d.)
ANC	African National Congress
Basic municipal services	As noted in the Definitions section of the *Municipal Systems Act (No. 32 of 2000)*, "a municipal service that is necessary to ensure an acceptable and reasonable quality of life and, if not provided, would endanger public health or safety or the environment" (RSA 2000: 14).
Basic sanitation facility	"The infrastructure necessary to provide a sanitation facility which is safe, reliable, private, protected from the weather and ventilated, keeps smells to the minimum, is easy to keep clean, minimises the risk of the spread of sanitation-related diseases by facilitating the appropriate control of disease carrying flies and pests, and enables safe and appropriate treatment and/or removal of human waste and wastewater in an environmentally sound manner" (DWAF 2003: 50, 66)
Basic sanitation service	"The provision of a basic sanitation facility which is easily accessible to a household, the sustainable operation of the facility, including the safe removal of human waste and wastewater from the premises where this is appropriate and necessary, and the communication of good sanitation, hygiene and related practices" (DWAF 2003: 50, 66)
Barney Molokwana (BM) Section)	An informal settlement in Khayelitsha, Cape Town. At the time of writing, it was the City of Cape Town's sixth largest informal settlement in terms of population size and density.
(Toilet) cluster	Two or more toilets, each in a distinctly separate concrete cubicle, that are physically grouped together on the ground
CoCT	City of Cape Town
Community (or local community)	As noted in the Definitions section of the *Municipal Systems Act (No. 32 of 2000)*, "in relation to a municipality, means that body of persons comprising -- (a) the residents of the municipality; (b) the ratepayers of the municipality; (c) any civic organisations and non-governmental, private sector or labour organisations or bodies which are involved in local affairs within the municipality; and (d) visitors

	and other people residing outside the municipality who, because of their presence in the municipality, make use of services or facilities provided by the municipality, and includes, more specifically, the poor and other disadvantaged sections of such body of persons" (RSA 2000, 14–16). As noted in this report, the vagueness of this definition often leads to frequent misunderstandings.
Constraint	A limitation or obligation
CSIR	Council for Scientific and Industrial Research
DoH	Department of Housing
DWAF	Department of Water Affairs & Forestry
Enterprise Resource Planning (ERP)	An electronic data management system from the company SAP. The City of Cape Town Water and Sanitation Department uses this software.
EPWP	Expanded Public Works Programme
Equitable Share (ES)	"The sum of unconditional transfers flowing from national to local government" (DWAF 2001, 28). The unconditional grant, which means that municipalities can "spend it at their discretion" (Tissington 2011: 6), was introduced by national government "to allow the local government sector to overcome the burden of service delivery to the very poor" (DWAF 2001, 28) by funding the O&M costs of water and sanitation infrastructure. Still et al (2009: 128), however, noted that municipalities, in practice, tended to use the ES grant "to cover the overhead costs of municipal management and administration."
Free Basic Services (FBS) policy	Free Basic Services policy, a national strategy that promised "a basic water supply of 25 litres per person per day" (approximately six kilolitres per household per month) and "the costs of maintaining a basic sanitation facility – normally understood as a ventilated improved pit latrine (VIP)", to ensure that "affordability would not be a barrier to access of basic services" (DWAF, 2004: 18, 84). The capital costs of the programme were to be primarily covered by national grants for public infrastructure, and O&M by both National Treasury Equitable Share (ES) grants and revenue generated from a municipality's rates, taxes and levies (DWAF 2004; Mjoli et al. 2009: 20), the latter of which are popularly recognised as cross-subsidisation schemes where the "non-residential and high income consumers" support services to the poor by paying higher tariffs (DPLG 2005a: 16; SAHRC 2014).
Household	Defined by national government as "a group of persons who live

	together and provide themselves jointly with food or other essentials for living, or a single person who lives alone" (StatsSA 2011: 13) – but see Spiegel et al (1996) where the problem of defining household is discussed at length
Informal settlement	"An informal settlement is a geographical area surrounded by clear boundaries containing a number of informal dwellings (e.g. shacks)" (CoCT 2013b: 2)
Informal settlement structure/dwelling	"Any non-permanent structure erected within an informal settlement used for living and/or business, usually constructed out of wood and/or corrugated iron sheets but some are Wendy houses (normally used as garden sheds)" (CoCT 2013b: 2)
Informal trader	"Any kind of informal business within an informal settlement." (CoCT 2013b: 3)
Institutional	Organised and officially imposed systems of structures and processes
Labour broker	An employment agency that engages temporary workers for their clients (Theron 2013: 10)
MAYCO (CoCT)	Mayoral Committee (CoCT)
M&E	Monitoring and evaluation
MSST	Ministerial Sanitation Task Team
Municipality	As noted in the Definitions section of the *Municipal Systems Act (No. 32 of 2000)*, "(a) an entity, means a municipality as described in section 2; and (b) a geographic area, means a municipal area determined in terms of the Local Government: Municipal Demarcation Act, 1998 (Act No. 27 of 1998)" (RSA 2000: 16)
NBRI	National Building Research Institute
NGO	Non-governmental organisation
O&M	Operation and maintenance
PFT	Portable flush toilet
PPE	Personal protective equipment refers to clothing and equipment that are meant to protect a person from bodily injury in the course of their work activities
Temporary sanitation service	"An interim measure and should provide privacy to the user, be readily accessible and in close walking distance, and provide for the safe disposal of human waste" (DWAF, 2003: 67)
Poor household	"A household that does not have enough money income required to attain a basic minimal standard of living – enough to purchase a

	nutritionally adequate food supply and provide other essential requirements." (DWAF, 2008: 10; based on National Treasury definition)
RDP (houses)	Houses that are constructed as part of the national government's Reconstruction and Development Programme
Resident	As noted in the Definitions section of the *Municipal Systems Act (No. 32 of 2000)*, "in relation to a municipality, means a person who is ordinarily resident in the municipality" (RSA 2000: 18)
RSA	Republic of South Africa
SAHRC	South African Human Rights Commission
SAMWU	South African Municipal Workers Union
SAP	An electronic data processing company: 'Systems, Applications and Products'
SFWS	Strategic Framework for Water Services: The Department of Water Affairs & Forestry policy that guides municipal implementation of Free Basic water and sanitation services
Shared toilet	An umbrella description for any single facility that is used by more than one person and/or household
SJC	Social Justice Coalition
Social	People's practised relationships and adopted norms related to practices and perceptions
TRA	Temporary Relocation Area
UCT	University of Cape Town
UN JMP	United Nations Joint Monitoring Programme on Water and Sanitation. The UN subsidiaries UNICEF (United Nations Children's Fund) and WHO (World Health Organisation) are jointly responsible for monitoring various countries' progress with water and sanitation delivery.
VIP	Ventilated Improved Pit latrine
VPUU	Violence Prevention through Urban Upgrade
Water Services Authority (WSA)	"Any municipality, including a district or rural council as defined in the Local Government Transition Act, 1993 (Act No. 209 of 1993). responsible for ensuring access to water services" (RSA 1997b: 10)
WRC	Water Research Commission
WSISU (CoCT)	CoCT's Water and Sanitation Informal Settlements Unit

Acknowledgements

The authors thank:

iii) The Water Research Commission (WRC) for their financial and technical support.

iv) The Study's Reference Group, the members of which provided assistance and constructive advice throughout. In particular, thanks are due to the Reference Group members who generously made themselves available for consultation outside the formal meetings of the Reference Group. The complete committee was as follows:

- WRC (Chairperson): Mr JN Bhagwan;
- City of Cape Town: Mr J Tsatsire, Mr L Mudondo and Ms N Mondliwa;
- City of Johannesburg: Ms Antonino Manus;
- Environmental Monitoring Group (EMG): Ms J Wilson;
- Ethekwini Municipality: Mr T Gounden and Mr JL Harrison;
- Johannesburg Water: Ms M Matiwane;
- Maluti GSM Consulting: Mr J Harris;
- Partners in Development: Mr D Still;
- Cape Peninsula University of Technology (CPUT): Prof A Lagardien;
- University of Cape Town (UCT): Dr H MacDonald;
- University of Stellenbosch: Dr JM Barnes;
- Western Cape Provincial Government: Mr D Reinecke; and
- Ms H Deedat, an independent consultant.

v) Members of government departments and officials in local authorities who willingly shared their valuable time, experience and knowledge. In particular, the authors thank the following municipal officials by name for their support and for sharing their experience with sanitation provision in urban informal settlements:

- City of Cape Town: P Maritz, N Leukes, L Gangatele, C. Magadla, P Vellem, D Sekels, L Grootboom, D February, R Melody and D Faure
- Overstrand Municipality: D Nel.

vi) All the many informal settlement residents and janitors who offered insightful comments on the municipal services provided and sanitation practices in their respective areas of residence. Special thanks go to them for having permitted the researchers to have imposed on their time under often very trying circumstances.

Lastly, this research report would not have been possible without the insightful contributions and assistance of Ms Angela Storey, a University of Arizona graduate student and the following UCT Urban Water Management Research Unit members: Prof Neil Armitage, Dr Kirsty Carden, Dr Mark van Ryneveld, Dr Vino Naidoo, Dr Kevin Winters, Mr Lloyd Fisher-Jeffes, Mr Sam Norvixoxo, Ms Sophia Pan and Ms Namhla Sicwebu.

L. Taing, K. Vice, M. Schroeder & A. D. Spiegel (Study Project Leader)

University of Cape Town, March 2014

1. Introduction

Providing sanitation in urban informal settlements, and ensuring that it is, and remains, fully functional, constitutes a very significant challenge for South Africa's contemporary water sector. Such settlements tend to arise rapidly and often, through land invasion, on land parcels either unsuitable for human habitation, or not readily accessible to local authorities, which have the responsibility for providing basic services to residents and the necessary physical infrastructure to support that service provision. Moreover, the socio-political processes that result in informal settlements appearing on the landscape tend to preclude the kind of planning needed for installation of such infrastructure. While it tends to be relatively easy to install water supply, electrical and telephone networks after an informal settlement is established, retrofitting roads, drainage and especially sewers has proven to be problematic, precisely because it almost always requires removing and relocating some of the structures residents have built for themselves, thus often also upsetting social networks on which people have to rely in circumstances of high unemployment and dire poverty. A further challenge arising from residents' poverty is that most lack the material means and a surplus 'sweat equity' capacity that is required for them to build their own sanitation facility on their respective sites, even if there is a nearby sewer connection available. And the fact that they tend to regard their urban informal settlement homes as temporary – while they wait for formal housing and/or plan eventually to return to a rural home to settle there – means that they tend to be unwilling to invest in such domestic infrastructure.

As a result, sanitation provision in many urban informal settlements tends to take the form of municipally installed toilets, either in concrete cubicles that are clustered throughout a settlement, sometimes alongside a standpipe, or in toilet blocks that may offer other ablution facilities as well. In all such cases, there are fewer toilets provided than there are domestic dwellings in the informal settlement – which means that all residents have either to share a toilet, or they have to rely on toilets that are accessible to all, which includes other settlement residents and their visitors and passers-by too. Such circumstances have proven to result in toilets that are soon filthy and unsanitary. The units are often blocked as well since many users may not use toilet paper as anal cleansers, and most local residents do not regard it as their responsibility to clean such toilets or undertake basic maintenance. A consequence is that municipalities, such as the City of Cape Town (CoCT) and Overstrand, have opted, the former more recently than the latter, to introduce what they describe as janitorial services for cleaning to provide very basic maintenance of the public (communal) toilets in the informal settlements in their respective areas of jurisdiction.

This report presents evidence, based on ethnographic research focused on the provision of janitorial services in three informal settlements (two in CoCT and one in Overstrand). In order to do that work, the ethnographic study had necessarily to include in its purview:

- The residents whom the respective municipalities regarded as the likely users of the toilets taken care of by the janitors,
- The janitors themselves, and
- The various levels of officials responsible for the administrative structures through which the janitors were appointed and their work supervised, and through which they were provided with the necessary resources to undertake that work.

The goal of the ethnographic study was to gather data about experience that might offer insight into the perspectives of:

- The people who use these public access toilets and how they experience sanitation services when public access toilets are all that is available to them (other that is than open defecation in areas adjacent to their settlements);
- Those whose task it is to take care of such toilets – in the sense of monitoring both the use and the condition of these toilets as well as cleaning them and reporting maintenance needs; and
- Those in local authority structures whose job it is to ensure the provision and continuous functioning of the facilities provided to deliver such services.

The intention behind presenting such a series of often contrasting perspectives on such facilities and service provision is twofold. Firstly, it is to demonstrate why it is that, all too often, what policymakers and designers of such services imagine is appropriate – in terms of technology and resource availability – is considered socially and culturally unacceptable and inappropriate by users and those tasked with caring for such facilities (e.g. on-the-ground cleaner-janitors and their immediate supervisors, or local authority officials responsible for their operation and maintenance). Among the reasons for that divergence of opinion are, as is shown in this report, that particular sets of often normative constraints on practice limit and direct the kinds of approaches that are possible and permissible, especially for and by persons within local authority structures.

The second intention behind using ethnographic methods to present contrasting perspectives is to indicate the diversity of everyday sanitation experiences in urban informal settlements, and to consider how those in turn may, and, as argued here, should be drawn upon when designing sanitation facilities and their operation and maintenance procedures. As is explained in the concluding section of the report, such design processes need to be based on iterative processes that take serious account of all stakeholder concerns and are flexible enough to accommodate changing demands over even short periods of time.

Among the reasons that it is necessary to stress the above points is that the trajectory of housing and sanitation provision in South Africa over the last 65 years reflects far more continuity of a commitment to top-down approaches than to change as one might expect. A top-down governance approach is where persons involved in the higher levels of a hierarchical structure both institute policy and direct practice, as opposed to a bottom-up approach, where persons from a hierarchy's lower levels develop strategies and direct management. The continuity of top-down approaches in South Africa is most apparent in policy for provision of low-income housing and services during the late apartheid administration, a policy that has effectively been pursued by the current government (see Section 1.1). The all too common presence of broken and unclean toilets in South African informal settlements is emblematic of the continuity.

The present report's authors propose that South Africa's current urban sanitation crisis exemplifies, as do many other similar examples, how a well-intentioned policy has failed disastrously in its implementation due to government officials' use of a top-down approach and its strong

emphasis on using technological and social engineering methods to achieve its aims. An argument of this report is that the top-down approaches adopted have too strong an emphasis placed on technological and social engineering methods to find "a solution to a problem defined by outside experts" (Cairncross 2004: 10). Such a perspective tends to ignore whether the people who provide, use or manage such systems themselves agree with such principles or approaches, and the extent to which intended beneficiaries of such technical 'solutions' accept them. In addition, the report argues that an uncritical adoption of engineering focused approaches reinforces top-down social and institutional policies and intervention strategies that take little real cognisance of people's perspectives and concerns – perspectives and concerns which derive from people's own experiences, particularly when they are users and on-the-ground cleaners and monitors of public access toilets in urban informal settlements.

A further argument, as is illustrated in the report's case studies, is that policymakers' assumptions are misplaced when they imagine that beneficiaries of an informal settlement sanitation-provision scheme desire a self-help approach to such services. As is demonstrated in the chapters that follow, the research reported upon here has indicated that many residents – particularly of urban informal settlements – commonly expect everything to be undertaken by one or other tier of the state administration, with minimal of their own financial investment and energy ('sweat equity') being expended.

A particular concern of this report is to explain some of the reasons that janitorial services for municipally provided toilets in informal settlements are needed, and especially how their provision is best structured according to a merger of top-down and bottom-up implementation approaches. By considering the various and often quite different perspectives of national policymakers, municipal officials and informal settlement residents, the report reveals a range of problems that suggest an urgent need to reform the sanitation component of the South African state's Free Basic Services policy. A central argument of the report is that it is necessary for those involved in sanitation planning, delivery and management to recognise that there are competing rationalities at work in sanitation provision exercises, and that those need to be understood and considered by all concerned – including 'target' populations of users. That, the report argues is because the diversity of what are here called rationalities or perspectives is as much, or possibly even more, a fundamental constraint on introducing and implementing sanitation than are technical concerns; and that they are also central to any attempt to encourage a sense of shared responsibilities for public amenities and other resources.

In order to understand whence ideas that tend to dominate the sector derive, it is necessary first to consider briefly the history of housing provision in South Africa. This is because housing and service delivery are inextricably linked, especially since service-provision policies are often seen as an interim solution in a process aimed at addressing the country's overall housing-provision crisis. Presented next is a brief overview of previous approaches to South African housing and infrastructure provision, from 1948 to the present. Following that is a brief description of the study objective and analytical framework adopted by the research team. The report then turns to a presentation of key concepts and definitions used by the authors, which is followed by a chapter outline.

1.1 South Africa's housing & servicing sectors: Recycling political & technical solutions?

> *The technical approach can only indicate the way; it remains for housing policies to be framed in terms of scientific findings to pave the way to a solution* (Calderwood 1953: 14, as cited by Haarhoff 2011: 190).

Calderwood was one of two Council for Scientific and Industrial Research (CSIR) researchers responsible for drafting the National Building Research Institute's (NBRI) minimum housing and servicing standards for 'native townships' in the 1950s (Haarhoff 2011: 190). Calderwood's three designs for free-standing houses were accepted as standard by housing authorities throughout South Africa, and later "reproduced in the thousands" up until the 1980s (Haarhoff 2011: 190–191). His statement, and the subsequent adoption of his designs, suggest that the quest to find a mainly technical approach – that is a purportedly 'logical' or 'rational' method – for addressing the then state's 'non-white' urban housing shortage has thus been embedded in the state's housing policies and infrastructure practices at least since the 1950s.

But to describe the apartheid government's regional planning and engineering practices as wholly scientific fails to acknowledge the fundamentally political and ideologically racist motivation for requiring segregated townships for 'black' people. According to post-apartheid legislation (RSA 1997a: 6), the term 'township' denotes either "a group of pieces of land, or of subdivisions of a piece of land" designated as an area for commercial activities, residences or industry. The use of the term by the current government, therefore, is not meant to have any racial connotations and indeed is in line with international practice.

Historically, however, the word township was used in South Africa to describe an urban area created specifically for housing what were described as 'non-white' labourers and families "beyond the town or city limits", whilst "the white population resided in suburbs" that were usually adjacent to a town or city (StatsSA 2011: 20). Based on the latter understanding of the term, township design and housing construction have become physical reminders of how technical 'solutions' were previously used by the apartheid state to support its political agenda of developing supposedly 'separate but equal' 'black' and 'white' South African nations.

From the time the apartheid government came to power in 1948, its aim was to divide South Africa into "white and black homelands", which later manifested in the form of legislation and infrastructure in support of its "separate development" objective (Muller 1963: 61). The following sections briefly describe the various measures that the apartheid government enacted for the purpose of controlling the growing urban black population in 'white' South Africa through the restriction of low-income accommodation opportunities in towns and cities. The discussion then turns to a brief description of democratic South Africa's housing policy, noting how little the character of infrastructure provision had shifted from the latter half of apartheid rule to the transition into the Minister of Housing in the first post-apartheid government, with Joe Slovo's intention to build houses for all. Throughout there was a continued promotion of self-help agendas

that were reminiscent of the previous government's policies. This suggests that, in spite of the demise of apartheid and the installation of a fully democratic order twenty years ago, the trajectory of housing and servicing provision in South Africa over the last 65 years reflects far more continuity of top-down, politically-motivated technical approaches than change as one might expect.

1.1.1 'Non-whites' urban housing policies (1950s–1993)

1.1.1.1 Evictions & forced relocations (1950s–1979)

In its efforts to reduce the numbers of blacks in cities in the 1950s to mid-1960s, the apartheid government:

- Continued the previous colonial government's practice of restricting the number of blacks who resided in 'white urban areas'. Like their predecessors, who had enacted the 1923 Native Urban Areas Act in order to withhold urban freehold property rights from black homeowners, apartheid officials used legislation to deprive black homeowners of their "existing freehold rights" in areas that were designated for "white" residence (Wilkinson 1984; Watson & McCarthy 1998: 50).
- Demolished any informal settlements that existed or appeared because they were "perceived as a visible manifestation" of a lack of control over the black population (Harrison 1992: 16). As noted by Harrison (1992: 16), informal settlements were "not a new phenomenon in South Africa", with shacks having been erected on the fringes of Cape Town by ex-slaves as early as 1834, and both Kimberley and Johannesburg developing first as mining camps with only informal housing. As used in most contemporary literature, the term 'informal settlement' refers to areas with housing and layouts that are not developed according to conventional building codes, often on land that is considered "not suitable for development", and where residents generally do not have legal tenure over the land where they reside (Department of Human Settlements 2009: 26). The apartheid government used legislation (namely the Group Areas Act of 1950 and the Prevention of Illegal Squatting Act of 1951) to justify the removal of urban informal settlements where black people resided, and which "had largely been eradicated" throughout South Africa by the mid-1960s (Harrison 1992: 16).

Apartheid officials forcibly relocated those evicted from areas of freehold urban tenure and informal settlements either to rural Bantustans that were designated to be black 'homelands', or to rental accommodation in homes or mass public housing projects (that included single sex hostels) located in townships adjacent to towns or cities (Harrison 1992: 16; Gilbert et al. 1997: 137). Townships located on the periphery of urban areas were specially built by the apartheid government as 'temporary' places of residence (dormitory areas) for blacks who were formally employed by businesses, so they could "commute to jobs in the 'white' towns and cities" (Watson & McCarthy 1998: 50). Such segregated areas provided an added advantage to officials interested in controlling and monitoring the occupancy of units they rented out, and indeed also controlling the populations that resided in those areas (Watson & McCarthy 1998: 50).

From the mid-1960s, the apartheid government worked towards an ideal in which all black African persons would have homes in a Bantustan, albeit that some, who had labour contracts, would be accommodated in 'white' urban areas. Consequently public housing resources were increasingly directed to projects in such Bantustan areas, and the development of black formal housing outside the Bantustans eventually ceased in 1967 (Harrison 1992; Watson & McCarthy 1998). The apartheid government continued to withdraw from providing publicly funded urban rental housing for black persons in the 1970s and into the 1980s, due in part to apartheid officials wanting to encourage black African people to settle in Bantustans, and their growing reluctance to remain a "national landlord" to urban housing tenants (Watson & McCarthy 1998: 50). Watson & McCarthy (1998: 50) also noted that, by the 1980s, apartheid officials had struggled with "ongoing management and maintenance of the urban public rental stock" and with having to respond to "organised mass resistance to increases in rental and maintenance charges." These issues evidently prompted the then government to reconsider the longevity of its urban public housing policy.

In addition to their struggles with public housing, apartheid officials could not stem what was then regarded as the 'illegal' in-migration of black people from rural homelands to urban areas, and informal settlements re-emerged in urban centres from the mid- to late-1970s onwards (Harrison 1992: 16). Many so-called illegal migrants to the towns and cities were also informally accommodated as 'tenants' in overcrowded hostels, or in rooms or backyards of formal homes (Ramphele 1993; Jones 1993; Gilbert et al. 1997). Reflecting a break from previous objectives, apartheid officials had seemingly, by the late 1970s, accepted that "the growing numbers of shack dwellers would have to be accommodated within the urban areas", and thereafter sought another means to house this population (Watson & McCarthy 1998: 50).

1.1.1.2 State-assisted 'self-help' housing (1980–1993)

Spurred on by leading representatives of capital (Wilkinson 1984), including the then Urban Foundation, the apartheid government and its officials came to accept that black urbanisation was "inevitable" by the 1980s. Apartheid policymakers thus sought a means of accommodating the "generally very poor and rapidly growing African urban population" (Watson & McCarthy 1998: 50). This produced a housing policy that permitted provision of subsidised serviced sites that might, at least at first, accommodate "a property-owning middle-class", whilst also relinquishing their responsibilities as landlords (Watson & McCarthy 1998: 50-51). Though it "seems contradictory to its aims of separate development", as Haarhoff (2011: 192) explained, apartheid government officials wanted to accommodate black homeowners because, "from an administrative point of view, ownership schemes are easier to administer."

That housing policy manifested in apartheid officials coming to allow black homeowners to obtain 30- to 99-year leases in townships, and, in 1983, with a government plan to sell off public rental housing stock at deeply discounted prices (Wilkinson 1984; Watson & McCarthy 1998). Temporary titles permitted titleholders the "conditional and non-transferable right of occupancy" for the length of time on their contracts (Wilkinson 1984: 21). Though such a measure was an improvement on the immediate past, as it lifted some of the previous legal restrictions on non-white homeowners, these

lease-hold titles were still a far cry from the freehold rights applied to white citizens and permanent residents.

The government drive for non-white persons to own property led to the transformation of vast swathes of greenfields, such as Khayelitsha on the outskirts of Cape Town, into formally designed townships with infrastructure provided for large numbers of unoccupied residential sites – each with its own standpipe and concrete cubicle enclosed toilet, and with areas of undeveloped land alongside (SPP-WC 1984). These developments contrast with the immediately previous housing strategy which focused on building in the Bantustans and discouraging black residents from settling permanently in the cities and with the strategy prior to that which had built some small sub-economic houses, as well as hostels in townships, on the margins of the country's cities.

The 1980s creation of new townships within what was then 'white' South Africa suggests that there was a change in approach to housing of the black labour force, particularly in cities that were too far from the Bantustans for daily or weekly commuting. But by then it took the form of housing provision in terms of an incremental housing model where people were allocated a serviced housing site and were expected to invest both materially and in the form of 'sweat equity' to build their own homes on the site (Wilkinson 1998). This meant that the late apartheid state, faced with an apparently unstoppable migration of 'blacks' to towns and cities, and business interests that were increasingly opposed to the maintenance of earlier imposed influx control policies, had to adopt an incremental housing model that was meant to benefit both the state and individual homeowners. Such incremental housing approaches are often referred to as 'mutual-help', 'self-help' or 'public-private partnership' incremental housing models (Maasdorp & Haarhoff 1983; Huchzermeyer 2001).

Late apartheid officials selected, in the 1980s and early 1990s, a "site-and-service" model as a self-help approach to shelter and provide services for lower-income homeowners (Mayo & Gross 1987; Maasdorp & Haarhoff 1983; SAITRP 1985; Bond et al. 2000; Marais et al. 2008). In theory, site-and-service schemes ranged technically and, as the development of Khayelitsha illustrated, from a plot with no house but with "services such as access roads, footpaths, drainage, water, sewerage and perhaps electricity" all installed, to a fully-serviced house surrounded by "community facilities" such as health clinics and schools (Maasdorp & Haarhoff 1983: 12; Mayo & Gross 1987: 307).

Promoted by the World Bank, site-and-service programmes differed from then existing and previously implemented apartheid policies in that individuals were now meant to share the costs of state-sponsored housing (Wilkinson 1998). According to Mayo and Gross (1987: 301), the World Bank had advised various governments to offer each low income family a serviced plot with no (or little) additional subsidy for shelter and services, and claimed that beneficiaries of these projects could thereafter incrementally improve their homes without state assistance if they wanted a higher level of shelter and service than what the government was willing or able to provide. Such an approach reflects tenets of the self-help movement in which the owner of a house is meant to rely on his or her own self and labour power ('sweat equity') for improving the home in which they reside. Site-and-service schemes were thus heralded by the World Bank as an alternative way that governments could redress housing shortfalls economically and rapidly, whilst also conveniently "reducing the role of the public sector" in low-income housing provision by having individuals privately invest in their homes as home owners (Maasdorp & Haarhoff 1983: 18; Mayo & Gross 1987: 304; Wilkinson 1998). Furthermore, site-and-service projects also addressed the alleged

preference of “low-income families” in prioritising “essential services (water, energy supply, human waste disposal and transportation)” over housing quality (Maasdorp & Haarhoff 1983: 10), particularly since, it was argued, many preferred to build in villages in rural areas which they considered their real homes.

Influenced by the World Bank’s policies and projects, late apartheid-era policymakers established a capital fund for site-and-service subsidies to create “slightly-better formalised shack settlements” in urban residential areas (Bond et al. 2000: 5). As Wilkinson (1984: 18) noted, apartheid officials had become interested in the private investment aspect of self-help initiatives due to the massive financial resources that the government would have needed to invest in order to build mass housing to provide for the “enormous shortage of housing for Africans ‘legally’ resident in the ‘white' urban areas’”. This could anyway not include providing for the equally massive presence of ‘illegal’ urban residents who were by then challenging the state’s influx control regulations by simply settling in cities and creating ever more informal settlements filled with ‘illegal’ houses and ‘illegal’ residents, and who continue to be notable challenges, even 20 years after the establishment of a fully democratically elected government and nearly 30 years after influx control regulations and legislation were lifted.

Despite the late apartheid state’s shift to subsidies for site-and-service provision, it soon became apparent that some senior late apartheid era officials were disparaging of the government’s self-help policy, decrying it as a “second class solution being provided to low income people” (SAITRP 1985: 66). They also reportedly predicted that such an approach would “lead to the creation of slums” (Wilkinson 1984: 18), with all the socio-political consequences that allowing that to occur might have. For that reason others soon became vocal in criticising the government’s supposedly technical approach to resolving socio-political problems. For example, A.M. Lamont, a former Associate Professor of Sociology at the University of South Africa (UNISA), pointed out that tackling the housing crisis “scientifically” (as he described it) is impossible because “town planning cannot be divorced from politics” (SAITRP 1985: 32). As Lamont explained at an urban housing conference in 1985, it was a misconception to assume that decisions made in the sector were neutral or independent because “[t]own planning as a profession forms part of the body of professional people who not only implement policies of authorities, but also assist authorities with policy formulation” (SAITRP 1985: 32). In other words, decisions made by town planners have always been political because they are influenced by a partisan objective. This is a criticism that can arguably be extended to the civil engineering sector as well, which tends to seek technical solutions to what are almost always, especially when it comes to low income housing and informal settlements, socio-political problems.

Regardless of these various critiques, the late apartheid-era system of site-and-service housing grants proceeded after the formal abandonment of apartheid, being administered by the Independent Development Trust (IDT), a state parastatal established in 1991 “to provide funding for projects involved in poverty alleviation in South Africa” (Parliamentary Monitoring Group 2000). Critics, who likely comprised both beneficiaries of these site-and-service subsidies and professionals in the housing sector, popularly referred to IDT-funded projects as “I Do Toilet” schemes, as “toilets in the veld” and as “toilet towns” (Bond et al. 2000; Huchzermeyer 2001; Hall 2005; Melo 2012) – thus reflecting early 1990s graffiti on various Khayelitsha walls which demanded, “Give us houses,

not toilets" (Watson et al. 2001). Labelling the IDT-funded projects in those ways reflected contemporary commentators' criticisms of the shortcomings of the site-and-service subsidy system, particularly since it provided only for on-site construction of a toilet and a water connection, and left beneficiaries to make their own provisions for building materials, electrical connections and for actual construction of their homes.

1.1.2 RDP housing: Breaking new ground? (1994 to the present)

Aiming to give "a decent residential existence far beyond what was on offer in existing site-and-service schemes: (Bond et al. 2000: 11), South Africa's first fully democratically elected government established a system of one-off state capital subsidies "for qualifying households" to secure tenure over a house with infrastructure services. This formed part of the "African National Congress (ANC) objective of housing for all" (Charlton & Kihato 2006: 254). Charlton & Kihato (2006: 254) also reported that the subsidy manifested in several forms, but its "most visible manifestation has resulted in the production of the RDP house." The Redistribution and Development Programme (RDP) was a state initiative that was established in late 1994, with the intention, among others, of being able to help realise every citizen's right to access "adequate housing" (RSA 1996; Huchzermeyer 2001). At that point the Department of Housing defined such adequate housing as constituting:

> Viable, socially and economically integrated communities, situated in areas allowing convenient access to economic opportunities as well as health, educational and social amenities, within which all South Africa's people will have access to:
>
> - A permanent residential structure and with secure tenure, ensuring privacy and providing adequate protection against the elements; and
> - Potable water, adequate sanitary facilities including waste disposal and domestic electricity supply (Department of Housing 1994: 12, cited by Huchzermeyer 2001: 305).

Yet, even as such new apparently generous policies were being introduced, they remained effectively technocratic interventions by the national government, which eventually adopted the 'self-help' tenets promoted by the previous government after recognising that the state could not deliver on its initial promises of allocating "one million subsidies in 5 years" alone (Gilbert 2014: 24). As Huchzermeyer (2001: 305) and Gilbert (2014: 24) have suggested, what was not immediately evident behind the rhetoric of the Department of Housing's 1994 definition of adequate housing was that national policymakers had once again adopted a technocratic approach underpinned by a self-help idea in order to redress the housing shortfall as a 'shared' responsibility. This was apparent in that they had intended that:

- Further improvements to homes would be initiated and undertaken by those who benefitted from the subsidy "as and when people are able to add to their starter houses" (Buchanan 1994: 75, cited by Huchzermeyer 2001: 306); and

- "Government would provide only minimal infrastructure and services to low income urban South Africans" (Bond et al. 2000: 14).

In other words, it seems that the new immediate post-apartheid national government had reproduced the previous government's housing policies through its provision of small houses ("matchboxes"), with minimal services, in remote locations, all for low income households (Miraftab 2003; Shelembe 2014), which occupants could then incrementally improve upon through sweat equity (DoH 1995; Wilkinson 1998). The major difference between the two government policies was that RDP house homeowners had freehold rights to their houses, whilst late apartheid householders were at best long-term leaseholders. This difference aside, the post-apartheid approach has clearly emulated one of the central tenets of the late apartheid era's "state-assisted self-help" housing framework, in that beneficiaries were expected to supplement what the state provided (Wilkinson 1998: 226).

It seems that, probably for reasons of resource constraints and massive growth in housing demand, contemporary national housing policy, still in the mid 2010s, closely parallels and reproduces late apartheid era infrastructure led self-help housing initiatives (DHS 2004; Huchzermeyer 2001; Ntema 2011). Moreover, critical socio-political issues – such as whether intended beneficiaries accept this kind of self-help paradigm – seem to have continued to be overlooked when the current housing policy was being developed, and, as Huchzermeyer (2001: 327) has pointed out, it has led to persisting delays in providing recreational, educational and commercial facilities so that the majority of both RDP projects – as well as site and service projects – have simply turned out to be (at most) houses with water, sewerage and electrical connections. Considering the present policies and the infrastructure that has been constructed since their introduction, it appears – at least on the surface, although for probably different reasons – that the current government has simply recycled the housing provision principles of the previous apartheid government, at least in its late stages. The current government has also continued to take a technocratic self-help approach to the national housing dilemma and has not applied the participatory principles enacted by the United Democratic Movement (the ANC's informal internal wing in the 1980s, which were part of its 1990s manifesto).

In spite of the democratic government's construction of more than 1 155 300 tenured homes in urban and rural areas since it came to power (Department of Housing 2001: 5, cited by Gilbert 2014: 19), the urban housing backlog for low income households has continued to be problematic for municipalities that have been unable to meet the growing accommodation and servicing demands – caused by natural population growth and rural-urban in-migration – with their limited land and financial resources (DHS 2004; DPLG 2005a; DPLG 2005b; Madikizela 2011; SAHRC 2014). The next section details the 'interim solution' that policymakers have envisioned for individuals that lack access to basic municipal services in light of the country's overall housing-provision crisis.

1.1.3 Basic rights: A top-down servicing endeavour (2000 to the present)

National policymakers noted that those disadvantaged by the previous government's policies continually suffered from "the results of past racial discrimination" because their inability to afford

adequate housing constrained their constitutional right to live in environments that are "not harmful to their health or well-being" (RSA 1996: 1251, 1253; DWAF 2004; Mjoli et al. 2009). In support of the principle that one's inability to pay should not impede access to living in a clean and healthy environment, as Mosdell (2006: 283) has stated, that former President, Thabo Mbeki, promised to provide limited free services to the poor if the ANC won the December 2000 local government elections:

> Many of our people are poor and cannot pay for a little bit of water or for a half day of electricity… So this manifesto of the ANC says when we get elected to municipal government we will ensure the poor get some water and electricity free of charge – former President Thabo Mbeki at a Congress of South African Trade Unions (COSATU) meeting in September 2000, as cited by Mosdell (2006: 283).

Following a successful re-election, an ANC-led state government adopted a measure in 2001 whereby a household's inability to pay would not affect their access to water, electricity, sanitation, drainage and refuse removal services (DWAF 2003, 2004; Muller 2008; Still et al. 2009). Municipal officials were mandated by their state counterparts to:

- "Ensure all members of the local community have access to at least the minimum level of basic municipal services" (RSA 2000: 70). A basic municipal service, as noted in the *Municipal Systems Act (No. 32 of 2000)*, is defined as a civic amenity "that is necessary to ensure an acceptable and reasonable quality of life and, if not provided, would endanger public health or safety or the environment" (RSA 2000: 14).
- Provide limited amounts of basic services to poor households (DWAF 2008; Mjoli & Bhagwan 2008; Still et al. 2009). A poor household "does not have enough money [sic] required to attain a basic minimal standard of living – enough to purchase a nutritionally adequate food supply and provide other essential requirements" (DWAF 2008: 10).

Called Free Basic Services, local government was then provided with national government subsidies to cover the services' capital and operation and maintenance (O&M) costs (DWAF 2003, 2004; Mosdell 2006). It was intended by national government that O&M costs in this context would include provision of off-site services, and that on-site services, including simple repairs, maintenance and cleaning, would be the responsibility of users (DWAF 2008). The then Department of Water Affairs & Forestry (DWAF) was responsible for preparing national standards for free water and sanitation services, which were published two years later (DWAF 2003), and for guiding municipalities in their implementation of the state's measure (DWAF 2007; DWAF 2008).

Mosdell (2006: 283) argues that such a servicing policy was a substantial deviation from previous state policies where the government paid for the capital cost of infrastructure only, "provided that beneficiaries would undertake to pay the recurrent costs." In other words, Mosdell highlights how the post-apartheid state had explicitly accepted responsibility for both the installation of physical infrastructure, as well as the repeated servicing costs incurred, such as O&M, in its new servicing policy as it was meant to benefit the poor. Moreover, allowing a limited amount

of free services to all was purportedly easier for municipalities to administer because officials were struggling to justify whether the high operational costs they incurred to "enforce payment" for services in low income areas outweighed the small amounts they received in turn for those efforts (eThekwini Municipality is an example – see Bailey 2003; Muller 2008: 73). Part of the reason for non-payment arose from there being a recent history of such practice. As recognised by DWAF (1994: 23), officials in "now defunct homeland administrations" similarly struggled to collect payment for services due to "administrative and management inadequacies." In addition, as noted earlier, non-payment was often used as a form of resistance against the apartheid government by tenants of cities' public rental stock (Watson & McCarthy 1998: 50). Adopting the Free Basic Services policy therefore was seen as beneficial for those who could not otherwise afford services, for municipalities that struggled administratively to recover costs from those who could ill afford to pay for service rates, and for state officials who were purportedly committed to advancing the constitutional rights of all South Africans through public policy.

Six years after its implementation, Muller (2008: 84), the Director-General of DWAF when the policy was first enacted, stated that the water component of the Free Basic Services policy was successfully addressing social equity concerns. He argued that a major strength of the policy was that:

> its main drivers were political rather than technical; it was the product of political forces mobilised by the advent and evolution of a democratic government in 1994 rather than a technical response to the introduction of a constitutional right to water in 1996 (Muller 2008: 84).

Whilst municipal officials throughout South Africa have arguably achieved widespread improvements in access to water supplies, often associated with the ease of delivering such services, providing appropriate or acceptable sanitation to users has proven to be far more difficult in both urban and rural areas (Muller 2008; Lagardien et al. 2009b; SAHRC 2014). Given that almost all municipalities were soon struggling with the free basic sanitation component of the Free Basic Services policy, national policymakers issued a strategy to help local governments develop their respective sanitation implementation plans (DWAF 2008), including the issuing of a special strategy and implementation document that targeted provision for informal settlements (DWAF 2007). In spite of these efforts, as noted by Mjoli & Bhagwan (2008: 4-5) and Mjoli (2010: v, vi, 31, 117), national policymakers still did not offer practical guidance for:

- Servicing dense urban informal settlements;
- Servicing "severely marginalised groups such as people with physical disabilities, elderly, women, children, HIV/AIDS infected individuals and child-headed households";
- Providing O&M for on-site sanitation technologies such as ventilated improved pit latrines (VIPs);
- Integrating water conservation and demand management strategies, including measures such as wastewater re-use or recycling;
- Developing regulatory compliance tools such as "economic and legal instruments";

- Managing greywater in non-sewered urban settlements and solid waste in both urban and rural areas; and
- Providing "public toilets in urban and rural areas".

In the absence of practically realistic guidelines from national policymakers, municipal authorities report that they have had to adopt policies that have been developed from their own trial-and-error efforts used to address: (i) the "massive sanitation backlog" in informal settlements, a backlog which increases on a daily basis due to population growth and rapid urbanisation, (ii) lack of public resources such as bulk infrastructure to which to connect to, and (iii) inadequate human resource capacity to maintain existing services (Gounden 2010; Taing, Armitage, et al. 2013). Products of these initiatives often contradict the demand-driven principles outlined by DWAF (2003). Municipal authorities often implemented technocratic approaches to which they were accustomed and did so because they faced various legal, physical, social and institutional constraints, especially when servicing informal settlements (Graham 2006; Ashipala & Armitage 2011; Taing, Armitage, et al. 2013). For example, municipal officials from the City of Cape Town (CoCT) and the eThekwini Municipalities who were interviewed by members of the present study's research team reported that they have had difficulty introducing conventional waterborne sewerage in densely settled land that is privately owned – despite it being the technology recommended by national government for densely settled areas and that usually demanded by informal settlement residents (DWAF 2003; Eales 2011). Often this has left them with little choice but to provide alternative sanitation technologies (such as unsewered facilities), and to introduce sharing arrangements that informal settlements residents regard as undesirable.

Similar concerns have been expressed by municipal authorities across the country, with many reporting that a number of complex socio-cultural and management issues have contributed to the deterioration and dysfunction of toilets provided in informal settlements as part of the state's drive to provide free services (Mjoli 2010; Schaub-Jones 2010; IDT 2012; Taing, Armitage, et al. 2013; SAHRC 2014). Authors of previous WRC studies and research reports about various South African municipalities' urban sanitation interventions have considered why these types of toilets in informal settlements tend to fail in providing a sufficient service throughout the country. Generally those authors have argued that social and institutional problems are the problem, and that they stem from a combination of:

- Residents' lack of hygiene awareness or education (Naidoo et al. 2008; Naidoo et al. 2007; Naidoo & Chidley 2009; Lagardien & Cousins 2004; Mjoli et al. 2009; MSST 2012; Govender et al. 2010);
- Residents' lack of involvement in a supply-driven technical process (OECD 2008; Lagardien & Cousins 2004; Schaub-Jones 2010; Mjoli & Bhagwan 2008; Mjoli et al. 2009; Mjoli 2010; MSST 2012);
- Various municipalities' misalignment, non-compliance or poor interpretation of national legislation and standards, as evidenced by "policies that are not in line with the Constitutional principles of human rights" (Mjoli & Bhagwan 2010; Mjoli & Bhagwan 2008; Lagardien & Cousins 2004; Lagardien et al. 2009b; MSST 2012; Tempelhoff 2012; Kidd 2011; High Court of South Africa 2011; SAHRC 2014: 16), and/or

- Overwhelmed municipalities' incapacity or inability to provide services (Mosdell 2006; SAHRC 2013, 2014), their disinterest due to the lack of cost recovery for services that must be provided for free (Mjoli & Bhagwan 2008, 2010), and/or devotion of the bulk of their national subsidies to supplying water rather than to providing sanitation (MSST 2012; SAHRC 2014).

Having considered what they regarded as municipalities' technically driven approaches and 'improper' education of or inadequate engagement and consultation with users, the recommendations made in the above-mentioned reports tended to centre on 'turning policy into practice' through instilling users' behaviour change – whether through:

- 'Empowering' these communities to take 'ownership of their toilets' through health and hygiene awareness campaigns (Naidoo et al. 2007; Naidoo et al. 2008; Naidoo & Chidley 2009; Mjoli 2010; Lagardien et al. 2013); or
- Altering a municipality's coordination practices and participatory processes so that officials can rapidly provide services whilst following the principles outlined in DWAF's *Strategic Framework* (2003) and rights-based approaches (SAHRC 2013, 2014)

Yet, in making these statements, the authors overlooked how:

- The supposed 'communities' of residents often do not share communal interests (Mubangizi et al. 2011);
- There is little evidence that shows any reliable undertaking of O&M tasks by users of shared sanitation systems after they have participated in decision-making and implementation processes (Nance & Ortolano 2007; Eslick & Harrison 2004; Taing, Armitage, et al. 2013). In fact, as Lagardien (et al. 2013) have documented, residents involved in sanitation planning, albeit in that reported case they were in rural areas, have explicitly stated that they *did not want* responsibility for O&M tasks;
- Municipal authorities usually provide informal settlements with 'temporary' and, almost inevitably, so-called communal (what may better be described as public – see Section 1.3) facilities due to various legal, physical and socio-political constraints, yet in ways that make it impractical for a number of households to share and maintain toilets jointly, particularly where strangers also have access to those facilities (Taing, Armitage, et al. 2013);
- Difficult it is to "ensur[e] personal hygiene due to the lack of access to water and sanitation" infrastructure in informal settlements (SAHRC 2013; Taing, Armitage, et al. 2013);
- Technically-trained municipal staff do not have the necessary skills or background to support participatory approaches, particularly in projects that require astute conflict mediation talents (Taing, Armitage, et al. 2013; SAHRC 2014);
- Municipal responses are slowed by national government's grants structures which insensibly divide components of housing and infrastructure into separate funds (Madikizela 2011); and

- Based on findings from previous WRC studies (Mjoli et al. 2009; Still et al. 2009; Taing, Armitage, et al. 2013), it seems that national government does not provide adequately for the capital, O&M and administrative costs of municipal free basic services.

The above points suggest that the aforementioned authors were perhaps not considering policy itself, or its shortcomings, or recognising the extent to which free basic sanitation implementers, and their beneficiaries, are constrained on a day-to-day basis, especially in informal settlements. Of equal or possibly greater concern is that, despite the above-stated evidence pointing to the need for adapting the state's broadly stated policy so that it engages with the on-the-ground socio-political needs of residents in urban informal settlements and the municipal authorities meant to service them, there continues to be uncritical acceptance of policymakers' top-down approaches and rhetoric. Precisely because the provision of free basic services has continued to garner strong interest in light of the slow pace of housing delivery (Madikizela 2011), reconsideration of its mode of implementation is crucial. This is all the more so in a context where lack of sanitation services in informal settlements was an especially popular topic during the run up to the 2011 local government elections (Tissington 2011; Tempelhoff 2012; Robins 2013; Robins 2014), and has continued to be an important topic in the run up to the 2014 national and provincial government elections occurring as the present report is being prepared. Grievances about lack access to adequate water and sanitation services in informal settlements particularly have also been highlighted in a recently published South African Human Rights Commission (2014: 30) report:

> The provision of water and sanitation to households in informal settlements is particularly challenging to municipalities as these settlements do not have proper housing or water and reticulation infrastructure. Many of the complaints on a lack of services received by the Commission emanate from individuals and families living in informal settlements that have been on waiting lists for formal housing for a long period of time and continue to suffer from the impacts of a lack of access to basic services and the associated impacts.

This section of the present report has traced how South Africa's housing and servicing policy has evolved since the 1950s, and noted how – in spite of the transition from an apartheid to a democratic government two decades ago – the politicised and technocratic character of the two sectors has hardly changed over the last 65 years. Unlike its predecessors, the democratic government has notably enacted rights based legislation and adopted policies in their attempts to redress the social injustices of colonial and apartheid policies that had disfranchised the majority of South Africans and forced many into underdeveloped areas in rural areas or on the periphery of urban metros (Cole 1987). For instance, the state has commendably introduced the Free Basic Services policy so as to ensure that those who cannot afford 'adequate' housing and municipal rates still have access to limited amounts of water, sanitation, electrical and solid waste removal services for free.

Yet, 'unhealthy' living conditions such as arise in circumstances of unserviced urban informal settlements continue to proliferate, partly because there is a persistent emphasis on having

technologies 'solve' what are evidently deeply ingrained social and political problems – often as much or more so in institutions responsible for policy-making, implementation, research and advocacy as on the ground in informal settlements. For example, despite the explicit socio-political imperatives that public protests about sanitation services have highlighted, most government officials, journalists and activists, especially in 2010/2011, focused on technical aspects of a toilet facility – in particular, the top-structure that shields toilet users from public view, the technologies used to contain and to convey waste and having users accept these products (SAPA 2010; SAPA & Cape Times 2010; High Court of South Africa 2011; Penner 2010). Such a continued emphasis on technology has led to revisions of urban design and engineering texts such as the CSIR's *Red Book* to reduce informal settlement servicing backlogs, but these top-down technological design interventions have seemingly had little impact on the ground (J. Bhagwan, pers comm 27 Feb 2014).

Penner (2010) explained that such technically-driven sanitation provision measures have consistently failed to address structural inequalities caused by previous governance measures because the "answer... does not lie in cleverly inducing consumer demand, but rather in reforming or even dismantling the existing sanitation ladder so that it becomes more fluid and less hierarchical." In other words, as Penner (2010) suggested, South Africa's structural inequities need perhaps to be addressed through a systemic transformation of the current systems and processes from top-down marketing or so-called 'education' campaigns to having delivery efforts arise from interactions and negotiations between a range of stakeholders.

Following this line of thought, the next section details how the present study shifts away from a solely top-down service provision perspective, to one that considers how bottom-up perspectives can be recognised and built into the work that emanates from application of top-down approaches for improving the quality of free basic sanitation services in informal settlements. The supposed differences between top-down and bottom-up approaches are discussed first. That is followed by consideration of how the research team focused upon understanding the everyday experiences of using, providing and managing sanitation services in informal settlements thereby adopting a bottom-up perspective on understanding service delivery.

1.2 Bottom-up study objective

In political and development studies, the terms 'top-down' and 'bottom-up' are often used to indicate how decisions, policies and practices are made and understood. Simply stated, top-down and bottom-up are supposedly different styles of planning, doing and thinking. A top-down approach is commonly depicted as an institutional structure where policies are decided by 'executives' and usually disseminated to lower levels in a hierarchy. It is one in which 'experts' then determine the extent to which "legally-mandated objectives were achieved over time" (Sabatier 1986: 22). As noted by Sohail et al (2001), top-down measures are popularly regarded as "conventional" and "bureaucratic" governance measures. This is opposed to bottom-up approaches which are popularly are depicted as being inclusive, people-driven forms of governance constituted by a large number of persons and groups collaboratively interacting to make decisions and strategies together (Sabatier 1986; Allison 2000; Mcewan 2003; Pillay et al. 2006).

Table 1-1 summarises the supposed differences between the two approaches in terms of the stakeholders involved, the overall focus and aim and the evaluative criteria used to measure programmatic success.

Although the two perspectives are traditionally depicted as being fundamentally distinct, Sabatier (1986) 30 years ago noted that there is significant overlap between top-down and bottom-up approaches in practice, particularly in instances where local government has both top-down and bottom-up implementation roles. The two approaches are nevertheless depicted as opposing sides of a binary, in both popular and academic literature, especially when they are used as tools to consider how to improve implementation governance measures. According to Sabatier (2005: 4–7), previous empirical research studies conducted on water catchment implementing agencies in the United States has shown that there is a strong interest in replacing "top-down, agency-dominated approach" with "a much more collaborative bottom-up approach involving negotiations and problem solving." He argues that that is because the latter left implementers better able to diffuse complex problems based on their local realities than did the former.

Table 1-1: Top-down vs. bottom-up implementation approaches (Adapted from Sabatier, 1986: 33).

	Top-down	Bottom-up
Key stakeholders & initial scale of focus	Central government policymakers and their decisions	A network of 'on-the-street-level' actors involved in policy implementation
Overall aim	"How does one steer system to achieve (top) policy-maker's intended policy results?"	Understanding "strategic interaction among multiple actors in a policy network"
Evaluative criteria	• "Starts from a policy decision and focuses on the extent to which its objectives are attained over time and why" • Effectiveness of a specific government programme • Some focus on "politically significant criteria and unintended consequences"	• Understanding interaction related to the policy or implementation sector • Who are the actors involved in service delivery? • What are their goals, strategies, experiences, practices, contacts, etc.?

Research using and about the strengths of bottom-up approaches has led to similar calls in South Africa for reforming the current state of service delivery through the use of bottom-up decision-making models. The approach builds on an assumption that grassroots participatory approaches can be a tool to overcome inequality collaboratively, through cooperation of government with citizens (Allison 2000; Mcewan 2005; Charlton & Kihato 2006; Pillay et al. 2006; Schulze et al. 2007; M. Muller 2009; Ashipala & Armitage 2011). Lagardien & Cousin (2004: 29) have argued that integration of a bottom-up perspective was especially needed to realise the "roles and responsibilities of tiers of government, various departments, the private sector and NGOs [that] are

spelled out" in the *White Paper on Basic Household Sanitation.* Yet, they have pointed out, "guidelines for community-level institutional arrangements are yet to be developed beyond the broad facilitation and communication function of representative Project Steering Committees." Lagardien & Cousin (2004: 29) thus concluded that national government and service providers have missed opportunities to collaborate directly with users and to engage in interactions that could have revealed some of "the potentials and the limitations of household users and local organisation in actively taking up the responsibility for improving and sustaining sanitation systems."

The authors of the present report argue similarly that the current top-down modus for sanitation delivery needs to be adapted to accommodate the needs of users and everyday maintainers – i.e. to take a bottom-up approach. However, instead of interpreting a bottom-up or grassroots perspective as meaning consideration of only the interests of supposed "communities" or their representative groups, as is the case in Lagardien & Cousins (2004) and Tapscott (2010), a bottom-up perspective is seen here as needing to include as widely as possible the various stakeholders involved in decision-making and implementation in service provision by local governments. The report therefore presents data about the day-to-day experience of sanitation services of those who use free basic sanitation facilities and also of those responsible for managing such public amenities. In particular, the study has focuses on municipal janitorial services in informal settlements from the perspectives of persons who:

- Use toilets (Informal settlement residents);
- Clean and do basic on-site maintenance on toilets (Janitors); and
- Manage janitorial services (Municipal officials responsible for implementing services).

From the outset, the study explicitly planned to build on the work undertaken in WRC K5/1827 study, 'TIPS for sewering informal settlements'. The final report of that study (**WRC Report No. TT 557/13**) concluded that technology choice is less significant than the social processes that underlie: (a) the provision and management of free basic sanitation systems; and (b) officials' and users' responses to provided facilities, particularly if they are accessible and open to the general public (Taing et al 2013). It showed moreover that those responses were driven by residents' expectations that, if no individual household systems are provided, public access facilities should be fully subsidised and serviced by (or through) an outside authority – namely the responsible municipality. To realise such an expectation would, it was argued, mean implementation of a policy requiring that all toilet facilities shared by more than one household in urban informal settlements should have municipally funded janitorial services – a goal that would have significant costs and administrative consequences for municipalities already struggling to provide free basic toilet facilities.

The expressed objective of the present follow-up WRC K5/2120 study was to document the social and institutional constraints on implementation and management of municipal janitorial services for full-flush toilets, with a focus on three Western Cape informal settlements; and to understand those from the perspectives of those that used, managed or were responsible for the facilities on a day-to-day basis. The research team defined a 'constraint' as being a limitation or obligation; 'social' as being people's practised relationships and adopted norms related to practices and perceptions; and 'institutional' as being organised and officially imposed systems of structures

and processes. The three informal settlement case studies were: BM Section in Khayelitsha and Masiphumelele Wetlands – both in the CoCT's area of jurisdiction – and Zwelihle's informal settlement in Hermanus (Overstrand Municipality).

In BM Section the provided flush toilets take two forms. The first is a single, long row of 515 toilets, each in a separate pre-cast concrete cubicle laid directly on the Cape Flats sand. CoCT records suggest the number is 659 – the difference probably reflects the toilets demolished after a major fire in the settlement (see Section 3.3.2.1). The row runs along the settlement's N2 and Kuils River boundaries and is sewered along the road reserve. The second is nine toilets in BM's one ablution block, situated alongside Lansdowne Road and sewered along that road. In Masiphumelele the provided toilets are in clusters of between five and thirty five, each in a pre-cast concrete cubicle laid, as in BM, directly on the ground. Sewer lines run along nearby Pokela road. The toilets provided in Zwelihle's informal settlements take two forms. The first comprises blocks (each a single structure with internal cubicles) with four to twenty toilets per block. The second comprises clusters of four to eight toilets, each in its own pre-cast concrete cubicle. All of the municipality provided toilets are laid on concrete slab bases.

Data on national standards has been sourced from state documents and interviews with state policymakers. The team especially used the basic sanitation definitions published by national government in its *Strategic Framework for Water Services* (DWAF, 2003) because these are used by both Overstrand and CoCT officials – in both of which municipal areas the research was focused – when establishing their minimum basic service levels in informal settlements (Overstrand Municipality 2010; WorleyParsons and EcoNomics 2012; CoCT 2008c; CoCT 2009). According to DWAF (2003), a basic sanitation facility and service are:

Table 1-2: DWAF's (2003: 50, 66) **definitions of a basic sanitation facility and service**

	Definitions
Basic sanitation facility	"The infrastructure necessary to provide a sanitation facility which is safe, reliable, private, protected from the weather and ventilated, keeps smells to the minimum, is easy to keep clean, minimises the risk of the spread of sanitation-related diseases by facilitating the appropriate control of disease carrying flies and pests, and enables safe and appropriate treatment and/or removal of human waste and wastewater in an environmentally sound manner."
Basic sanitation service	"The provision of a basic sanitation facility which is easily accessible to a household, the sustainable operation of the facility, including the safe removal of human waste and wastewater from the premises where this is appropriate and necessary, and the communication of good sanitation, hygiene and related practices."

Much of the residential and municipal data collected is in the form of extended narratives based on interviews and observations, as well as documentary sources including official documents,

newspaper articles, electronic correspondence and other similar sources. Since it was an ethnographic study, its scope also required the researchers to focus, through interviews and observation, on the people who manage the janitorial personnel and how their management practices relate, if at all, to other aspects of sanitation service provision in the three respective informal settlement case studies. Further details of the research team's scope and the methods used are included in Chapter 2.

This section has briefly described the research team's analytical framework and study objectives. The report now turns to a presentation of key concepts and definitions used by the authors in an attempt to unpack various ambiguous terms used in the sanitation sector.

1.3 Key concepts & definitions

The research team identified some vague and ambiguous phrasing used to describe certain aspects of informal settlement sanitation services. Such use was noted in literature and observed during researchers' interactions with municipal employees and residents, and it was soon recognised that it could potentially cause confusion or misunderstanding. The terms that were carefully considered as to their distinct meanings in literature and to the various interviewees were:

- 'Shared', 'household', 'communal' or 'public' toilets; and
- 'Janitors' versus 'caretakers'.

What follows is a brief discussion of the above-mentioned terms and their use, primarily to establish whether and when specific understandings assigned to particular terms were causes of confusion. Also considered was whether the description used indicated who could access the facilities, and who was understood to be responsible for their provision and management (including maintenance).

1.3.1 'Shared', 'household', 'communal' or 'public' toilets?

During the course of the study and in writing up this report, it became increasingly necessary to interrogate terms and phrases associated with 'shared' toilets. The reasons for undertaking this kind of discourse analysis were twofold. The first is that various interviewees and authors whose publications were reviewed had used particular words to imply dissimilar meanings. They include the adjectives *shared*, *communal* and *public* when used to describe toilets that are not located in individual household residences. For instance, WSUP (2011) and Mazeau et al (2013) have both stated that 'shared toilets' are different from 'public' toilets because, as they see it, the former are semi-private residential facilities located in and used by members of distinct sets of households that live in a single building or plot, as opposed to facilities located in non-residential areas such as markets or railway stations and used by passers-by. For these authors those are what constitute 'public toilets'. Yet in making that categorical distinction they overlook that, at least technically, public toilets are also shared toilets in that, being open for anyone to access and use them, they are

shared by all those who do so, even as they are also public in the sense that they are maintained and cleaned by a service provided by a public (civic or commercial) entity.

Ambiguity in uses of the phrase 'shared toilet' resulted in the authors having to limit what they understood it as meaning. Bearing in mind that almost all toilets are shared in some way – whether by an individual who allows others to use the toilet in her/his home, a family the members of which share a toilet in their (shared) home, or a restaurant facility that is shared by workers and patrons – the research team decided to apply the term 'shared toilet' in the report as an umbrella description for any single facility that is used by more than one person and/or single household's members. For purposes of this report, a household is defined, as per the national government definition which is "a group of persons who live together and provide themselves jointly with food or other essentials for living, or a single person who lives alone" (StatsSA 2011: 13) – but see Spiegel et al (1996) where the problem of defining household is discussed at length.

It was also observed that the study's research participants had occasionally used different words to describe informal settlement flush toilet facilities. Based on a review of the various phrases used by research participants in this study, the following labels were most commonly used to denote specific understandings of municipal full flush toilets:

- The couplet "the toilets" was used by Zwelihle residents and by janitors working in Zwelihle and BM when indicating the sanitation facilities in the area where they resided or where they were employed to clean.
- Some BM and Masiphumelele residents used "my toilet", usually to denote that the toilet was locked and where they key might be shared with other households. In such instances the respondent had some personal control over who had access to the toilet.
- The term "Public toilets" was used by BM residents to refer to unlocked flush toilet facilities that were situated in the long rows of toilets adjacent to the settlement's N2 highway and Kuils River boundaries (often alongside various padlocked toilets). Residents explained that these unlocked toilets were public because anyone could use the facilities.
- "Communal toilets" or "community toilets" were phrases used by CoCT officials who installed or were responsible for managing the facilities but expected residents to maintain them.
- Overstrand officials referred to toilets in informal settlements as "PDA (previously disadvantaged area) toilets", and – at least in Zwelihle – municipally contracted janitors cleaned those facilities.
- The phrases "flush toilets" and "the ablution block" were used in BM Section by municipal officials, janitors and residents alike to distinguish those from other sanitation options provided in that area by the CoCT municipality.

Mazeau et al (2013: 6, 15) have noted that the descriptor chosen for what in this report are called shared toilets generally typified the toilets' ownership, management, location and finance. Based on the above-mentioned adjectival use, it can be seen that the research participants' phrasing did reflect such understandings, at least in terms of:

- Who manages or owns a facility. By this what is meant is who is it that has access to a toilet and the responsibility to manage its on-site operation and maintenance. For example, CoCT's O&M officials labelled facilities provided in informal settlements as "community or communal toilets" in order that way to indicate that they expected residents to use and, importantly, also to manage and maintain the facilities, at least on a day-to-day basis. Yet, when it came to situations where such toilets that broke down and required CoCT resources for their repair, the fact that city officials asserted that the toilets had been 'vandalised' implies that they understood the city to be the 'owner' of the toilets – and in that sense the toilets were not really community toilets at all.
- The location of facilities. For instance, Overstrand officials' installation of toilets in what they chose to describe as "previously disadvantaged areas" in informal settlements indicates that particular kinds of residents, associated through their area of residence with specific socio-political characteristics associated with South Africa's apartheid past, were the intended beneficiaries.

BM Section research participants' phrasing also reflected understandings of who could use or access the facilities provided in that area. Here what is mean by access is the "right to enter, get near, or make use" of something (Merriam-Webster n.d.). For example, some unlocked toilets in BM were, as indicated, referred to as "public toilets" because they were open for anyone to use, whereas a locked toilet cubicle alongside these units, was sometimes referred to by a resident as "my toilet", indicating that that person and her/his household had managed to claim exclusive access to that particular facility. And, though BM Section residents perhaps did not intend it, their use of the phrase "public toilets" also indicated who financed and/or provided a facility. In this instance the public entity is CoCT. This is important to note because in general anything described as public amenities is intended by government to be provided for anyone at all to use, and one where the implementing government agency would ultimately be responsible for it on a day to day basis as also over the medium and long term. The latter was the case for all shared toilets installed in BM Section, as CoCT officials recognised that they were accountable for operation and maintenance measures such as cleaning on a daily basis and repairs, and that they therefore required access to fulfil those obligations.

The problem with the above Cape Town examples is that: (a) officials and residents occasionally used different words to describe the same thing, and (b) the officials' understanding of toilets provided to informal settlements sometimes differed from residents' and janitors' interpretations. This suggests that the terms used in informal settlements sometimes reflected a different reality from those used by members of the implementing agency, in that the latter tended to specify planned top-down outcomes of the facilities, whereas the words chosen by users tended to be informed by their experiences. This difference in perspective reveals the significance of understanding the distinct meanings of phrases that officials and informal settlement residents used, and how certain phrasing reflects a particular circumstance, as Mazeau et al (2013) noted.

Drawing on various interviewees' understandings and on pertinent literature that pertains to 'shared' toilets regarded as 'public' or 'communal' facilities (Schaub-Jones 2005; UN JMP 2008; UN JMP 2010; Lagardien et al. 2009b; WSUP 2011; Mazeau et al. 2013; Crous 2013), this report's

authors have distinguished between *household*, *communal* and *public* toilets by characterising each according to its intended users and managers:

- *Household toilet*: Where residents in the same dwelling – typically understood as a household comprising a single or extended family – are meant to share use/management (including on-site O&M) of a single toilet.
- *Communal toilet*: Where residents in a (vaguely defined) set of households are meant to share use/management (including on-site O&M) of a single toilet.
- *Public toilet*: Where any person can use the facility, which is often located in a publicly accessible space and the provider is responsible for O&M, and/or where the municipality owns and is responsible for managing on the ground systems (e.g. has a cleaning service).

It is significant to note that these different boundaries are not clear-cut. For example, as noted by WSUP (2009: 1), "facilities classified as 'household toilets' often serve very large households, or they may be regularly used by neighbour", such as occurs where backyard shacks are located on a single residential site and let out. The bulleted characterisations above also denote only the intended users and managers of toilet arrangements, and do not consider whether:

- Some or all capital and O&M costs have been subsidised by government, users or a non-governmental organisation (NGO);
- Implementers or users had utilised some form of a pay-for-use cost recovery model; and
- Whether the sanitation facilities had additional amenities such as showers or a laundry basin.

Based on the discussion presented above, one reaches a conclusion that the term 'communal' is unsuitable in reference to municipally provided toilets, particularly in the present report's three case study informal settlements. Rather, the phrase 'public toilets' is suggested as a suitable label. That said, some members of the study's WRC Reference Group have suggested that such labelling is itself confusing because, in their experience, the term 'public toilets' is one used to refer to toilets on or alongside beaches, in recreational parks, and in other public areas that constitute 'the commons'. Moreover, concern has been expressed that the present work will not be recognised in future sanitation literature searches on shared facilities if the phrase 'communal toilets' is not used in the text. Given this debate about appropriate phrasing, the authors have decided to preface the study's use of the couplet 'communal toilet' with the epithet 'so-called'. This has been done to indicate that the authors do not consider the term used as being correct or suitable. The prefatory term has also been used in accordance with a practice in South Africa where, according to Mesthrie (1995: xix), it seems to be common when communicating disagreement over controversial classifications.

1.3.2 'Janitor' or 'caretaker'?

Unlike the interest in categorising forms of shared sanitation in international and national circles, there has been little engagement with determining the appropriate term for persons that care for

these toilet facilities on a day-to-day basis. It became apparent during the literature review that there are a number of words used to describe persons who either voluntarily or as a function of their employment contracts clean and maintain so-called communal sanitation facilities. What the research has found is that the most popular and commonly used term was *janitor*, but that it was sometimes used interchangeably with *caretaker*, *custodian*, *cleaner* and *attendant*.

A traditional perception of a janitor is that the term refers to an individual who is involved with cleaning toilets and open spaces immediately adjacent to municipal water and sanitation facilities. Commonly observed tasks of a janitor tended to be sweeping and mopping floors and scrubbing toilets. Such a description is of a person who might also be referred to as a 'cleaner'. In contrast, a 'caretaker' has some cleaning tasks, but is also generally expected to undertake maintenance and security measures as part of their responsibility to 'take care' of a facility or building. Such an understanding also suggests that the term 'custodian' might be used to refer to someone who takes charge of looking after a property. The major differences between uses of the terms janitor/cleaner and caretaker/custodian therefore seem to relate to the primary rationale of their position (i.e. cleaning toilets or 'taking care' of a building), a purpose that is reflected in the tasks they are expected to perform.

The most popular terms used in South Africa were 'janitor' and 'caretaker', with the latter being the preferred nomenclature by eThekwini officials, the former being preferred in CoCT and Overstrand. Regardless of what term was used, however, in practice those designated as janitors and/or caretakers tended to have the same cleaning and maintenance responsibilities when servicing so-called communal sanitation services. Of the two terms, the various research participants from the Western Cape case studies interviewed or observed for this study most commonly referred to persons employed in municipal cleaning services for sanitation facilities in informal settlements as 'janitors'. For that reason, that is the term used throughout the present report.

Reflecting upon the above semantics exercise, the research team concluded that it is significant to carefully consider whether the terms used to describe sanitation services in informal settlements are suitable, based on questions such as who are the users of the facilities, who owns the facilities, where are the facilities situated, and who is responsible for their operating and maintenance costs. The researchers also learned that similar discussions on suitable descriptors have seemingly been undertaken by a number of non-governmental organisations and academic groups which are interested in 'categorising' forms of shared sanitation in urban areas, particularly those which view some form of shared toilets as being "the most appropriate medium-term solution in some specific situations: notably in high-density slums with a high proportion of tenants and/or frequent flooding and water-logging" (Schaub-Jones 2005; WSUP 2011; Mazeau et al. 2013; Crous 2013; Schouten & Mathenge 2010; Crous et al. 2013). Such categorisation is important, as Mazeau et al (2013: 6) suggested, because shared sanitation facilities have previously been "developed without a full appraisal of all the various options (e.g. in terms of access or management) being fully considered." Such situations have subsequently led to the provision of toilets that are shared (in terms of use) by non-household users, and fall into disrepair due to lack of maintenance and management (Lagardien et al. 2009b).

Moreover, general depictions in literature of shared toilets as being unclean and unsafe have led to the United Nations Joint Monitoring Programme on Water and Sanitation (UN JMP 2010: 12)

stating that shared facilities used by more than one household are effectively the equivalent of "unimproved" facilities, due to privacy, hygiene and security concerns. This is in spite of UN JMP (2010: 23) recognising that "people rely on public or shared facilities" due to insufficient space for the construction of private sanitation facilities, and that such shared arrangements are the most common form of sanitation in urban Sub-Saharan Africa. Describing toilets shared by more than one household as effectively "unimproved" has led Crous (2013: 42) to declare that "it is important to differentiate between different types of shared facilities, not at a technological level, i.e. the type of sanitation service, but at a strategic level, i.e. who will benefit from the facilities and how many people will be serviced..."

As noted, this research study has focused on the experiences of municipal employees, janitors and urban informal settlement residents with what are commonly referred to as communal or public full-flush toilets (that is shared by more than one household). In pursuing that research, it became apparent that there was confusion about a number of terms used to describe the intended users and managers of these toilet facilities, with officials and users having the most distinct associated meanings for what were supposed to be the 'same' things. Given these differences of perspective, the authors have identified and discussed some key terms whose meanings were clouded and therefore required some unpacking for the sake of clarity. Such an exercise highlights a need to distinguish between intended aims and actual practice when describing various functions in a shared sanitation service. That is because the former often showed the precise meaning according to the on-the-ground social reality.

1.4 Report outline

This report's introductory chapter presents the background and motivation for the study.

Chapter 2 presents a description of the research methods used in the study and introduces the research team.

Chapter 3 provides a thorough summary of municipal janitorial services for full-flush toilets in three Western Cape informal settlements: Zwelihle informal settlements in Hermanus; and in Cape Town's BM Section (Khayelitsha) and Masiphumelele. Data from interviews with officials from the respective municipal authorities responsible for servicing these informal settlements (Overstrand and City of Cape Town Municipalities), as well as information gleaned from government documentation, are also cited in this section.

Chapter 4 discusses key challenges that undermined the effective delivery of sanitation services in informal settlements from the aforementioned case studies.

Chapter 5 features a concise summary of key constraints from the perspectives of informal settlement residents, janitors and municipal officials. The key findings of the study are also highlighted in this section.

Chapter 6 is the final chapter in which a set of policy recommendations are made, recommendations that suggest a need for much greater sensitivity amongst policymakers and practitioners as to the wide range of stakeholder perspectives that one might encounter in situations where janitorial services are provided for so-called communal toilets in informal settlements.

2. Research scope, approach & methods

Most research on municipal water and sanitation services in South Africa has tended to focus on technical design or on operations and maintenance procedures (van Zyl & Van Dijk 2011; Haarhoff & Van der Merwe 1996; Van Vuuren & Van Dijk 2011; Lagardien et al. 2009a; Abbott 2002; SAITRP 1985; CSIR 2000). It has thus left a research gap in that there has been very little concern with socio-political issues and their relationship to governance in and of the sector. Our goal in this study has been to identify and to understand the socio-political dynamics that underlie and strengthen, or that constrain, the provision of janitorial services – especially as seen from the perspective of those using or managing full-flush toilets in informal settlements.

Our method has been primarily ethnographic – a research approach developed over more than a century by social-cultural anthropologists to study culture and understand socio-cultural processes, practices and attitudes (Clifford 1988). It is now increasingly used by a wide variety of social scientists attempting to understand the minutiae of widely diverse social fields, such as influential drivers of human behaviour. Further discussion of what is an ethnographic research approach and why it is appropriate for the present study is presented in Section 2.5.1.

The importance of using an ethnographic approach that combines observation-generated data and conversation-generated data – particularly related to human behaviour – is that what people say they do and what they actually do are not always the same thing. Van den Berg and Slabbert (2012; **WRC Report TT 1990/1/12**) reported having used ethnographic research methods in order to better understand household water-use practices. Through doing that, their study contributed valuable insight into the discrepancy between what people say and what people do, and also, in part, into the reasons for that discrepancy. Van den Berg and Slabbert (2012) used data, from video recordings that they asked their research participants to make, in order to demonstrate that, although people claimed to wash their hands after each visit to the toilet, those same people's behaviour, as filmed at their homes, did not corroborate such an assertion.

In order, *inter alia*, to gain similar such insights, we used a variety of conventional as well as innovative technological and other techniques to understand the sanitation practices of full-flush toilet users in informal settlements; to understand the practices, experiences and observations of janitors contracted to clean those toilets; and to understand the challenges that arise in the provision and management of such facilities.

What follows are brief explanations of the study scope, an introduction to the research team, the criteria we used when we selected field sites, the ethical considerations that affected our study, a brief description of what is ethnography, a summary of the various research methods we used, and how we standardised data collection and sampling techniques between the three field researchers.

2.1 Study scope

Having conducted research based on both interviews and participant observation, members of the research team investigated, and now describe in this report, relationships between residents who use public toilets, the janitorial staff who are responsible for cleaning public toilets, and the

municipal officials responsible for managing informal settlement sanitation services. They also investigated and report on residents' perspectives, attitudes and perceptions around sanitation in general and shared toilets in particular.

This study has also focused ethnographically on janitorial supervisors and managers involved in the three field sites, and on the extent to which their management practices relate to other aspects of sanitation service provision in the three respective informal settlements. A further concern of the study is with municipal officials who are responsible for planning, implementing and managing the municipal service sector/s within whose administration provision of free basic sanitation services falls.

The researchers' use of an ethnographic approach has led them to draw on a range of written sources (see Section 2.5.5), on participant observation (see Section 2.5.2), on creative productions such as photography (see Section 2.5.6) and video-recorded play productions (see Section 2.5.7) and on GIS mapping on cell phones to track the distances residents travel to use municipal services (see Section 2.5.8). Use of these techniques has permitted the researchers simultaneously to grasp people's ways of understanding their own lives and livelihoods and to contextualise, socio-politically as well as socio-economically, observed behaviours and recorded attitudes and expressions of perceptions. By their having done so, they have been able, in this report, to offer a window onto the insights and perspectives of residents, of janitorial staff, of municipal officials, and of various others involved in basic services management in informal settlements in general, and, in particular, in janitor-serviced public toilet service management. These data have also been drawn upon in the creation of a final chapter in which a set of policy recommendations are made, recommendations that suggest a need for much greater sensitivity amongst policy makers and practitioners as to the wide range of stakeholder perspectives that one might encounter in situations where janitorial services are provided for informal settlement public toilets.

Much of the data gathered by the research team has been used, and indeed was collected in order to construct ethnographically informed case studies. A case study is an empirical inquiry where the aim is to understand a phenomenon within its real-life context (Yin 2003b). Yin (2003b: 1) has further explained that one generally uses a case study approach when seeking to 'explore', 'describe' or 'explain' an on-the-ground situation. He has suggested that case study approaches are advantageous in circumstances where social realities, such as the motivations that drive a decision-making process, may be too complex to describe through the use of data gathered from research tools such as social surveys that rely exclusively on interview data. Using an explanatory case study approach, Yin has argued, enables a researcher to establish whether and where there are patterns, and what they are, in social situations, through a combination of reviews of documentation, interviews and observations that permit one to gather data that "suggest clues to possible cause-and-effect relationships" (Yin 2003a: 69). For example, if one is setting up an explanatory study in nature, one would tend to pose 'how' and 'why' questions that deal with "operational links needing to be traced over time, rather than mere frequencies or incidence" (Yin 2003b: 6).

Critics of the case study method worry about the dangers of 'generalising' human behaviour from single cases Yet, as Yin (2003a) has pointed out, lessons learnt from scientific experiments are generically applied to theories, not to populations. In other words, arguments and conclusions derived from case studies should not be seen as offering the same kinds of insights that statistical

demographic data offer. Rather, in the sociological arena, they are useful for expanding contemporary socio-political perspectives and ideas about the workings of society. In addition, as noted in the original research proposal for the study of which this document is the final report, the case study method does not provide data in a neat or statistically representative form, nor does nor can it aim to do that. Rather, the intention behind using such a technique is to provide comparative and illustrative information. Such data can, where found to be necessary, and then be used as indicators for the construction of statistically rigorous surveys.

2.2 Research team

A five-member team has undertaken the present study, four of which combined participant observation with various other ethnographic techniques, in order to produce ethnographically sound case studies:

- Ms Kerry Vice (nee Snodgrass) is a Social Anthropology Masters student. She gathered data for the Zwelihle and Overstrand case studies.
- Ms Lina Taing, the lead researcher on the team, is a PhD candidate at UCT and was responsible for gathering data for the City of Cape Town and BM Section case studies.
- Mr Matthew Schroeder is a UCT Social Anthropology Masters student and conducted fieldwork in Masiphumelele.
- Ms Namhla Sicwebu is a UCT Social Anthropology Honours candidate. She assisted Ms Vice as a research assistant and translator in Zwelihle. She has also undertaken independent research in BM Section and has written an Honours research report based on that work.

Professor Andrew 'Mugsy' Spiegel, the Study Project Leader, supervised the four field researchers and guided the write up of this report. Professor Spiegel has been a researcher and lecturer in Social Anthropology since the mid-1970s and has worked collaboratively with urban planning, civil engineering, and built environment academics on urban low-income housing issues and sanitation concerns (Spiegel et al. 1996; Watson et al. 1996; Spiegel 1997; Ross & Spiegel 2000; Watson et al. 2001; Spiegel et al. 2005; Armitage et al. 2009; Winter et al. 2010; Armitage et al. 2010; Taing, Armitage, et al. 2013). Brief biographies of the research team members are included in this report as Appendix A.

2.3 Research site selection

There are five field sites that are featured as case studies (Chapter 3) in this report. The informal settlements that comprise the three residential field sites for this study are: Zwelihle in Hermanus, BM Section in Khayelitsha (Cape Town), and Masiphumelele in Cape Town. These settlements were selected for the following reasons:

- Zwelihle: Professor Spiegel and Ms Taing had previously worked with Overstrand officials in the WRC K5/1827 study during which we learned that officials in Hermanus were providing cleaning services in Zwelihle. The officials were happy to collaborate again in this study for the purpose of possibly improving the current janitorial service programme.
- BM Section and Masiphumelele: CoCT officials expressed interest in collaborating in this WRC study from early on, but did not state a preference for which settlements in which to conduct research. This left the research group free to determine what criteria to use when selecting two study sites where the municipality provided janitorial services for full-flush toilets in informal settlements. Research for the WRC K5/1827 study had indicated that the CoCT had provided cleaning services at seven fully sewered ablution blocks (i.e. a single building with approximately eight toilets and shower facilities) in Khayelitsha and, since 2009, at an ecological sanitation facility in Pooke se Bos. The timing of the present K5/2120 study was propitious in that just as it began, the CoCT announced an intention to establish a city-wide janitorial service for full-flush toilets scattered throughout informal settlements. That was in late 2011 (SJC 2011). These scattered toilets – referred to in this text as 'toilet clusters' – comprise of two or more fully sewered toilets, each in a distinctly separate concrete cubicle, but physically grouped together on the ground. The specifics of the spatial grouping of various such clustered toilets, interspersed between informal housing, would have prompted the municipality to adopt diverse ways of servicing them. Ms Taing aimed to study janitorial services for full-flush toilets in a toilet block as well as in clusters of toilets, preferably focusing on just one settlement. To her knowledge, only six informal settlements in Khayelitsha fit these criteria (BM, CT, RR, SST, TT and YB Sections). Ultimately, she chose BM as her field site as the sanitation problems occurring in the settlement were often featured in local newspapers (SJC 2012c; Mthembu 2012a). Masiphumelele was selected out of practicality, as it was conveniently accessible to Mr Schroeder on day-to-day basis, given his residence in the Southern Peninsula region. It also offered an example somewhat distinct from the concentration of informal settlements in greater Khayelitsha, where BM section is located.

The Overstrand and City of Cape Town Municipalities were also included as case studies in our research because they are mandated by national government to service Zwelihle, BM Section and Masiphumelele informal settlements.

It was also intended that one researcher, Ms Taing, would shadow volunteers of the advocacy group Social Justice Coalition (SJC) and observe their interaction with informal settlement residents and municipal officials. The goal of such research was to understand how such advocacy groups might impact sanitation servicing in informal settlements. SJC was selected because it is a vocal group that advocated for the establishment of janitorial services for toilets provided by CoCT in Khayelitsha's informal settlements (SJC 2011; de Lille 2012b). Ethical concerns, however, precluded the researcher from continuing this line of investigation. These ethical considerations are discussed in the next section. Some data from interviews conducted with SJC staff are included in Appendix B, but most of the observations were extrapolated from items the organisation published in local newspapers or on their website.

2.4 Ethical considerations

As the research involved observing and interviewing people, each field researcher had to receive ethics approval from UCT's Anthropology Section in the School of African and Gender Studies, Anthropology and Linguistics. They followed the research ethics guidelines and policies provided by Anthropology Southern Africa (2004) and by UCT Faculty of Humanities (n.d.). Major points from the two guidelines with regard to managing researchers' relationships with the people who were observed and interviewed are:

- Gaining informed consent from all involved;
- Representing and interpreting their perspectives to the best of the researchers' abilities as impartial observers;
- Avoiding anything that might cause harm to research participants, whether during research activities or when disseminating research findings in ways that might lead to their having potentially negative effects on them; and
- Clarifying that members of the team would not use any data for purposes other than this research report, conference papers leading to published articles or student dissertations.

In light of the second point above, the researchers asked that their key research participants (that is informants who are quoted and/or whose opinions are strongly reflected in what has been written in this report) to validate that their views have been accurately represented before the report is published. In particular, the researchers have aimed to confirm that they have not taken any quotations or descriptions of experiences out of context. In addition, to reduce the risk of unintended harm, the researchers have not used given names in the report so as to maintain research participants' confidentiality (Eynden et al. 2011). This procedure has been followed even in instances where people have explicitly stated that they were happy to be identified in the publication, primarily to protect others with whom they might be associated, and also for purposes of consistency.

As regards the fourth point, it was never the researchers' intention to divulge unpublished data that their research participants had shared with them to anyone outside of the research group of which the team is part, as it has been recognised that release of such information might have unintended negative repercussions if taken out of context. The researchers have at all times aimed to be cognizant that one of the ethical complications that might arise when conducting research with government officials, residents, janitors and members of activist groups was that research participants might ask for information to which they might otherwise not have had access. For instance, SJC members and janitors in BM Section frequently asked the researcher working there, Ms Taing, for information she had obtained from corresponding with CoCT officials. In all such situations, she directly pointed out that she could not ethically disseminate unpublished data that might potentially harm anyone or that might be used in ways that were not explicated to her informants at the time they had consented to participating in the study, and suggested that those

making the request for information contact their municipal contacts or line managers. The janitors, in these situations, generally accepted this response, and did not pursue their line of questioning. But continued pressure from SJC members that Ms Taing share her data with them made her feel that her position as a researcher was being compromised, and as a result she chose thereafter to restrict her contact with SJC members. A collateral consequence was that they became less accessible to her as research participants and informants than had previously been the case.

2.5 Approach & methods used

2.5.1 Ethnographic research approach

The general research method used by the researchers in this study is what is known as ethnography. While it seems inappropriate, in a research report on a study focused on a very particular form of service provision (janitorial services in public toilets in urban informal settlements), to have to rehearse the whole history of a discipline and its methods of research, it does seem necessary to outline in brief what constitutes ethnographic research methods and why they are appropriate in the context of the present study.

Ethnography is a long established mode of social-cultural enquiry, developed by anthropologists and in use – whilst being reflexively redeveloped – for over a century. Literally and historically, ethnography refers in part to a written detailed description of what in the past was understood to constitute 'a people' (from the Greek word *ethnos* describing a nation). Such descriptions included discussions of the day-to-day behaviours of those people, and the ideas and norms that were understood to underpin their culture, as well as the diverse, complex political, social and economic structures that were assumed to determine their culturally specific perspectives. In addition, ethnography has classically included critical analysis of the processes that led to change in different societies.

Core to ethnographic research is a technique described as participant observation. First formally discussed by Bronislaw Malinowski (1922), who spent many years living amongst and recording the everyday activities of residents of the Trobriand Islands (east of New Guinea), and then describing both those activities and their underlying socio-cultural structures. The technique has been re-developed extensively and is today used in any context where a research intention is to observe and to record people's lives and activities, whether in rural village communities, urban informal settlements, institutions such as scientific laboratories and offices housing bureaucrats.

As a research approach to understand and to gain perspectives on contemporary culture, ethnography provides a firm basis for critical social science as it opposes the reductive, over-generalizing and supposedly logical principles of scientific positivism – a view of 'reality' as being singular and readily observable and measurable, and that anybody applying 'objective' analysis will recognise this 'reality' as one and the same 'thing'. Critical social science, such as is imbedded in ethnographic approaches, by contrast sees that diverse social actors produce the complexity of human culture in various ways. Ethnographic research intends to discover and to interpret multiple readings of cultural contexts and social behaviours in order to understand the various and diverse

ideas that lie behind them. In doing that it develops rich, nuanced and multivalent accounts of 'social realities'.

Ethnographic research entails using a series of methods that, in combination, aim to provide a detailed description of researched people's own sense of their experiences and relationships in particular contexts, and what diverse meanings they give those experiences (O'reilly 2005). Principally, the dominant amongst such methods is participant observation; a combination of interaction and inquiry that facilitates the *emic* ('inside') perspective and *etic* ('outside') perspective of socio-cultural realities. Through *emic* perspective anthropologists seek to gain insight into and, to as great an extent as possible, to empathetically understand the often diverse perspectives of research participants (sometimes also described as informants or respondents), and not treat them simply as sources or suppliers of data.

Parallel with the goal of understanding researched people's perspectives run another. It is to understand the multi-layered social-cultural and political-economic contexts in which people live their lives, contexts that constrain them towards the perspectives they take in processes of enacting those lives. In other words, a second goal of ethnographic research is to gain an *etic* understanding that is possible from taking a more distanced perspective than that adopted by most research participants. To do that requires application of a series of techniques that include examination of documentary and sometimes archival information relating to research participants' lives and experiences; interviewing and, in addition, gaining insight into the practices – both formal and informal – of those who are actively involved in interventions in those research participants' lived experiences, and into the policies that guide, if not direct, those interventionist practices, thereby constituting their contexts.

Ethnographic research does not, as a set of methods, end simply with what might be described as data collection. It also includes processes of report writing and analysis – in ways that seek to ensure an integration of *emic* and *etic* perspectives, whilst also historically contextualising findings, analysis and, especially a strong sense of researcher reflexivity – the last because researchers, as people themselves, can never stand wholly outside the field of their research. Ideally ethnographic research allows for comparison with others' experiences in similar circumstances and also the development of new ways of understanding social relationships and their dynamics, as well as of cultural attributes and how they change over time.

From the perspective of the present study, adopting an ethnographic research method has meant that the researchers have been able to gather data about the socio-political processes that constrain the provision and sustainable management of especially janitorial caretaker services in public flush toilet facilities in the three informal settlements that were their case studies, and to link that to data that gives insight into the imperatives that lead to such facilities and services having been introduced and managed, and also into how people have used, treated and regarded those facilities on an everyday basis.

That said, however, any contemporary ethnographic study (that is one that depends particularly on data from participant observation) will also draw on a range of other sources of data, including written records, interviews, correspondence, and creative productions such as body mapping, film and photography. It does that in order to integrate all of those into a holistic analytical narrative that permits a simultaneous grasp of people's ways of understanding the constraints on

their own lives and livelihoods, and contextualising, socio politically as well as socio-economically, observed behaviours and recorded attitudes so that a more macro perspective than is possible from a purely observational local-level study can also be applied. In the case of the presently reported upon study it has been further supplemented by some limited documentary and filmic research, as well as by various other relatively new ethnographic methods to provide an historically holistic picture of what Steven Robins (2013; 2014) has described when he has said that sanitation provision has become a South African national political scandal.

The particular methods and techniques used in the present ethnographic study have included:

2.5.2 Participation observation

Participant observation involves behaving so that people go about their business as usual when one shows up as a researcher (Bernard 1995: 344). It is used in any context where the intention is to observe and to record details about people's lives and activities. It was the primary research method used in the WRC K5/1827 study to understand the underlying issues that caused sanitation (in particular, alternative sewerage) projects to fail. Participant observation, in this instance, had "enabled the research team to offer critical insight on what project design improvements could be made for sanitation installations; all based on the way people use systems or manage projects" (Taing, Armitage, et al. 2013: 6).

For the presently reported upon study, three fieldwork researchers, Ms Vice, Ms Taing and Mr Schroeder spent extensive periods of time (ranging from three to eight months between November 2012 and August 2013) with informal settlement residents of BM Section, Zwelihle, and Masiphumelele respectively. Insight into the complex situation and challenges faced by residents, as well as those involved in janitorial service provision, was gained through a combination of conversations with them and observing their behaviours and interactions in their daily routines. In the case of CoCT officials in the Human Settlements and Water and Sanitation Departments, Ms Taing has worked alongside them in their offices since March 2010 – an opportunity that has enabled her to understand from close up many of the pressures they experience and that constrain their work, and how the social dynamics of their everyday office and field-site activities are constituted and affect their efficacy.

Through participation in the everyday lives of research participants in our respective study sites, we were able, as researchers, to observe particular behaviours and engage in meaningful and open discussions with the people we met in informal settlements and municipal offices. Participant observation has allowed us to gain insight into how people – including toilet users, janitors, municipal officials – use, treat and regard full-flush toilet facilities on an everyday basis.

2.5.3 Field notes

Field notes form the primary analytic material used in ethnography (Bloor & Wood 2006). What that has meant for the present study is that each researcher had to note what questions s/he had asked and the answers received; what conversations were had and their content being recorded; and what

each of us experienced and observed at the time. The goal has been to record the details while they are fresh in mind so that one does not need to rely on memory to recall experiences, anecdotes or events. Other than a mode of documenting everyday life in the research sites, we also found our field notes serving as a reflexive tool for us to note our own biases and points of ignorance, facets of our data that have proven important when it has come to data analysis. A sample field note (without identifiers such as personal or specific geographic references) is included as Appendix C.

2.5.4 Formal & informal interviews

The researchers also conducted structured interviews and conversations in particular with municipal officials, private contractors, non-governmental organisations (NGOs), community-elected leadership, residents, toilet users and janitors, as well as leaders of social movements, which have, in recent times, brought sanitation deficiencies in the country into the public domain.

2.5.5 Literature & documentation review

As with the WRC K5/1827 study (Taing, Armitage, et al. 2013), literature and relevant documentary material was reviewed. It included material in print media on janitorial services in South Africa. This was undertaken both before fieldwork began and throughout the study. Such material was reviewed during the time of fieldwork, particularly when conversations with research participants prompted the researchers to inquire about and to analyse topics (e.g. theories about developmental local government and the distinction between 'public' and 'communal' resources) that had not previously been covered and when descriptions of experiences seemed either to tally with or contradict what was appearing in the media. The references to literature and documents that have been reviewed are integrated into the case studies and analyses below in Chapters 3, 4 and 5.

Instead of providing what is often seen as a conventional preliminary literature review, the researchers have adopted this alternative approach for two reasons. The first is that that kind of conventional literature review, while appropriate as a means to rehearse what has been described and documented previously in a study based on the principles of scientific positivism, cannot perform that function in an interpretive critical social science analysis where such earlier work is itself a kind of data and thus part and parcel of what has to be analysed and critiqued. Phrased differently, critical interpretive social science analyses do not and cannot regard researchers and writers about a topic – or their analyses – as outside the field of study. Researchers are all thus part of the focus of study, which is of course why they are required also to be analytically reflexive. This in turn points to the second reason for integrating material from the literature into data presentation and analyses. Not only does that material constitute data, it also reveals arguments and conclusions, which the present report's authors' analyses need directly to interrogate.

2.5.6 Photography

Two of the field researchers, Ms Taing and Mr Schroeder working respectively in BM Section and Masiphumelele, found it useful themselves to document photographically various of the fleeting

moments recorded in field notes. Some of their photographs are featured in the BM and Masiphumelele case studies (Sections 3.3 and 3.4) as illustrative examples of points raised in the narrative report.

Using a variation of a method, referred to earlier where video cameras were given to research participants (Berg & Slabbert 2012), field researcher Ms Vice also used photography as a means to allow her research participants themselves to capture images of day-to-day conditions in Zwelihle. She did that by assigning a camera to four groups of three research participants each, and asking each group to focus on a particular theme (for example, what they associated with 'cleanliness' and/or 'dirtiness'). Each group then created a poster with the photographs they had taken – including on it captions and some commentary. Ms Vice also used the photographs to generate discussion amongst her research participants. A photograph of one such poster is included as Appendix D.

2.5.7 Drama production

Ms Vice also developed a research technique that involved engaging teenage girls in their workshop scripting a short dramatic performance centred on public toilets in their settlement. She then had them perform the play and filmed it. Doing that enabled her to use an imaginative way for children to demonstrate their relationship with the spaces that are the public toilets that they and their elders use, and to reveal what they know about how such public toilets are used and are managed in an informal settlement. A transcription of the children's play, translated from IsiXhosa to English, is included as Appendix E.

2.5.8 Cell phone application

One researcher, Ms Taing, collaborated with *SeeSaw*, a Cape Town-based information and communications technology (ICT) social development venture, to test *SeeSaw's* preferred mobile data collection application, *DoForms*. The aims of the collaboration, from *SeeSaw's* perspective were to identify a user-friendly method for electronically recording data and to test remote processing of such data. From the perspective of the present study, the goal was to gather interview data of residential experiences with municipal sanitation services in BM Section. Ms Taing and her research assistant used *DoForms* when conducting 45-minute walking interviews with 21 BM residents – interviews where the two of them and the interviewee moved around the settlement while the interviewee took photographs of the places and the GIS coordinates of the locations where that interviewee went to use the toilet, to fetch water, to dispose of wastewater and greywater, and to dispose of refuse (solid waste). The technology also permitted, in addition, audio recording of the respective interviewee's impressions of sanitation services in BM Section. All the recorded data were then exported digitally and in real time via a 3G connection to a remote server.

Initially it has been planned that four residents would be asked to become 'photographers' of their own circumstances and thus to generate their own data using the cell phone application *SanSnap.* Each would have been asked to photograph whatever sanitation conditions they chose and later to provide brief captions explaining the significance of their picture/s. The researcher, her

assistant or *SeeSaw* representatives were not meant to accompany the resident photographers whilst they undertook this task – the intention being that they should feel free to capture whatever sanitation concerns they considered important. However, an initial trial of the mobile application with two residents acting as photographers suggested that, applied to this scenario, *SanSnap* was confusing to use. It was then decided to shift the aims of the cell phone application method from user-generated data to an interview tool (see above). In hindsight, the cell phone application could also have been used to capture data electronically when noting the number and condition of taps and toilets in BM Section; but this was not done.

The questions asked in the cell phone survey are included as Appendix F.

2.6 Data set standardisation & sample

As described, the fieldwork members of the research team worked intensively and ethnographically in their respective fieldwork sites, whilst also remaining in regular discussion with the other two to ensure comparability of data and understanding across the various fieldwork sites. In attempting to accommodate the specifics of particular social dynamics in each fieldwork site whilst also generating some comparative data, a set of standardised questions was drawn up prior to commencement of fieldwork and has been used to guide each researcher's work, as well as to produce comparable data sets. These questions have been aggregated in a set of sample-population directed *aides-memoire* (see Appendix G), and a sample questionnaire template generated from the *aides-memoire* themes is included as Appendix H.

Data that the researchers have gathered from individual residents in the respective settlements includes demographic information, life histories (including migration and employment patterns), housing experiences – especially in relation to residents' access to sanitation facilities – as well as sanitation and hygiene perceptions and practices. Data collected also includes population size and housing densities, number, type and quality of utilities (solid waste, toilets, standpipes, electricity/lighting, drainage, roads) and other services that are provided, including provision for environmental risks such as flooding. Data has also been generated around research participants' experiences relating to health, education and employment. The character and degree of authority of local leadership structures and their relationship with broadly based civic organisations and local authorities has also been recorded within each settlement, primarily since earlier sanitation studies (Lagardien et al. 2009b; Wall & Ive 2013; Taing, Armitage, et al. 2013) have shown that such structures and their relationships with each other can be pivotal in efforts to introduce, maintain and manage toilet facilities. Rather than their being included in a tabular form, these data are embedded in the report as part of the descriptions in each case study or in the key considerations section.

Given that the main focus of the study is full-flush toilets and janitorial services in informal settlements, each fieldworker on the research team sampled at least 25 toilet users in their own respective urban informal settlement case study site, and discussed those sampled persons' impressions of municipal sanitation services in the areas where they resided. These research participants were selected opportunistically either through the fieldworkers' research assistants or whilst they conducted their field studies in their respective sites. The samples of janitorial workers

were purposively sampled (Bernard 1995: 73) within their respective informal settlement research sites. Similarly, municipal officials and contractors who were service providers were also purposively sampled, especially where the municipality had contracted others to do janitorial work in the urban informal settlements that were selected as case study sites.

Only one researcher, Ms Taing, spent extended periods of time working directly with municipal (CoCT) officials in and around their offices. Another, Ms Vice, conducted various interviews with Overstrand municipal officials, but time constraints on her fieldwork limited that facet of the research to interviews and did not permit participant observation in the municipal offices. To ensure some degree of standardisation of data gathering in the municipal case studies, the two researchers who did work with municipal officials ensured that they gathered similar sets of data from them by asking the officials they interviewed the same sorts of questions.

2.7 Summary

The researchers on this study have adopted an ethnographic research approach to gather data about the socio-political processes that underlie the introduction, provision and management of janitorial services in selected informal settlements. Using a combination of various research methods and techniques has provided insight into (and to empathetically understand) the perspectives of the various people who were research participants, amongst whom participant observation was conducted and who were interviewed. As indicated, research methods included participant observation, a review of documentation on existing services in informal settlements, and formal and informal interviews during site visits with the various stakeholders involved in service provision or who require such services.

The sections that comprise the next chapter present the case studies of three informal settlements and two municipalities in the Western Cape. Intertwined is a review of international and South African literature as relevant to the narrative.

3. Case studies

The following case studies present the experience of municipal janitorial services provided by Overstrand and CoCT municipalities in Zwelihle, BM Section and Masiphumelele Wetlands informal settlements (Figure 3-1; Figure 3-2). The data and analysis derive from fieldwork conducted in Zwelihle from November 2012 to March 2013, BM Section from November 2012 to August 2013 and Masiphumelele from mid-April to mid-July 2013. Residents' and janitors' experiences of services in informal settlements based on the cumulative research are described and analysed.

Interwoven in these informal settlement case studies is data from interviews with the contractors and the municipal officials who are responsible for servicing informal settlements in Overstrand and CoCT municipalities. Interviews with contractors and officials of Overstrand and CoCT municipalities were conducted before, throughout and after the study period.

Each settlement's respective history is presented first, followed by a description of the water and sanitation services provided in that settlement. It must be noted that the researchers found limited publicly accessible information on the establishment of the three informal settlements. The authors have thus pieced together a brief historical narrative of each of these informal settlements based on a variety of sources ranging from published articles, municipal documentation, interviews with informal settlement residents and municipal officials, and, in the case of Zwelihle, visits to local museums.

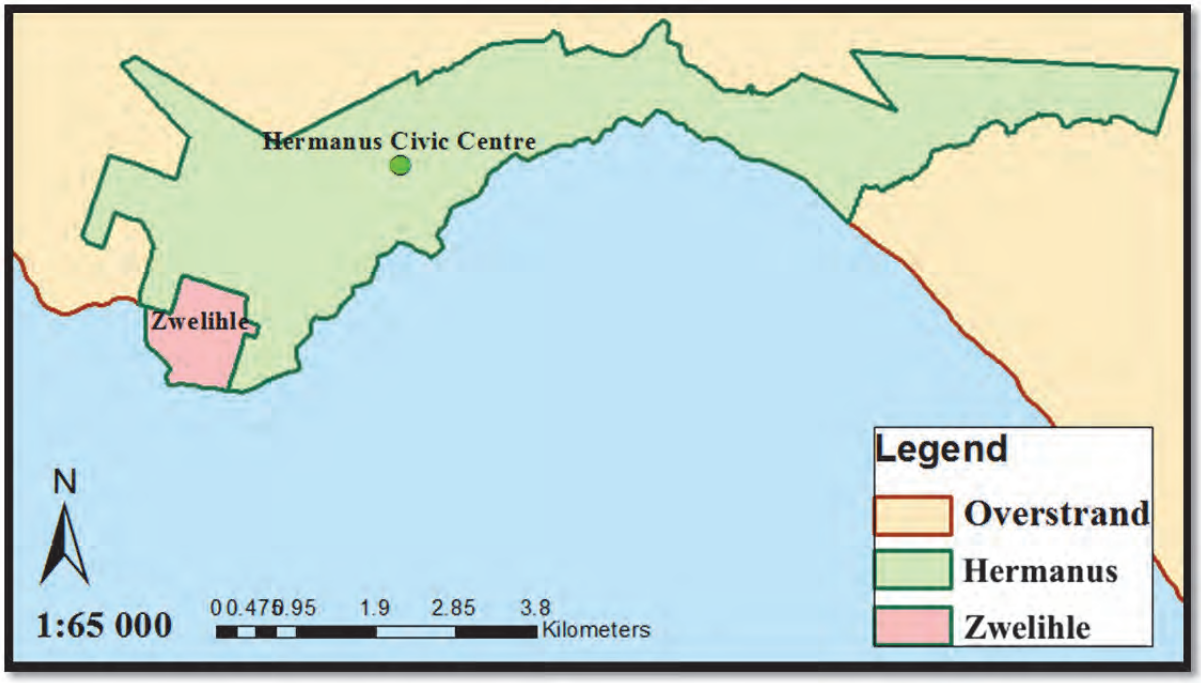

Figure 3-1: Map of Hermanus municipal offices and Zwelihle township boundaries.

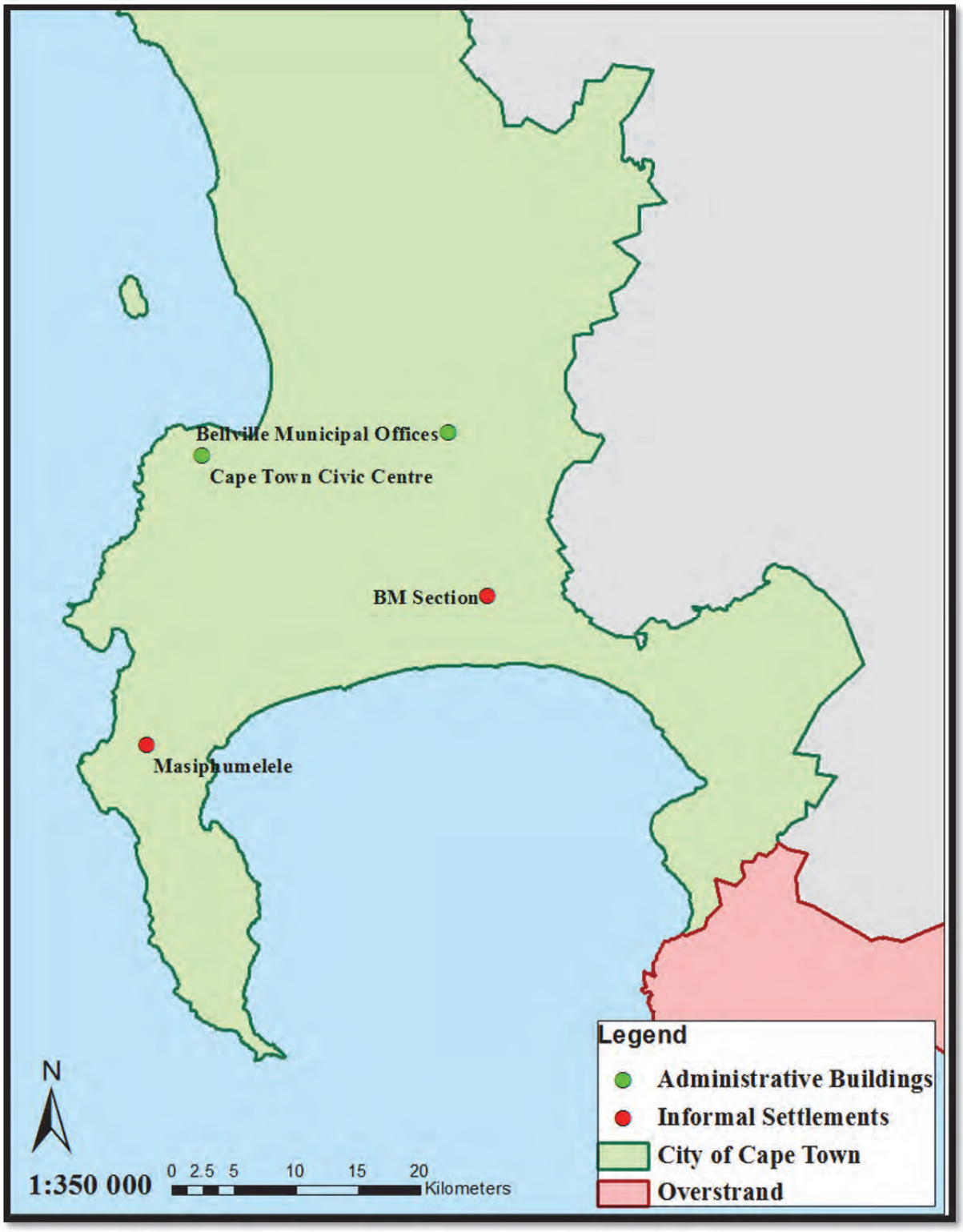

Figure 3-2: Map of important CoCT offices to this study, and the two informal settlement case studies (BM Section and Masiphumelele). The Civic Centre is the City of Cape Town's head administrative office, and WSISU's offices are located in Bellville.

3.1 Zwelihle informal settlement (Overstrand Municipality)

3.1.1 History, demographics & housing situation

It is commonly understood by local residents that Hermanus was established as a fishing village in the early 1800s when it was discovered accidentally by Hermanus Pieters whilst he was searching for pastureland (Hermanus Museum 2013). The first settlers built their homes in 1857 along what is today known as Marine Drive. It was at this time that what is today Hermanus' fishing industry begun. Photographs taken during this early period suggest that 'black' and 'coloured' families also resided in the town, and were integral to the fishing industry and later the building of the New Harbour (De Wet's Huis Photographic Museum 1998). The apartheid regime's Group Areas Act of 1950, however, precluded people racially defined as 'non-white' from residing in the town itself resulting in workers in the hotel industry and at the New Harbour being relocated to areas on the outskirts of the town. The small population of 'coloured' workers was relocated to an area now known as Mount Pleasant, and the 'black' workers to Lower Mount Pleasant.

Lower Mount Pleasant was later renamed Zwelihle, which translates as *Beautiful Town* in isiXhosa (Mwamuka 2011). By 1981, houses and a hostel for single migrant male workers were built to accommodate its more than 735 residents. After 1994, the new fully democratic dispensation commissioned the erection of Reconstruction and Development Programme (RDP) houses in Zwelihle, with 240 low cost houses built in 1997 (Mwamuka 2011). These provisions, however, were inadequate to accommodate the whole black population in Hermanus, so more than two thousand families squatted in an area of Zwelihle named Thambo Square. Interviewed officials and residents explained that the municipality therefore built additional RDP housing on what had been an airstrip but was now closed to air traffic. That area is known today as Kwasa Kwasa, meaning *daybreak* in isiXhosa.

Areas in what residents call 'New Site' were demarcated by the municipality for residents to build their homes, colloquially known as 'shacks' or '*hokkies*' (Afrikaans for chicken coops). These areas were intended to be temporary locations for residents awaiting RDP homes, as indicated by their names: – *Wag n Bietjie* (Afrikaans for 'Wait a while'), Transit Camp, *Masiphumzani* (isiXhosa for 'we wait together', also known by some residents as *Ziphunzana* (isiXhosa for 'little tree stumps'), and *Asazani* (isiXhosa for 'We don't know each other'). The area names reflect residents' expectations of their temporary living arrangements. However, as Overstrand officials explained, these areas have persisted due to various land availability limitations, financial constraints, and an overwhelming backlog in the construction of RDP housing in the Western Cape. Nonetheless, the Overstrand Municipality has reportedly identified areas around Zwelihle for further development of RDP housing, and is currently in the process of planning construction and investigating funding options.

Aware of the diminishing capacity of local and provincial government to fund and to co-ordinate the development of RDP housing in Zwelihle with an estimated backlog of 9 500 houses (Overstrand Municipality IDP, 2002: 15), Overstrand Municipality reiterates the priority of the Community Services Department of the Hermanus office to provide cleansing, water, electricity and sewerage to residents of 'previously disadvantaged areas' in their Integrated Development Plan drafted in 2002, and their most recent Water Services Development Plan (WorleyParsons and

EcoNomics 2012: 8, 52). This commitment to service residents in places like Zwelihle was made in spite of the municipality's concerns over water scarcity.

There were approximately 5 384 people living in the nine informal settlements within Zwelihle at the time research began (Nel, 2012), a number that excludes residents of backyard shacks on the sites of formal houses in Zwelihle which has a total population of approximately 15 000 residents (Overstrand Municipality 2011). A high rate of unemployment has been reported for Zwelihle, with approximately just 29% of residents being employed (Sacred Heart Parish 2009). Many residents explained that they are employed for a few months of the year due to the nature of Hermanus as a seasonal destination for visitors and, for some, as seasonal farm workers in the district.

The following section presents data on the municipal water and sanitation services provided to Zwelihle's informal settlements.

3.1.2 Municipal water & sanitation facilities

Responsibility for the O&M of the 13 toilet blocks and toilet clusters located within the informal settlements of Zwelihle rested, during the research period, with the Community Servicing Department in Overstrand Municipality's Hermanus office. The municipality – which is responsible for residents of Hermanus, Gansbaai, Betty's Bay, Pearly Beach, Pringle Bay, Rooiels, Kleinmond and Stanford – finances basic services' capital and operating costs in 'previously disadvantaged areas' areas through drawing on the national government's Equitable Share grant and through cross subsidisation from its ratepayers' block tariffs.

Table 3-1 depicts the number of taps and toilets in each of the blocks or clusters located in the informal settlements when the count was completed in April 2013. In sum, there are 101 unlocked publicly accessible full flush toilets (ranging from 4-20 toilets in 13 clusters/blocks) situated in the Zwelihle nine informal settlements. All facilities are flush toilets that are fed by a centralised water reticulation network and connected to a sewer main which discharges at the local wastewater treatment works. A further 215 public toilets that were installed in various places in Zwelihle's informal settlements between April and August 2013 are not included in this count as they were installed after the study period.

Table 3-1 does not account for non-operational toilets. For example, over the months of January and February 2013, only six out of twenty toilets at Transit Camp 2 were working, due to a pipe blockage. The number of working toilets then dropped to two working toilets, as the blockage further down the pipe network was not addressed in a timely manner.

Table 3-1: Water and sanitation figures for informal settlements in Zwelihle as of April 2013.

Informal settlement facility	Number of toilets	Number of taps	Groups of individually housed toilets in concrete structures (cluster toilets)	Groups of toilets housed under one roof in a single building (toilet blocks)
Bekhela	8	4	*	
Tsepe Tsepe 1	6	3	*	
Tsepe Tsepe 2	4	2		*
Wag 'n Bietjie	4	2	*	
Masiphumzani/ Ziphunzana	8	3		*
Bloukerk	4	2		*
Thambo Square	6	1	*	
Mandela Square	8	2	*	*
Asazani	5	1		*
Transit Camp 1	4	2	*	
Transit Camp 2	20	2		*
Transit Camp 3	20	2		*
Transit Camp 4	4	1	*	
Total	**101**	**27**		

The Overstrand Municipality has said that the communal standpipes and toilets provided in informal areas are there as temporary emergency services only, and has acknowledged that these so-called communal services were probably the weakest part of their network's water supply service because they had been constructed in ways that cannot withstand excessive use 'and abuse', and because they are often neglected in terms of O&M (WorleyParsons and EcoNomics 2012). With regard to the latter finding, Overstrand officials in the Community Services Department have noted (Nel, 2012) that they have struggled with high maintenance costs associated with constant blockages in toilets and sewer lines, and with replacement costs when these facilities break down. Moreover, it was reported to us, residents had complained that the communal facilities were constantly dirty, unpleasant to use, and hazardous to their health.

Presented in the following sections is a description of Overstrand Municipality's janitorial service for toilets in Zwelihle's informal settlements from November 2012 – March 2013, the period of our on-the-ground research; this service was provided in terms of an outsourcing contract that extended from June 2011 until 31 August 2013. That contract has since been superseded by another, recently awarded new tender for contractual cleaning of the toilets for the 'previously disadvantaged' in Zwelihle (1 September 2013 to 30 June 2016). That has meant that the contractor and sub-contractor that were interviewed and observed during the fieldwork period have been replaced. Thus, although follow-up interviews were conducted in November and December 2013 with a number of key informants, the data and findings presented in this report primarily reflect the management concerns for the period when field research was conducted.

3.1.3 Janitorial service

Attempting to address the high O&M costs they were experiencing, and the unsanitary state of the provided facilities, Community Services Department officials established a daily janitorial service for Zwelihle informal settlement facilities in 2007 on a month-to-month basis. An Overstrand official explained that they first provided the service on a month-to-month basis was because they did not know how long they could sustain the cleaning service initially, and they also did not have the operational experience to provide the necessary service. In 2011, the cleaning service was outsourced to local contractors. The toilets therefore were being cleaned for four years prior to a formal tender being awarded in 2011. In order to encourage local employment, Overstrand officials only allowed 'residents of Zwelihle' to submit quotations for the Zwelihle informal settlements cleaning contract (Taing, Armitage, et al. 2013; Overstrand Municipality 2013).

The janitorial service provided at facilities in Zwelihle's informal settlements operated from 07:00 to 19:00 during the winter months, and from 07:00 to 20:00 during the summer months. Janitors were introduced to ensure cleanliness, to dispense toilet paper, to monitor the operation of taps and toilets and report of necessary repairs, and to contribute to users' safety and security (Overstrand Municipality 2013). Janitors were assigned to a particular toilet block or a cluster (i.e. a group of toilets individually housed in concrete structures) and were based there during their working hours. They were generally identifiable by the roll of toilet paper they carried, as they did not were uniforms. The janitors also informed their supervisor (the sub-contractor) whenever facilities were broken and controlled access to inoperable toilets.

3.1.3.1 Appointment of service provider

In June 2011, Overstrand Municipality awarded a two-year cleaning tender of Zwelihle informal settlement flush facilities to a Zwelihle based contractor, who immediately sub-contracted another local man to manage the day-to-day concerns of the janitorial service. A Zwelihle resident and a well-known figure amongst both Zwelihle residents and various Overstrand officials, that local sub-contractor was responsible for employing the janitors.

It became apparent, through interviews with both parties, that, although there was a contract between the Overstrand Municipality and the contractor, there was no formal written contract

between that contractor and the sub-contractor, and that the relationship was based on good faith and verbal agreement. In addition, it turned out; the contractor had very little if any communication directly with Overstrand Municipality officials regarding the day-to-day running of the janitorial service. Primarily a 'middle man' between the Overstrand Municipality and the sub-contractor, the contractor paid the sub-contractor a fixed amount every fortnight. From this sum, the sub-contractor purchased all cleaning supplies and equipment for each toilet block, paid the janitors their wages, and took his own salary from what remained.

The sub-contractor also corresponded directly with an Overstrand Municipality Community Services Division official to report faults or blockages at the toilet blocks and toilet clusters, and visited the same official once monthly at his office to obtain what he called a "receipt" (actually a requisition document) that he needed to be able to collect toilet paper from the municipal stores. The month's supply of toilet paper was stored at the sub contractor's home whence he then distributed it to the toilet block janitors twice daily. Communication between the sub-contractor and Overstrand officials generally took place in person, over the telephone or in formal meetings with Overstrand's Community Services Division team – meetings that were held at the Zwelihle Library by arrangement by Overstrand Municipal officials.

3.1.3.2 Janitors' employment, work schedule & remuneration

The sub-contractor reported that he had initially hired 26 janitors for the duration of the contractor's two-year cleaning contract; however some of the janitorial staff ended their contracts early due to pregnancy, relocation, or employment elsewhere and were replaced. Many of the janitors who were first hired in 2011 said they had signed contracts with the sub-contractor. Those who were employed as replacements said they had only verbal in-faith agreements with the sub-contractor. The sub-contractor explained that he chose new workers from a list he kept of those seeking employment in Zwelihle and generally preferred employing women who resided near the facility where they were stationed.

The sub-contractor established two shifts (07:00 to 13:30 and 13:30 to19:00/20:00) for every block/cluster, and allowed the two janitors assigned to the block/cluster to negotiate a work schedule between them. Most of the janitors interviewed said that they often arranged with their partner to work both shifts in a day so they might work only every alternate day. The janitors explained that they generally cleaned the toilets at the beginning of their shifts, particularly necessary since the toilets were still used by some overnight, and would clean continuously, and when necessary throughout their shift. Typically, janitors were permitted one tea break per shift, but since they were stationed at the toilet block for the duration of their shift, the toilets were rarely left unattended. The sub-contractor also permitted the janitors responsible for larger toilet blocks/clusters (i.e. those with more than four toilets) to take an extra tea break.

The Zwelihle janitors were generally paid R700 each in cash by the sub-contractor on a fortnightly basis for 14 days of work, which means that they were each paid approximately R50 per shift. They said each of their shifts was six and a half hours and they were allowed up to two tea breaks of fifteen minutes. Janitors were required to work weekends and public holidays, and they said they worked out times for leave between themselves by covering each other's shifts. For

instance, Fundiswa worked two full shifts per day (i.e. 13 hours a day) over a period of two weeks in December whilst her shift partner returned home to the Eastern Cape for a holiday. It was therefore agreed that Fundiswa would be paid her partner's share, and the same arrangement would apply should Fundiswa require time off work. Janitors therefore worked on a "no work, no pay" basis and were not paid overtime. Their hours were recorded daily by their supervisor (the sub-contractor) as they signed in and out for their shifts. These timesheets were later submitted to the contractor as evidence that the janitors were present at the sanitation facilities and performing their duties adequately.

3.1.3.3 Supervision

The Zwelihle janitors' supervisor (the sub-contractor,) visited each toilet block twice a day to sign timesheets, to deliver toilet paper, to supervise the janitors and to monitor the toilets for blockage and maintenance concerns.

It was also observed that the contractor, also regularly visited each toilet block to monitor the conditions of the facilities and to rate the sub-contractor's performance as a supervisor. The janitors fondly referred to the contractor either as "Shoes" or "Rasta", and they indicated that he spoke with them frequently. During an interview, the contractor said that, in his opinion, the cleaning equipment that the janitors were using should have been replaced more frequently than it appeared it was. He also monitored the hours of the janitors and the sub-contractor via timesheets that were filled in and signed daily by the janitors according to the different shifts that they worked each day.

3.1.3.4 Logistics & supplies

The cleaning materials supplied to each toilet block were purchased by the sub-contractor and distributed to the janitors. The sub-contractor provided each toilet block with a broom, a rake, and a pair of rubber gloves, a garden hose, a toilet brush and a cleaning hand brush, which the janitors typically stored at their homes. In addition, the sub-contractor provided each toilet block/cluster with approximately five litres of red cleaning fluid each week and a black substance known as *Madubula*. Like *Jeyes Fluid*, the main active ingredient of the cleaning agent *Madubula* is carbolic acid. The janitors explained that they diluted the red cleaning product with *Madubula* until it became a thick consistency and it smelled pleasant. The janitors also generally had a small bucket on hand in order to remove excess water from the toilet bowl if it was blocked or leaking.

The municipality provided the sub-contractor with 196 rolls of toilet paper per week to service the 13 toilet blocks and clusters. The sub-contractor collected this with a wheelbarrow on a fortnightly basis from the municipal stores and stored the toilet paper at his home. He then distributed toilet paper to each toilet block and cluster twice a day (either one or two rolls, depending on what was needed) at the start of each shift.

3.1.3.5 O&M & faults reporting

Zwelihle's informal settlements' flush toilet facilities are managed by the Community Services Division in the Hermanus office of the Overstrand Municipality. In 2007, the municipality initiated cleaning of the toilets in Zwelihle's informal settlements on a monthly basis; however the appointed cleaning crew was not appointed through a tender process, and did not enter a contract for a secured period of time. Interviewed officials said they had first formally outsourced the cleaning of the toilets to a municipal contractor only in 2011 and had put out a tender for a contract for maintenance at the beginning of 2013. Officials explained that the latter contract was established when officials recognised the municipality's lack of technically trained capacity to address maintenance issues in Zwelihle in a timely fashion. The municipality stipulated that the maintenance contractor needed to respond to the reported problem within 72 hours (Overstrand Municipality, 2013).

During the research period (November 2012 to February 2013) complaints regarding the functioning of toilets were typically received by the municipality via the cleaning sub-contractor after he had been notified of problems relating to toilets by one of his janitorial staff, who reported to him. The sub-contractor also had a direct line to the municipal official who dispatched the maintenance contractor to tend to the issue. Over the years, the cleaning sub-contractor had developed a good relationship with the operations technician in the Community Services Division. It was explained that due to budget constraints, the external maintenance crew were not usually dispatched for just one complaint or reported fault associated with the toilets. For instance, we were told, in instances of blockages, the officials waited for reports of at least six to ten toilets being blocked before dispatching the maintenance crew. This was apparently because the technicians were remunerated on an hourly basis by the municipality.

Although maintenance tasks have recently been outsourced, infrastructure repairs remain a direct municipal responsibility. The sub-contractor explained that, despite his being contracted only to provide a cleaning service, he typically himself addressed minor repairs, such as broken flush mechanisms and loose or leaking tap fittings, and he then invoiced the municipality for the materials he purchased.

In general, and as the example just described suggests, communication between the operations technicians, the sub-contractor, and the maintenance contractor appeared to be effective within the Overstrand Municipality. The aforementioned persons are accessible, contactable, and responsive to maintenance issues that are reported. Yet, despite effective communication within the municipality for much of the time, errors, mistakes and delays do occur. For instance, the most recent tender for the new cleaning contract was delayed by a month due to a minor miscommunication within the Community Services Division, and the previous contract had to be extended by one month. Nevertheless, informal settlement residents, janitors, contractors and municipal officials reported that they were generally happy with the state of shared water and sanitation services in Zwelihle.

3.1.3.6 Access & control

None of the flush toilet facilities in Zwelihle's informal settlements are locked by the municipality or by users. General access to the flush toilets is permitted at all times, with access being controlled by janitors only during their working hours, and precluded by them in instances where the toilets were out of order. At night, the doors of toilets were left open so if a door was closed it would indicate to users either that the toilet was out of order, or in use. Many residents suggested better inside locking mechanisms on the toilet doors, as a safety precaution – especially at night; and they complained that not all doors closed properly.

Overstrand Municipality does not formally provide for gender separation. It was observed, however, in both Transit Camp and Mandela Square that residents had allocated toilets based on gender by labelling *Omama* for women and *Otata* for men on the doors of certain flush toilets (Figure 3-3). According to the janitors that worked at these toilets, users strictly adhered to this arrangement. In addition, toilet blocks in Transit Camps 1 and 2 and in Asazani accommodated users with disabilities in that the facilities had access ramps for wheelchairs and the toilets were installed in larger cubicles than elsewhere, with a large lever to flush toilets instead of a button.

Figure 3-3: A women-only toilet (left) and a men-only toilet in Transit Camp 4. (Vice, January 2013).

3.1.4 Summary

Table 3-2: Summary of sanitation services in Zwelihle from Nov. 2012 – April 2013

Service provider	Contractor to municipality, sub-contractor & janitors (All residents of Zwelihle township)
Implementing municipal department	Community Services Department (in Hermanus – 10 minutes away) • Provides basic services (including capital & operation costs) in previously disadvantaged areas • Supported primarily by technically trained (engineering) staff
Financing	• National Equitable Share grants • Cross subsidisation from ratepayers' block tariffs
Sanitation services	• 101 unlocked (publicly accessible) full flush toilets (ranging from 4-20 toilets in 13 clusters/blocks) situated in 9 informal settlements • 26 janitors (2 per clusters/block, working in 2 shifts: 07:00-13:30 & 13:30-19:00) responsible for cleaning & toilet paper provision • Repairs/maintenance: Janitors' supervisor, municipal officials & contracted municipal service providers

Table 3-3: Summary of strengths and weaknesses of Zwelihle's janitorial service

Strengths	Weaknesses
Strong working relationship between sub-contractor & managing municipal official has positively impacted janitorial operations.	Inadequate municipal capacity & resources (human & financial) to rapidly address day-to-day repair/maintenance concerns (despite spatial proximity)
Locally sourced contractors proved advantageous because they tended to be hands-on & responsive managers.	Janitors' employment conditions seemingly not aligned with national labour legislation requirements
Non-municipal (contracted) managers meant day-to-day operations not constrained by municipal red tape.	
Regularly cleaned toilets due to daily servicing by on-site janitors & daily monitoring of services by sub-contractor.	

The municipality sees the establishment of janitorial services in Zwelihle's informal settlements by the Overstrand Municipality as a progressive process. The municipality first initiated a cleaning service on a month-to-month basis. They then awarded a two-year tender, and then a three-year tender, allowing the municipality to improve their service and address oversights that they had initially in the specifications of each tender contract.

- The length of tender contracts was seen to provide job security for contractor, sub-contractor and janitors.
- Using on-site janitors that are frequently supervised enables toilets to be continuously cleaned and monitored.
- Easy, open, and regular communication between the sub-contractor and the Overstrand officials from the Community Services division allowed complaints, fault reporting, and important feedback to be given to the relevant officials.
- Although municipal capacity to address day-to-day maintenance concerns is lacking, externalising maintenance work to a contractor has not dramatically improved the response time to faults and breakages. Overstrand officials explained that the O&M contractor was paid on an hourly basis, so they then waited until there were a number of problems to address at a cluster or block of toilets (e.g. six toilets that are blocked), before having the contractor address the O&M issue.

3.2 City of Cape Town's janitorial services

In 2012, Cape Town's Executive Mayor Patricia de Lille (2012a) announced that CoCT had commenced "a daily janitorial service for flush toilets" in informal settlements throughout the metro. The terms of the service were stipulated as follows:

- Residents would be employed as janitors in the informal settlement that they live in to clean the flush toilets, standpipes and the areas surrounding such infrastructure daily, to do minor reports of flush toilets, and to report whenever major repairs were necessary.
- CoCT would provide janitors with uniforms, inoculations, cleaning equipment, supplies, etc.
- Janitors' salaries would be funded by the national job creation grant Expanded Public Works Programme (EPWP).

Although de Lille (2012) claimed that CoCT's janitorial service in informal settlements was the first of its kind in South Africa, Taing et al (2013) noted in a previous WRC study that eThekwini and Overstrand Municipalities had instituted city-wide janitorial services for flush toilets in informal settlements several years earlier – as indicated also above. In addition, as some CoCT officials pointed out to our researchers, a municipally supported janitorial service has been in effect at the Pooke se Bos Mobisan unit and the Khayelitsha ablution blocks since 2009. Nevertheless, the *Mayor's Project* – as it has come popularly to be referred to by city officials and residents employed as janitors – set a precedent in which CoCT officials accepted full responsibility for the installation,

operation (*including* cleaning) and maintenance of communal toilets that the municipality has installed in informal settlements. These servicing duties were delegated to the Water and Sanitation Department's Informal Settlements Unit (WSISU).

Presented in the next section is a description of the department that provides CoCT's janitorial service for informal settlement flush toilets (Water and Sanitation: Informal Settlements Unit – WSISU). This is then followed by an account of the janitorial and monitoring services that WSISU provides in informal settlements such as BM Section in Khayelitsha and Masiphumelele Wetlands in the Southern Peninsula.

3.2.1 WSISU

The Water and Sanitation Informal Settlements Unit (WSISU) in the CoCT's Utilities Directorate administers all of the janitorial services in Cape Town's informal settlements. The unit is based in the CoCT's Bellville offices. The Water and Sanitation Reticulation Department created WSISU in response to the difficulty the city was having with managing the water and sanitation servicing needs of informal settlements. They thus intended that WSISU would be responsible, as a distinct unit, for coordinating water and sanitation delivery in informal settlements. Established in 2007, the unit was, at the time of research, divided into the following three teams (Muller 2009):

- Capital Installations team of project managers and technicians who have tertiary engineering qualifications. WSISU officials said these officials are primarily responsible for installing or providing standpipes and toilets to informal settlements, but they reportedly also have to prepare capital and servicing tenders and conduct research that can be developed as pilot projects.
- Operation and Maintenance team with an Operations Manager who coordinates WSISU's and various district teams' (depots) repairs and regular maintenance of infrastructure in informal settlements; and a Complaints team, whose members manually input faults that are reported into the centralised municipal database. The Operations and Maintenance team also includes special workers. These special workers are responsible for administering specialised programmes such as addressing faults in pilot projects (Taing, Spiegel, et al. 2011; Taing, Cornelius, et al. 2011) and providing support to janitors employed at the Mobisan unit and Khayelitsha ablution blocks. They are also responsible for desludging municipally-supplied unsewered units in areas where residents have refused access to municipal contractors, such as where porta-potties have been provided in response to demands for an individual flush toilet per household (Nicholson 2013b; Cape Times 2013).
- Monitoring and Evaluation (M&E), Contracts and Finance team that monitors departmental service provider contracts and municipally-provided infrastructure; that provides the unit with financial and administrative support; and that generates GIS-based spatial data.

3.2.2 'Community-managed' toilets in informal settlements

When WSISU (2010: 2) officials initially provided flush facilities to informal settlements throughout the metropole, there was an ostensible intention to provide one toilet to a set of households within close proximity to each other. Beneficiaries of the toilet were to be responsible for keeping it "clean and hygienic", and the municipality were to be "responsible for repairs and maintenance of the facility" (WSISU, 2010: 2). According to WSISU these broadly defined O&M responsibilities were intended for any municipality provided facility, regardless of the technology installed or the conditions of the natural and built environments (WSISU 2010). These intended roles, as envisioned, suggest a 'community-managed toilet model' in which the municipal government subsidises the capital costs for a sanitation service, and the beneficiaries are expected to manage on-site O&M concerns.

However, our data indicates that there is a massive disparity between the way O&M responsibilities are imagined by municipal officials and how these are negotiated and expressed by various residents and officials in informal settlements. This disparity was (and continues to be) most significantly and pervasively manifested by what we will refer to as a lock and key system of toilet access. This system was constituted by varying networks and arrangements of shared access, and developed in different ways according to different factors at different times in informal settlements throughout the metro. Such a system predates janitorial services in Cape Town and continues to be a common practice in many informal settlements. This practice and some of its concomitant challenges are presented below.

Interviewed WSISU officials said that responsibility for toilets installed in informal settlements was in many instances handed over to community leaders, themselves also residents of respective settlements. These community leaders oftentimes were a part of local Steering or Street Committees of informal settlements, entailing consultation with and representation of informal settlement residents. Officials and residents explained that community leaders were given sets of keys for toilets that were allegedly padlocked by the municipality. They were furthermore meant to allocate these keys to a set number of households for access. Though there was no written documentation of such arrangements available to the research team, municipal officials, as well as community leaders in BM Section and Masiphumelele noted that there was a tacit understanding between the officials and leaders that the former would provide toilets, padlocks and keys, and the latter would manage the logistics of delegating these facilities and supplies to residents.

Although an in-depth discussion and analysis of the 'lock and key system' is presented in Section 4.1, presented below several key challenges that residents and officials had with the arrangement, which in part resulted in the latter providing municipally financed janitorial services for what were originally intended to be 'community-managed' toilets. Challenges experienced by janitorial staff are discussed in section 3.6.7, after the Mayor's Project janitorial services are described in detail.

3.2.3 Residents' difficulties

Informal settlement residents interviewed in this study and for the K5/1827 report (Taing et al., 2013) complained that community leaders – levelling authority in meetings to allocate residents to toilets with locks – usually did not equitably distribute toilets between the intended beneficiaries. In defence, interviewed community leaders argued that such allocation was made extremely difficult due to the logistics of distributing limited numbers of toilets to relatively large populations.

Despite this consideration, residents protested that distribution of toilets and padlocks was not based on transparent or effective negotiation processes. For example, in the case of Masiphumelele, many residents complained that they were not among the residents consulted by community leaders. This is due in part to the difficulty of consulting a large population – in this instance, 10 000 residents. Unsatisfied with this troubled negotiation process, some Masiphumelele residents began to take matters in their own hands by allocating toilets amongst themselves in a process that was independent from the community leader-led negotiations. Here, a lack of effective communication and management is seen to precipitate reactions by residents that further complicate the already challenging matter of allocating limited numbers of toilets to residents of informal settlements.

Many residents that use padlocked toilets have said that they prefer using the lock and key system, rather than leaving the facilities open for anyone to use, because their toilets tend to be cleaner and safer to use. This system of restricting access to toilets shared between several user households, however, has rendered access to municipality provided toilets disproportionately in settlements such as Masiphumelele and BM Section because the municipality – likely due to spatial and environmental constraints – had not provided enough toilets to meet the city's basic sanitation target of a minimum 1 toilet for every 5 households (WSISU 2010). While the numbers of residents that do and do not have access to locked toilets in these settlements are impossible to know for certain, it can be extrapolated that lock and key systems have resulted in many not having access to full-flush facilities.

For instance, based on the city's aforementioned target, there should be 458 toilets for the 2 290 households that reside in Masiphumelele Wetlands (CoCT 2013b). To date there are 132 full flush facilities, of which approximately 81% (107 toilets) of the municipality provided flush toilets have been locked by residents. If sanitation access were to accord with the ratio of 1:5, then this would mean that 535 households have access to full-flush toilets, leaving 1 755 households without access to full-flush toilets. Residents who do not have a key to a padlocked toilet have consequently complained that the lock and key system has restricted their access to sanitation facilities in Masiphumelele Wetlands (See Section 3.3.2; Section 4.1).

Along with restricting access, lock and key systems have also resulted in deteriorating conditions of unlocked toilets. Since such systems have meant that the majority of residents have access to unlocked toilets, these facilities likely are over-utilised, and are frequently in an unhygienic or dysfunctional state (See Section 3.3.2). Even when a lock and key system seemed operational, the users in these arrangements complained that the others who used the facility oftentimes did not clean up after themselves (Cousins 2004; Mthembu 2012 SA Big Stink; IDT 2012). The irony of this is that intentions to improve cleanliness and hygiene were some of the main reasons cited by residents

as to why toilets were locked in the first place. While cleanliness and hygiene has subsequently improved for those who have access to locked toilets, as has been mentioned, the majority of residents have been left to use unlocked toilets that, due to overuse and lack of maintenance, were in unclean conditions.

The issues with the 'lock and key' practice illustrate how responsibilities related to sanitation provision and management are constantly negotiated, as well as the complexity of factors that need to be considered when defining these responsibilities in policy and expressed in practice. To suggest – as WSISU (2010) has done – that "residents are expected to clean and keep toilets hygienic", without taking into account the limited infrastructural and complex social realities of informal settlements have affected the responsibilities that users have been willing to undertake. Regardless of the intentions of this initiative to have residents manage the toilets they were provided, and thus take on responsibilities as was hoped for by national and local governments (RSA, 1998; DWAF, 2001; 2003; 2008; WSISU 2010), our research shows that communal toilets in informal settlements tended to be dirty and oftentimes non-operational when residents were left to clean toilets themselves.

3.2.4 The establishment of municipal janitorial services

In response to the apparent shortcomings of 'community-managed' toilet models, and given the "high levels of complaints regarding the cleanliness of communal flush toilets" (de Lille 2012a), janitorial services for such toilets in informal settlements became a priority for WSISU officials. WSISU currently supports two kinds or sets of arrangements for janitorial services of full-flush facilities, with each being managed and serviced by a distinctive set of personnel. Those arrangements involve respectively what have been called Community Workers (See Section 3.5) and the Mayor's Project (See Section 3.6). Both are janitorial service provision programmes for Cape Town informal settlements, and examples of both are to be found on the ground in Khayelitsha's BM Section and in the Masiphumelele Wetlands informal settlements. A brief introduction of the history of existing municipal water and sanitation services in BM Section (See Section 3.3) and Masiphumelele Wetlands (See Section 3.4) are presented before we turn to discussion of these two kinds of arrangements for janitorial service provision. As will be shown, the effective operations of the CoCT's janitorial services has been significantly constrained by prevailing residential practices – such as lock and key systems – and circumstances in the informal settlements where our research was conducted (See Section 3.6.7).

3.3 BM Section, Khayelitsha

3.3.1 History, demographics & housing situation

Khayelitsha means 'new home' in isiXhosa. It is situated approximately 30 km southeast of Cape Town's city centre, and 25 km southeast from the Water and Sanitation Informal Settlements Unit offices in Bellville. The township was built on the periphery of Cape Town by the then apartheid government in 1984, ostensibly to address a housing shortage for black labourers (SPP-WC 1984), but also as a relocation area for Black African Capetonians then resident in the three established townships, Langa, Nyanga and Gugulethu which it seemed, at the time, the apartheid state wished

to clear in order to accommodate people classified 'coloured' for whom housing provision too was inadequate. In an op-ed published then in the *Argus,* Dewar & Watson (cited in SPP-WC 1984: 103) consequently criticised the development of Khayelitsha as a: "…dumping operation involving the creation of an intra-urban 'black homeland', the aim of which can only be to establish total social control over the black population of Cape Town."

Though many resisted relocation on the principle that it made them "foreigners, with no rights, in the land of their birth", Khayelitsha eventually grew into a lively township (SPP-WC, 1984, 138), albeit populated by black Africans who had created a series of informal settlements, most of them elsewhere on the Cape Flats (Cole 1987). Many of Khayelitsha's first formalised settlements had housing built with rudimentary infrastructure of gravel streets, a tap shared between four plots, a bucket toilet per plot and high mast street lighting, as well as limited transportation links to Cape Town's city centre (SPP-WC 1984). It seems, however, that the accommodation demands in Khayelitsha quickly outstripped what the then government could provide because informal settlements such as BM Section were established shortly after the township's founding.

BM residents said that the first people who moved to the settlement in 1986/87 named it in honour of MK member Richard 'Barney' Molokwana (Molokoane) who lived in a neighbouring section of Khayelitsha. These first residents supposedly were tenants from the surrounding areas of Site B, while former residents of Crossroads – escaping the escalating violence in their neighbourhoods – soon joined them (VPUU 2010). BM's first residents settled near Lansdowne Road, but, said interviewed residents, people eventually settled on the other side of the wetlands, near the N2 highway. That was after 2000.

BM's current boundaries are: France informal settlement on its western edge, the N2 highway and Kuils River on its northern edge, the Noluthando educational facility and the formal settlement of Green Point on its eastern edge and Lansdowne Road (since March 2013 renamed Japtha K. Masemola Road (Cape Argus 2013b) on its southern edge (Figure 3-4).

Lansdowne Road is used in this report as residents and city officials alike continued to use that designation during the research period. In addition, although residents of BM Section and France distinguished between the two, given their distinct histories and leadership, data from secondary sources that have treated BM and France informal settlements as one area (e.g. "Barney Molokwana Corner and France" or "BM/France") are presented in this report. The two settlements were likely treated as one site in municipal and NGO documentation (CoCT 2013b; VPUU 2010) due to their close proximity and an intention that the two settlements would be upgraded together.

Figure 3-4: Map of BM Section.

According to the most recent dwelling count audit, BM/France has approximately 4 620 dwellings (app. 16 632 people) and 44 informal traders, which makes it the fourth largest informal settlement in Khayelitsha, and the sixth largest within the City of Cape Town boundaries (CoCT 2013b). The combined area of BM/France is 29.6 hectares (CoCT Consultants 2013). Presented in the

report are the municipal sanitation services provided to the following residential divisions within BM from November 2012 to August 2013: A, B, C, D, E and F (Figure 3-5).

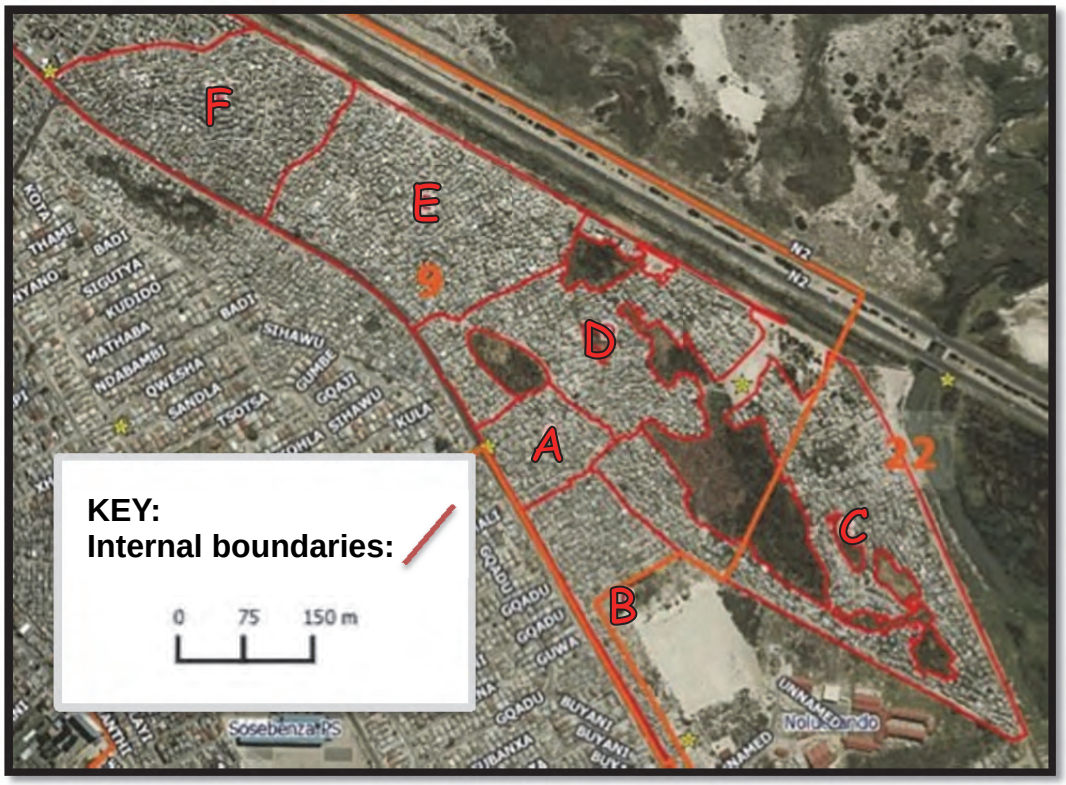

Figure 3-5: BM Section internal and sub-council divisions (Source: VPUU, 2010).

BV Section's sanitation services are also briefly discussed in the report, but limited data are provided as the majority of services to that area were installed only after research in BM was conducted. BV Section was established after a devastating fire on New Year's Day 2013 burned down approximately 840 homes in BM's D, E and F sections (Figure 3-4), leaving approximately 3 000 to 4 000 BM residents homeless (Cape Argus 2013a). About 200 households returned in March 2013 and built homes in a semi-grid layout in BV Section.

As regards the settlement's future, a Community Leader from B Section said that there have been a number of discussions with CoCT about formalising BM Section as permanent housing. A German NGO (Violence Prevention through Urban Upgrading – VPUU) had previously partnered with CoCT to plan an in-situ upgrade of BM Section in 2010/11 (VPUU 2010; SA Cities Network 2011); but, for reasons unknown to us, the in-situ upgrade project seemed to stall. A number of interviewees said that community facilities that were associated with VPUU, such as a meeting hall that was provided with the assistance of the NGO, have since supposedly been burned down by residents. The devastating New Year's Day fire, which elicited the attention of national government, has prompted CoCT to consider again BM/France as a permanent housing development (Figure 3-6; Figure 3-7).

Figure 3-6: BM Section after a devastating fire (Photo by CoCT, 5 January 2013).

Figure 3-7: President Jacob Zuma spoke to the BM fire victims on 15 February 2013 at OR Tambo (Mew Way) Hall (right; Taing, February 2013). The President stated then that he would monitor the CoCT's delivery of housing to those affected by the fire. BM residents began settling in BV Section in March 2013 (left; Taing, March 2013).

Consultants were appointed after the fire had begun to design a conceptual housing plan for the area where BM and France informal settlements are currently located. They have estimated that the developable area of BM/France is 12.09 hectares, which is only 40.8% of the two settlements' present total area. The remainder has been designated thus far for (1) existing road reserves and

overhead power lines, and (2) necessary buffer zones for wetlands and a 1:50 year flood line for the Kuils River system (CoCT Consultants 2013).

Given Cape Town's overall shortage of low-income housing, and that BM/France will thus likely continue to exist as informal areas for several decades, Cape Town officials have had to continue to provide interim free basic sanitation services, ostensibly until residents are housed in alternative, long-term accommodation. The following sections detail the interim water and sanitation services that have been provided.

3.3.2 Municipal water & sanitation facilities

The municipality provides communal standpipes that are dotted throughout BM (Figure 3-8), and the following types of sanitation services to BM residents:

- Full flush toilets;
- Chemical toilets; and
- Portable flush toilets.

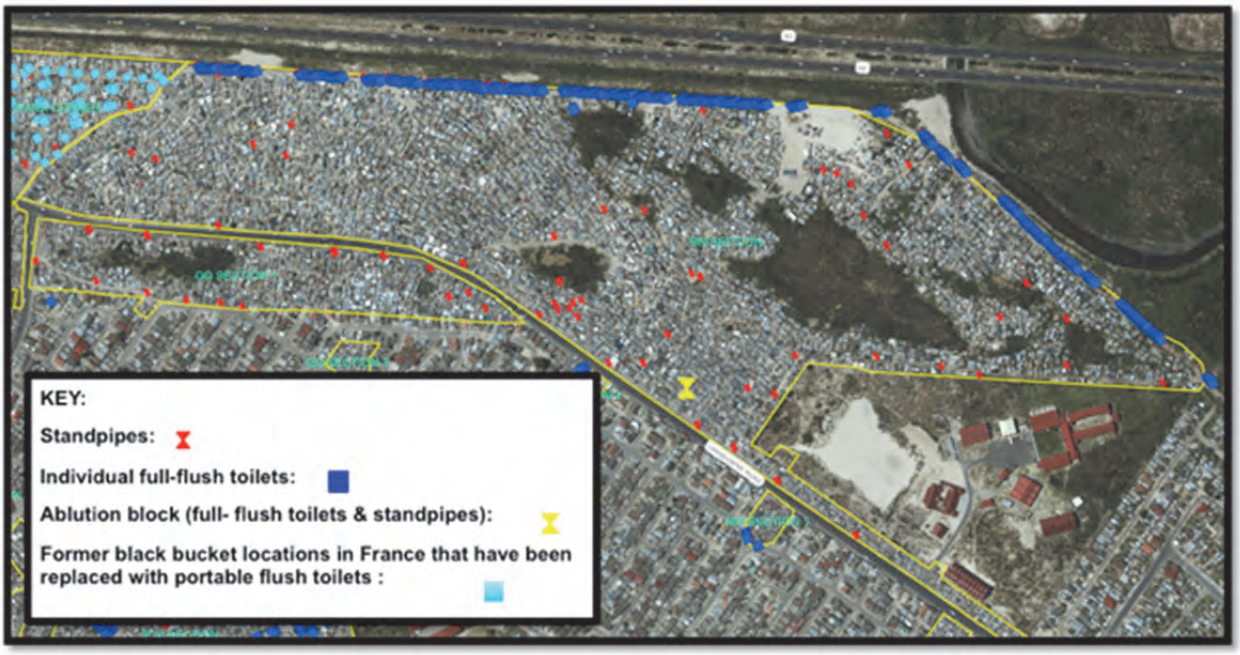

Figure 3-8: The location of municipally provided standpipes and full-flush toilets in BM Section (Source: CoCT, January 2013) before the 1 January 2013 fire.

CoCT has provided full-flush toilets in BM Section in three different configurations. The following sections briefly explain these three configurations. Since the focus of the report is on janitorial services for full-flush toilets, a brief description of the chemical and portable flush toilets services is relegated to Appendix I.

3.3.2.1 N2 individual full flush toilets

CoCT officials from the Development Services Department had negotiated the installation of 420 full flush toilets at the back of the settlement with resident leaders about in 2008/09 (CoCT 2008a). It was then "agreed that the City should place the toilets on the outside boundary" because the settlement's dense structural layout, and depressions caused by natural wetlands, reportedly made the installation of sewers in the middle of the settlement impossible (CoCT 2008a). The toilets were each housed in individual single-cast concrete structures and installed in groups of 9 to 39 toilets per cluster. The clusters of toilets (here referred to as the 'N2 toilets') are located across a gravel road from residents' home. The dirt and gravel road can accommodate up two cars driving in the opposite direction in the segment that runs parallel to the Kuils River system, and a single vehicle in the segment that is parallel to the N2 highway. No stormwater drainage system was installed to remove the runoff from the road, which has negatively affected the environment in BM Section (See Section 4.3).

Figure 3-9: A cluster of toilets in BM Section alongside a dirt and gravel road that is covered with a layer of sand (Taing, February 2013).

Between the clusters of toilets were gaps in which standpipes with wide concrete gullies were installed at the end of a toilet cluster on the side of a cubicle (Figure 3-9). The gullies, which approximately are half a metre wide, were used for washing one's hands, as well as for collecting water in buckets. The toilets and standpipes are fed by a centralised water reticulation network, and wastewater is transported to Zandvliet Wastewater Treatment Plant via full-bore sewers located behind the palisade fencing of BM/France in the N2 road reserve. These facilities are serviced by WSISU, and neither hand soap nor toilet paper is provided to users by the municipality.

When they were first installed, CoCT officials said that they had expected that each toilet would be allocated to a set of households by the local steering committee, and that these households were then meant to manage their toilets together (See Section 3.2.2). But from what residents said about the way the toilets were used, maintained and indeed abused from soon after their installation, that goal was never actually realised. Rather, some toilets (by the time of research approximately 61%; See **Table 3-5**) had been secured with padlocks placed on the doors, presumably by users of the facility for the purpose of restricting access, and even then residents reported that it was challenging to maintain hygienic toilets shared by several user households. The remaining toilets, residents explained, were considered 'open' for anyone to use – a reason, it seems, for some D Section residents referring to the facilities as public toilets. Users of the unlocked public toilets said that they oftentimes struggled to find a toilet that was clean to use and one that 'properly' flushed (Figure 3-10).

Figure 3-10: A BM resident, in search of a clean toilet to use, inspected several unlocked toilet cubicles at 8:30AM (Taing, April 2013).

Ms Taing's research assistant, who has been a resident of BM since 1990, explained that a toilet is in "good working condition" if it flushes, and if it does not leak afterward (Figure 3-11). In this regard it did not matter if a toilet had a seat to sit upon, or a handle (flush lever) to flush the unit. These points are important to note because essentially all of the N2 toilets did not have toilet seats or operable handles. Users (who did not close the unit's doors) were observed sitting directly on the toilet bowls, and flushed the toilets by pulling upwards on the ballcock or ball valves in uncovered cisterns.

Figure 3-11: A toilet in "good working condition" (left) versus a toilet in "bad working condition" (right). Both toilets notably do not have toilet seats or operational flush levers, but the former was considered "good" because it discharges wastewater into the sewer as intended, whilst the latter does not.

Given the poor hygienic and operational state of the N2 toilets, janitors were employed by WSISU to clean the facilities as part of the citywide Mayor's Project from early 2012. Further details about the operation of this janitorial service and employment of janitors are presented in Section 3.6. A janitor said that they had conducted a survey of the number of units they were responsible for in February 2013 and we were told that there were then 659 full-flush toilets, of which 359 (54%) toilets had been reported to WSISU as needing to be repaired or demolished and replaced.

The findings of a tap and toilet count of the N2 facilities (**Table 3-4** and **Table 3-5**), completed in June 2013, also indicated that the majority of toilets that were inspected needed to be repaired or demolished and replaced. A total of 45 standpipes and 515 toilets were surveyed. The latter total differs from the aforementioned janitor's report by 144 units, which likely accounts for the number of toilets that were removed by the city due to irreparable damage caused by the New Year's Day fire (See Section 3.3.1).

Table 3-4: Standpipe figures BM Section's N2 toilets (June 2013).

Total number	Total without taps	Total that had a blocked drain	Total that had no drain
45	26	16	4

Table 3-5: Toilet figures BM Section's N2 toilets (June 2013). Two of the toilets were in use during the survey so it was not possible to surmise if they were unlocked or padlocked units, and what the conditions of the units were.

Total number of toilets	Total that were padlocked	Total that were unlocked	Total that had no door	Total that had a broken door	Total that were flooded
515	313	162	37	1	58

It was found that the taps and toilets were grouped spatially into 28 clusters, which ranged in form from 3 toilets and a standpipe, to as many as 39 toilets with two standpipes located at the end of the row. Of the 45 standpipes, 26 (58%) no longer had taps, 16 (36%) had blocked drains, and four (9%) had no gullies or drainage system installed at all. Residents continued using some of the standpipes without taps by removing the encasing of the plastic water supply tube and straightening the plastic tubing when water was needed.

Of the 515 toilets, 313 (61%) were padlocked, 162 (31%) were unlocked, 37 (7%) had no doors and 1 had a broken door that could not fully enclose the cubicle. It seemed that 58 of the 515 toilets (11.2%) were standing in water due to its positions in a wetland, or stormwater runoff from the adjacent road that drained into the toilet cubicles (Figure 3-12; See Section 4.4). The operational states of toilets that were padlocked could not be accessed because the key holders were unavailable to unlock the units when the survey was conducted. Of the toilets that were unlocked or had no door, 73 were in “good working condition” because they flushed and did not leak. The remainder of toilets that were not padlocked had blocked discharge pipes, missing or broken toilet components and/or top structures, or no water supply. Two clusters of toilets were completely inaccessible due to the doors being blocked by vegetation or standing water. Ten toilet bowls were filled in with sand, which residents and janitors explained was added to cover the smell of the waste that was decomposing in units that somehow disconnected from the sewer network.

The poor operational states of the N2 toilets are particularly important to note because it was observed as having a large impact on the effectiveness of the janitorial service that was later instituted to keep these facilities clean. Further discussion on the crucial link between repairs, maintenance and cleaning is presented in Sections 3.5.5 and 3.6.5.

Figure 3-12: A resident carefully avoids the stormwater that pooled in front of the toilet he uses in BM Section (left). It was observed that some people continued using toilets in which the water supply was cut by utilising buckets to flush the bowl (right) (Taing, June and May 2013).

3.3.2.2 Ablution block

WSISU also services a brick and mortar ablution block located on Lansdowne Road in BM's Section A. As noted in WRC K5/1827 report (Taing, Armitage, et al. 2013), BM's ablution facility was built by CoCT's Parks & Recreation Department. According to municipal GIS data (CoCT 2002; 2003), the facility was likely built in 2002/03, but for reasons unknown to WSISU and the research team, the facilities had been closed. A WSISU Official said he had subsequently requested and was granted permission by Parks and Recreation to re-open the facility in 2009. At that time fully sewered ablution and sanitation services were provided separately for males (three showers, four porcelain pour-flush toilets, two urinals and one hand basin) and females (three showers, four porcelain pour-flush toilets and one hand basin). Provision was also made for the disabled (one handicap toilet), and washing clothes or collecting water at standpipes located on the outside of the facility. The facility is fed water by the centralised reticulation network, and wastewater from the facility is transported to Zandvliet Wastewater Treatment Plant via full-bore sewers on the opposite of Lansdowne Road. An electricity box powered overhead lighting in the facility, but neither a hot water cylinder nor outlets were installed to heat water or to charge electrical devices such as razors.

The WSISU officials said that initially community leaders then were responsible for opening the facilities each morning and closing them again each evening. Events (reportedly an after-hours

break-in where all the metal plumbing fittings and the electricity box were stolen, and a protest during in which the toilets were set alight) in 2009–10 prompted WSISU to close the facilities once again.

The ablution block was rehabilitated by WSISU to its current state in 2011 (Figure 3-13) and, during the period of field research was opened between 05:00 and 21:00 each day all year-round. A WSISU official explained that he had replaced the pour-flush toilets with full-flush plastics units, added palisade fencing as a security measure and made sure that two janitors were appointed to open/close and to clean the facility on weekdays (Taing, Armitage, et al. 2013). The appointment conditions of these janitors are discussed in Section 3.5.

From January to August 2013, six toilets were functional in the ablution block (three on the men's side, three on the women's side). One toilet on each side was kept padlocked at all times by the ablution block janitors because there were problems with the drainage pipes' gradients, which regularly resulted in toilet blockages. An ablution block janitor explained that they had struggled with these toilets since the facility was re-opened after its 2011 rehabilitation, and they restricted access to the units because the O&M teams had not redressed the problem.

Figure 3-13: The BM ablution block (Taing, March 2013). Residents use the seven standpipes alongside the front of the building to wash their hands and to fill buckets. Residents often wash clothes in the open area next to the standpipes.

The ablution block also has six showers, separated according to gender, and a handicap facility. But these too were locked at all times because the janitors and security guards used the spaces as their offices or storage facilities (See Section 3.5.4). When asked about why the showers were locked, the janitors explained that the facility does not have a geyser to heat water so residents occasionally used the showers during the summer. The janitors said that residents could

ask them (or the security guard if they janitors were not present) for access to the showers when they wanted. No one was observed to have used the shower facilities at the ablution block during the field research period. This may be due to residents' practice of washing oneself in the privacy of one's home (See Section 4.3). The janitors added that the WSISU supplied those with disabilities with portable flush toilets, which may explain why no one was observed to have used the handicap toilet during the field research period.

The ablution block also included three washbasins for hand washing: one located on the male side, one on the female side and one more associated with the handicap toilet facility. Hand soap was provided on a monthly basis by CoCT, and dispensed – when available – at the washbasins via cool drink bottles. Six taps, located on the outside of the block but within the perimeter of the fence, and with drainage through gullies in the concrete slab on which the whole facility rested, was where people did laundry, collected water and were able to rinse their hands (Figure 3-13). All wastewater from the facility drains into a full-bore sewer on the opposite side of Lansdowne Road, whereafter it is conveyed to Zandvliet Wastewater Treatment Plant.

The janitors also distributed toilet paper to users. WSISU's officials originally only provided cleaning materials to janitors, but started providing toilet paper in 2011. The ablution block janitors are meant to receive an allocation of 48 rolls of one-ply toilet paper a week. Janitors unravel rolls of toilet paper for distribution by wrapping paper around their hands, and leave it in a plastic crate by the entrance. A WSISU official suggested that the janitors "roll six times" when prepping toilet paper for distribution (Figure 3-14). Each rolled piece is approximately 15-25 sheets of single-ply paper. This amount is variable as it is depends on whether the janitor loosely winds the paper around their hands. Users then pick-up rolled pieces of paper at the entrance of the facility disappeared to use the toilets and generally left the facility empty-handed. Both of the ablution block janitors complained that WSISU does not supply enough toilet paper to meet users' demands. Further discussion about the problems with toilet paper allocation is presented in Section 3.6.1.4.

Electricity at the ablution block was not restored after the 2010 break-in, which the janitors complained was a security problem because the facility was dark during the winter months. It was also an inconvenience because they could not charge their work radios at the facility, or even make tea when they were cold or needed refreshments. The challenges of not having electricity at toilet facilities are discussed further in Sections 4.2.

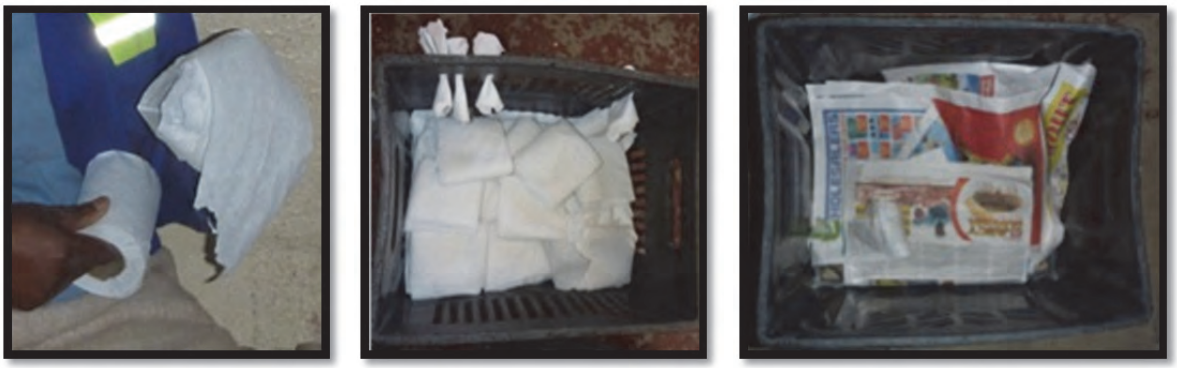

Figure 3-14: An ablution block janitor unravelled a roll of toilet paper (left) and put it in a plastic crate (centre) that was left by the facility's entrance. Users left newspaper in the crate when no toilet paper was available (right; Taing, April and February 2013).

3.3.2.3 BV Section toilets

Figure 3-15: The new toilets in BV Section were built on raised concrete platforms in open spaces between residents' homes (top), and alongside a dirt and gravel road (bottom-left). For the latter, drains were also installed in the concrete platforms and channels were created between each platform to allow for stormwater drainage either into the reticulation network, or the N2 road reserve behind the palisade fencing (bottom-right; Taing, June 2013).

The third configuration of full-flush facilities was to be found at the newly installed toilets in BV Section. It was the only area in BM Section that has been observed as having full-flush toilets installed between homes, as well as along the N2 highway. Unlike the N2 toilets, the toilets in BV Section were installed on concrete-slabs for the purpose of raising the facilities above ground level (Figure 3-15). Details as to their number, how it came about that they were provided and by which CoCT agency, and the arrangements made by residents and CoCT for their management are not presented in this report because these events took place after the field research period had ended.

Presented in the next section are a background of the Masiphumelele Wetlands and TRA and a detailed description of the municipal water and sanitation services in those two areas of Masiphumelele. The data from which the latter is sourced derive from research conducted from mid-April to mid-July 2013.

3.4 Masiphumelele Wetlands and TRA

3.4.1 History, demographics & housing situation

Masiphumelele means 'let us succeed' in isiXhosa. The area described as Masiphumelele lies in the Fish Hoek valley, some 40 km south of central Cape Town and on the Cape Peninsula, and 40 km southwest of WSISU's Bellville offices, located at 39 Durban Road. It is roughly half way between the affluent (and primarily white) suburbs of Fish Hoek to the east and Kommetjie to the west.

In the early 1980s some four to five hundred people, having been evicted by the apartheid government from their informal settlements within the areas of Langa and Nyanga, invaded land where Long Beach Mall is presently located (Bray et al. 2010; Cooper 2010) and began what is now Masiphumelele. At that time it was referred to by residents and known generally as 'Site Five' because it was one of nine sites considered for development by the then Cape Town government to house workers of the adjacent suburbs (Cooper 2010). Since it was first established, Masiphumelele's population has grown exponentially from several hundred in the late 1980s, to approximately 8 000 in 1990, to over 26 000 in 2005, to about 40 000 according to recent estimates (CoCT 2012). About 75% of the population lives in formal dwellings – brick and mortar houses and tenement flats – while 25% live in informal dwellings (i.e. shacks) in backyards and informal settlements (CoCT 2012).

In 1992, Masiphumelele was officially recognised by the then Cape Town government after a land struggle between Masiphumelele residents and neighbouring landholders (Bray et al. 2010). Most residents then lived in shacks, with people arriving rapidly from townships in the Cape Flats to live in the settlement (Middelkoop 2010). People unable to pay rent and/or secure housing as backyarders in formal dwellings moved to the informal settlement that is now known as Masiphumelele Wetlands. It lies along the northern boundary of Masiphumelele, wedged between Table Mountain National Park territory, private industrial and residential property and the formal part of Masiphumelele (Figure 3-16).

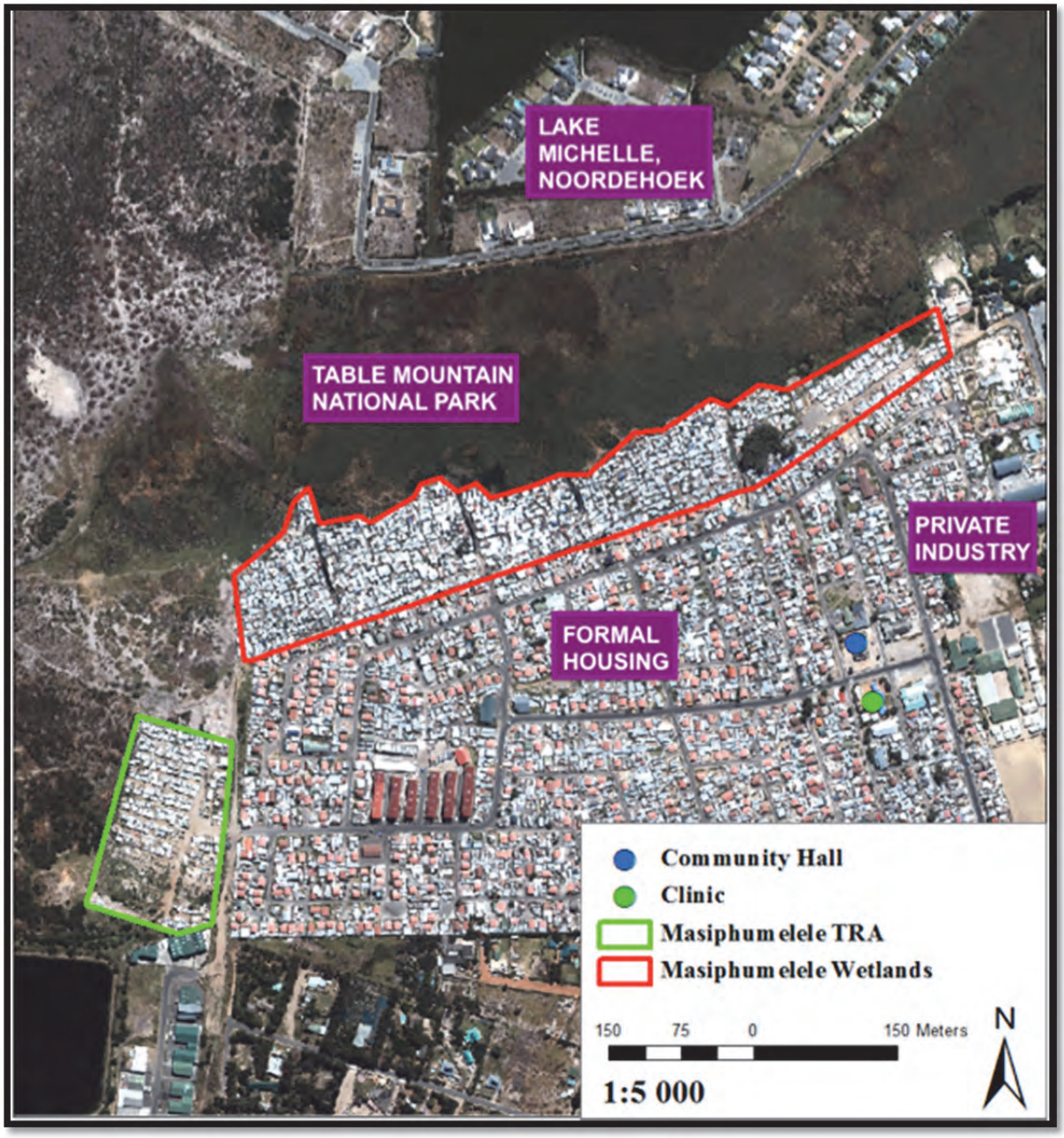

Figure 3-16: Map of Masiphumelele.

According to CoCT (CoCT 2013b), there are roughly 2 290 households (approximately 8 194 people) that live in, and fourteen informal traders that operate in Masiphumelele Wetlands. It is located along the northern periphery of the formalised part of Masiphumelele behind Pokela Road. Masiphumelele Wetlands has evolved over time into mazes of narrow footpaths and shacks, with four concrete canals having been constructed at a later time by municipal officials in order to divert and drain runoff stormwater (Figure 3-17). There are no paved roads in the settlement, though parts of the Wetlands can be accessed by motor vehicles at open areas that are adjacent to the canals and at the far west and east ends of the settlement.

Masiphumelele Wetlands informal settlement is divided into seven sections by residents, which they refer to as A, B, C, D, E, Z and Zulu sections.

Based on interviews with the local Ward Councillor, Felicity Purchase, and a local community leader of a neighbouring settlement, it is unlikely that the Masiphumelele Wetlands will be developed as a long-term housing development. Given the limited amounts of low income housing options available in Cape Town, it has been critical for CoCT officials to continue providing free basic water and sanitation services in places like Masiphumelele Wetlands until residents are housed in alternative, long-term accommodation. The following sections detail the interim water and sanitation services that CoCT officials provide Masiphumelele Wetlands.

Figure 3-17: A canal separating A and B sections in the Wetlands, which is filled with greywater, rubbish and human waste (Schroeder, May 2013).

In addition, details about the water and sanitation services of the Masiphumelele Temporary Relocation Area (TRA) are also presented in this report because the sanitation services that are provided in both areas are managed by the same CoCT unit (WSISU). The TRA is an area that was established by CoCT in 2004 to house those affected by a fire in the Wetlands (Bray et al. 2010) It is located immediately west of the Wetlands. The TRA is also called 'Makhayangoku' ('homes for all' in

isiXhosa) by local residents, and is home to approximately 1,000 people who reside in some 200 shacks (CoCT 2012).

3.4.2 Municipal water & sanitation facilities

3.4.2.1 Masiphumelele Wetlands

There are 132 full flush toilets that are scattered throughout Masiphumelele Wetlands' seven sections, in clusters that range from five to 35 toilets per section (Table 3-6). Residents tended to refer to each cluster of toilets in terms of the section where it was located. In most of the clusters, it was found that at least some of the toilets had been secured by locks on their doors – thus restricting access to persons who were able to obtain the key. Details as to the relationships between those with access to keys are provided below.

Table 3-6: Toilets and standpipes in Masiphumelele Wetlands (Schroeder 2013).

Section	No. of toilets	No. of unlocked toilets	No. of standpipes
Zulu	12	2	1
Z	35	0	2
A	14	14	2
B	5	2	1
C	7	3	0
D	23	3	3
E	36	1	2
Total:	**132**	**25**	**11**

The toilets were built from late 2010 to early 2011 by CoCT. The toilet blocks dot the southern end of the Wetlands in a broken line running more or less parallel to Pokela Road, and drain to Wildevoëlvlei Wastewater Treatment Works. The locations of the toilet blocks likely were selected by municipal officials because they were convenient places that could be connected to a Pokela Road sewer line with minimal interruption to the existing built environment. The toilets generally were laid out in rows, with standpipes generally at the end of each row. (See Figure 3-18).

Figure 3-18: E-Section toilets (left) and a woman washing clothes at one of two standpipes in E-section (right) (Schroeder, May and June 2013). Of the 36 toilets there, only 1 was unlocked.

3.4.2.2 Masiphumelele TRA

In Masiphumelele's TRA there are 58 municipally provided full flush toilets, single concrete structures spread out throughout the area. These toilets were built by the municipality over a period from 2004 to 2005. All of these toilets were unlocked and spread out between shacks throughout the TRA. Unlike the toilet use in the Wetlands, specific households generally use a specific toilet, based on their spatial distribution, as the toilets are surrounded by the households that are meant to use each of them. This allocation of toilets to households was set up by community leaders and warm councillors in communication with residents when the area was established. In addition to these toilets, there are 14 functioning standpipes in the TRA, located in close proximity to the toilets.

The next sections describe the Community Workers janitorial programme and Mayor's Project janitorial programme that WSISU was providing to informal settlements during the research period. Those include the programmes at BM Section and the Masiphumelele Wetlands. In those sections we outline how workers are employed, how they are compensated, their daily schedules and the supplies provided to them to undertake their duties.

3.5 Community Workers sanitation service (CoCT)

3.5.1 Establishment of programme

In August 2011, WSISU officials began drafting the aims and the standard process that the unit would later use to employ informal settlement residents as "Community Workers" (WSISU & Taing 2011). It was intended that 67 informal settlement residents be employed as janitors and monitors, and that they fulfil some of WSISU's O&M or M&E responsibilities in the settlements where they

lived. The janitors were to be managed by WSISU's O&M team, and employed "to render an effective and efficient" sanitation service at facilities designed for what was described as communal use (WSISU & Taing 2011). In Cape Town, sanitation facilities that were designed for such communal use generally were a group of toilets housed under a single roof. At the time, WSISU needed such cleaning services only at the Pooke se Bos Mobisan facility, the ablution blocks in Khayelitsha and Ocean View informal settlements, and the ablution blocks at Philippi and Delft TRAs.

The role of the monitors was to assist with fault reporting and supervision of contractors in the informal settlement where they resided. The WSISU-based M&E Officer who was responsible for the region in which the workers lived and worked supervised these workers. Unlike what was implemented for the janitors (see below), WSISU officials explained that they needed to equitably distribute the monitor positions across the metro. They determined that these postings would be based on: (1) where WSISU had previously employed Community Workers, (2) whence they received the most complaints as logged in the City's 'C3 notification system' (see Section 3.5.5), and (3) the principle that they would be located in areas that were considered "politically sensitive" (WSISU & Taing 2011).

WSISU officials reported that this was the second Community Workers programme the municipality had set-up to maintain water and sanitation infrastructure in informal settlements. The first was instituted five years prior by a group of personnel in the Reticulation division of the then Water Services Department, and the lessons learnt from that experience left an indelible mark on CoCT's hiring practices for its subsequent job creation initiatives in informal settlements. In January 2006 Reticulation officials' request "to appoint 100 community workers in informal settlements" on six-month contracts was approved by CoCT Executive Management (CoCT 2006). A CoCT official with a human resources (HR) background elaborated that he had initiated the scheme because of concerns he had had with the functionality of municipal infrastructure in informal settlements:

> "I started the Community Workers programme when I was working in Reticulation. I visited all the informal settlements and I saw there was a need for us, as a city, for people who are there to guard and to protect our items like standpipes, toilets... all city assets that are there. Because what I discovered was that people were vandalising our assets and no one was in charge. So I wrote a report... to the then Director. I showed him pictures and said I wanted 100 workers. Then they approved it and we sourced people from [a labour broker] and then we employed 100 people for all of the informal settlements and said to them, 'you have to clean all the toilets and monitor everything, and you report to us every week. And then what we do is we send out the artisans to fix things."

WSISU officials – who later managed the Community Workers programme after the unit was established in 2007 – had confirmed that those employed by a labour broker resided in informal settlements, and the workers' primary tasks were cleaning toilets and reporting faults to CoCT's maintenance teams. Such responsibilities, however, differ from what was outlined in the original memorandum describing the purpose of CoCT's Community Workers programme. It seems that the 100 Community Workers were hired as "general handy men" and that they were meant to be "[r]esponsible for plumbing repair and maintenance, as well as educating the community on basic

plumbing 'housekeeping' rules to promote responsible usage and hygiene control" in 190 informal settlements (CoCT 2006). Regardless of the difference in practice and intentions, WSISU officials stated that the Community Workers were "essential" to their operations as the unit's eyes and ears on-the-ground. CoCT subsequently had the labour broker extend the workers' six-month contracts without interruptions until 2010. The same officials reported that they had stopped this practice after the Community Workers had successfully argued – with the assistance of labour unions – that the CoCT had to "convert" their temporary statuses into permanent posts. This likely is a result of the 2009 South African Municipal Workers Union (SAMWU) strike and the subsequent negotiations the labour union had with CoCT. Theron & Visser (2010: 12) and Theron & Perez (2012: 18) had stated that during the negotiations SAMWU had successfully "demanded that the City directly employ certain municipal workers provided through labour brokers and contractors" on a permanent basis. WSISU officials said they municipality honoured their agreement by offering the workers vacant O&M positions that they did not have to apply for in the Water and Sanitation Department.

Without being familiar with the specifics of this case, Dr Shane Godfrey (pers comm, 12 March 2014), a labour regulation researcher based at UCT's Institute of Development and Labour Law, suggested that the first group of Community Workers must have had grounds for "unfair dismissal", thereby allowing them to stay employed. This would probably have been because their contracts had been renewed a number of times and/or they were given the impression that they would be renewed again, in which case they had a 'reasonable expectation' of renewal. This has been noted by Theron (2013: 16), where he states that there is a legal loophole that allows "an aggrieved worker" to claim that they were unfairly dismissed by their employer if they had "reasonable expectation" that their contract would be renewed. Dr Godfrey elaborated that one such argument of a temporary worker having "reasonable expectation" that their contract would be extended is when an immediate supervisor tells a worker verbally that s/he will recommend that their contract be renewed. He noted that if a worker could prove, in this instance that they had reasonable expectation of their being continually employed then the worker would only be legally entitled to another contract that has identical terms as their extant fixed-term contract. Yet, in recent court rulings there has been a precedent set in cases similar to the CoCT Community Workers' circumstance where claimants have successfully argued that they had reasonable expectation of permanent employment after their fixed-term contracts were continually renewed on the same or similar terms. Dr Godfrey conjectured that the CoCT likely followed this logic of reasonable expectation of permanence after the workers' six-month contracts were continually renewed over a four-year period, and thereby offered the Community Workers permanent positions instead of fixed-term contracts.

It seems that the municipality again experienced pressure from labour unions to employ temporary workers performing water and sanitation tasks in its second iteration of the Community Workers programme. WSISU officials had re-instituted the programme because they needed workers on-the-ground, but it was only intended to be a trial because they were unsure if they would be granted the annual budget to sustain such an arrangement. Given this financial uncertainty, the 67 workers initially signed one-year contracts with a WSISU labour broker. WSISU did subsequently secure annual funding, with the Community Workers becoming permanent employees in July 2012. WSISU officials and Community Workers did not explain why the latter's

statuses had been changed, but labour unions likely were involved in these negotiations given their history of helping those "indirectly" employed by the municipality via labour brokers convert their temporary contracts into permanent posts (Theron & Visser 2010: 12; Theron & Perez 2012: 18).

The adjustment of the first and second group of Community Workers' employment statuses from fixed-term workers contracted by labour brokers to permanent municipal employees is one example of the complications that CoCT authorities have experienced when utilising temporary labourers for delivering public services. WSISU officials said that the first instance especially influenced their contracting practices. The unit still indirectly employ temporary workers via labour brokers on fixed-term contracts, but all contracts are only for periods of six months or less, and they no longer continually renew such agreements. Officials have reported, moreover, that they explicitly state and reiterate to all temporary workers that they only will be employed for the period written in their contracts, and that they do not know whether their contracts will be renewed. These statements are made, they explained, to ensure that they "do not raise workers' expectations" beyond what is outlined in their employment contracts. Further examples of specific labour challenges that city officials reported when employing temporary workers are specially discussed in Section 4.4.

After the second group of Community Workers were made permanent employees, it was decided within the unit that WSISU's M&E Officers would undertake supervision of both janitorial and monitoring staff, and the financial and clerical team would continue to provide the workers with administrative support. What follows is a description of the Community Workers janitorial service in BM Section and the monitoring service in Masiphumelele Wetlands and TRA.

3.5.2 Workers' employment, work schedule & remuneration

From late-2011, WSISU employed:

- Two women as Community Workers for BM Section ablution block (Figure 3-19). One was a resident of BM Section, and the other resided in nearby SST Section. These Community Workers are hereafter referred to as the 'BM ablution block janitors'.
- A man as a Community Worker for Masiphumelele Wetlands and TRA. In all, he was responsible for monitoring and reporting about conditions at the 190 toilets in these areas. The monitor was a Masiphumelele Wetlands resident when he first applied for and was appointed to the post; but he has since moved to a formal area in Masiphumelele. He is hereafter referred to as the 'Masiphumelele monitor'.

When they had still been vacant, the Community Worker positions were advertised by CoCT's Sub-Council offices so that interested applicants could apply for them (WSISU & Taing 2011). This was done expressly to avoid problems that CoCT had previously experienced with nepotistic job appointments in informal settlements. The Masiphumelele monitor said that he had applied for his position after he saw the advertisement at the Masiphumelele Community Hall in mid-2011, and added that he was appointed in late 2011.

Figure 3-19: Two Community Workers (BM ablution block janitors) cleaning the BM Section ablution facilities (Taing, February 2013).

The BM ablution block janitors and the Masiphumelele monitor generally started and ended their work days by 'clocking-in' and 'clocking out'. They each went to a nearby CoCT office to register their thumbprint in a machine that was used by the municipality to monitor their hours.

The BM ablution block janitors worked in two eight-hour shifts (07:00-15:00 and 10:00-18:00), during weekdays and alternated working two short shifts (07:00-08:00 and 17:00-18:00) on weekends. Both said that they began their respective weekday shifts by cleaning each of the toilets in the ablution block, sweeping and mopping the floors, and cleaning doors and drains. This, they reported, took approximately two hours. Thereafter they were there to 'check' the toilets throughout the rest of their shift and to clean whenever necessary, whilst also distributing toilet paper to users (See Section 3.3.2). Particularly noteworthy is that their work hours did overlap with the opening hours of the ablution block (05:00-21:00 every day, weekends included). One explained that they had indeed previously opened and closed the facilities, but that their hours had been changed by WSISU due to safety and security concerns (See Section 4.3). For that reason, one of three contracted security agents was responsible for opening and closing the facilities each day, including weekends.

The Masiphumelele monitor worked from 08:00 to 16:00 Mondays to Fridays. Like the BM ablution block janitors, he was allowed two tea breaks and a lunch hour, although it was apparent that he did not take these breaks during a designated time each day.

The Community Workers' salaries were paid from WSISU's O&M budget. Originally the Community Workers had been employed via municipal labour brokers, and – according to the BM

ablution block janitors (and their Pooke se Bos peers who were interviewed as part of the K5/1827 study) – they had all become permanent employees of WSISU from July 2013 which meant that they were then receiving employments benefits such as health insurance, paid leave, and as illustrated by the experience of one BM ablution block janitor, paid maternity leave. One benefit not received by the Community Workers an "extra 13th cheque" as an end of the year bonus, a problem that was reportedly is now being pursued on their behalf by local trade unions.

For the BM Section ablution block janitors and the Masiphumelele monitor, having become CoCT permanent employees had seemingly helped each become financially more secure than they had been previously whilst on contract, which helped them be able to afford moving out of their informal settlement shack. One of the ablution block janitor told us that she is looking for a house to purchase in Khayelitsha or neighbouring Mfuleni, thus to remove herself from the informal settlement environment of BM section. As indicated, the Masiphumelele monitor moved out of the Wetlands informal settlement to a formal area of Masiphumelele once he had secured employment; and he was married in December 2013.

One ablution BM block janitor noted that, although toilet block cleaning might not have been what she wanted to do in the long-term, she understood that she was fortunate to have long-term job stability and benefits. She also explained that she was open to other employment opportunities, but only if a new employer offered her comparable or better benefits than what she was receiving since having become a permanent CoCT employee. For example, she said, CoCT was currently paying for her studies towards a Matriculation certificate, a course she had commenced in September 2013. Any potential new employer should, she said, offer her similar education or training benefits.

3.5.3 Supervision

At the time field research was undertaken Community Workers were meant to be supervised by WSISU's M&E Officers responsible for the Khayelitsha and Southern Peninsula regions. This meant that none of the Community Workers had on-site supervisors given that, as janitors and monitors, they were meant to be based "on the ground" in the informal settlement where they resided while their supervisors were desk based in the CoCT's Bellville offices. The Community Workers' supervisors generally monitored their hours by reviewing their timesheets (see Section 3.5.2). The supervisors could also monitor the location of the BM ablution block janitors and Masiphumelele monitor by using GPS-sensing radios, one of which had been issued to each Community Worker (Figure 3-20).

Figure 3-20: The Masiphumelele monitor communicating to his supervisor (the M&E officer responsible for the Southern Peninsula Region) on his radio at the start of a work day (Schroeder, May 2013).

In Masiphumelele, a good working relationship was observed between the supervisor (M&E officer) and the monitor (community worker). They communicated regularly via radio and there seems to be very little miscommunication or misunderstanding between them. The M&E official would keep in touch with the monitor on a regular basis to check on how the janitors were doing; receive feedback regarding blockages or dysfunctional toilets and any other issues that might arise during the days work. The M&E official would also relay messages regarding when the Mayor's Project janitorial supervisor would be on-site and as to the distribution of any cleaning supplies and/or materials. While this communication channel was seen to be generally effective, there appeared to be a lack of overall supervision of the janitors themselves. The janitorial supervisor during the time fieldwork was conducted was "overwhelmed with work", and had to "visit several sites in one day", often caught in traffic in between sites, and always found himself with "too few hours in the day". This lack of supervision was not filled by the Monitor, who – largely due to his being younger in age and related to personality qualities and indeed job description – did not take on the role of janitorial supervisor. The gap of capacity observed and apparent cross-over of roles and responsibilities points to an area that requires attention within the janitorial service provision in Masiphumelele Wetlands, as well as the challenge of integrating both the Community Workers and Mayor's Project janitorial services. Further discussion of supervision can be found in section 3.6.4.

Notably, the BM ablution block janitors had no electricity at the facility so, they said, they had to be sure to charge their radios at home. The Masiphumelele monitor also charged his radio at home as he did not have a permanent base such as an office.

3.5.4 Logistics & supplies

The Community Workers were each generally supplied with:

- Two t-shirts marked with the municipality's logo;
- An overall top, also with the municipality's logo;
- Overall bottoms (pants);
- A cap, with the municipality's logo; and
- A pair of steel-toed water-resistant boots.

In addition, they were supplied with stationary such as clipboards and pens, and a radio and charger so they could communicate directly with WSISU officials.

The BM ablution block janitors said WSISU officials had also given them cleaning equipment, supplies and toilet paper, and it was observed that they each had two buckets, a broom, a mop and cloths to clean the facilities. One of them said that they also received 48 rolls of toilet paper a week and showed that she was provided the following items in early February 2013 to use for the entire month:

- Ducks toilet cistern bar (x 2);
- Sumasol antibiotic (x 1);
- Medifen cleaning detergent (x 2);
- Mortein Target pest spray (x 2);
- Glade Secret air-freshener (x 2);
- Sunlight washing powder (x 2); and
- Hand gloves (x 2);
- Handy Andy all-purpose cleaner (x 2);
- Black bags x1 (10-pack);
- Black deo-disinfectant;
- Musk (x 2);
- Palmolive soap (x 1; 12-pack).

The BM ablution block janitors said that, while the quantities of cleaning materials provided by WSISU were adequate for them to fulfil their jobs, they needed more toilet paper to be supplied as usually 48 rolls lasted only three to four days. They also noted that the procurement and distribution of the above items was affected after WSISU's O&M team re-focused their attention away from the ablution blocks and onto cleaning non-sewered toilets that, at the time were not being emptied by the CoCT contractor whose job it was to do so, during what have become known as Cape Town's poo protests (News24 2013; Felix 2013). In that circumstance, the janitors consequently struggled to keep the ablution block clean and said that they coped only by "stretching" (i.e. diluting) what little in the way cleaning materials they were provided, using equipment and materials until they were completely non-functional (Figure 3-21), or buying cleaning products or equipment themselves. What this points to is a critical under-capacity in WSISU in the sense that the unit's personnel were unable to extend their activities towards dealing with one crisis (the consequences of the poo protests), without affecting their capacity to manage their other functions and indeed without causing further crises to occur in the areas for which they were responsible. This in turn points to problems in relation to WSISU's ability to make ad hoc short-term appointments in order to deal with crisis situations.

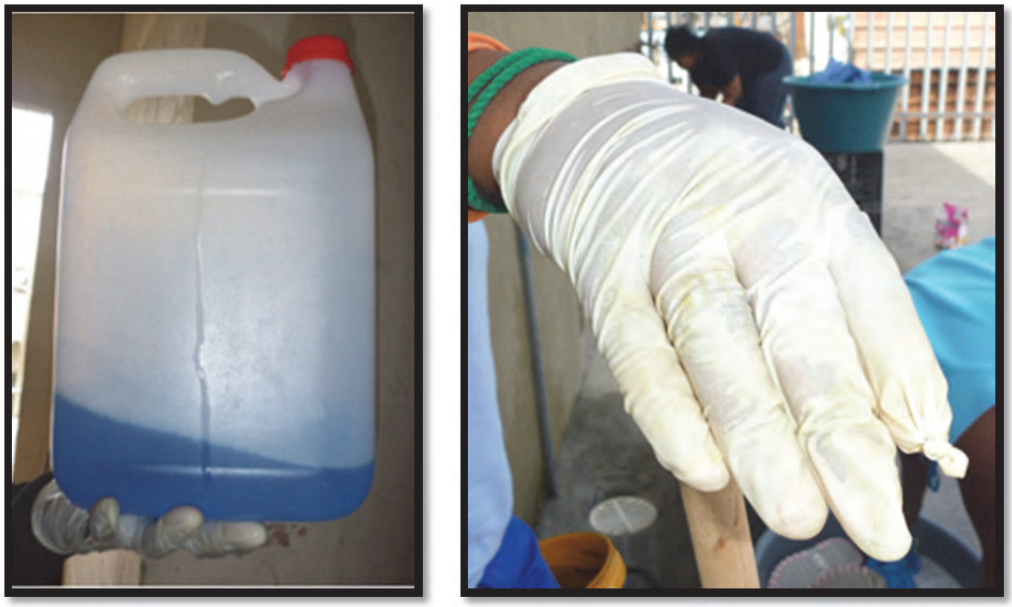

Figure 3-21: An ablution block janitor said she was not given additional supplies by WSISU on 1 May, so she was struggling with what little allotment she had had from the previous month. On the left one can see how much chemical she had to available for use until she was next supplied, and on the right she showed how she was re-using a latex glove (Taing, May 2013).

The supplies and equipment provided to the two ablution block janitors were initially stored and locked in the women's shower area, meaning that the showers (one of the showers) was effectively taken out of commission. From September 2013 a WSISU O&M official reportedly advised the BM ablution block janitor to store all cleaning products and toilet paper in her home; this after a woman had been spotted climbing underneath the door of the storage space and stealing disinfectant for her personal use.

3.5.5 O&M & faults reporting

WSISU's O&M team was responsible for operation and maintenance of water and sanitation infrastructure in both BM Section and in Masiphumelele Wetlands and TRA. They did not, however, allot any maintenance responsibilities to the BM ablution block janitors and Masiphumelele monitor, primarily because repairs were not part of the janitors' responsibilities. The BM ablution block janitors did note that they sometimes had to try to fix things when they could, especially because the CoCT was often slow in its O&M response times. When they could not address a problem (e.g. a blocked toilet) they reported that they would typically close the toilet by padlocking the door and then report the faults directly to the WSISU 'Complaints team' via radio. The Masiphumelele monitor similarly reported faults to his supervisor (the M&E Officer) via radio.

In contrast to Overstrand's reporting system discussed earlier in section 3.1.2, there tended to be more complaints from our sample of Cape Town informal settlement residents, as well as officials, about the many challenges they experienced with CoCT's current "complaints system". The faults reporting and response system, we were told, was meant to work as follows:

i) Residents city-wide are meant to be able to report water and sanitation service issues by:

- Phoning CoCT's centralised call centre, the Water and Sanitation Department's Technical Operations Centre or WSISU directly. Informal settlements residents who phone-in water and sanitation complaints are meant to be asked for information such as contact details and their address so that CoCT officials can follow up with them directly to clarify the location of the standpipe or toilet in need of repair.
- Logging service requests online; or
- Sending a 160-character SMS (which reportedly cost the sender 80 cents) to 31373 (Zille 2009).

ii) These "complaints" are then meant to be logged into the City's 'C3 notification system' –CoCT's city-wide system in which information related to services, infrastructure and personal safety concerns are logged into and monitored from a centralised database (CoCT 2010b).

iii) A maintenance team is then meant to receive and see a "work order" to which its members are meant to respond. They generally then order any necessary parts or equipment needed for the repair, all of which action is recorded as part of the C3 notification, and they ultimately 'close' the work order after a repair has been undertaken – hopefully successfully.

According to a City publication (CoCT 2010a), CoCT's C3 notification system has received local recognition as an 'innovative' means for reducing the response times to residents' complaints since it was first implemented in 2007. Despite the accomplishments of centralising such data on a city-wide basis, many of those interviewed on the ground and behind the scenes stated to us as researchers that there are still many challenges that need urgently to be addressed in order to reach a point where both informal settlement residents and city officials are satisfied with the current system. Those challenges are discussed in what follows.

A major challenge arises in the process of is first inputting such data into the C3 system when the hotline, online or SMS service is not used. Residents interviewed in BM Section, Masiphumelele Wetlands and TRA said that their primary means of reporting faults was to tell the Community Worker in their respective area and to rely on that person to convey the complaint upwards and into the system. Alternatively, many stated, they reported faults to their local community leaders as well as in some cases the local ward councillors responsible for the area. Faults that are reported to the Community Workers are meant to be radioed by them directly to WSISU's complaints team, and those reported by ward councillors are often e-mailed to WSISU's M&E officers, who are then meant to forward them to the WSISU complaints team. WSISU's complaints team is then required to capture (i.e. manually input) the fault report and to 'release' (i.e. assign) any necessary repairs to a municipal maintenance team on WSISU's team.

Reporting faults through a string of people, our research revealed, usually left much room for human error, and it was common to discover that reported faults had not been inputted into the C3 system. For example, when complaints reached the WSISU complaints team, it could take up to two days for the team's members to manually enter the fault, given that they had a lot of paperwork. That meant that it could be several days before an O&M team was dispatched to address the fault. Further discussion about the difficulty of 'closing' O&M work orders is presented in Section 3.6.6.

3.5.6 Access & control

Although the BM ablution block was (and indeed is still) primarily meant to service residents of the informal settlement, anyone can use the facility, especially when it is open from 05:00 to 21:00 and when there are no janitors or other personnel around for much of the time – especially during weekends. Moreover, even when they are there, the ablution block janitors did not, from what we observed, restrict access to the facility to residents of BM Section – itself very large and thus making it difficult to be able to monitor who was in fact a resident. As noted in Section 3.5.5, the BM ablution block janitors controlled access only to non-functional toilets – by padlocking the doors to their stalls.

Residents generally did not complain about not having access to the ablution block in the evenings. They did, however, report being inconvenienced whenever the facilities were not available during the established opening hours. From what we were told, this happened because the security personnel from the municipal contractors, who are responsible for opening the facility, often were late supposedly due to transport problems. The BM ablution block janitors explained that the facilities were meant to be opened at 05:00 daily and closed at 21:00 daily by CoCT's contracted security services.

Since the Community Workers service has come to be considered by WSISU municipal officials as a successful programme by (WSISU 2013/4). Its janitorial component has since been replicated and exponentially scaled-up by WSISU, as part of a citywide initiative of employing informal settlement residents on short-term contracts to do much needed municipal tasks. Known as the Mayor's Project, the janitorial service provision facet of the Project is described in Section 3.6 which follows. Detailed there is the establishment of the Mayor's Project supervisory, support and administrative team, and a description of the operational aspects of the Mayor's Project janitorial programme in two informal settlements. Data based on fieldwork in WSISU's offices, BM Section and Masiphumelele Wetlands are interwoven into the discussion.

3.5.7 Summary

Table 3-7: Summary of Community Workers programme from Nov. 2012 – Aug. 2013

Service provider(s)	'Community workers' are all meant to live in the informal settlement in which they work, and they are permanently employed in selected settlements as: (a) ablution blocks janitors and (b) monitors for fault reporting	
Implementing municipal department	WSISU (CoCT's Utilities Directorate) administered all janitorial services in Cape Town's informal settlements	
Financing	Salaries & operation costs: WSISU's O&M budget (National Equitable Share grants & cross subsidisation from ratepayers' block tariffs)	
Waterborne sanitation services	**BM Section:** 2 ablution block janitors, working Mon-Fri in 2 shifts (07:00-15:00 & 10:00-18:00), and alternate weekend shifts (07:00-08:00; 17:00-18:00) responsible for cleaning ablution block and distributing toilet paper	**Masiphumelele Wetlands**: 1 monitor, working Mon-Fri 08:00-16:00 (no weekend monitoring service) responsible for fault reporting and occasional monitoring of Mayor's Project janitors
	Repairs and maintenance: Ablution block janitors & CoCT's permanent & temporary O&M staff	

The following table highlights the relative strengths and weaknesses of the Community Workers Sanitation Service, based on research findings and fieldwork in BM Section Khayelitsha and Masiphumelele Wetlands.

Table 3-8: Summary of strengths and weaknesses of Cape Town's Community Workers programme.

Strengths	Weaknesses
Workers have permanent contracts, which provide them with job stability & security.	Tensions between temporarily employed (Mayor's Project) janitors & permanently employed Community Workers where both programs were implemented simultaneously.
Janitorial employment conditions generally aligned with national labour legislation requirements, & workers reportedly were satisfied with work benefits.	Officials'/janitors'/residents' inability to mitigate problems that negatively impacted sanitation services (e.g. inadequate security and area lighting; poor infrastructure O&M, poor task coordination etc.)
Masiphumelele Monitor provides Mayor's Project janitors with additional on-site supervision & administrative/logistical support, particularly where janitorial supervisor was overburdened &/or unavailable.	BM Janitors: Lack of reliable supervision & administrative support staff, which particularly affected procurement processes.
Residents appreciated the BM ablution block janitorial service.	

The Community Workers sanitation service continues to operate side-by-side the Mayor's Project janitorial service (which is detailed and discussed in section 3.6). This simultaneous operation has caused tensions between temporarily employed Mayor's Project janitors and permanently employed community workers. On the other hand, community workers (ablution block janitors in BM Section and monitor in Masiphumelele) testified that having permanent contracts provided them with job security. This has also assisted in the stability of the service in general, and has, as reported by municipal officials, mitigated administrative and logistical issues relating contracting and capacity building.

Particularly where janitorial supervisors are overwhelmed, the service provides important on-site supervision, administrative and logistical support to janitorial staff. Such support was seen as significant, however there was seen to be a lack of reliable on-site supervision of community workers themselves. This lack often affected procurement processes, such as a delay in cleaning materials, which subsequently impeded janitorial operations, also having a knock-on effect on user satisfaction.

3.6 The Mayor's Project janitorial service

As noted in Section 3.2, what has come to be known as the Mayor's Project is a programme established in mid-2012 "in areas where there are high levels of complaints regarding the cleanliness

of communal flush toilets" (de Lille 2012a). It is a cleaning programme for informal settlement full-flush toilet facilities that are housed in individual concrete stalls. Interviewed CoCT officials explained that, unlike the communal block layouts that the Community Worker janitors are required to clean and to oversee, this kind of toilet facility is to be found scattered throughout various informal settlements, in places where officials have been able to find space to erect a toilet structure and where a sewer line can be laid. These facilities have been erected individually or in sets of two concrete stalls, as well as in rows of hundreds of toilet structures all along the periphery of an informal settlement, such as in Khayelitsha's BM section (see section 3.3.2 and figure 3-8).

3.6.1 Summary of SJC report

This report highlights major shortcomings relating to the CoCT's janitorial service for flush toilets in informal settlements as researched by the SJC, based on monitoring done from January to May 2013. It follows two previous reports; part of the organization's quarterly monitoring report for janitorial services. Research and 'monitoring' have been conducted in several settlements in Khayelitsha – where the SJC is based – on a monthly basis over the past two years. The SJC has continued through these progress reports and other communication channels to bring issues related to janitorial services in informal settlements to the City's attention. The SJC has "both privately and publicly called on the City to address these problems and follow through on its commitments…to develop a timeline for the development of the policy and plan, including provision for meaningful participation with citizens, civil society and experts" (SJC 2013: 2). Despite such efforts, the City has allegedly not followed through on what it promised to do in relation to the implementation and management of janitorial services throughout the municipality.

The key findings of this SJC (2013) report are:

- Draft policy and operational plan: The City allegedly did not respond to the SJC regarding the setting up of a meeting to "adopt a formal timeline for the development of the policy and plan" (SJC 2013:3). On 25 June 2013 Councillor Ernest Sonnenberg – MAYCO member for utility services – publicly claimed that a janitorial services operational policy has been developed. The SJC were not, however, permitted access to this document.
- Payment failures: The SJC argued that the City's janitorial service has experienced "chronic payment failures" over the last six months (SJC 2013:3). In some instances janitors have also been overpaid, while many others have been underpaid, or paid late. Such payment failures, as well as a lack of transparency and communication on the City's part, have according to the SJC "resulted in protests by janitors and a subsequent submission of a list of grievances to the Mayor's Office on 25 March 2013" (SJC 2013: 3). This has left janitors confused and angry.
- Community consultation: The organisation tasked by the CoCT to facilitate community consultation is the Independent Development Trust (IDT). According to the SJC, since the beginning of 2013, "the extent to which IDT has remained involved with the janitorial service community consultation has been unclear" (SJC 2013: 3). Toward the end of 2012, meetings with informal settlement residents were apparently haphazardly set up, with the SJC requesting

notice of these meetings in advance. When the SJC approached the City regarding this issue, no response was received.

- Contracts: According to the SJC, "Many janitors employed from April 2013 are being employed on one month or three month contracts, rather than six month contracts. It is unclear why contract lengths are differential; leaving many janitors confused regarding the different contract lengths" SJC 2013: 4).

- Training: Training for janitors has reportedly not been taking place in several instances since the beginning of 2013, as per the conditions stipulated in the janitors' contract. Hard copies of training manuals – also outlined in their contracts – have also not been distributed in many cases. The SJC have not seen such a manual and are not sure that it even exists (SJC 2013: 4).

- Equipment: The janitors monitored by the SJC had "received tools such as brushes and buckets; however janitors increasingly report that the tools received are insufficient" (SJC 2013: 4).

- Personal Protective Equipment (PPE): There is a significant lack of personal protective equipment available to janitors monitored by the SJC in selected informal settlements. In many cases janitors have been forced to share PPE where possible, and/or have had to use the same items for the full duration of their contracts despite the conditions of such PPE. This "severe lack of PPE poses critical health risks to janitors" (SJC 2013: 4). The City has apparently been aware of this issue for several months, but has done little to address it.

- Disinfectants: According the SJC's research, "the provision of cleaning chemicals has been haphazard and insufficient during 2013" (SJC 2013:5). While some janitors receive chemicals from WSISU via janitorial supervisors on a regular basis, many have not received them for months have had to resort to using substandard quality chemicals in order to clean public flush toilets installed by the City in the informal settlements where they are employed.

- Uniforms: In general, janitors have received one CoCT janitorial service uniform each; including a t-shirt, blue overalls, a cap and rubber boots. In most instances, however, janitors have not received rain suites. This has been an on-going issue and has been the source of much frustration by janitors servicing informal settlements.

- Inoculation: According the SJC's monitoring during the first six months of 2013, "many newly employed janitors have not received the required inoculations. These janitors are either unable to work or do so with severe risk to their health" (SJC 2013: 5).

- Repairs: In the sites monitored by the SJC, "repairs are still not being performed adequately". In some cases janitors have reported that it can take up to three months for repairs to be done (SJC 2013: 6).

- Hygiene education: Based on research, "most janitors received hygiene education in February 2013. Since then hygiene education has not been provided on a regular basis" (SJC 2013:6).

- Employment process: According to research done by SJC in early 2013, community members and janitors reported "confusion regarding the employment process. Those interviewed claimed that it was unclear whether the CoCT employs janitors from wards or particular informal

settlements. This has apparently caused friction between communities and janitors. Additionally, communication with the City confirmed that supervisors were in some instances being employed by labour brokers. This again caused confusion for janitors as to why supervisors are on seemingly permanent contracts" (SJC 2013: 6).

Following the points outlined above by SJC, transition the following description of the janitorial service will explain why some of the problems extant in that report exist/persist.

3.6.2 Establishment of support programme

WSISU Officials explained to our researchers that the Reticulation Manager who oversees WSISU had directed them to increase the number of janitors employed by CoCT to clean informal settlement flush toilet facilities in 2010. This, we were told, was part of a Mayoral project to use CoCT's underutilised EPWP grants.

The Reticulation Manager, it was reported to us, had explained to WSISU officials that they had set up the Mayor's Project janitorial service "from scratch", and that CoCT had "to set up structures and systems to accommodate this within our normal operations" (CoCT 2013e). What WSISU appears then to have done was replicate the Community Workers janitorial service that was already in operation, including the faults reporting system – with all of its inadequacies as indicated in Section 3.5 above. The 2012/13 operations costs of the new programme were funded primarily from the National Treasury (R2.3 million) and from the national Department of Water and Sanitation (R26 million) in the form of grants (CoCT 2013e) which, it was explained to us, were used to train workers, to rent vehicles, and to purchase everything from protective clothing, cleaning equipment and vaccinations for janitors, to computers and office furniture for the temporary administrative staff hired to support the project. The following sets of workers were hired to support the programme:

- EPWP workers (Janitors): (1) to maintain and clean full-flush toilets in informal settlements; (2) to keep areas around those toilets neat and tidy; (3) to report faults (complaints) to their respective supervisors; and (4) to keep a count of toilets that were functional, and dysfunctional, in the particular settlement where they worked, and then to submit reports about those that were dysfunctional.
- Site supervisors: (1) to monitor settlements and supervise workers (janitors) on the ground; (2) to complete/collect timesheets and daily inspection sheet(s) from janitors; (3) to distribute tools and cleaning chemicals to janitors; and (4) to report faults/complaints from their daily site inspections to the complaints desk. There are two separate complaints desks at WSISU. The first handles all non-Mayor's Project faults reporting, and the second only handles Mayor's Project faults reporting.
- District clerks to provide administrative support, and who hereafter are referred to as EPWP clerks. They included:
    - Human resources clerks: (1) to recruit and hire janitors; and (2) to set up appointments for inoculations of EPWP staff.

- Procurement clerks to order, store and arrange issuing of PPE, cleaning chemicals and tools
- Capturing clerks: (1) to input daily timesheets and inspection sheets, which are reflected in a janitor's payment schedule; (2) to attend to general administrative concerns (e.g. leave management); (3) to address payment queries; and (4) to organise workers' personal files
- Complaints clerks: (1) to input faults reported by supervisors into the C3 notification system; and (2) to assign O&M teams to respond to these concerns
- An officer supervisor: (1) to sign off on workers' timesheets; (2) to monitor submission of daily inspection sheet forms from site supervisors; (3) to coordinate activities amongst site supervisors and janitors; and (4) to manage the fleet of rental pickup vans and trucks that were used by the site supervisors to visit informal settlements.

- General workers to be employed 'city-wide' to support WSISU's existing O&M teams (WSISU 2013).

The programme has grown rapidly over the 1.5-years that this programme had been in operation by the time this report was written. Thus, as, CoCT's consultant explained, in mid-2012 there had been only 24 people employed in the Mayor's Project to clean toilets in Khayelitsha's informal settlements. That number, he reported, had jumped to 313 by February 2013, and he estimated that over 1 700 people were or had been employed as janitors in the Mayor's Project between May 2012 and February 2013. By April 2013, the Mayor's Project janitorial service had been instituted in over 144 of Cape Town's total of some 400 informal settlements, and it was being supported by approximately 860 temporary staff who had been hired through WSISU to clean facilities (janitors), to oversee the janitors (supervisors), to administer the programme (clerks) and to repair facilities as maintenance workers (WSISU 2013).

What follows is a description of the Mayor's Project janitorial programme as it operated during this study's period of research in BM Section and Masiphumelele – a description that is based primarily on the perspectives of residents and janitors. Intertwined in this narrative are comments from WSISU officials.

Also presented is a discussion of the intersection of the existing Community Workers sanitation service and the Mayor's Project janitorial programme as experienced in Masiphumelele. That is done because we were told that WSISU officials had envisioned that the permanent Community Worker (see section 3.5) would assist the Mayor's Project operations by supervising the janitors and, where necessary, by assisting with storage of chemicals and tools (WSISU 2013). In contrast, the Community Workers in BM Section (i.e. the ablution block janitors) had little to do with the Mayor's Project – probably because their work was at a clearly demarcated ablution block. Moreover, in Masiphumelele Wetlands, where the Community Worker was already effectively a monitor of scattered flush toilets in the settlement, his responsibilities were directly affected by the implementation of the new janitorial service and the introduction of several hundred Mayor's Project janitors.

3.6.3 Janitors' employment, work schedule & remuneration

Two conditions of employment as janitors in the Mayor's Project that have not changed since the programme was first implemented are that all those employed must:

- Reside in the informal settlement where they work, and
- Not have been employed in an EPWP project in the previous three months.

Newly employed janitors in Masiphumelele said that they had learned about the opportunity for employment primarily through word of mouth, and several said they had asked previously employed Mayor's Project janitors how to apply for the postings. A BM janitor said she was contacted after registering via CoCT's Sub Council *Jobseekers* database. Once offered employment, each of the janitors went to WSISU's offices in Bellville to sign their contracts and collect their personal protective gear for daily cleaning tasks. In addition, WSISU organised for them to get inoculations. A WSISU official said that janitors are given a tetanus immunisation.

The Mayors Project janitors were generally employed by WSISU for six months, and they had staggered start and end dates. For instance, in Masiphumelele there were eight janitors who were employed in May 2013. Half of that group had six-month contracts for employment from 1 January 30 June 2013, whilst the second half contracts were for 1 May – 30 October 2013. Six EPWP workers later replaced the former group on 1 July 2013.

WSISU officials reported that Mayor's Project janitors from throughout the metro asked them on a weekly basis if they could keep their jobs. They thus always had to reiterate that the nature of the EPWP programme is to rotate jobs, and they ensured that everyone's contract start and end dates were explicitly outlined. Those in BM Section who opposed protesting explained that they were each told when they signed their contracts that it was a six-month work opportunity, and that their start and end dates were **bolded** and written in all-CAPS on their contracts. 'Madala', an older male BM resident who was visibly upset when his EPWP contract came to an end in April 2013, echoed WSISU Officials in saying, "We have to share the slices of bread." His statement underlined that the Mayor's Project was meant to offer short-term income relief.

The majority of the Masiphumelele Wetlands and BM Section janitors nevertheless repeatedly expressed their dissatisfaction with these non-renewable short-term contracts. Some of the Masiphumelele janitors suggested that WSISU extend such appointments to at least a year in length, ostensibly allowing more job security and stable income. They also added that they would be content to keep their current positions if they could, though some also stated they wished they could learn technical skills related to other sanitation servicing positions so that they could take up employment relevant to such expertise. Others workers in BM Section, whose contracts were due to expire soon, threatened to protest. Despite this dissatisfaction with short-term contracts, however, the janitorial services in BM Section and Masiphumelele remained largely uninterrupted and janitors recruited to work in the programme continue to be employed on six-month contracts.

Both males and females were employed as janitors in BM Section and Masiphumelele. In the latter, there tended to be an equal distribution of male and female janitors, whereas in BM Section mostly women were employed in the Mayor's Project janitors (Figure 3-22).

The janitorial service work schedule in BM Section and Masiphumelele had gone through quite a few changes in 2013. The EPWP janitorial service initially only operated on weekdays. Janitors' hours then were from 8:00 to 16:00. They were allowed three breaks: a 15-minute tea break at 10:00, a lunch break of 30 minutes at 13:00 and a 15-minute tea break in the afternoon. The janitors' pay rate was R14.13 an hour, which meant they were paid R113 per day for their eight-hour shifts.

From 20 April 2013, the Mayor's Project janitorial service was made a daily service throughout the metro to address residents' complaints about using unclean facilities over the weekend. Instead of hiring a new group of workers, however, WSISU Officials divided those employed in each settlement into two groups (A and B), and established a shift schedule. Group A had the following fortnightly work schedule:

- Week 1: Saturday, Wednesday, Thursday and Friday
- Week 2: Sunday, Monday and Tuesday.

Figure 3-22: Both males (left) and females (right) were employed as janitors in the Mayor's Project. (Taing, February 2013).

Group B's work schedule was the inverse of Group A's (i.e. Week 2, followed by Week 1). The M&E Officers explained that it was necessary to establish such a creative fortnightly schedule as they had to ensure that workers from the two groups were paid equal amounts for the same hours of work at the end of the month. Also, though they were not allowed to have the janitors work overtime, they could establish 10-hour shifts.

The working hours of the 10-hour shifts were from 07:00-17:30, during which janitors could take two tea breaks and a 1-hour lunch break. The janitors earned up to R141.14 per day (at R14.13 per hour) on weekdays, 'time and a half' that hourly rate on Saturdays (R21,19 per hour), and twice the weekday rates on Sundays and Public Holidays (R28.25 per hour). These pay rates were in effect until 31 October 2013. From 1 November 2013 these rates were updated to reflect the Department of Labour's (2013) minimum wage increase for EPWP projects. As per EPWP stipulations, janitors did receive two days of paid leave a month. Rather than janitors, however, taking these days off, WSISU generally paid out whatever they were owed for these days at the end of their six-month contracts. WSISU officials also told all workers that they could pick-up their Unemployment Insurance (UIF) claim forms six weeks after their contracts ended and that the worker could be hired for another six-month EPWP opportunity three months after their janitorial contracts had expired.

It was often observed in BM Section and Masiphumelele that it was rare for janitors to work consistently through their eight-hour shifts. For instance, one group of janitors in Masiphumelele generally met their colleagues, their supervisor and the WSISU Community Worker at the TRA at about 08:00-9:00, and worked for approximately 3-4 hours before taking a break. Janitors would usually have lunch at this time, some taking a longer lunch than others. This midday break was generally taken at the janitors' homes, and the duration not monitored or controlled. This meant that very often the janitors would choose to finish work at lunch time, and work a half, rather than a full day. A lack of supervision in the afternoons especially seemed to allow the janitors to decide when they wanted to finish working. These janitors only obligation that was monitored during their schedules was to sign out from work. The BM Section janitors similarly tended to finish the bulk of their cleaning responsibilities in the morning. One group was particularly industrious and would clean all the toilets in their section by mid-day, which left them free to relax in the afternoons. The janitors explained that they were required to clean the toilets once a day, and check the facilities and touch-up when necessary in the second half of their shifts. They, however, tended to stay near the N2 toilets rather than stay at home in the second half of their shifts.

Occasionally the janitors worked on special sanitation projects such as clearing overgrowth that impeded O&M (Figure 3-23). They generally were instructed by their supervisors to do these projects whenever necessary.

Figure 3-23: Janitors digging trenches and clearing overgrowth in the TRA (Schroeder, May 2013).

3.6.4 Supervision of janitors & support staff

The Mayor's Project janitors in BM Section and Masiphumelele had little supervision throughout the day. Like Zwelihle's janitorial service (see 3.1.3.3), the supervisor was the link between the janitors and WSISU's offices. Similar to the janitors, the supervisors also had seven 10-hour shifts over two weeks. They were paid R1 657.50 for every fortnight. They were meant to visit their respective areas several times a day and have the Mayor's Project janitors sign-in and out on their timesheets, sign the inspection registers, monitor the janitors' tasks and report any O&M issues to the complaints desk. The supervisors explained that they were responsible for 3-4 informal settlements in Khayelitsha and that the janitors in these settlements had to sign inspection registers several times in one day as a way of ensuring that janitors were "on-site" through the day. It was observed that the Site Supervisor generally visited BM Section approximately four times in one day for 15-20 minutes. These timesheets and registers were thereafter signed-off by the Office Supervisor, who passed these items to the clerks responsible for payroll.

The supervisors for Masiphumelele Wetlands and TRA, however, generally were on-site once in the mornings and once in the afternoons. Supervisors stated in interviews that it was difficult for them to increase the frequency of their visits to Masiphumelele because they also had to visit several other informal settlements within the southern peninsula and in the Cape Flats in one day. Because of this, the Masiphumelele monitor has become an instrumental link between the Mayor's Project janitor, their supervisor, and the M&E Officer for the Southern Peninsula region in that he: joins the janitors whilst they work; have them sign-in and out on their timesheets; and convey faults reporting made by janitors to the M&E Officer (Figure 3-24). It was observed, however, that he did not give the janitors instructions, or have them sign inspection sheets as in BM Section.

The workers hired to administer and support the Mayor's Project were supervised and managed by permanent members of WSISU's staff (CoCT 2013e; WSISU 2013). The M&E Officer responsible for the region they worked in managed the supervisors employed in this programme. The clerks hired by WSISU to procure supplies and uniforms, to input fault reports and workers' timesheets, to administer janitors' contracts, and to manage the fleet of bakkies were managed by a WSISU Finance and Administration official (WSISU 2013). The O&M Operations Supervisor managed the temporary O&M team.

The M&E Officers did not do on-site inspections of their supervisory staff. The M&E Officers explained that they did not enough hours in one day to visit each settlement in their region as each was responsible for approximately 35 sites. In addition, they juggled their Mayor's Project responsibilities with that of their "normal" tasks that are unrelated to the janitorial service (e.g. monitoring of servicing tenders). Though they did occasionally visit sites for meetings or to check the conditions of municipal sanitation facilities, they generally relied on the supervisors for ensuring that the cleaning services were satisfactory for residents. The supervisors thus left WSISU's Bellville office daily for informal settlements throughout the metro to be the M&E Officers' eyes and ears on-the-ground. Their locations could be monitored via the GPS-censored radios (walkie-talkies) that they carried whilst "out at site", and – as with Zwelihle's sub-contractor – their performance was monitored by the timesheets and registers they submitted on a daily basis.

Figure 3-24: Workers that were responsible for sanitation services in Masiphumelele Wetlands and TRA (Schroeder, May 2013). Four Mayor's Project janitors are on the top row and bottom row left, their supervisor is on bottom row in the middle, and the Community Worker monitor is on the right in the bottom row.

Given the critical role supervisors played in the janitorial programme, two M&E officers said it was necessary to retain their supervisory staff on longer-term contracts. One explained that having experienced supervisors was essential because you have staff:

> "...who know what they're doing and when you're rotating that every 6 months there isn't that stability. You know you invest a lot in a supervisor: You train him in what he should look for, and there's a lot of informal training when you're working with a supervisor. But if you work with a supervisor for 6 months then when that contract expires you work with another... it's not stable. It's not advised."

WSISU's Finance and Administration team voiced similar concerns as that of the M&E Officers with regards to the clerks employed to support the Mayor's Project. The M&E and Finance and Administration Officials thus had tried to contract the EPWP supervisors and clerks continually. These workers, first employed on six-month EPWP contracts, were later contracted via a labour broker for nine months. During these nine months their wages were paid from WSISU's operating budget. In August 2013, these same workers were offered one-year contracts funded by the EPWP programme. Thus, the supervisory and administrative staff – who were on short-term contracts – was considered indispensable to WSISU's permanent staff. This position starkly contrasts to the continual rotation of janitors in the Mayor's Project (See Section 3.6.4).

3.6.5 Logistics & supplies

Similar to the Community Workers janitors, EPWP clerks explained that janitors in their programme are meant to get the following protective clothing from CoCT:

- Two t-shirts, with the municipality's logo;
- An overall top, with the municipality's logo;
- A pair of overall pants;
- A water-resistant jacket;
- A cap, with the municipality's logo;
- A pair of thick rubber gloves (Figure 3-25); and
- A pair of steel-toed water-resistant boots.

The cleaning supplies that the janitors were supplied with included a red disinfectant (which was stored in 5-litre containers), rubber gloves, brooms and buckets. It was also observed that some of the Masiphumelele janitors had toilet brushes, and some of the BM Section janitors had rakes to clean the areas immediately surrounding the N2 toilets. The equipment and cleaning detergent are provided by the municipality and transported by the supervisor. It seems like the janitors in Masiphumelele received cleaning detergents on a monthly basis, whereas BM Section janitors

received such supplies on a weekly basis. The Masiphumelele and BM janitors said the amount provided was sufficient for completing their tasks. All items were stored at the workers' homes.

The Mayor's Project janitors and their supervisors reported that the distribution of personal protective clothing (PPE), equipment has cleaning chemicals had been inconsistent over the last year in BM Section and Masiphumelele. Like the BM Section ablution block janitors, the janitors said they struggled to get all of their PPE and chemicals from WSISU, which made it difficult for them to do their work. All employed in BM Section and Masiphumelele also said they should also have been provided with gumboots and rain gear, which was especially important during winter, as they were expected to work in the open, and therefore needed protection from the rain and wind. In addition, those that received water-resistant jackets expressed that they preferred thicker, waterproof jackets.

Figure 3-25: WSISU provided this Masiphumelele janitor with thick rubber gloves and overalls (left) and cleaning teams with detergent (Schroeder, May 2013).

WSISU officials explained that the EPWP Clerks responsible for procurement generally did not have backgrounds in logistics, and many were unfamiliar with CoCT's slow ordering process. The distribution of cleaning supplies was further delayed as the EPWP Clerks and Site Supervisors were prohibited from signing out items ordered at municipal stores as "temporary" employees. This meant that only WSISU staff members who were employed on permanent contracts could pick up supplies. Consequently, the N2 toilets in BM Section during this period were not cleaned, but it was observed then that janitors occasionally swept in and around the toilet stalls.

Janitors explained that they are meant to return all gear and equipment to their supervisors at the end of their contracts. In addition, all clothing with CoCT's logo must be returned to WSISU at the end of their contracts. WSISU officials confirmed that workers are allowed to keep anything that does not have the CoCT logo (i.e. the boots and pants).

As for maintenance, none of the janitors were given materials to maintain toilets. WSISU officials explained this is because “O&M is not part of their responsibilities”. The procedures for fault reporting in the Mayor’s Project are described in the following section.

3.6.6 O&M & faults reporting

WSISU’s O&M team was responsible for operation and maintenance of water and sanitation infrastructure in BM Section and Masiphumelele Wetlands and TRA. Similar to the Community Workers programme, the Mayor’s Project janitors were not allocated any maintenance responsibilities. It was observed that the Mayor’s Project janitors employed in BM Section reported faults to their supervisors; whereas in Masiphumelele they primarily reported faults to the Masiphumelele monitor. The Mayor’s Project faults reporting system is the same as detailed in Section 3.5.5, though the staff that supports it in WSISU was temporarily hired as clerks to specifically address the needs of this programme.

As noted in Section 3.5.5, WSISU officials found it difficult to close the O&M work orders that they were commissioned to address. It was observed that much of the water and sanitation infrastructure in BM Section and the Masiphumelele needed to be either retouched (e.g. repainting the BM ablution block) or completely overhauled. For instance, BM residents repeatedly complained about the state of the broken N2 taps and toilets (Figure 3-26). An EPWP janitor employed in February 2013 said that they were responsible for 659 toilets, of which 359 toilets were marked for demolishment. He and his co-workers explained that their Supervisor said they were not responsible for cleaning any facilities that were to be removed.

Figure 3-26: In general, the water and sanitation infrastructure along the N2 in BM Section needed to be replaced. On the left is a broken water pipe that a woman said she "unbent" whenever she needed water and to the right is a broken discharge pipe from which newspaper and faecal matter emanated (Taing, May and June 2013).

This instruction to not clean dysfunctional toilets, however, was problematic, because it was observed that the toilets marked for demolishen in BM Section were still occasionally used (Figure 3-27). From July – August 2013 some of the Mayor's Project janitors started to fill the dysfunctional toilets with sand, which they explained helped cover the smell of waste and was meant to detract residents from continuing to use the units. However, people sometimes continued to use these facilities. It was observed that some groups of Mayor's Project janitors would at least sweep these units, but most passed them over as permitted by their Supervisor.

Figure 3-27: Pictured on the left is a dysfunctional toilet that janitors said they filled with sand to cover the smell of decomposing waste and so that residents would not use the units (Taing, July 2013). Evidence of human waste in broken toilets indicated that people continued to use these facilities. The bottom of this unit is wet because a janitor had just swept it. The photograph on the right shows a janitor sweeping the floor of a blocked toilet.

Figure 3-28: A Z-section toilet was marked as ''Out of Order'' and locked by the janitorial staff (left, Schroeder, June 2013). The torn sticker below is a flyer that instructs residents on how they can report broken infrastructure to the municipality. On the right is a dysfunctional toilet in E-section that was locked by the local street committee to prevent access (Schroeder, July 2013).

In contrast to BM Section, the O&M response times were relatively quick in Masiphumelele. Residents and janitors said it generally it took 1-3 days for WSISU's O&M personnel to respond to and to resolve reported faults. This being said, some residents still recounted instances when certain toilets would not be fixed for weeks. The faults ranged from blockages caused by the disposal of foreign materials into toilet bowls, to missing handles and seats. As with BM Section, were completely unusable and/or earmarked for demolition in Masiphumelele Wetlands, which was generally indicated by painting "out of order" or a large X on the toilet stall (Figure 3-28).

3.6.7 Access & control

In relation to the City of Cape Town's janitorial services, the lock and key system has proven especially disabling to the effective operations of these services in informal settlements; since janitors have limited access to locked toilets in order to service them. This has effectively meant in many instances that the city's janitorial programme in informal settlements across Cape Town is constrained in providing the kind of service that it envisions. Ideally, all the toilets in informal settlements should be open and unlocked, so as to allow janitors – as well as O&M staff – to service them on a regular basis.

Figure 3-29: E section residents had unlocked these toilets to let the Masiphumelele Mayor's Project janitors access them (Schroeder, May 2013).

As transpired in informal settlements prior to the city's janitorial services, janitorial staff and municipal officials also face the challenge of mitigating the effects of lock and key access to effective functioning of such services. Our data shows that getting around this constraint is no easy task. Discussions and interviews with Masiphumelele janitorial staff for example expressed the many difficulties in relation to negotiating with residents around gaining access to locked toilets (Figure 3-29). Such difficulties included time available to speak with residents and set up appropriate meetings and the complicated logistics of scheduling janitorial work so as to be in line with periods when residents can open locked toilets. Both Masiphumelele and Khayelitsha janitors and supervisors argued that as important as it is to speak to residents in order to gain access to locked toilets, this was in fact not their job. Indeed, such a task is not formally a janitorial responsibility.

It was observed that janitors in the Mayor's Project struggled with cleaning toilets that were padlocked by residents in BM Section and Masiphumelele Wetlands as they did not have access to the facilities. Approximately half of the BM Section N2 toilets and 83% (110 out of 132) of the flush toilets in Masiphumelele Wetlands were locked by users with personal padlocks. Such access control by residents is a legacy from when residents were expected to manage the facilities they were provided by the municipality themselves. Padlocks served to restrict access in these situations to the households that had keys. It was noted in Masiphumelele that a single household may control the keys to a toilet that 5–10 households shared.

In general, residents whose toilets were locked cleaned their toilets themselves. A number of janitors and residents had attempted to negotiate the lock and key system (Figure 3-28), but these efforts have had a limited impact given that they relied on the janitors or residents to continually coordinate. For instance, in B and C-sections in the Wetlands, a group of three women collectively kept the keys to 15 toilets during the day so that they could open these toilets for the janitors to clean. No such effort was observed in the rest of Masiphumelele or in BM Section. Some janitors found out where key-holding residents lived and tried to coordinate a cleaning schedule, but gaining regular access to these keys on a daily basis was fraught with challenges because key-holding residents were not always at home when they cleaned the toilets, and some residents were reluctant to leave their keys with the janitors or other residents. The majority of the BM Section and Masiphumelele janitors, however, stated that they were not paid to manage access to locked toilets, thus they limited their coordination responsibilities to asking residents to leave their toilets unlocked in the morning so they could clean the unit. Some did ask residents near the toilets they were going to clean to tell the key-holders to unlock the units, but in most instances these locked toilets were passed over.

It thus was fairly common to see residents cleaning toilets that the janitors could not access. In BM Section men and women alike of any age were observed cleaning these toilets, but those interviewed in Masiphumelele said that most of the time it would be women (young and old) that cleaned locked toilets, ideally once a day. Some women thus created a roster for cleaning the toilets they shared between households, and pinned up a cleaning roster for the week in their toilets.

Interestingly, the majority of residents in BM Section and Masiphumelele who had keys for padlocked toilets said that they still expected that their toilets be serviced by the janitors and maintained by the City. When asked why they then they did not take the locks off the toilets, Masiphumelele residents argued that they were concerned about the safety and that they worried that the toilets would become dirty and unhygienic if available for all to use. Some BM Section and Masiphumelele residents did state they were content with the lock and key system as they thought it was safer and more hygienic, though one BM resident said he wanted CoCT to provide him with cleaning materials. The CoCT consultant noted that the lock and key issue was a major constraint in the Mayor's Project (IDT 2012). He consequently recommended that the city procure 5 000 locks that can be opened by an area-based master key, and he estimated that lock would cost R140.

3.6.8 Summary

Table 3-9: Summary of Mayor's Project from Nov. 2012 – Aug. 2013

Service provider(s)	• Temporarily employed janitors (all local informal settlement residents) for individually housed toilets • Temporarily employed janitorial supervisors, administrative clerks & O&M assistants • Supported by permanent CoCT staff
Implementing municipal department	• WSISU administers informal settlement sanitation services • WSISU comprises technically trained (engineering or plumbing) & admin staff
Financing	• Temporarily employed janitorial staff's salaries: Primarily EPWP grants • O&M: National Equitable Share grants & cross subsidisation from ratepayers' block tariffs • For administration & programme set-up costs (2012/13 only): National Treasury & Department of Water Affairs grants
Waterborne sanitation Services	• BM Section: 515 full-flush toilets (ranging from 3-39 per cluster) Masiphumelele Wetlands: 190 full-flush toilets (ranging from 4-20 per cluster) • Janitors all originally scheduled to work 08:00-16:00 (Mon-Fri only); From May/June 2013, WSISU introduced a daily service: Janitors divided into two sets with alternating weekly schedules (Schedule 1: 07:00-17:30 Sat, Wed, Thur & Fri; Schedule 2: 07:00-17:30 Sun, Mon & Tue) • Repairs & maintenance: CoCT's permanent & temporary O&M staff

Table 3-10: Summary of strengths and weaknesses of Cape Town's Mayor's Project programme

Strengths	Weaknesses
Opportunistic/strategic use of national grants (e.g. EPWP, DWA) to set-up and support a new municipal programme, and offer jobs (albeit short-term contracts only) in areas of high unemployment.	Temporary, short-term contracts often resulted in administrative headaches, janitors' frustration with job insecurity & residents' dissatisfaction with unreliable services.
Janitorial employment conditions generally aligned with national labour legislation requirements.	Programme's massive scale very challenging: • No. and dispersed locations of settlements; • No. of people/departments involved; and • Facing constantly increasing demand
Residents appreciated that the municipality was taking responsibility for cleaning & maintaining toilets.	Existence of two toilet management systems (i.e. janitorial & community-managed facilities) hindered the implementation of the former.
Commitment & support from CoCT's senior political & executive/administrative officials.	Irregularly cleaned toilets due to servicing by roving janitors & limited monitoring of services by roving supervisors.
Building of permanent municipal staff's capacity (e.g. creating internal policies & providing services that are compliant with national requirements).	Officials'/janitors'/residents' inability to mitigate problems negatively impacting sanitation services (e.g. inadequate security and area lighting; poor infrastructure O&M, poor task coordination etc.).

The Mayor's Project janitorial service has gone through significant changes since its inception in 2012. Despite the many challenges that it faces, the researchers of this report have found that there are also many positive aspects to appreciate as the project moves forward. The service has opportunistically, yet strategically utilised national grants to generate the program and provide job opportunities in informal settlements, where unemployment rates are high. However, janitors being employed on temporary contracts – as per EPWP conditions – have been seen to result in administrative headaches and in many cases janitors' frustration with job security. Residents in the three informal settlement fieldwork sites also reported dissatisfaction with the short-term nature of janitorial contracts, as the employment of new janitors and cross-over of contract periods often resulted – due to administrative and logistical constraints – in unreliable services. Residents were, however, generally satisfied with the effort that janitors made in informal settlements, and since janitors were residents in the settlements where they worked, they were able to communicate easier with residents.

The existence of both the Mayor's Project janitorial service and the Community Workers sanitation service (as previously noted) has also caused administrative complications as well as precipitating tensions between janitors and community workers. Added to this are lacks in supervisory capacity and support to janitors, which while not in all cases, were often seen to impinge upon the quality of services rendered by janitors. Most significantly, and apart from the institutional constraints that WSISU and the CoCT in general face in providing an effective janitorial service, is massive social challenges that constrain the programme. The sheer demand in terms of number and dispersion of informal settlements throughout the metro, and the natural and built environmental concerns in these areas are overwhelming. The issue of scale, coupled with a lack of human and financial resources combine in complex ways which constrain not only janitorial, but also sanitation services in general in informal settlements in the Western Cape.

3.7 Conclusion

Presented in this chapter were the experiences of municipal janitorial services provided by Overstrand and CoCT Municipalities to Zwelihle, BM Section and Masiphumelele Wetlands informal settlements. The major difference between Overstrand and CoCT's set-up of its respective janitorial services is that the operations in the former seemed relatively easy when compared to WSISU's experience. The Community Workers and Mayor's Project services in Cape Town have been fraught with a number of issues that ranged from accusations of unfair employment practices to inconsistent provision of necessary materials when implementing a janitorial service.

In CoCT, it was noted that workers' individual rights were a major issue, and that it was a priority of WSISU officials to ensure that their policies were compliant with national labour laws and municipal policy. Though it was unclear how employed janitors were informed of their rights – whether from the municipality, from their past work experiences, or local groups such as SJC and the unions – it was observed that they generally understood what they were entitled to in terms of payment, breaks and leave. WSISU notably also considers labour law issues when contracting services and officials reported that they would specify in their future in all tenders that bidders have to ensure their wages and conditions of employment are compliant with the minimums set by the

Department of Labour and national legislation. Overstrand Officials, on the other hand, seemingly have washed their hands of such responsibilities by outsourcing such concerns to their contractor. Thus janitors employed to clean Zwelihle's facilities often reported that they were paid well below the minimum wage, and that they had no signed agreements in place with the sub-contractor. Given that the municipalities are often held responsible in labour disputes of its contractors if such occasions arise, it is significant that Overstrand Officials start ensuring that their contractors' hiring practices and remuneration is compliant with national legislation.

Scale of operations and geographical distances significantly affected supervision of janitorial services in Overstrand and CoCT Municipalities. Neither Overstrand nor CoCT janitors have on-site managers who monitored their performance on an hourly basis. In Hermanus, the sub-contractor could visit each toilet block or cluster twice a day given how small Zwelihle is, and that the 13 informal settlements are all within walking distance from the municipal offices and stores. Unlike Hermanus, Cape Town's informal settlements are scattered throughout the metro, and supervisors like those hired to support Masiphumelele Wetlands are often responsible for four settlements that are 20 minutes apart. This has undoubtedly impacted operations as supervisors often spend more time in their bakkies than with the people they were hired to support. In addition, WSISU Officials are struggling to monitor its Community Workers and Mayor’s Project janitorial services because they lack the human capacity to support both programmes.

It was evident after several interviews with the BM ablution block janitors and WSISU officials that there was no clear management structure set-up for the Community Workers janitorial programme. This aspect needs to be addressed. With regard to the Mayor's Project, workers have been temporarily hired to assist with supervision of on-the-ground services; however, Officials have repeatedly stated that their hiring on short-term contracts has constrained operations. These long-term capacity concerns should be forwarded to the Mayor's Office so that such budget for critical roles in operations is planned for in future annual budgets.

Logistics and distribution of supplies was not an issue in Overstrand, but delays in providing workers with uniforms, chemicals and inoculations had affected CoCT's janitorial services in BM Section and Masiphumelele. What this meant was that janitors sometimes sat anywhere from days to weeks next to the toilets they were assigned to clean because they were not given disinfectants or received their tetanus shots. WSISU needs to set-up a regular automated order of supplies for its janitorial services. Estimating the needs of established communal services for the Community Workers janitorial service will be simple to prepare, but that of the Mayor’s Project is slightly more complex given that the programme evolves on a daily basis. In these instances it is important that WSISU officials strategise between its recruitment, procurement and operations teams to ensure that janitorial services in informal settlements are not impacted by administrative problems.

Concerns with the continued presence of dysfunctional flush facilities and slow O&M response times in informal settlements has been reported repeatedly to WSISU by its external partners (SJC 2012c; IDT 2012) and other municipal departments (Stofile 2013). Despite these reports, there generally has been little change in places like BM Section and the Masiphumelele Wetlands. WSISU O&M officials explained that part of the reason for this service backlog is that they are under-resourced both financially and in terms of capacity. In addition, they struggled not only with upkeep of infrastructure, but the constant replacement of parts and services in a budget that is already

overstretched (Stofile 2013). All of those concerns need to be redressed by CoCT's Executive Management as poor maintenance of sanitation infrastructure is unnecessarily impeding janitorial services in informal settlements throughout metro, and negatively impacting residential health. In addition, residents repeatedly said they lacked faith in the municipality when repairs for faults reported were not undertaken. For instance, BM residents had said they were frustrated with the Mayor's Project because janitors mostly "walked up and down" or "passed over toilets" rather than cleaning or fixing dysfunctional facilities. As noted by Mjoli (2010: 88), a cleaning service for shared facilities is dependent on "assured" maintenance. Thus, Executive Management must ensure that WSISU has the capacity, finances and operating budget necessary so that they can manage an effective janitorial service in informal settlements.

With regard to the toilets near the N2 highway in BM Section and in Masiphumelele Wetlands, some interviewed residents had said that the conditions of the public toilets had improved after the Mayor's Project was implemented. The majority, however, complained that the toilets generally were not cleaned. In some instances this was due to toilets being locked. The lock and key system thus of the previous community-management approach was impeding the implementation of the janitorial service. Although residents seemed to be coping with the issues that arose when toilets were not cleaned by municipal janitors, WSISU will need to understand how their previous management model is affecting current services, and work to redress this in future roll-outs to smooth the transition from community-managed to municipality-managed toilets.

4. Key challenges

The chapter presents some of the reasons why residents in informal settlements have refused to undertake O&M responsibilities for municipality provided communal/public toilets. In particular, notions of ownership in national policy and municipal documents are interrogated, and compared and contrasted to residential representations of – or their resistance to – ownership in Zwelihle, BM Section and Masiphumelele (Section 4.1). In addition, there is a discussion of users'/janitors' safety concerns related to physical security and health hazards (Section 4.2), and problems caused by the natural and/or the built environments (Section 4.3). These issues are significant to consider as they have affected residential notions of ownership, influenced residents' decisions to use municipality provided toilets that were located a distance from their homes or a bucket in the privacy of their own home, and shaped the way janitors provide a cleaning service. Moreover, presented in this chapter is a discussion about municipal capacity problems and specific labour challenges municipal officials, janitors and residents have experienced when local government employed 'non-standard' workers to perform essential services (Section 4.4).

4.1 Notions of ownership

This section focuses on notions and expressions of ownership of, and its responsibility for municipality provided public/communal flush toilets in the three informal settlement case studies. A multitude of perspectives and expressions regarding ownership of these sanitation facilities are presented and analysed. These have been voiced by the informal settlement residents who use the toilets, the staff who were employed to clean them, and the municipal officials who support service delivery for BM Section and Masiphumelele informal settlements. Specifically, what is presented are various ways that the aforementioned expressed, through their words and their actions, the way they relate to municipality provided toilets, and how that in turn reflects a sense that they own or are not responsible for these facilities.

4.1.1 What is ownership & responsibility?

Like *ownership*, *development*, *participation, empowerment*, and *capacity building* have been major buzzwords in international development discourse since the 1990s (Cornwall 2007; Bliss & Neumann 2008). Governments and organisations involved in delivering and maintaining services like water, electricity and sanitation in developing countries have, and continue to encourage the recipients of free basic services to be more vested in this process, by taking ownership and responsibility (Lewis 1998; Fowler 2000; Bliss & Neumann 2008). But what is meant by ownership or responsibility in these instances?

Ownership and responsibility conceived as people involved in using, caring for, maintaining, managing etc. toilets, and how does this relate to the notion of being an owner or being responsible for the facility. It has been contended that underlying such a move represents an attempt by state and department authorities to divulge responsibility by expecting more from residents who benefit from free basic services (Miraftab 2004; Pillay & Tomlinson 2006). More realistically, fiscal

constraints relating to provision and maintenance of such services have here been influential (McDonald & Pape 2002; Rall 2006). As service delivery backlogs become increasingly challenging to address, the issues of ownership and responsibility become more relevant and topical (Allison 2002; Pillay & Tomlinson 2006; Mjoli et al 2009).

4.1.2 Who owns municipality provided toilets?

Yet the idea persists that residents who receive free basic sanitation ought to take responsibility alongside municipal service providers and janitorial services (Pillay et al. 2006; Hazelton 2009). Such an idea has also been imposed by development literature, as well as national government in attempts to ostensibly encourage notions of private/household ownership of communal facilities (Bliss & Neumann 2008). Efforts to push informal settlement residents to take ownership of and concomitantly responsibility for Free Basic Services highlight apparent contradictions between a neoliberal agenda of devolving responsibility of such services and that of a human-rights approach to address socio-economic inequalities in contemporary South Africa (Naidoo & Chidley 2008; Tissington 2011).

Such neoliberal thinking and attempts to generate ownership and responsibility among informal settlements residents – while potentially constructive toward the fiscal and temporal maintenance of Free Basic Services – need to be analysed in light of not only municipal and state imperatives, but also of socio-cultural realities and of residential experiences and perceptions (Fjeldstad 2004; Miraftab 2004). Ownership should not be defined a priori and out of the social-cultural context in which it is expressed. In arguing that the free basic sanitation definition and concomitant responsibilities in South Africa be revised and specified, it is suggested that this be determined by the changing circumstances and practices of people, rather than predetermined assumptions too often detached from them. Put another way, policy ought to reflect and be informed by the realities that are its focus.

4.1.3 Perspectives & expressions of ownership

4.1.3.1 Municipal officials

There is little hesitation for municipalities to subsidise capital sanitation expenditure to support poor households' access to water and sanitation facilities as long as users either assume on-site O&M responsibilities (Mjoli 2010; Eslick & Harrison 2004) or pay the full or partial cost of O&M expenses (DWAF 2003; 2008; Wild 2013) for such infrastructure. Such a position is even embedded in the Municipal Systems Act (RSA 1998).

Various responsibilities connected to providing and maintaining free basic sanitation services in South Africa are appointed through national and municipal policy to officials and janitorial staff who are tasked to fulfil such duties (Mjoli & Bhagwan 2010). Service providers are thus given the responsibility of ensuring the delivery of sanitation services, particularly to poor households; a mandate considered a policy priority (DWAF 2007). Poor households might be defined as consisting of people living in poverty, a condition characterised by severe deprivation of basic human needs; including food, safe drinking water, sanitation facilities, health, shelter and education (World Summit

for Social Development 2005). Various responsibilities have also been expected by service providers of informal settlement residents to whom sanitation facilities and services are provided; namely that they "properly care for and utilise communal toilets" (DWAF 2008; de Lille 2012).

It is arguable that for people to care for Free Basic Services, a sense of ownership is not an essential factor. Potentially more crucial, is a sense of and enactment of responsibility. It is the responsibility of the state to provide Free Basic Services and thus serve its citizens. It is also legitimate for the state to expect citizens to care for – but not necessarily maintain – Free Basic Services intended for public use. Citizens thus also have a responsibility. However this expectation and the probability of it being actualised are linked to the ways in which responsibilities are established and maintained by involved role-players.

4.1.3.2 Janitorial staff

Janitors interviewed reportedly did not feel a sense of ownership of toilets for the toilets they cleaned because they were provided by the municipality. Yet they did feel responsible for cleaning the facilities because they were being employed and paid to do so. It must be remembered that Mayor's Project janitorial service janitors are also residents of the informal settlements that they service. Degrees of ownership appropriated by janitors were thus found to be contingent on their personal perspectives in relation to ownership of municipality provided flush toilets.

A more important question, however, is how the janitorial services in place in informal settlements have impacted on local notions and expressions of ownership. In the case of Masiphumelele Wetlands and BM Section Khayelitsha, and likely many other informal settlements in CoCT municipality, prior to the implementation of janitorial services, residents were left with the responsibility of cleaning the public toilets installed in their areas. Based on interviews with residents, opinions varied as to whether or not such a responsibility was accepted by residents themselves, or seen as an imposition.

Having the same cleaners for the same facilities helps to create a sense of ownership for the cleaners and better communication with the public (Knight & Bichard 2011: 22)

4.1.3.3 Informal settlement residents

Despite residents initially wanting janitorial services to clean these toilets, when the Mayor's Project janitorial service was implemented, many continued – as in the case of BM Section Khayelitsha and Masiphumelele Wetlands – to control access to certain toilets via locks and keys, thus displaying a particular degree of ownership and responsibility. Many such residents – as well as others spoken to during fieldwork – are of the opinion that it is solely the "government's responsibility" to service and to maintain such facilities, and moreover that they should not have to pay for "free" services. This kind of opinion has been referred to as "an attitude of entitlement", produced in part by social, economic and political inequalities engendered by apartheid that affected those previously disadvantaged (Fjeldstad 2004). This attitude was found to be prevalent most commonly amongst middle-aged and older men, and older women, and to lesser degrees amongst adolescents (both male and female) and middle-aged women.

At the same time, a few interviewed residents argued that it is in fact reasonable for them to take some level of responsibility for the flush toilets freely provided by the municipality. One young man living in Masiphumelele said that:

> "We cannot do anything about how many toilets there are, what kind of toilets they are, or where they are. But we can at least use them with decency and have some respect for others, who also share the toilets with us."

Various studies have shown that many recipients of the Free Basic Services policy expect the government to fully subsidise both capital and O&M expenditure of municipality-provided toilets (Govender et al. 2011; Taing, Armitage, et al. 2013; Eslick & Harrison 2004). Research done in Khayelitsha and Masiphumelele drew out some interesting accounts and perspectives on responsibilities in relation to freely provided basic sanitation services. Some residents criticised that no one had ever negotiated responsibilities connected to servicing and maintain the flush toilets installed where they lived. One Masiphumelele Wetlands resident recalled that no clearly defined cleaning system was established when the toilets were first installed:

> "The toilets were built, and everyone was very excited in the beginning. But then very soon the toilets became so dirty, blocked and smelly you know. And there was no cleaning service or anything, so some people used to just be like volunteers and try to clean the toilets themselves. But this didn't work very well actually."

Our studies in BM Section and Masiphumelele Wetlands reinforce the finding that many informal settlement residents do not generally have a sense of ownership or responsibility for toilets provided by the CoCT Municipality unless: (1) they are employed to care for the facilities, or (2) they had restricted universal access to the toilets by locking facilities with private padlocks.

Our research did, however, find that there appear to be different perspectives on the relationship between ownership and responsibility by informal settlement residents, janitorial staff and sanitation services authorities. One perspective voiced by Masiphumelele residents is that that responsibility must be fulfilled regardless of a sense of ownership, "these aren't our toilets even though we use them, but we have a responsibility to keep the toilets clean because we are sharing these toilets together." An additional perspective expressed by Masiphumelele residents is that municipally-provided toilets *do* belong to them, and that – especially in the case of residents sharing locked toilets – along with such a sense of ownership come certain responsibilities. And yet another perspective is that such sanitation facilities do not belong to residents at all, rather solely to the municipality, and that is the municipality's responsibility alone to service and maintain them.

By drawing connections between statements made by interviewed residents around ownership and responsibility to their levels of sanitation access a general trend was revealed. That is, as sanitation access increased (residents sharing a toilet with fewer others), expressions of ownership and responsibility also increased. Conversely, as sanitation access decreased (residents sharing a toilet with more others), expressions of ownership and responsibility decreased. Such a

trend has also been observed by WSUP. Another way of framing this is to say that as sanitation access became more public, expressions of ownership and responsibility decreased, and that conversely as sanitation access became more private, expressions of ownership and responsibility increased

Notions and Expressions of ownership amongst residents were found to be influenced by various factors. The lock and key systems present in Masiphumelele Wetlands and BM Section Khayelitsha were seen to have strongly influenced the operation of the Mayor's Project janitorial, and Community Workers sanitation services. Such a scenario importantly influenced the extent to which Wetlands and BM Section residents were seen to express ownership of municipally-provided free basic sanitation facilities. The predominating lock and key systems of collective sharing is a social practice that has been shown to have configured residents' relations toward flush toilets freely-provided by the municipality in terms of ownership and responsibility

Fieldwork suggests that there is a crucial relationship between expressions of ownership of toilets and degrees of access. For example, Wetlands residents sharing a locked toilet with others and accessing it via shared keys, tended to attest to, as well as enact a sense of ownership of the facilities. The sense of ownership could be described as communal, as such residents referred to the shared toilets as "their toilets", saying, "that is our toilet". This sense seemed stronger amongst networks of families and friends who share a toilet via the lock and key system of controlled access, and weaker amongst residents who do not share toilets via this system; i.e. they use unlocked toilets most of the time, although might use a locked toilet by borrowing a key from a key-holding resident.

Yet the lines between these different senses of ownership – influenced by the predominating lock and key system in Wetlands – are constantly in flux. How many people share a locked toilet varies daily; while some locked toilets are used by more or less set networks of residents – most commonly two or three households – others are used by much larger networks, extending beyond a core group to include people who ask for access at an ad hoc basis. Many residents also said that while there is usually a core group who use a locked toilet, that over time their toilet has been used by dozens of others, who've asked opportunistically to borrow a key to access a locked toilet.

Senses of ownership and responsibility of flush toilets in BM Section Khayelitsha and Masiphumelele Wetlands were expressed in different ways:

i) Communal cleaning by users of shared locked toilets; purchasing cleaning materials communally and managing cleaning responsibilities via rosters and timetables.

ii) Reluctance to allow those not part of networks of residents sharing locked toilets to use these toilets. Key-holding residents sharing a locked toilet said they would only lend a key to someone if they were part of their family, were a friend of a family member, a friend, or a friend of a friend. Residents said that such relations instilled trust, and created a sense of surety that a borrowed key would be returned.

iii) Installation of wooden and plastic toilet seats and purchasing and utilization of detergents and cleaning materials (brooms, mops, buckets, soap, toilet paper).

4.1.4 Conclusion

In terms of municipally provided public/communal flush toilets in informal settlements in the Western Cape (and in similar settlements throughout Africa), ownership must be seen as conditional. This is especially because flush toilets are provided temporarily and intended for public use in areas where toilets cannot be installed on a household basis. Ownership might therefore be seen as what can be termed 'shared', 'public', 'communal' or 'collective'. There is however – as our research has shown – a disconnect between how expectations of ownership are conceptualised by municipalities, service providers and developers and how people express and negotiate ownership in reality. Furthermore, it is residents' reactions to and interactions with these facilities that configure particular notions and expressions of ownership; practices ranging from locking toilets and cleaning them communally, to dumping garbage down toilets and stealing toilet doors.

Such practices are also influenced by the janitorial and O&M services at work in informal settlements throughout the Western Cape, and nationwide. The implementation of janitorial services in such areas presents a commitment by municipalities and the national government at large to take responsibility not only for providing sanitation facilities, but also for servicing and maintaining them. Such a commitment derived in part from the belief that public toilets managed communally by informal settlement residents cannot be maintained (Taing, Armitage, et al 2013).

Our research highlights that one of the major shortcomings of the Free Basic Services policy is that policymakers had only imagined provision on a household-basis, and that people would take responsibility as 'owners' for the facilities that they were given. In addition, municipal officials state-wide have underestimated the willingness of poor households to undertake responsibilities associated with shared facilities in contexts such as informal settlements. Moreover, residents' perceptions and expectations relating to reciprocal responsibilities of freely provided basic sanitation facilities have not been fully taken into account. The Free Basic Services policy – in particular sanitation services – is seen to have been overly prescriptive; with implementation having taken place in many instances without residential consultation and/or consideration of residential opinion (Mjoli 2009; Naidoo & Chidley 2009). It is argued that municipalities are first and foremost responsible for providing; servicing and maintaining freely delivered flush toilets to informal settlements.

It has been argued that the roles and responsibilities relating to the delivery and maintenance of free basic sanitation services, on the part of all stakeholders involved, need to clearly defined. In particular, these roles and responsibilities should reflect and be informed by the environmental, economic, political and social realities of the areas that are the sites of Free Basic Service reception. The research findings relating to ownership and responsibility described and analysed in this section illustrate the importance of an awareness and understanding of the multi-various ways in which people conceptualiSe and express these issues.

4.2 Physical safety & health hazards

As we reflected upon the research that we conducted in the three informal settlement field sites in Hermanus and Cape Town, the strong relationship between personal safety and public health in

relation to how the public toilet facilities in these respective areas are used and experienced by residents became evident. Notably, issues of privacy, vulnerability to violent crime and the health and hygiene concerns of janitors and toilet users were highlighted as influential factors that determined whether residents would choose to use either municipally provided toilets that were situated away from their homes or a bucket in their homes. This atmosphere of insecurity that was commonly attached to both using and working at the public toilets, particularly at night or in early mornings when it is dark, is an issue that extends beyond technological choice for toilet design and begs the question, who is responsible to create a safe environment for toilet users and janitors, and should municipalities consider this as an integral aspect of the provision of public toilet facilities with a janitorial service in informal settlements?

The following personal safety and public health concerns will be discussed through a lens of 'imagined hazards' in relation to legislation on occupational health and safety whilst acknowledging that different municipalities adhere to such legislation only as much as it pertains to the particular contexts which fall within their jurisdiction. For instance, personal protective equipment that is supplied to janitorial staff will be dictated by the geographical and climatic conditions in the informal settlement in which these janitors work. Furthermore, issues of privacy, general public health and safety for both toilet users and janitors, are discussed in order to illustrate the contrasting attitudes, concerns and accepted responsibilities of the municipalities, janitors and toilet users concerned.

4.2.1 Personal protective equipment

In terms of the provision of protective clothing and equipment, it was found that the janitors in Zwelihle's informal settlements and those in BM Section and Masiphumelele approached their work and the completion of their tasks for the cleaning of the public toilets in notably different manners. Whilst the janitors working in Zwelihle typically wore clothing no different from what they would wear on a day that they were not working, janitors in BM Section and Masiphumelele placed much emphasis on the nature of their work and the necessary protective clothing that they were required to complete the tasks associated with their work. This is an interesting point of inquiry considering that the CoCT adheres to strict Occupational Health and Safety Regulations, which means that janitors are provided with a standard of personal protective equipment that meets such regulations, despite the temporary nature of the janitors' contracts. The CoCT's insistence on ensuring that all janitors receive the necessary inoculations further illustrates the municipality's perceptions of the hazards associated with janitorial work.

In Zwelihle, janitors are only provided with rubber gloves as protective clothing, and they do not wear uniforms or overalls of any kind. The janitors did not complain that they needed such items nor did they request them from the sub-contractor at any time. At Masiphunzani/Ziphunzana toilet block in Zwelihle for instance, it was observed that one of the janitors working there would wash down the toilet cubicles and the floor surrounding the toilets using a hose connected to the standpipe on certain mornings. When she did this, she would wear her own black gumboots, and change into more comfortable shoes when the water had mostly dried up. Rather than clothing or protective gear, janitors' complaints primarily focused on the poor state of the toilets on weekend

mornings, when taverns are busy the night before and toilet usage is more frequent than week nights.

In contrast, the issuing of PPE (i.e. personal protective equipment) has been a contentious topic in the CoCT's janitorial services for informal settlements. PPE refers to items that are meant to protect a person from bodily injury or harm. In the case of janitors, this specifically pertains to protection from bacteria and germs that janitors may come into contact with during toilet cleaning, and wet and windy weather conditions. As noted in Section 3.5.4 and 3.6.4, persons employed in CoCT's janitorial services are meant to receive a uniform and equipment for when they are cleaning inside and outside of toilets. WSISU, however, has had a number of difficulties with procuring enough protective clothing and equipment for the thousands of workers they have employed over six-month contracts since April 2012. Social Justice Coalition, a local social advocacy group in particular, highlighted that months after the "official" roll-out of the Mayor's Project janitorial service that:

> "Most janitors were not provided with full uniform and protective wear which compromised personal health and safety. It took three months for janitors to be provided with cleaning materials to clean toilets, prior to which they only had rakes and brooms" (SJC 2012c).

The janitors' lack of PPE particularly became a hot topic in local newspapers after Executive Mayor Patricia de Lille visited Barcelona informal settlement wearing a face mask (Figure 4-1). Those interviewed by the press had noted it was unfair of the Mayor and her contingent (which included her staff, law enforcement and the press) to be wearing face masks for a short visit to an informal settlement when municipal janitors cleaned toilets without such items (eNCA 2013; Lewis 2013b).

Figure 4-1: CoCT Executive Mayor Patricia de Lille was criticised by informal settlement residents and the press for wearing a face mask when visiting Barcelona informal settlement given the stock shortages that resulted in workers employed to clean toilets not getting PPE (Photo by Marelize Barnard of *Beeld*, 12 June 2013). Barcelona was the epicentre of a sanitation protest regarding a supposed wage dispute between municipal contractors and its workers.

Though WSISU has tried to redress issues with distribution and stock shortages (Section 3.5.4 and 3.6.4), the Mayor's Project's rapid expansion (Section 3.6.1 and 3.6.2) and the high turnover of its temporary workforce (Section 3.6.3), there nevertheless have been many instances observed in BM Section and Masiphumelele where janitors lacked PPE, as well as cleaning chemicals. This had resulted in janitors often sitting idly by flush toilets that needed to be cleaned. Some of the newly hired janitors at that time also explained they could not start working until they had been inoculated, immunisations which were also at the City's cost. CoCT officials had confirmed that "[j]anitors were not expected to work if required protective items were not issued to them, but it was also a challenge to get them to adhere to the use of their protective clothing" (Lewis 2013b). Both the Mayor's Project janitors in BM Section and the ablution block janitors were observed cleaning toilets without protective clothing such as overalls. They stated they knew that they were supposed to wear their issued PPE, but some of the items needed to be repaired or replaced, or that their overalls were currently drying on a clothesline.

In BM Section and Masiphumelele Wetlands and TRA, janitors have frequently voiced concerns regarding health risks that a lack of PPE poses. Janitors contended that the municipality ought to provide all janitors, at the commencement of their contracts, with a complete supply of PPE. Most important according to interviewed janitors are waterproof boots (most commonly gumboots are preferred), and a rain- and windproof jacket, particularly crucial during cold, wet Cape Town winters. At the time of field research, neither of these items of PPE had been provided to Masiphumelele Wetlands and TRA janitors. It was observed that janitors in Masiphumelele often chose not to work during wet, stormy spells because they had not been provided with PPE they deemed adequate for work under such conditions. For example, they believed that gumboots should be provided, rather than water-resistant boots, as the former were more amenable to wet, muddy conditions. Not only did this lack result in the janitors getting wet and cold, they also became despondent and demotivated, and expressed disappointment towards the municipality for not supplying 'proper' PPE to them.

A key aspect of protective clothing that janitors from BM Section and Masiphumelele often complained about then was the lack of raingear provided to them given that they worked in wet environments (e.g. toilets next to wetlands or a river system). Some added that raingear – i.e. a rain jacket, rain pants and gumboots - were also needed when it rained because the facilities they worked at were fully exposed to the elements. Two EPWP clerks who were responsible for issuing protective clothing to EPWP janitors had explained that it was expensive for the municipality to provide all of this gear to workers who were temporarily employed for six months. One also said that CoCT's supply chain procurement process made it difficult to procure items for the temporary work staff, and hinted that it was also uneconomic expenditure for the municipality because after their contracts are terminated CoCT-branded clothing had to be returned and incinerated. Another WSISU official also added the difficulty that EPWP administration faced in creating a "standardised" package of PPE for its workers given workers' protective clothing and gears needed to be based on what tasks they were performing (i.e. cleaning, O&M, etc.).

4.2.2 Privacy, locking mechanisms & lighting

General access to the flush toilets in Zwelihle's informal settlements is permitted at all times, however, it is only controlled by janitors during their working hours. At night, toilets are left open, however, the doors of those that are blocked or not in working order are closed at all times to indicate this to users. Many residents suggested better locking mechanisms on the toilet doors particularly as a safety precaution at night as not all doors lock or close properly. The researchers in Zwelihle and BM Section found that from their experiences of using the public toilets in the respective areas, that the slide lock mechanism on the doors of the separate concrete cubicles was not always present or in working order, requiring the toilet user to hold the door closed when the door did not remain closed independently. Some of the broken slide locks had been retrofitted with wire by either residents or janitors that could be bent to hold the door closed. In general, it was evident that male users typically urinated without closing the door, and young children left the doors wide open when using the toilet. Furthermore, it was observed that many toilet users would use the toilet with the door closed only three quarters of the way, as long as they remained out of public view. Ms Taing recalled a number of occasions on which young children in BM Section would playfully open the toilet door whilst she was using the toilet in order to peek inside (Figure 4-2). With unsecured locking mechanisms, privacy is therefore not guaranteed for toilet users, nor is it always sought after by residents as in the cases of men when urinating and young children defecating in the open (See section 4.2.3; Figure 4-6).

Figure 4-2: A child peeks through a crack in the doorframe of a toilet (left) and a broken lock for a toilet door in SST Section (right) (Taing, March & May 2013).

GRIEF: Nomakhuma Bontshi cried as she gave an account of her family's anguish after the vigilante attack on her nephew, Andile Mtsholo. She testified at the Khayelitsha Commission of Inquiry about the 2012 murder. *Picture: THOMAS HOLDER*

Toilets 'would help to flush away crime'

Xolani Koyana

SANITATION in informal settlements has been thrust into the spotlight at the Khayelitsha Commission of Inquiry, with residents saying the placing of toilets far from their homes leaves them vulnerable to criminals.

On Friday, the general secretary of the Social Justice Coalition, Phumeza Mlungwana, told the commission that using a toilet was the most dangerous thing one could do in Khayelitsha.

Mlungwana cited as an example the experience of Makhosandile Qezo, a resident of RR Section and a member of the coalition, who was stabbed while going to relieve himself in bushes near the N2 in 2010.

Qezo was stabbed in the face and robbed of his phone. One of his attackers was caught by residents, who handed him to the police.

Mlungwana said police had failed to update Qezo on the case and the investigating officer had failed to arrive for bail hearings.

"This case does not simply illustrate the systemic problems with the SAPS. Above all, it illustrates the indignity that about 250 000 people in Cape Town face daily because they have no access to toilets," she said.

There should be communication between the city council and residents on the placement of toilets, to prevent people having to walk too far.

Asked whether the provision of sanitation would reduce crime, Mlungwana said: "I do feel people would be less vulnerable to crime... if sanitation was sorted.

"People who use these facilities would be less vulnerable if the relationship between sanitation and safety was addressed."

Mlungwana said the lack of street lighting and access roads also left people exposed to criminals.

Despite these challenges, she thought police should plan properly for work in informal settlements, with which they should be familiar. There should be more foot patrols.

Figure 4-3: A recent Cape Times article that stresses the link between personal security and toilet use in Khayelitsha (Koyana 2014).

Residents in Zwelihle, Masiphumelele and BM section informal settlements have also suggested that lighting around the toilets is to be improved. In Masiphumelele, an issue like lighting is something that residents feel they have little control over. Many residents recounted stories of people they knew (including family and friends) that had been accosted and/or attacked by young men waiting in or around toilets at night. Having a key to a locked toilet made it somewhat safer, according to some residents, to access a toilet without someone attacking them from the inside, but the threat of danger when walking to the facility was still present, and they claimed it was exacerbated by poor lighting in the vicinity of most toilets in the Wetlands.

With regard to street and flood lighting in BM Section, there seems to be limited flood lighting and no street lighting whatsoever. VPUU (2010: 27) stated that its interviewees said the few lights were often broken and rarely repaired. To highlight the lack of lighting in Khayelitsha, SJC representatives had co-sponsored a night walk with NGOs Equal Education and Treatment Action Campaign. SJC members said the walk started at 19:00 from Equal Education's offices and they walked as party together down Lansdowne Road in the pitch darkness during an evening in winter. Paul Boughey (2013), who is CoCT Mayor's Chief of Staff, responded to the night walk as follows:

> "…the City was implementing normal repairs and maintenance in the area. By September last year all lights with a life span of 5-years were fitted... Within six months only 35% of these lights were working. This is because in some areas illegal electricity connections overloaded the electricity supply system, and significant vandalism rendered many of these lights inoperable. In one instance alone, cables were stolen twice by vandals digging up tar. In the context of limited funds, constantly having to repair vandalised, stolen, or broken equipment, places an enormous burden on the City."

In order to reduce the theft of copper wiring, CoCT officials have elected to leave flood lighting on throughout the day (Figure 4-4). Ex-Mayco Member for Utilities Services Clive Justus explained that it was "[a]n effective deterrent… as thieves rarely risk their lives by hacking into live wires" (BBC 2010).

Figure 4-4: Area lighting off the N2 Highway near the R300 was left on at 16:00 to deter theft (Taing, February 2013).

4.2.3 Public health concerns

It is generally considered that women and children are at risk when using communal toilets (Mjoli 2010), particularly at night. In Zwelihle and BM Section, the majority of women and children that spoke to the researchers reported that they typically do not use the flush toilets at night for fear of rape, kidnapping and encountering a *tsotsi* (isiXhosa colloquial name for gangster). Several BM residents reiterated that they had their cell phones stolen by *skollies* (thieves) who were waiting either inside the toilet cubicles or in the dark for passers-by. BM interviewees added that it was hazardous for them to walk to the N2 toilets positioned at the settlement's periphery because the area is not electrified with flood or street lighting, thus walking to the toilets was difficult as it often meant traversing a web of muddy pathways in the dark.

The most popular alternative women and their children reportedly used at night were buckets inside their homes. One woman residing in Zwelihle's Transit Camp no more than a few metres from the nearest toilet block recalled her recent experience of having diarrhoea during the night and the choice she had to make of either rushing to the nearby toilet block, or using a bucket inside her home, whilst her two children slept. She appeared embarrassed when she explained that she opted to use the bucket, as she explained that she realised it was a Thursday evening and that many people visiting the taverns would be inebriated, making it a particularly dangerous journey to the toilet block. Similarly, many women in BM expressed their embarrassment about using buckets at home. However, they said that this allowed them to relieve themselves in relative privacy, and that in using buckets they did not put themselves or their children at risk of physical harm when walking to shared facilities outside their homes. They said that they later emptied these buckets in the morning. Some interviewees said they emptied their buckets into municipally provided toilets, but most had said they emptied their night soil buckets into a roadside stormwater drain or in a convenient open space.

Interviews, discussions and observations revealed that open defecation is a common sanitation practice in the Masiphumelele wetland, particularly on the outskirts of the wetlands – bordering the conservation area. Based on what residents in Masiphumelele's wetlands, reasons for open defecation on the edge of the conservation area, and open urination in places of convenience include; long queues for toilets, long distances to get to toilets, inability to control one's bladder or bowel, safety concerns at night and drunkenness (particularly during weekends). According to residents, the practice is prevalent during weekends, when drinking is rife. Interestingly, it was found that open defecation and urination rarely occur in the TRA. Residents interviewed there report that there are enough toilets to serve the people living in the area, and that there is always an unlocked toilet nearby. In BM section Khayelitsha, there was evidence of open defecation and urination typically in areas with limited municipal facilities. However, adult men and women were also observed crossing the N2 highway from BM in order to defecate, in many instances as part of a religious ritual that required open defecation (Figure 4-5).

Figure 4-5: Both women (left) and men (right) crossed the N2 highway to defecate (Taing, January & February 2013).

Small children were observed defecating or urinating in open spaces in the three informal settlement case studies, sometimes literally only metres away from municipality-provided toilets (Figure 4-6). A managing nurse at Zwelihle's clinic explained that toddlers typically did not use the municipally provided toilet facilities as the height and width of the toilet bowl did not adequately accommodate their small bodies. Instead, many of these children tended to defecate or urinate in spaces of convenience near their homes, or their playgrounds.

Figure 4-6 A young boy defecated next to municipality provided chemical facilities and flush toilets in BM Section (top, Taing, July 2013), and a toddler defecating only a few metres away from the flush toilets (the green door frames on the right) in Zwelihle's Transit Camp (bottom, Vice, February 2013).

The aforementioned methods of wastewater disposal in Zwelihle, BM Section and Masiphumelele Wetlands, as well as practices of open defecation, ultimately put all residents at risk of waterborne diseases because puddles of wastewater, teaming with infectious viruses or bacteria, pool along roads or between homes. The managing nurse at the Zwelihle Clinic therefore attributed a high incidence of diarrhoea among children in Zwelihle to a "lack of sanitation", inferring that an insufficient number of toilets for residents in Zwelihle's informal settlements led to the presence of environmental hazards that place people's health at risk. It would appear, however, that what the nursing sister recognised as a shortage of toilets in Zwelihle was actually an issue of accessibility to toilets rather than the number of toilets provided.

4.2.4 Physical safety concerns

Janitors in the Mayor's Project and ablution block said they were concerned about their personal safety when working in BM Section. Despite being residents of BM Section, both male and female janitors employed in the Mayor's Project said that they preferred working and travelling in groups of 4-12 people. In stark contrast, BM Section's solid waste workers – who were mostly women in their 30s or 40s – were usually observed working alone or in pairs. One woman, who was working alone in a solid waste container, said she did feel her personal safety was at risk because anyone could easily close the doors of the container that she worked in and rape or rob her. A second woman, on the other hand, had said that she had no qualms about working alone in the settlement where she resided.

The CoCT consultant had said that the Mayor's Project janitors were meant to be "static" (i.e. on-site) and remain close to the toilets they were responsible for cleaning so that they could control access during their working hours. WSISU officials stated that the consultants' vision showed that they lacked on-the-ground input as it was safer for janitors to work in groups. One official explained that there was an instance where an ablution block janitor was raped on her way to clocking in at a CoCT office before her 5AM shift. This prompted WSISU officials to adjust the ablution block janitors' hours so that they would only clock in and out during rush hour traffic. In addition, armed security guards from Ilizwe were secured to open and to close the ablution facilities, and to protect the janitors and users if necessary when the ablution blocks were open.

Regardless of WSISU's interventions to improve the security conditions at the ablution block, the janitors and a security guard had said they still felt unsafe when at the facility. One janitor explained there is "nowhere to hide" if someone were to come attack them, and that the security guards hired to protect them often sat outside the facilities, and therefore often did not know what was going on inside. A security guard had said that they were given a pair of handcuffs and a baton to protect the facilities. In addition, they were also given a radio to call their offices in case there was ever an emergency. However, the interviewed guard explained that she stored the baton in the ablution block rather than carry it because people would then know that the "armed" guards could easily be overpowered by a firearm. She also said that because the BM ablution block did not have electricity, one of the three security guards often took their radio home to charge it. These security guards generally did not live in BM: one lived in Delft, another in Nyanga and another interviewed resided in TR Section, Khayelitsha. Thus it often meant that a security guard was left without a radio

to call for help if it was taken off-premises to be charged. She added that even if she radioed for help it might be pointless as it would take at least 15 minutes for anyone to get to BM to assist.

4.2.5 Infrastructure & hygiene practices

It was also observed that the lack of means to clean oneself at municipality provided toilet facilities had a large impact on residential behaviour. Although in Zwelihle each toilet block or cluster is accompanied by a minimum of two standpipes or tap over a wash basin for toilet users and residents, residents who participated in interviews and discussions in Masiphumelele and BM Section expressed concern toward services such as wash basins. It was observed that most rows of toilets in both areas only had one standpipe per row, which was often out of order, or being used by women to wash clothes. Parents said that it was difficult to teach their children basic toilet hygiene when the toilets they used were of such a poor standard and were not consistently clean. Residents said that they had no option but to buy their own toilet paper and soap, for their own and for their children's health and hygiene as these materials are relatively cheap and can be purchased easily at shops in the Wetlands and surrounds.

The municipally provided toilets in Zwelihle, BM Section and Masiphumelele also notably did not have means to dispose of menstrual management products. Although the menstrual management needs of women and girls in all three areas have been somewhat overlooked by municipal authorities, it has not proven to be problematic to residents or to janitors as this aspect of personal hygiene seems to be predominantly managed at homes and not at public facilities. Conversations with women in Zwelihle's informal settlements revealed that most women preferred to change their sanitary products at home as they could wash themselves and their re-usable sanitary towel (a folded piece of cotton material), or they could dispose of their non-reusable menstrual management product (sanitary pads, newspaper) with their rubbish. The municipally provided toilet facilities do not have bins in which women and girls can dispose of these items. There were women who said that they would use the toilet cubicles to change or to dispose of their sanitary pads/towels on occasions that their homes were occupied with family members and guests, reducing opportunities to change privately. Most women also appeared to be aware that flush toilets were not suitable for the disposal of menstrual management products.

4.2.6 Conclusion

The 'imagined hazards' associated with the cleaning of public toilet facilities in informal settlements by CoCT reflect a heightened concern for personal and public health. The importance placed on personal protective gear and inoculations for janitors, alongside the powerful symbol of Executive Mayor Patricia De Lille's face mask during her visit to Barcelona informal settlement shows CoCT's perception of the cleaning of public toilets as a hazardous and high risk task. In contrast, the janitors in Zwelihle's informal settlements do not recognise their work of cleaning the public toilets there as necessarily more hazardous than cleaning one's home. The sub-contractor does not provide extensive personal protective equipment to janitors or prescribe that inoculations be given as Overstrand Municipality do not stipulate these as requirements in the cleaning contract. The

imagined hazards in each context are therefore very different, and are reflected in the expectations of the janitors working in the respective settlements.

In terms of privacy, personal safety and the reality of violent crime in South Africa, toilet users and janitors in all three case studies have expressed their anxiety around using or cleaning the public toilet facilities in the dark in fear of making themselves vulnerable to criminals. We recognised this trend as a public health concern since the usage of buckets as toilet replacements remains a necessary safety precaution, whilst the dumping of such waste places the health of residents, particularly young children at risk.

These two issues associated with personal health and safety therefore highlight the different roles and responsibilities that stakeholders assign to one another, and acknowledge that personal safety surrounding public toilet facilities remains an issue that requires a negotiated response from the stakeholders involved.

4.3 Natural & built environment factors

Overstrand and WSISU Officials generally interpreted basic sanitation provision for Zwelihle, BM Section and Masiphumelele residents as the provision of toilets in which human waste is collected and transported safely to a wastewater treatment plant. In essence, this indicates that residential sanitation services have been viewed primarily in the technical terms of building a toilet, providing a means to convey human waste and maintaining this service. Yet, as suggested in DWAF's 2003 definition, and indicated in its *White Paper on Household Sanitation* (2001: 5), "toilets are just one element in a range of factors that make up good sanitation." It was noted in the previous section that physical security and hygiene concerns are two such elements that are often highlighted as being integral safety components of residential sanitation. Two more elements that are often overlooked in terms of its impact on the functionality of toilets in informal settlements are how the natural and built environments dictate human behaviour.

We observed that the natural environment and the design of the built environment have significantly discouraged hygienic sanitation practices in Zwelihle, BM Section and Masiphumelele informal settlements by affecting the way that people use and/or care for municipality provided toilets. In particular, we focus upon the following design and construction issues have significantly influenced residents' and janitors' behaviours: (1) the spatial layout of these toilets in an informal settlement, in terms of its physical grouping and location in between residents' homes; (2) the design of shelter from the elements when utilising or cleaning these toilets; and (3) the means of removing greywater, solid waste and stormwater.

4.3.1 Spatial layout

The distinct physical manner of delivering toilets in terms of spatial layout between residents' homes and its groupings interestingly affected the way that officials and residents managed the facilities, and has prompted Overstrand and CoCT Municipalities to adopt diverse ways of servicing them. As noted in Section 2.4, we generally found that the two municipalities provided toilets either in

clustered or block configurations. What we refer to as 'toilet clusters' are two or more toilets that are physically grouped together on the ground but housed in distinctly separate concrete cubicles, whereas a toilet block has a number of toilets under one room, and may or may not include showers.

From a construction and servicing standpoint in informal settlements, Overstrand and CoCT Officials generally preferred providing toilet blocks or clusters of flush toilets in open spaces rather than installing toilets between people's homes. This is logical for them given that the installation of sewers and toilets often requires negotiating with residents to make space for new infrastructure, which in the past has tended to be a headache for officials when residents were reluctant to move (even temporarily) for fear of being permanently displaced (Taing, Armitage, et al. 2013). Officials added that municipality provided toilets that are grouped together were also easier for them to service because people could be hired as on-site janitors to clean the toilets and to distribute toilet paper. This is the model that is used in Zwelihle informal settlements and by CoCT for its Community Workers janitorial programme. Users of BM Section's ablution block had said that they preferred having toilets in their own homes or yards, but they stated that they were satisfied that the municipality had hired janitors to ensure the facilities were cleaned regularly.

In light of residential preferences to have toilets closer to their homes for reasons of convenience, practicality and safety – particularly because people did not want to travel long distances to use the toilet at night – CoCT officials have introduced communal toilets scattered between people's homes to comply with users' demands. The officials stated that they did this with the expectation that the households using these toilets would take responsibility for the upkeep of the facilities. Such expectations aligned with national government's assumption that "local community members can readily undertake maintenance of on-site toilets" (DWAF 2002: 9; CoCT 2008b: 11). However, as noted previously in Section 3.2.3, managing O&M between households was problematic, and usually resulted in the neglect of repairs, maintenance and cleaning responsibilities for these municipality provided sanitation facilities. CoCT officials thereafter committed "to improve service delivery" in informal settlements by implementing a janitorial service (the Mayor's Project) as a means of ways of cleaning them (de Lille 2012a).

Establishing a janitorial service for toilets that are scattered throughout an informal settlement has challenged CoCT officials to find an "efficient" and "effective" model for cleaning these facilities (WSISU & Taing 2011). Against the consultant's recommendation, WSISU officials decided to adopt a roving janitorial service in which those in the Mayor's Project worked together in small groups to clean the scattered toilets due to their concerns that those that work alone may be physically vulnerable. Unlike janitors of CoCT toilet blocks who are stationary and usually only work with one other cleaner, those appointed to clean clusters of toilets as part of the Mayor's Project were roving janitors who tended to work in groups of three or more people.

One limitation of adopting a roving service was that the Mayor's Project janitors in BM Section and Masiphumelele only cleaned toilets in their area once a day; whilst their on-site counterparts in Zwelihle and Khayelitsha continuously checked the toilets they were responsible for throughout their shifts. It was also observed in BM Section that janitors who worked in large groups may have adopted inefficient methods for cleaning the clusters of toilets they were responsible for. For instance, the observed groups tended to have 2-3 people cleaning at a given time, whilst the rest of

the janitors in their teams stood by and watched. Every few minutes those cleaning took a break so that others could take their stead and clean, which essentially meant that the roving janitors rotated cleaning tasks during their shift.

Another concern that those appointed to supervise the Mayor's Project janitors have highlighted is their struggle to monitor and to ensure that toilets scattered throughout an informal settlement are cleaned by janitors, particularly in instances where toilets are in between homes and inaccessible by a motor vehicle. Walking in an informal settlement was not a concern to them so much as the time that it took to travel to these toilets, as they had to juggle these monitoring tasks in addition to their supervisory work in other settlements.

The lessons learnt from the two different spatial configurations suggest that building design and layouts significantly influence how officials in Overstrand and CoCT Municipalities have modelled janitorial services in informal settlements. Given the likelihood that such cleaning services will continue to be rolled-out in Hermanus and Cape Town, it is important to understand the different merits of each physical manifestation in relation to municipal servicing and users' convenience.

4.3.2 Shelter

Provision for privacy and protection from weather are highlighted as necessary attributes of a basic sanitation facility (DWAF, 2003). However, as noted by the High Court of South Africa (2011: 7) in its ruling on the "open toilet" scandals in Makhaza (Cape Town), there have been no "guidance as to what constitutes an adequate enclosure for toilets" for incremental housing interventions. The High Court thereafter established that:

> "an adequate enclosure for the individual toilets supplied by the City on each erf is one constructed of corrugated iron and timber, including a polyurethane door (suspended on a steel bar, and capable of being locked from both the inside and the outside), with an internal spacing of not less than 2.5 metres in height, 1.5 metres in depth and 1.0 metres wide." (High Court of South Africa 2011: 7–8)

The High Court's Makhaza ruling on the "loos with a view" was a landmark case that marked highlighted that CoCT Municipality had not provided sufficient means to neither protect users' privacy nor protect them from the elements. What is not clear though from DWAF and the High Court is what do people need protection from with regard to the elements. We thus build upon the High Court's recommendations, which primarily were technical specifications that the City had to follow, of what is adequate enclosure by considering first what elements do residents and janitors need to be protected from when using or cleaning municipality provided facilities that are fully exposed to the elements, and how concern for addressing protection from these elements can be incorporated into the design of municipal facilities or janitorial services.

In each of our case studies, users and janitors tended to have problems with the shelter of clustered toilets when it was rainy or windy. Aside from the inconvenience of having to leave one's home and walk a certain distance to access the municipal full-flush toilets, it was observed that the

openings at the doors' sides exposed toilet users to rain, sand and cold draughts (Figure 4-7). Residents of BM Section particularly complained of strong gusts of wind, which slammed the toilets' metal or plastic doors open or shut, as these were undoubtedly potential hazards to users, people passing-by or cleaners. These inconveniences were enough oftentimes to discourage users from walking to municipality provided facilities during spells of inclement weather.

Users of the brick and mortar toilet blocks at Zwelihle's Transit Camp, Bloukerk, Masuphumzani/Ziphunzana, and Asazani settlements said they did not encounter problems with being exposed to the elements whilst using toilet facilities. Cubicles at these facilities were fully enclosed (Figure 4-8), except for relatively small openings for ventilation. Users and janitors did not report any concerns with the small openings allowed in the cubicles, but noted that the facilities were fairly dark when the doors were fully shut.

Figure 4-7: Residents in Zwelihle, BM Section and Masiphumelele said they often struggled with sand, rain and wind when using clustered flush toilets away from their home. Though an extreme example, these disused toilets in the fire-affected area of BM Section show how facilities such as these are often fully exposed to the elements and offer users/janitors little shelter during inclement conditions (Taing, January 2013).

Figure 4-8: A brick and mortar toilet block in Zwelihle's Transit Camp is raised to prevent the toilet cubicles from flooding (Vice, January 2013).

On the other hand, users of the BM ablution block rarely trouble with fumbling in the dark when the facilities were open because it has metal grid ceilings adjacent to the toilet cubicles always allowed for natural light (Figure 4-9). The ceilings were installed as so likely to address users' concerns with lighting, as well as to prevent after-hour access to the facility. But it also exposed to rain and wind when using facilities because the building. BM's ablution block janitors, in particular, frequently complained about the 'open' roof because the facilities were cold or deluged with water whenever it was stormy.

Figure 4-9: BM ablution block's metal grid ceilings allow for natural light (left), and rain and wind (right) (Taing, February and July 2013). A janitor cleans the ablution block facility in full rain gear on the right.

Aside from having shelter for users, adequate shelter for janitors who are meant to clean toilets that are fully exposed in inclement weather has not been considered by Overstrand or CoCT officials. In Zwelihle, BM Section and Masiphumelele it was observed that janitors continued their cleaning duties through drizzle or light rain as long as there were people using the toilets. When it was very hot or raining very hard the janitors typically found shelter in the closest shack, with some even returning home if they lived nearby. Most though made arrangements with people living close by. The Mayor's Project janitors in BM Section, for example, often crowded into the covered yard of a friend opposite the N2 toilets. One janitor at Masiphumzani/Ziphunzana was typically stationed in the spaza shop across from the toilets, which is where she also left her time sheet. It was also observed that janitors occasionally sought shelter in the cubicles of toilets that they cleaned. Noncedo at Bloukerk used to sit on a bucket inside one of the toilet cubicles, whereas some of the BM janitors sat directly on the seats of toilets until stormy spells passed.

Adequate shelter for sanitation services in informal settlements has to address the elemental concerns of both residents using the facilities, and the janitors now employed to clean them. In addition, integrated into the design of such toilets is how elements such as rain, wind and sand can be minimised, and how to balance these concerns with the need for light – whether natural or artificial.

4.3.3 Removal of greywater, solid waste & stormwater

Disposal of household wastewater and refuse was included in DWAF's (2001: 5) definition of a minimum acceptable level of sanitation in its *White Paper on Basic Household Sanitation*, but planning for and management of greywater and refuse was overlooked in the organisation's 2003 definition. As noted by Mjoli (2010: 107) and Taing et al. (2013), these two "important aspects of sanitation" should to be incorporated into DWAF's 2003 basic sanitation definition because many problems with sanitation services in informal settlements were linked to residents' improper disposal of greywater and solid waste.

For instance, CoCT has provided BM Section residents with gullies located in the drains of standpipes for disposing of greywater (Figure 4-10), and shipping containers located at the periphery of the settlement for removing solid waste. With regard to the latter, CoCT's Solid Waste Management department provided each household in BM Section with one plastic refuse bag per week. Residents were meant to take the bags, when full, to a solid waste shipping container. In exchange, a solid waste worker, who is contracted to keep the container clean and stationed at the facility during daytime hours on weekdays, is meant to give residents a new plastic bag for each full bag dispose of, and assist the municipal contractor in emptying the container once a week.

Figure 4-10: A woman dumps a bucket of greywater into a standpipe gully (left) and a solid waste container that is maintained by CoCT in BM Section (right) (Taing, April & February 2013).

In spite of the greywater drainage and solid waste measures CoCT officials had put into place in BM, there were still many issues where contents from buckets blocked drains and solid waste was disposed of in toilet cubicles of non-operational toilets (Figure 4-11).

Figure 4-11: The lack of drainage for household wastewater in BM Section often meant that residents dumped their buckets of night soil and greywater into gullies of communal standpipes (left), which is also where some collected their household water. Residents also disposed of refuse in toilet cubicles (right) (Taing, January 2013).

In addition, it was observed that both greywater and solid waste were disposed of in open spaces such as wetlands, in stormwater drains, or self-made drains (i.e. holes dug in sand near residents' homes) (Figure 4-12). The wetlands, in particular, tended to be the most popular alternative to CoCT's disposal points as they were widely referred to as *endyudywini*, which residents explained meant 'dirty places' in isiXhosa.

As noted in the TIPS report (Taing, Armitage, et al. 2013), part of the reason for the inappropriate disposal of greywater and solid waste in informal settlements such as BM Section is that it is easier for municipal officials to install and to service infrastructure at the periphery of settlements. These distances for disposing of waste, however, seem to be inconvenient for some residents, particularly those who live 5 to 20 minutes away from municipal infrastructure provided to drain or to remove rubbish in an informal settlement. Overstrand officials have redressed the latter issue they had with solid waste removal in Zwelihle's informal settlements by hiring residents as 'area cleaners' via a local contractor. It was also observed in BM Section that solid waste workers occasionally spent their shifts cleaning waste that was dumped in wetlands and other open areas, but the efforts seemed futile as rubbish continued to build up despite these measures.

Figure 4-12: The lack of infrastructure for drainage and refuse removal in BM Section often resulted in residents disposing of night soil and greywater buckets into (clockwise from top): (a/b) local waterways such as the Kuils river or wetlands, or (c) stormwater drains. In addition, it was observed that a number of (d) people dug "self-made drains" near their homes (Taing, February & March 2013).

As for greywater issues, there seemed to be no alternative municipal measures that have been put into practice in Hermanus or Cape Town for addressing this residential need. In addition to drainage for greywater, formal provisions for reducing flooding caused by stormwater needs also needs to be accounted for when providing municipal sanitation services. It was observed that Overstrand and CoCT officials have started to account for cubicle flooding caused by lack of stormwater drainage by building toilets onto cement platforms in which runoff is removed by stormwater drains. Residents in Zwelihle and BV Section (in BM Section) said that they preferred having toilets on raised platforms as it reduced the amount of water in cubicles. Janitors in BM Section also added that it is easier for them to clean.

Overstrand officials stated that they also raised all existing units so that stormwater can runoff into a drain, or into the local environment, rather than flood toilet cubicles. In Cape Town, however, such rehabilitation measures in Masiphumelele and BM Section has yet to take place. It was also observed that approximately half of the Masiphumelele Wetlands and TRA toilets, and a quarter of the N2 toilets in BM Section, were prone to flooding because they were situated in areas with naturally high water tables (Figure 4-13). Although officials knew that installing waterborne sewerage in wetlands is technically illogical, they were pressured to provide full-flush toilets due to demands made by residents who lived nearby and by CoCT's executive management. In other words, CoCT officials had understood that installing the desired toilets in areas with naturally high water tables made no technical sense, but they stated they did so in trying to meet the demands of the residents and their managers they were serving. It was observed, however, that no infrastructural mitigation was observed to account for building toilets in such flood-prone areas. Interviewed residents in Masiphumelele said that though they were happy that the municipality had provided them with flush toilets, they were often reluctant to walk through water that was shin-deep to use them. In addition, Masiphumelele residents and janitors also stated that such conditions posed a serious health and safety risk, especially for children attempting to use flooded toilets without adult supervision.

Figure 4-13: A (broken) toilet in Masiphumelele TRA that is situated in a marshy wetland (left). Some residents had attempted to reduce issues with stormwater flooding by adding cement platforms in front of toilets in Masiphumelele (centre) or raising the users above water by lining the bottom of water-logged cubicles with bricks (right) (Schroeder, May 2013 & Taing, June 2013).

Both residents and janitors in the Masiphumelele and BM Section have attempted to reduce the amount of stormwater in flood-prone toilets by adding concrete slabs to drain run-off, or using bricks and stones to raise users above water level (Figure 4-13). These efforts, however, were observed to be only intermediary measures, as flooding in toilets continued to plague both users

and janitors. In addition, these measures sometimes made toilets, or the area around the facilities, more difficult for janitors to clean because standing water (and mud) would pool around the units.

In addition, as indicated by the annual flooding of toilets in BM Section due to the re-surfacing of gravel roads (Figure 4-14); it is evident that uncoordinated infrastructure rehabilitation measures between CoCT departments continues to plague service delivery. The annual re-surfacing of the back road in BM Section (which runs parallel to the N2 highway) has resulted in the flush toilets next to it being lower than the road. WSISU is in the process of hiring a contractor to raise the toilets for this coming 2014. This has left residents and janitors to cope in the interim by digging ditches to drain the standing water in toilets and road depressions into the road reserve immediately behind the toilets.

In light of its close relationship to the functioning of toilets, the removal of greywater, solid water and stormwater in an informal settlement are critical points that need to be addressed holistically both in policy and in practice. Overlooking means for residents (and janitors) to remove greywater, solid waste and stormwater adequately has contributed to – and often times reinforced – poor sanitary practices in informal settlements. The division but lack of coordination of corresponding services across several CoCT departments was also highlighted as detrimentally affecting toilet services in BM Section, which often set-up municipal infrastructure to fail. It is thus necessary that disposal of all unwanted water and waste be holistically addressed by municipalities since separating interventions for these related concerns from water and toilet provision has proven to be illogical. National government can guide such a holistic approach by adapting its definitions of 'sanitation services' so that concerns for managing *all* wastewater and waste in informal settlements are incorporated into the standards that guide municipal practice.

4.3.4 Conclusion

The relationship between human behaviour and the natural and built environment was evident in the three informal settlement case studies as these issues affected how people use and care for facilities, or if they use the facilities at all. For instance, toilets situated away from residents' homes and heavily flooded cubicle conditions in BM Section and Masiphumelele Wetlands were seen to significantly hinder residential use of the facilities, as well as the janitors' and CoCT O&M teams' ability to service the flush toilets there. Given the likelihood that such cleaning services will continue to be rolled-out in Hermanus and Cape Town, it is important to consider layouts and spatial configurations from the perspectives of municipal officials and janitors responsible for servicing units, and from residents who are intended to use the facilities.

Figure 4-14: Clockwise from left to right): WSISU Officials said that CoCT's Roads and Stormwater raise the gravel road by the N2 toilets in BM Section annually, which has meant that over the years these toilets are at a lower level than the road, and (a) get flooded regularly due to stormwater runoff from the road, or (b) when the water from leaky cisterns pool (Taing, May 2013). Janitors reduced the amount of standing water in the units by (c) creating ditches that drained water, so that (d) users did not have to jump over pooled water or use waterlogged toilets (Taing, February 2013).

The design of the toilet shelter in Overstrand and CoCT also needs to incorporate aspects that accommodate for natural environmental factors that impede the experience or operations of sanitation facilities so that the built environment does not exacerbate the problems caused by naturally occurring events. Lastly, it is necessary that municipalities provide means to dispose of all unwanted water and waste as lack of infrastructure for these concerns was linked to residents' improper disposal of greywater and solid waste, and toilet units flooded with stormwater.

4.4 Municipal capacity problems & labour legislation challenges

Officials from Overstrand and CoCT have said they rely on private service providers to assist with maintenance of water and sanitation infrastructure in informal settlements because of incapacity. Such a practice, Theron (2013: 8) suggested, has been on the rise in the Western Cape in recent years. Miraftab (2004) and Theron & Visser (2010) similarly reported that all tiers of government across South Africa popularly address their capacity gaps by contracting private enterprises to provide public services. It seems that outsourcing models – such as public-private-partnerships or entrepreneurial franchising arrangements (Lagardien et al. 2009b; Wall et al. 2012; Wall & Ive 2013) – have particularly been popular in the sanitation sector because externalising these services is regarded as a win-win situation where both public and private parties mutually benefit from providing essential services. For example, Wall et al. (2012: 1, 9) argued that such alternatives like franchising can be viable "institutional options that could assist in the improvement of operation and maintenance" of public infrastructure, whilst also serving as an opportunity to develop small businesses and corresponding "responsible governance" regulatory measures such as quality control tools. Wall & Ive (2013) moreover argued that these public-private endeavours have the added benefit of creating permanent and temporary job opportunities.

Whilst improvements in service provision and job creation are undeniable achievements, there seems to be little consideration as to the possible social and institutional consequences that can occur (or have resulted) from outsourcing essential public functions to the private sector, and from developing work programmes that are primarily staffed by temporary labourers. Previous research studies, for instance, have already indicated that local governments' tendency to favour providing services with *non-standard*, *contingent*, *casual*, *precarious* or *temporary* workers (both directly and indirectly via private contractors) have eroded labour standards because these labourers are not protected by collective bargaining agreements (Miraftab 2004; Theron & Visser 2010; Hayter 2011; Theron & Perez 2012; Theron 2013: 6). Such a finding is alarming because it suggests that the majority of labourers who were employed in the report's case studies – as well as those mentioned in previously published WRC reports (Lagardien et al. 2009b; Wall & Ive 2013; Taing, Armitage, et al. 2013) – may have been deprived of certain workers' rights due to their being non-standard employees of:

1) Government authorities on fixed-term contracts;
2) Private enterprises, which only engaged personnel for the duration of their government contract; or

3) Private employment agencies (labour broker) that remunerated workers on behalf of their government client, and left day-to-day management of the labourers and decisions as to contract end dates up to government officials.

This section will briefly chronicle some purported advantages and disadvantages of using non-standard employment from the perspective of various municipal officials, municipal contractors, janitors and informal settlement residents involved in the report's case studies. Before doing so a brief discussion of what is non-standard employment and how its use erodes labour standards is presented.

4.4.1 Non-standard employment

Theron (2013: 1-2, 6) stated that "there is no generally accepted definition of non-standard employment", but it can be characterised as workers appointed on a part-time and/or fixed-term basis to perform work that does not take place at the standard workplace of an employer. A workplace has been defined (rather imprecisely) by national government as "the place or places where the employees of an employer work" (RSA 1995: 176–177). An example of a person from this study that would fit Theron's description of a non-standard worker is a janitor who is employed on a six-month contract and works in an informal settlement instead of a traditional municipal office.

Theron (2013: 6), in his review of municipal employment practices in the solid waste collection and health sectors, had deduced two major categories of non-standard work in public sector service provision: (1) "casual" workers employed directly on a part-time or temporary basis, and (2) workers employed indirectly through "contractors or intermediaries", which is also referred to as externalisation or outsourcing. Theron (2013: 11) noted that of the two, "[i]n the case of lesser skilled workers, the preference of the employer appears to be to externalise employment." The case studies presented in this report interestingly represented both of these non-standard work arrangements in Western Cape informal settlements:

i) Overstrand Municipality's externalised employment of janitors through a municipal sub-contractor (see Section 3.1.3);

ii) CoCT Municipality's direct casual employment of cleaning, supervisory and clerical staff on fixed-term EPWP contracts for the Mayor's Project (see Sections 3.6.2 & 3.6.3); and

iii) A hybrid externalised casual employment arrangement when the CoCT indirectly employed Community Workers and Mayor's Project supervisory/clerical staff on fixed-term contracts through labour brokers (see Sections 3.5.1 & 3.6.4).

It is significant to note that all of the above-mentioned temporarily or externally employed janitors are considered public service providers by the authors in this report. This is in support of an argument put forth by Theron (2013: 2-3) in that regardless of whether labourers who undertake regular on-the-ground work "for and on behalf of the local authority" should be considered public service workers regardless of whether they are directly or indirectly employed by a municipality. Clarifying what are non-standard public service workers is significant because, according to Theron

(2013), there apparently is a lack of labour standards in legislation for these arrangements despite its common use. Theron & Perez (2012: 10) explained that South Africa's "Constitution does provide that every person has the right to fair labour practices" such as minimum wages and basic work conditions. Theron (2013: 7) contended, however, that standard employment models – in which there is a direct permanent employment relationship between an employer and their employee – primarily inform the state's labour legislation, and that the protections outlined therefore do not adequately cover the labour rights of those that are in non-standard work relationships.

Dr Shane Godfrey (pers comm, 12 March 2014), a UCT researcher in labour market regulation, buttressed Theron's argument in noting that there is very limited regulation of non-standard work arrangements in current labour legislation. He said that this motivated a call to introduce amendments to provide greater protection for non-standard workers. The amendment process has however been tortuous; it started four to five years ago and the changes have only recently been passed by Parliament but have not yet been assented to by the President. Dr Godfrey stated that a major repercussion of the slow amendment process is that the necessary regulation is "in limbo as people wait for amendments to be finalised."

The data presented in the following section does suggest that gaps in national legislation have been challenging to overcome in externalised and/or casualised municipal janitorial services. What follows is a summary of the reported advantages and disadvantages of non-standard external or casual service provision from the perspectives of municipal officials, municipal sub-contractors and informal settlement residents who use services and are employed as janitors.

4.4.2 Externalising service provision

Discussed in this section are the reported advantages and disadvantages of two outsourced informal settlement sanitation-cleansing services in Hermanus and Cape Town. The first example is of Overstrand Municipality's day-to-day janitorial service for toilets in Zwelihle informal settlement to a local Zwelihle resident, which is described in detail in Section 3.1.3.1. Major lessons learnt from a labour dispute between a CoCT private contractor and its formers workers are then presented. The data for the latter example was drawn from one of the researchers' (Ms Taing's) student research on emptying services for non-sewered facilities by a municipal contractor as the sanitation technology the research team focused upon for the WRC study was waterborne toilets.

The janitorial services in Zwelihle at the time field research was undertaken seemed to be satisfactory to all parties involved, including residents who used the facilities. The managing municipal official and employed janitors also implied that utilising a local contractor and sub-contractor proved advantageous because they tended to be hands-on and responsive managers, with the latter monitoring the day-to-day operations of the service regularly. Moreover, it seems that procurement and hiring practices were not constrained by municipal bureaucracy and red tape as the sub-contractor dealt with these matters independent from the municipal HR and procurement systems. Lastly, as noted by the managing municipal official, contracting to a Zwelihle resident builds the capacity of a local entrepreneur and promotes small business development.

A major disadvantage of Zwelihle's sub-contractor arrangement, however, was that the janitors' employment conditions seemingly did not align with national labour legislation

requirements. For instance, what workers reported as their daily payment seemed well below the state's minimum wages and their compensation did not include overtime (see Section 3.1.3.2). The janitors, who seemingly worked full-time, likewise did not receive benefits such as paid leave or any protective clothing aside from gloves from the sub-contractor. An Overstrand official, when asked about their obligations for municipal contractors abiding by national labour regulations, explained that the municipality could not control the service provider's administration and management system. Such a statement from the Overstrand official was shocking, and, if true, highlights a significant gap in labour legislation that has especially constrained the realisation of externalised labourers' rights who are working in the public sector.

When asked by the research team about local government's regulation of municipal contractors, Dr Godfrey (pers comm, 14 March 2014) indicated that all employers are meant to comply with labour legislation unless specifically excluded. He added that municipalities should stipulate that their private contractors abide by labour legislation in their advertised tenders and contracts, but they have "no obligation to enforce compliance" as contractors legally are "independent" entities. This view supports the Overstrand official's above statement. He added that large retailers in the northern hemisphere have been compelled through threats of "reputational damage" or "consumer boycotts" to: (1) create codes of conduct for their private contractors that relate certain labour standards, and (2) that they then are expected to audit their private contractors. Dr Godfrey noted that, in the absence of legal compulsion, the application of political pressure has been effective in having "lead firms take responsibility or to be held accountable for transgressions of supplying firms", but there has been very little of this pressure for lead firm accountability within developing countries in the Southern Hemisphere.

Although there outwardly has not been compulsion on Overstrand officials to regulate the institution's contractor-worker legislative compliance, mounting pressure to fulfil their constitutional obligations appears to have motivated CoCT's Water and Sanitation Department intervention in a contractor-worker wage dispute after "a small number of disgruntled striking workers and a few community members" barred a municipal contractor from entering certain areas for the purpose of interrupting municipal emptying services of non-sewered toilets (CoCT 2013a). CoCT (2013a) thereafter "engaged the service provider, Sannicare CC, and the Ward Councillors of affected communities" during the protracted boycott, and officials reported that they provided emptying services in the interim with both permanently employed and temporarily employed staff. The dispute later escalated into a number of high-profile protests that included the shutdown of the N2 highway near Cape Town International Airport for five hours during rush hour on a weekday (SAPA 2013b; Felix 2013; SABC 2013), and violent confrontations between protestors and municipal staff that persuaded the city to cease its interim emptying services (Lewis 2013a; Lewis 2013c; de Lille 2013b).

Figure 4-15: Workers clean a road full of human faeces and burning tyres on the N2 highway after a protracted labour dispute between a municipal contractor and its dismissed workers led to a disruptive five-hour protest on the national highway during rush hour traffic on a weekday. (The above photo by Lulekwa Mbadamane was published in SAPA 2013a).

A major outcome of the Sannicare labour debacle was that – in spite of the Mayor's acknowledgment that "the City cannot directly intervene in this dispute" (de Lille 2013b) likely due to labour legislation gaps – CoCT was still expected to mediate between its contractor and their labourers by the aggrieved workers, political representatives and informal settlement residents. In addition, in spite of outsourcing responsibilities, the municipality was held accountable to ensure that emptying services continued on-the-ground regardless of the strike. WSISU officials responsible for contract administration moreover stated that the labour dispute prompted them to re-evaluate what role they could undertake to ensure that appointed suppliers abide by labour laws such as minimum wage requisites. Such actions and statements from CoCT officials suggests that political pressure to fulfil their servicing obligations to informal settlement residents have influenced an already under-capacitated and over-stressed CoCT to also play mediator between its private contractors and its employees.

Lastly, follow-up research visits to Zwelihle in November and December 2013 raised more disadvantages that can potentially occur when a municipality transitions between different external service providers. As mentioned in Section 3.1.2, a new service provider replaced the contractor and sub-contractor that were interviewed and observed during the fieldwork period of this study on 1 September 2013. The field researcher (Ms Vice) noted in her follow-up visits that the toilet facilities

in Zwelihle were not as cleanly as before and that most – if not all – of the janitors she had previously interviewed having been replaced. In addition, the hands-on sub-contractor described in this report was no longer involved in municipal service provision and spent his days working as a temporary construction labourer. The former janitors' and sub-contractor's lack of regular employment reveals how vulnerable they were after the latter's contract expired, which is a telling social consequence after a public-private collaboration has ended. The reality of inconsistent service delivery due to contractor changes and job insecurity for externalised workers and sub-contractors bears the question of what long-term benefits did residents, janitors and municipal service providers actually gain when Overstrand Municipality externalised its municipal services on a number of fixed-term contracts.

The lessons learnt from the Overstrand externalisation example reveals that whilst there are benefits to developing the capacity of small businesses and entrepreneurs as municipal contractors, this may dearly cost workers employed by said municipal suppliers as it seems that janitors employed by the Overstrand sub-contractor had certain labour rights violated. In addition, the Overstrand example also highlighted how municipalities have no legal recourse for compelling its private contractors to comply with state labour legislation. The CoCT example, moreover, demonstrates how their constitutional obligations and political pressure has compelled the municipal authority to mediate contractor-worker disagreements for the purpose of providing necessary public services. Finally, follow-up visits to Zwelihle highlighted how turnover of externalised providers is linked to job insecurity and resulted in inconsistent janitorial services on-the-ground, which is a programmatic risk that needs to be considered when essential public services are outsourced.

4.4.3 Casual workers

The data from the CoCT case studies suggests that broadly stated labour legislation might also be at the root of fiscal and administrative problems that officials have encountered in their set-up and implementation of municipal janitorial services, which are primarily staffed by casual workers. One such problem was the Community Workers' conversion from indirect casual appointment through municipal labour brokers to direct and permanent employment as municipal staff (see Section 3.5.1). Given CoCT's fraught contracting experience in this situation, WSISU officials stated that thereafter they were not allowed to hire temporary labourers on contracts longer than six months, and that all casual labourers could only be re-hired after a three- to six-month 'cooling off period'. A Water and Sanitation HR official explained that these precautionary measures were put in place because the municipality did "not want to create the expectation of permanent jobs."

Yet, even after these contracting debacles Water and Sanitation officials still seemed confused as to how they could legally protect the municipality from having casual workers convert their fixed-term contracts into permanent employment. For example, a Water and Sanitation HR official especially expressed interest in understanding "what does it say in the law" regarding the possible conversion of EPWP workers from fixed-term to permanent contracts. He added that this topic was of particular interest to a number of government officials who attended a national EPWP workshop in 2013 and that they were told then by state policymakers that they were undertaking measures to

make sure that EPWP workers would be exempt from converting their contracts into permanent posts so that municipalities could employ EPWP workers for more than one year. The statements suggest that government implementers and policymakers are aware of the lack of state guidance and regulation of casual fixed-term work arrangements, and that both parties are grappling with the resulting ambiguous legal boundary.

In spite of this legal limbo, CoCT officials stressed that they had no choice but to continue using temporary work staff to sustain their water and sanitation informal settlement programmes due to having limited funding for permanent personnel and the state and municipal trends of supporting casual workers through short-term job creation programmes such as EPWP (CoCT 2013c; de Lille 2012a; Jones 2014). Theron (2013: 13) noted that state and local governments tended to hire casual workers because the "fiscal implications" of employing more staff under "existing collective agreement[s]" from labour unions would be inordinately massive for these authorities. WSISU officials understood the reasons for not employing staff permanently, but they nevertheless were fatigued from managing the constant turnover of much-needed casual staff, and stated that they consequently suffered from administrative headaches whilst services were disrupted on-the-ground (see Section 3.6.4).

The use of temporarily appointed Mayor's Project janitors alongside permanently employed janitors in informal settlements was also observed as a point of contention between the two parties, which affected how the two groups interacted as the workers from the two programmes did not always collaborate. WSISU officials had previously stated their concerns about implementing two different types of janitorial services for full-flush toilets in informal settlements when the Mayor's Project was first initiated. One official, in particular, highlighted his trepidation that some workers would become upset that they were doing the same work for considerably less pay and benefits. Miraftab (2004) and Theron (2013: 11) similarly expressed concerns of the erosion of labour standards due to local government's reliance on private contractors in municipal solid waste collection programmes because workers employed by the government and private contractors to do "equivalent work are not being treated alike." Theron (2013: 11-12) explained that there is a "substantial difference" between what a contract worker earns in salary and "social wages" (like medical and retirement benefits) compared to a municipal employee doing the similar work was due to the former not being "represented or covered by the local government collective agreements" related to remuneration. In recognition of this double standard, WSISU officials reported that they intended to discontinue the Community Workers janitorial programme and change the responsibilities of the affected permanent staff by assigning them monitoring tasks instead of cleaning duties. This then also demonstrates how municipal authorities are expected to enact fair labour practices between temporary and permanent workers so as to ensure that services are not affected (or can be improved) on-the-ground.

4.4.4 Conclusion

This section presents evidence of there being a grey area between legal policy and everyday practice in instances where Overstrand and CoCT Municipalities directly and/or indirectly employed non-standard workers. Based on data from the case studies, the use of externalised and/or casualised

workers tended to be the preferred labour arrangement for municipal janitorial services. The data from these programmes suggests that there can be benefits from externalising service provision to private contractors or employing casual labourers for a fixed-time, but the longevity of these benefits are undermined by contractor and staff turnovers which have affected the quality of on-the-ground services and added administrative complications and fiscal implications for already over-stressed municipalities. Externalised work arrangements in the public sector have also highlighted a critical gap in legislation related to a government authority's inability to enforce or manage labour standards compliance between contractors and workers. The Cape Town Sannicare example further shows that authorities are held accountable for service provision regardless of whether they outsourced these functions, and that they are expected to mediate when necessary in contractor-labour disputes.

The discussion presented in this section suggests that the use of non-standard workers for municipal janitorial services in Overstrand and CoCT has been problematic for municipal officials, private contractors, workers and informal settlement residents. Overcoming gaps in labour legislation for non-standard workers has been particularly challenging for municipal authorities and labourers. This problem is not specific to the Western Cape, as an eThekwini Water Services official has similarly reported problems with labour legislation related to EPWP projects. The data has revealed unexpected social, institutional, fiscal and legal implications resulting from local governments' indirect and direct employment of non-standard labourers, which suggests the need for serious consideration as to the costs and benefits of using non-permanent municipal staff to provide essential public services.

5. Summary of key constraints & findings

This chapter summarises the research data presented in chapters 3 and 4 as findings and analyses in relation to social and institutional constraints in providing and maintaining full-flush toilets in informal settlements. The research has focused on residents', janitorial staff's and municipal officials' perspectives. We have through a range of ethnographic research methods attempted to understand the breadth and spectrum of social and institutional realities that shape the state of sanitation service provision in informal settlements. Whilst many of the circumstances and concerns uncovered point to constraints, or challenges, we also discuss and analyse the many successes and positives. The objective in being critical however – and writing a report specifically on the constraints to janitorial services – is that these services would advance by better comprehending what and how they are constrained. Each perspective is presented in the following sections, leading up to the key research findings.

5.1 Residents' constraints

i) Access problems to sanitation facilities related to security, privacy, health and natural/built environment concerns, for example:

- Residents reported they were compelled to use buckets in their homes or urinate/defecate in open areas because of the distance of toilets from their houses & related safety concerns, particularly in the evenings
- Limited means to dispose of household and human waste commonly resulted in waste disposal that negatively impacted the natural/built environments, such as dumping of waste in wetlands, toilets etc.

ii) Expressions of 'ownership' of and/or 'responsibility' for municipally provided facilities are undermined by:

- Difficulty in participating in policymaking and implementation of informal settlement sanitation services due to limiting circumstances, for example:
- Day-to-day socio-economic constraints such as finding paid work
- Caring for dependents
- Non-representative &/or inflexible 'official' participatory processes
- Having to accept servicing outcomes that tend to prioritize municipal authorities' obligations/limitations over residential demands/needs (e.g. residents are obliged to share toilets situated away from their homes with multiple households, instead of 1 toilet per household)

5.2 Janitors' constraints

i) Notions of what constitutes 'dignified', 'secure' and 'safe' employment/working conditions affected their performance

ii) Fear of working following intimidation/abuse from users & other janitors for their being both 'residents' and 'city' representatives, especially during periods of unrest

iii) Capacity to clean toilets affected by service providers' constraints (e.g. slow repairs/maintenance, procurement problems)

BM & Masiphumelele (CoCT informal settlements) janitors were:

i) Hindered by municipal interventions or lack of provision & residents' practices (e.g. lock/key system, improper disposal of wastewater buckets)

ii) Obliged to undertake tasks not included in their work schedule (e.g. clearing rubbish & overgrowth around toilets, storing supplies in their homes)

iii) Frustrated and consequently demoralised by a lack of municipal support to address recurring problems (e.g. procurement problems, HR for employment concerns, skilled mediators between janitors & users)

5.3 Officials' constraints

i) Legal obligation to rapidly provide free basic services, regardless of on-the-ground circumstances

ii) Lack of resources/capacity, whilst also having to adhere to municipal policies and comply with national legislation

iii) Having simultaneously to address multiple imperatives (e.g. political, residents' demands, economic, environment, health, security etc.) whilst coordinating sanitation service provision

iv) Tension between providing/managing a standardised service vs. site-specific and/or people-specific services

v) Difficulty estimating future O&M costs for sanitation services and in securing annualised budgets for long-term needs

vi) Inflexible institutional processes that slow (or impede) service delivery to informal settlements

vii) CoCT: Fear of going into informal settlements following intimidation/abuse from users/janitors for their being 'official city representatives' to 'the community', esp. during periods of unrest

5.4 Key findings

The research indicates that all role-players involved in using and/or providing informal settlement municipally provided sanitation services:

i) Experience health & safety risks which led to their being fearful and which affected their access (i.e. having the right to enter, get near, or make use of something) to toilets/sites.

ii) Experience difficulty reliably coordinating the various interests/processes associated with cleaning/managing sanitation services.

iii) Have diverse & thus different expectations of what constitutes a free basic sanitation service, and of what should comprise the associated responsibilities of users & of various kinds of service providers.

iv) Influence municipal policy through practice.

Implementation considerations:

i) Lack of guidance from national policymakers when providing services for informal settlements.

ii) Municipal incapacity and inflexible institutional processes impede effective service delivery.

iii) Residents' alternative sanitation practices negate the aims of the state's free basic sanitation strategy.

iv) Officials tended to set-up, in preference, centrally administered and standardised systems, whilst janitors and residents preferred to have initiatives that were tailored especially to their particular situations.

v) Municipal authorities and contracted workers (e.g. service providers and janitors) are held legally accountable/responsible for delegated tasks, whereas resident users cannot be legally bound to fulfil O&M responsibilities.

vi) 'Public' janitorial services are generally more effective/reliable than 'community' systems in informal settlements because:

- Officials and residents had similar expectations of who could access the facilities and who is responsible for the services.
- Despite being under-resourced, municipalities seemed better equipped than residents to manage cleaning services.

The present report shows what national policymakers and municipal officials have missed by their having focused primarily on the top-down concerns and objectives highlighted in state policy. In establishing janitorial services, municipalities such as Overstrand and City of Cape Town, but also eThekwini, have set a precedent in rendering local government responsible for all O&M tasks and costs incurred when providing publicly accessible free basic sanitation facilities in informal settlements. That these publicly funded and supported janitorial services have been created and have proven to be needed also demonstrates that, in assuming that users would maintain and clean facilities provided in their residential areas, national authorities have misjudged the extent that such users would reasonably contribute to O&M tasks. It also indicates that they have overlooked critical aspects of local government's administrative and financial needs, particularly in the former's conceptualisation of the Free Basic Services' sanitation component. The data presented above are

evidence of a disjuncture between the state's top-down policies that dictate municipal practice, and the on-the-ground reality in informal settlements. It thereby suggests that sanitation policy at both national and local government levels needs to be rethought to meet ordinary users' and municipal implementers' needs. What the relatively recent institutionalisation of janitorial services for municipal toilets in informal settlements shows is that municipal officials have to adapt their local minimum free basic sanitation policies – which were largely informed by national government's standards – in ways that were not originally considered by policymakers. This occurred through the input of elected municipal level officials and of senior (executive) municipal management who then issued directives. Similarly, advocacy and pressure from civil society groups has produced adaptations to national policy in its implementation at local government level. A further influence that has led to adaptations in practice of national policy has come from the expressed needs of those responsible for implementing service provision (e.g. junior-level municipal officials, contractors, janitors, etc.) whose concerns have arisen from their experiences on the ground and from their observations of users' practices.

The above points illustrate, as renowned anthropologist David Mosse (2005) has previously argued, that on-the-ground developers' practices – such as those of municipal officials – and their interactions with, and what they learn from, their target populations in the course of their engaging in development interventions have the capacity to lead to policy change that can accommodate those on-the-ground practices. This finding suggests that, like municipal policy adaptations, national discourse can similarly be adjusted through dialogues and interactions with users and with persons who are directly engaged in providing sanitation facilities and services in informal settlements as well as with those directing sanitation measures from municipal offices.

6. Conclusions & recommendations

The use of ethnography was selected as a research approach for investigating bottom-up concerns related to sanitation provision in informal settlements. The following has been shown through the presentation of often contrasting perspectives on such services:

iv) All too often, what policymakers and designers of sanitation services imagine is appropriate – in terms of technology and resource availability – is considered socially and culturally unacceptable and inappropriate by users and those tasked with caring for such facilities (e.g. on-the-ground residents, janitors and their immediate supervisors, or local authority officials responsible for their operation and maintenance).

v) There is a diversity of everyday sanitation experiences in urban informal settlements, information about which is presently not being drawn upon by those who design sanitation facilities and their operation and maintenance procedures. It is suggested that such design processes should take cognisance of those diverse experiences and should become iterative processes that take serious account of all stakeholder concerns and are flexible enough to accommodate changing demands over even short periods of time.

Among the necessary reasons to stress these points is that the trajectory of sanitation provision in South Africa, as also that of housing over the last sixty-five years, reflects far more continuity of a national commitment to top-down technological and social engineering approaches than it does to change. Repeated uncritical adoption of these approaches reinforces top-down institutional policies and interventions that take little real cognisance of ordinary people's perspectives and concerns which themselves derive from the experiences, particularly, of users and on-the-ground municipal workers in urban informal settlements.

By considering the various and often quite different perspectives of national policymakers, municipal officials and informal settlement residents, the report reveals a range of problems that suggest an urgent need to reform the sanitation component of the South African Free Basic Services policy in order to take account of the competing rationalities at work in sanitation planning and provision, and of the diversity of these rationalities or perspectives. That is because that diversity of perspectives is as much a fundamental constraint on introducing and implementing sanitation as are technical concerns; indeed it may possibly be even more of a fundamental constraint. Understanding the underlying factors of this facet of what constrains introducing and implementing sanitation in informal settlements is, moreover, necessarily central to any attempt to encourage a sense of shared responsibilities for public amenities and shared resources.

Lastly, a particular concern of this report has been to explain some reasons that janitorial services for municipally provided toilets in informal settlements are needed. Yet achieving that goal will likely have significant consequences for municipalities that are already struggling to provide free basic toilet facilities. This report has indicated that extant municipal janitorial programmes have been hamstrung by various institutional, fiscal and legal challenges, and that municipalities are expected by their national government counterparts as well as by those employed as janitors to uphold principles that are outlined in labour legislation. This is the case even though there are major

gaps in national labour legislation for what labour researchers have described as non-standard work arrangements. This applies labour legislation as it affects all employees doing non-standard work, whether they are directly employed by a municipality, indirectly employed through a labour broker (temporary work employment agency) or part of a contractor's work force. Based on a review of relevant literature and difficulties that municipal officials, contractors and residents themselves have reportedly experienced, the report concludes that any municipal labour-employment decision made to provide janitorial services is, and will continue to be fraught as a consequence of the complex nature of labour legislation that governs employment relations between informal settlement residents, municipal contractors and the contracting municipality – a complexity that is not readily provided for in existing national legislation. What this suggests is that the problems that might be addressed through attempts to employ labourers for janitorial service programmes may turn out to be 'wicked problems' in the sense that any immediately created 'solution' will likely create another set of problems or challenges.

Following are some bottom-up focused political and practical recommendations that might contribute, if implemented, to long-term provision and management of free basic sanitation services in South African urban informal settlements. The chapter then turns to a brief discussion on the value of using an ethnographic approach for this study, and closes with some possible topics for further research.

6.1 Using lived experiences to inform servicing

The report's findings show that an assumption of residents' lack of hygiene education and awareness misdiagnoses the primary sanitation problems plaguing people daily in informal settlements. Assuming that unclean environments in informal settlements are caused by residents' lack of personal hygiene leads to a top-down approach to introduce initiatives to "educate" those people and make them aware of "good" practices. Such an assumption effectively lays blame on residents rather than seeking to understand the structural contextual constraints on their lives, constraints which include inadequate servicing of informal settlements (Taing, Armitage, et al. 2013). That there are: too few toilets situated away from residents' homes and providing inadequate means to dispose of night soil, greywater and solid waste; and that infrastructural functionality is not sustained through responsive and preventative O&M measures are circumstances that influence residents' adoption of unsanitary practices. Such circumstances, and people's interactions with those circumstances, impact significantly on their and others' decision making and behaviour. They also point to a need to provide, alongside janitorial services, additional infrastructure and systems enabling safe removal of all human organic and inorganic waste. To achieve such goals, a constructive bottom-up informal settlements sanitation initiative would go beyond patronising residents through social engineering campaigns. It would require regular and well facilitated dialogue between users and services providers at all levels, dialogue that aims realistically to address the daily circumstances and difficulties that both residents and municipal officials experience with using and sustaining informal settlement sanitation services.

6.2 Financing skilled expertise, multi-disciplinary managers and support staff

One of the report's findings is that implementation of a functional free basic sanitation service in informal settlements requires establishment of municipal janitorial services. It also shows that, to do that, local governments require national government funding for more than just capital infrastructure and off-site O&M costs. Funding is also required for on-site O&M costs, building and maintaining human resource capacity for creating local site-specific plans, and for local government officials to administer their Free Basic Services operations. In other words, what needs to be avoided is regarding provision for such policy, planning and operational responsibilities as an indirect rather than a direct and essential cost of sanitation delivery.

Another finding of the report is that it is misplaced to depend exclusively on technical professionals, with engineering or urban planning backgrounds, to achieve the goals of providing sustainable sanitation services in informal settlements. While such skills are undoubtedly necessary for providing services in challenging contexts such as informal settlements, the dominance of such personnel seems to have resulted in repeated adoption of technology driven approaches which fail to recognise social, cultural and institutional constraints. Arguably that is one reason that the challenge of servicing urban informal settlements remains unresolved and why trained social facilitators and policy analysts are needed to work hand-in-hand with technical personnel in South Africa's urban infrastructure sector. Important too is to recognise that these are specialist fields not readily serviced by just anyone. Simply because all people, technologists included, live amongst others and have to deal with social, cultural and institutional circumstances does not mean they have the capacity or training to analyse historical and contemporary socio-political phenomena critically or to draw on those analyses to rework policy, to redesign plans and to engage with service users, implementers, planners and policymakers alike so that they in turn can understand and come to accept that producing interventions and adapting them to particular local socio-cultural and socio-political conditions is necessarily an iterative process that occurs over extended periods of time. Just as one would not employ a political analyst to design a reticulation network, one cannot expect technically trained personnel to engage in social-cultural analysis and to work on the ground with service users, implementers, planners and policy makers. As noted by Funke et al. (2014: 34), combining social science and political approaches with current technical methods can potentially steer water-sector officials "away from the practice of propagating buzzword concepts or panaceas."

In addition, the findings of this report suggest, personnel who are familiar with managing multi-disciplinary teams are also needed: in this instance to help integrate various perspectives and to mix and match diverse sector tools in order to address the "disparity between the different disciplines" (Parry-Jones, 1999: 3).

A further recommendation is that municipal officials responsible for free basic sanitation require supporting programme and administrative staff – service monitors, data collectors, logisticians and human resource administrators (if necessary outsourced) – to sustain services provided to informal settlements. Ideally, particularly for larger municipalities, such support staff should be employed permanently to ensure their continued familiarity with the established systems and processes unique to each institution and so as not to interrupt service provision on the ground.

6.3 Establishing a *Free Basic Public Services* standard

The data gathered in this study support previous research findings that there is a lack of practical guidance for providing public toilets (that is toilets shared by residents of more than one household) in dense urban informal settlements (Mjoli & Bhagwan 2008; Mjoli 2010). This gap suggests an implicit neglect of or lack of concern with the sanitation challenges within urban contexts. Moreover, as various municipal officials complained, DWAF's (2001, 2003, 2008) focus on providing for rural dwellings resulted in its basing national standards of household sanitation provision on sparsely populated rural contexts. While this is understandable, given the radical underdevelopment of most South African rural areas during the apartheid era, it is crucial now that the national government develops and adopts a *free basic public service* definition for toilets shared by multiple households in urban informal settlements. A consequent recommendation is that a bottom-up perspective – based on the experience of those who use, clean and manage free basic toilets on a day-to-day basis – should inform the conceptualisation of this new standard, and that it not be written as if in stone but rather that it is flexible enough to permit a wide range of local adaptations that, as they are developed, inform the standards, the writers of those standards and those who advise them, as well as those who draw upon the standards. Given the kinds of digital technology now available for dissemination of such standards, and of policy, a further recommendation is that all such standards and policy be not only recorded digitally for ease of access, but also that the institutions that produce such standards be required frequently to update them in light of experience from around the country. This could be a function of a dedicated WRC research and development task team.

It is significant to note that the writers of the DWAF (2003: 46) *Strategic Framework* had, in 2003, stated that their "definitions will be revised in the [sic] future once greater progress has been made in addressing the existing backlog in services provision". Given that over a decade has passed since the *Strategic Framework for Water Services* was published, it seems to be a propitious time to review and amend these national standards so that they reflect the diverse and complex realities of contemporary South Africa. Further, it is recommended that provision be made for those standards to be reviewed and reformulated on an on-going basis, and that, as they are amended, their content is advertised and made accessible to local government officials so that they in turn can both draw upon and comment on them in light of their experiences in attempting to implement them. In so doing this will help guide the further reformulation of the standards in a thoroughly iterative process that recognises the expertise of all those that have a direct interest in ensuring that the standards are useful for their own practice.

6.4 Value of ethnographic approach

The use of ethnography in this study was a useful approach for investigating bottom-up concerns about the sanitation component of the Free Basic Services policy in the Western Cape. Ethnography is a qualitative research method of gathering and understanding empirical data on human practices and beliefs. Researchers purposefully engaged with the research participants, environment, social issues that were related in some way or another to the research question. It required a real personal

investment by the researchers into the day-to-day lives of those that are informing the research and therefore the researchers were able to create their own perceptions of this reality. Why is this valuable? Because the different methods used, be it drama, photography, conversation were not carried out in isolation. The data these methods generated were viewed in relation to one another, as well as through the lens of the researchers, producing a particular understanding of daily life. Although certain scientists may see it as a weakness of the discipline, there is value in subjectivity, the researchers' perceptions of the realities they are exploring, because it is when these perceptions are challenged that more is learned about the grey areas and contradictions that thread through the social issues/problems.

And, instead of taking a top-down objective of moulding people to fit free basic sanitation criteria, the ethnographic perspective helped the research team understand the specific social and institutional constraints that many informal settlement residents and municipal officials face on a daily basis, and appreciate how they continually reshaped the municipal interpretation of the state's Free Basic Services policy through their everyday practices and interactions. Such a perspective allowed the research team to learn from the users, cleaners and managers of sanitation services in informal settlements, and through this interaction broaden understandings of topical terms in the national sanitation debate, such as the meaning of access to toilets from different perspectives. The study therefore was not to explore the necessity for, or value of, change in the 'researched'.

6.5 Practical next step & further research

This report aims, in part, to understand how to address the complexity of delivering and maintaining sanitation services in urban informal areas through bottom-up perspectives. A practical next step is for municipal policymakers and implementation officials to be aware of how informal settlement residents' experiences of living and coping in an area with limited infrastructure affects their behaviour. Such an attitudinal change at a municipal level may result in new forms of collaboration with users of free basic services. And, in light of the complexity of managing public sanitation services in informal settlements, future studies could attempt to:

- Unbundle the relationship between everyday practices and public policy creation further, for the purpose of potentially merging bottom-up perspectives with top-down design;
- Assess the full capital, operating and management costs for administering and sustaining state-mandated Free Basic Service initiatives, and document how municipal authorities are funding their supposedly 'direct' and 'indirect' informal settlement sanitation costs;
- Document the various state labour compliance problems that municipal authorities have struggled with, particularly when employing informal settlement residents and when using the state-supported Expanded Public Works Programme; and
- Understand what are the diverse individual social, economic and political benefits and consequences that informal settlement residents experience from temporary and/or permanent municipal work schemes.

7. References

Abbott, J., 2002. A method-based planning framework for informal settlement upgrading. Habitat International, 26, pp. 303–15.

Allison, M., 2000. Environmental health and sanitation explored through a framework of governance: A case study of informal settlements in South Africa. Urban Forum, (1998).

Armitage, N.P., Winter, K., Kruger, E. & Spiegel, A., 2009. Community-focused greywater management in two informal settlements in South Africa. Water Science & Technology, 59(12), pp.2341–50.

Armitage, N., Beauclair, R., Ashipala, N. & Spiegel, A., 2010. Draining the shantytowns ; Lessons from Kosovo informal settlement, Cape Town, South Africa. In NOVATECH International Conference, 28-30 June 2010. Lyon: NOVATECH, pp. 1–9.

Ashipala, N. & Armitage, N.P., 2011. Impediments to the adoption of alternative sewerage in South African urban informal settlements. IWA Water and Technology.

ASNA, 2004. Ethical guidelines and principles of conduct for Anthropologists, Cape Town.

Bailey, R., 2003. Designing a welfare maximising water tariff for Durban with Ramsey Pricing Principles. University of Natal.

BBC, 2010. Shedding light on Cape Town theft. BBC, 2010.

Berg, I. van den & Slabbert, S., 2012. Ethnographic research methods to better understand household water practices (Report No. 1990/1/12), WRC: Pretoria.

Bernard, H.R., 1995. Research Methods in Anthropology: Qualitative and Quantitative Approaches, London: Altamira Press.

Bliss, F. & Neumann, S., 2008. Participation in International Development Discourse and Practice: “State of the Art” and Challenges, Essen, Germany.

Bloor, M. & Wood, M., 2006. Keywords in Qualitative Methods, London: Sage Publications, Inc.

Bond, P., Dor, G. & Ruiters, G., 2000. Transformation in infrastructure policy: From apartheid to democracy, Durban.

Boughey, P., 2013. Street lighting in Khayelitsha : A reply to the SJC, Cape Town.

Bray, R., Gooskens, I., Kahn, L., Moses, S. & Seekings, J., 2010. Growing up in the new South Africa: childhood adolescence in post-apartheid South Africa, Cape Town: HSRC Press.

Cairncross, S., 2004. The case for marketing sanitation, The World Bank.

Calderwood, D.M., 1953. Native Housing in South Africa. The University of the Witwatersrand thesis.

Cape Argus, 2013a. 3 dead, 4000 homeless after New Year blazes. Cape Town: IOL News.

Cape Argus, 2013b. Six Cape Town streets renamed. IOL News. Available at: www.iolproperty.co.za/roller/news/entry/six_cape_town_streets_renamed.

Cape Times, 2013. The Facts. Cape Times.

Charlton, S. & Kihato, C., 2006. Reaching the poor? An analysis of the influences on the evolution of South Africa's housing programme. In U. Pillay, R. Tomlinson, & J. du Toit, eds. Democracy and Delivery: Urban policy in South Africa. Cape Town, pp. 252–82.

Clifford, J., 1988. The Predicament of Culture: Twentieth-Century Ethnography, Cambridge: Harvard University Press.

CoCT, 2002. GIS polygons of buildings in informal settlements, City of Cape Town.

CoCT, 2003. GIS polygons of rooftop structures in informal settlements, City of Cape Town.

CoCT, 2006. Internal memorandum to HR Department: Request approval to appoint 100 community workers in informal settlements, City of Cape Town.

CoCT, 2008a. City installs 420 flush toilets in Khayelitsha's BM settlement. Available at: http://www.capetown.gov.za/en/MediaReleases/Pages/Cityinstalls420flushtoiletsinKhayelitshasBMsettlement.aspx Page.

CoCT, 2008b. Water and sanitation service standard (Preliminary draft 2), City of Cape Town.

CoCT, 2008c. Water Services Development Plan for City of Cape Town 2008/09 - 2012/13, City of Cape Town and Amanzi Obom Consulting.

CoCT, 2009. Water Services Development Plan for 2010/11 - 2013/14 (Final Report, as of December 2009), City of Cape Town.

CoCT, 2010b. ISIS Glossary. Integrated Spatial Information System, City of Cape Town. Available at: http://cityweb.capetown.gov.za/en/isis/pages/glossary.aspx [Accessed April 28, 2010].

CoCT, 2012. Toilet solution in the pipeline. Mail & Guardian. Available at: http://mg.co.za/article/2012-10-26-toilet-solution-in-the-pipeline [Accessed November 20, 2012].

CoCT, 2013a. City providing interim servicing of container toilets (Media release: 19 April), City of Cape Town. Available at: www.capetown.gov.za/en/MediaReleases/Pages/Cityprovidinginterimservicingofcontainertoilets.aspx.

CoCT, 2010a. City's Information Systems and Technology Department awarded for innovation. Achievements and awards, City of Cape Town. Available at: www.capetown.gov.za/en/achievementsandawards/Pages/CitysISsandTDepartmentawardedforinnovation.aspx [Accessed November 30, 2013].

CoCT, 2013b. Guideline for compilation of informal settlements spatial information & dwellings count, Cape Town: City of Cape Town: Solid Waste Management.

CoCT, 2013c. Implementation of the Expanded Public Works Programme (EPWP), City of Cape Town.

CoCT, 2013d. Mayor signs agreement with Informal Settlements Network, City of Cape Town.

CoCT, 2013e. Putting food on the table. City of Cape Town Contact newsletter, p.13.

CoCT Consultants, 2013. BM Section, Khayelitsha: Proposed Township Establishment, Cape Town.

Cole, J., 1987. Crossroads: the Politics of Reform and Repression (1976-1986), Johannesburg: Ravan Press.

Cooper, A., 2010. BOOK SECTION TITLE. In Growing Up in the New South Africa: Childhood and adolescence in post-apartheid Cape Town. Cape Town: HSRC Press.

CORC & Ikhayalami, 2011. The Upgrading of Sheffield Road, Cape Town.

Cornwall, A., 2007. Buzzwords and fuzzwords: deconstructing development discourse. Development in practice, 17(4-5), pp.471–84.

Crous, P., 2013. Communal ablution facilities as interim measure for the upgrading of informal settlements. University of Johannesburg.

Crous, P.A., Haarhoff, J., Buckley, C.A. & Africa, S., 2013. Can shared facilities be sustainable? Experience from communal ablution blocks in eThekwini, South Africa. In 36th WEDC International Conference: Delivering water, sanitation and hygiene services in an uncertain environment. Nakuru, Kenya: WEDC, pp. 1–7.

CSIR, 2000. Guidelines for Human Settlement Planning and Design (Volume 2), Pretoria: Department of Housing.

Dambo, N., 2013. Mother City's "turd force" reveals its smelly secrets. City Press, pp.1–9. Available at: http://www.citypress.co.za/news/mother-citys-turd-force-reveals-its-smelly-secrets/.

De Wet's Huis Photographic Museum, 1998. History of Hermanus.

De Lille, P., 2012a. Statement by the Executive Mayor of Cape Town on the janitorial service for flush toilets in informal settlements, Cape Town.

De Lille, P., 2012b. Statement by the Executive Mayor on the janitorial service for flush toilets in informal settlements (16 May media release), Cape Town.

De Lille, P., 2013a. City eradicates bucket system with rollout of Portable (May 2013 Media Release), Cape Town.

De Lille, P., 2013b. City is committed to providing the best level of sanitation services possible (5 June media release). , (June).

De Lille, P., 2013c. Speech by the Executive Mayor of Cape Town at the signing of the Memorandum of Understanding with the Informal Settlements Network, Cape Town. Available at: http://www.capetown.gov.za/en/mayor/Documents/DeLille_speeches/Speech_Memo_of_Understanding.pdf.

Department of Human Settlements, 2009. The National Housing Code: Part 3 - Upgrading Informal Settlement, Pretoria.

DHS, 2004. Breaking New Ground: A comprehensive plan for the development of sustainable human settlements, Pretoria.

DoH, 1995. White Paper: A new housing policy and strategy for South Africa, Pretoria.

DoL, 2013. Ministerial Determination 4: Expanded Public Works Programmes (EPWP).

DPLG, 2005a. Guidelines for the implementation of the national indigent policy by municipalities (Part 1), Available at: http://www.westerncape.gov.za/sites/www.westerncape.gov.za/files/documents/2012/11/indigent_policy_implementation_guidelines_dplg_part_1.pdf [Accessed February 26, 2014].

DPLG, 2005b. Guidelines for the implementation of the national indigent policy by municipalities (Part 2), Available at: http://www.westerncape.gov.za/sites/www.westerncape.gov.za/files/documents/2012/11/indigent_policy_implementation_guidelines_dplg_part_2.pdf [Accessed February 26, 2014].

DWAF, 1994. Water Supply and Sanitation Policy (White Paper), Pretoria.

DWAF, 2001. White Paper on Basic Household Sanitation, Pretoria: Department of Water Affairs and Forestry.

DWAF, 2002. The Development of a Sanitation Policy and Practice in South Africa (Draft Paper), Johannesburg.

DWAF, 2003. Strategic Framework for Water Services: Water is Life, Sanitation is Dignity, Pretoria: Department of Water Affairs and Forestry.

DWAF, 2004. A history of the first decade of Water Service delivery in South Africa 1994 to 2004: Meeting the Millennium Development Goals, Pretoria: DWAE.

DWAF, 2007. Guidelines for the formulation of a strategy & implementation plan for the provision of sanitation services in informal settlements, Pretoria: Department of Water Affairs and Forestry.

DWAF, 2008. Free Basic Sanitation Implementation Strategy, Pretoria: Department of Water Affairs and Forestry.

Eales, K., 2011. Water, Sanitation and Wastewater Management: Some Questions for National Water Security in South Africa. In B. Schreiner & R. Hassan, eds. Transforming Water

Management in South Africa: Designing and Implementing a New Policy Framework. Pretoria: Springer, pp. 73–96.

eNCA, 2013. Masked De Lille causes a stir at toilet clean-up. eNCA.

Eslick, P. & Harrison, J., 2004. Lessons and Experiences from the eThekwini Pilot Shallow Sewer Study, Water Resource Commission.

Eynden, V. Van Den, Corti, L., Bishop, L. & Horton, L., 2011. Managing and Sharing Data, Essex. Available at: http://www.data-archive.ac.uk/media/2894/managingsharing.pdf.

Felix, J., 2013. Sanitation workers cause N2 chaos. Cape Times.

Fjeldstad, O.-H., 2004. What's trust got to do with it? Non-payment of service charges in local authorities in South Africa. The Journal of Modern African Studies, 42(4), pp.539–62. Available at: http://journals.cambridge.org/action/displayFulltext?type=1&fid=257564&jid=MOA&volumeId=42&issueId=04&aid=257563 [Accessed August 30, 2012].

Funke, N., Meissner, R., Nienaber, S. & Ntombela, C., 2014. What does research have to say about South Africa's water institutions? The Water Wheel, pp.32–34.

Gilbert, A., Mabin, A., McCarthy, M. & Watson, V., 1997. Low-income rental housing: are South African cities different? Environment and Urbanization, 9(1), pp.133–48. Available at: http://eau.sagepub.com/cgi/doi/10.1177/095624789700900111 [Accessed January 20, 2014].

Gilbert, A.G., 2014. Free housing for the poor : An effective way to address poverty ? Habitat International, 41, pp.253–61. Available at: http://dx.doi.org/10.1016/j.habitatint.2013.08.009.

Goldberg, K., Kula, S. & Mhlalisi, M., 2009. The Water Dialogues: Cape Town Case Study Report, Cape Town.

Gounden, T., 2010. Sanitation services in eThekwini Municipality. Interview by L. Taing,

Govender, T., Barnes, J.M. & Pieper, C.H., 2010. Living in Low-Cost Housing Settlements in Cape Town , South Africa — The Epidemiological Characteristics Associated with Increased Health Vulnerability. Journal of Urban Health, 87(6), pp.899–911.

Graham, N., 2006. Informal settlement upgrading in Cape Town: Challenges, constraints and contradictions within local government. In M. Huchzermeyer & A. Karam, eds. Informal settlements: A perpetual challenge? Cape Town: UCT Press, pp. 231–49.

Haarhoff, E.J., 2011. Appropriating modernism : Apartheid and the South African township. ITU, 8(1), pp.184–95.

Haarhoff, J. & Van der Merwe, B., 1996. Twenty-Five Years of Wastewater Reclamation in Windhoek, Namibia. Water Science & Technology, 33(10-11), pp.25–35.

Hall, K., 2005. Accommodating the Poor: A review of the Housing Subsidy Scheme and its implications for children, Cape Town. Available at: http://www.sarpn.org/documents/d0002132/Housing_subsidy_scheme_Dec2005.pdf.

Harrison, P., 1992. The policies and politics of informal settlement in South Africa: A historical perspective. Africa Insight, 22(1), pp.14–22.

Hayter, S., 2011. The Role of Collective Bargaining in the Global Economy: Negotiating for Social Justice, Geneva: International Labour Organisation.

Hermanus Museum, 2013. Hermanus Fishing History in Photographs.

High Court of South Africa, 2011. Ntombentsha Beja and Others v Premier of the Western Cape and Others [2011] ZAWCHC 97, Cape Town. Available at: http://www.saflii.org/za/cases/ZAWCHC/2011/97.pdf [Accessed September 11, 2012].

Huchzermeyer, M., 2001. Housing for the poor? Negotiated housing policy in South Africa. Habitat International, 25(3), pp.303–31. Available at: http://linkinghub.elsevier.com/retrieve/pii/S0197397500000370.

IDT, 2012. Janitorial Service in Khayelitsha, Cape Town: Independent Development Trust.

Jones, G., 2014. Government to expand Public Works Programme. Financial Mail. Available at: http://www.financialmail.co.za/economy/2013/03/28/government-to-expand-public-works-programme?service=print.

Jones, S., 1993. Assaulting Childhood: Children's Experiences of Migrancy and Hostel Life in South Africa, Pretoria: Wits University Press.

Kidd, M., 2011. Poisoning the right to water in South Africa: What can the law do? International Journal of Rural Law and Policy, 0, pp.1–20. Available at: http://cer.org.za/wp-content/uploads/2011/11/UNE-Paper-Kidd-Final-20110408.pdf.

Kings, S., 2012. Sanitation plan goes down the drain in Khayelitsha. Mail & Guardian.

Knight, G. & Bichard, J., 2011. Publicly Accessible Toilets, London.

Koyana, X., 2013. Activists question toilet policy document. Cape Town: Cape Times.

Koyana, X., 2014. Toilets "would help to flush away crime." Cape Town: Cape Times.

Lagardien, A. & Cousins, D., 2004. Sanitation demand and delivery in informal settlements - Planning and implementation support, Pretoria.

Lagardien, A., Muanda, C., Cousins, D. & Zindoga, C., 2009a. A Guideline: Integrating Community-based Procurement in the Operation & Maintenance of Basic Services, Pretoria: Water Research Commission: Water Research Commission.

Lagardien, A., Muanda, C., Cousins, D. & Zindoga, C., 2009b. Investigation into Unlocking and Integrating Community-Based Procurement in the Operation & Maintenance of Basic Services, Pretoria: Water Research Commission.

Lagardien, A., Cousins, D., Sabela-rikhotso, P., Ngaye, N., Supply, C.W. & Unit, S., 2013. Applicability of Community-Led Total Sanitation in South Africa: A case-study experience of opportunities and challenges, Pretoria.

Lewis, A., 2013a. De Lille stops services in “no ¬ go” areas. Cape Argus, pp.10–12. Available at: www.iol.co.za/news/crime-courts/de-lille-stops-services-in-no-go-areas-1.1527919#.UbXL-_b8-Ls.

Lewis, A., 2013b. No masks for janitors on faeces duty. Cape Argus.

Lewis, A., 2013c. Police escort toilet clean- ¬up crew. Cape Argus. Available at: www.iol.co.za/news/crime-courts/police-escort-toilet-clean-up-crew-1.1530944#.UcKB3D78-Lt.

Maasdorp, G. & Haarhoff, E., 1983. Housing Policy in Conditions of Rapid Urbanisation, Durban.

Madikizela, B., 2011. Housing policy isn’t working - Madikizela. Cape Times.

Malinowski, B.K., 1922. Argonauts of the Western Pacific, London and George: Routledge and Son.

Marais, L., Ntema, J. & Venter, A., 2008. State control in self-help housing: evidence from South Africa, Pretoria.

Mayo, S.K. & Gross, D.J., 1987. Sites and Services-and Subsidies: The Economics of Low-Cost Housing in Developing Countries. The World Bank Economic Review, 1(2), pp.301–35.

Mazeau, A., Reed, B., Sansom, K. & Scott, R., 2013. Emerging categories of urban shared sanitation. Water and Environment Journal, pp.1–17.

Mcewan, C., 2003. Bringing government to the people: women, local governance and community participation in South Africa. , 34, pp.469–81.

Mcewan, C., 2005. New spaces of citizenship? Rethinking gendered participation and empowerment in South Africa. , 24, pp.969–91. Available at: http://www.sciencedirect.com.ezproxy.uct.ac.za/science/article/pii/S0962629805000600# [Accessed September 9, 2012].

Melo, V.D.P., 2012. Urbanization processes in the expansion of areas of Luanda, Maputo and Johannesburg: Urban planning and everyday practices. In 15th International Planning History Society Conference, 15-18 July. Sao Paulo: International Planning History Society, pp. 1–14.

Merriam-Webster, Access. Merriam-Webster Dictionary. Available at: http://www.merriam-webster.com/dictionary/access?show=0&t=1392810677 [Accessed February 19, 2014].

Mesthrie, R., 1995. Language and Social History: Studies in South African Sociolinguistics, Cape Town: New Africa Books. Available at: http://books.google.com/books?id=aIivedw-oZYC&pgis=1 [Accessed April 9, 2014].

Middelkoop, K., 2010. Masiphumelele Census. Desmond Tutu HIV Foundation, 2, pp.2–8.

Miraftab, F., 2004. Neoliberalism and Casualization of Public Sector Services: The Case of Waste Collection Services in Cape Town, South Africa. International Journal of Urban & Regional Research, 28(December), pp.874–92. Available at: http://onlinelibrary.wiley.com/store/10.1111/j.0309-1317.2004.00557.x/asset/j.0309-1317.2004.00557.x.pdf?v=1&t=h6ggb1vb&s=613dcab003a6e69aac8d59df4d342d7bd3f2530c.

Miraftab, F., 2003. The Perils of Participatory Discourse: Housing Policy in Postapartheid South Africa. Journal of Planning Education and Research, 22(3), pp.226–39. Available at: http://jpe.sagepub.com/cgi/doi/10.1177/0739456X02250305 [Accessed January 17, 2014].

Mjoli, N., 2010. Review of sanitation policy and practice in South Africa from 2001-2008, Pretoria: Water Research Commission.

Mjoli, N. & Bhagwan, J., 2008. Free Basic Sanitation Services - South African experience. In IRC Symposium: Sanitation for the Urban Poor – Partnerships and Governance. Delft, Netherlands: International Water and Sanitation Centre. Available at: http://www.ewisa.co.za/literature/files/68_19 Mjoli.pdf.

Mjoli, N. & Bhagwan, J., 2010. Turning sanitation policy into practice. In WISA Biennial Conference. Durban: Water Institute of South Africa.

Mjoli, N., Sykes, G. & Jooste, T., 2009. Towards The Realization Of Free Basic Sanitation: Evaluation, Review And Recommendations, Pretoria: Water Research Commission.

Mosdell, T., 2006. Free Basic Services: The evolution and impact of Free Basic Water policy in South Africa. In Democracy and Delivery: Urban policy in South Africa. Cape Town: Human Sciences Research Council, pp. 283–301.

Mosse, D., 2005. Cultivating development: An ethnography of aid policy and practice, London: Pluto Press.

MSST, 2012. Ministerial Sanitation Task Team Report: Review, Investigation and Evaluation of the National Sanitation Programme - Towards Continuous Improvement, Pretoria.

Mthembu, M., 2012a. Security at toilets on city agenda. Cape Times. Available at: www.iol.co.za/capetimes/security at toilets on city agenda 1.1423220#.UKOPZpf9FLo 1/3.

Mthembu, M., 2012b. South Africa's big stink. Cape Times. Available at: www.iol.co.za/capetimes/south africa s big stink 1.1423215.

Mubangizi, B.C., Grey, M. & Gray, M., 2011. Putting the "public" into public service delivery for social welfare in South Africa. International Journal of Social Welfare, 20(212-219), pp.212–19. Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1468-2397.2010.00760.x/abstract.

Muller, H., 1963. Separate Development in South Africa. The Royal African Society, 62(246), pp.53–65.

Muller, J., 2009. Water and Sanitation Overview: Informal Settlements, City of Cape Town, City of Cape Town.

Muller, M., 2008. Free basic water - a sustainable instrument for a sustainable future in South Africa. Environment & Urbanization, 67(60), pp.67–87. Available at: http://eau.sagepub.com/cgi/content/abstract/20/1/67 [Accessed August 9, 2012].

Muller, M., 2009. Towards the regulation of the competences of South Africa's water services managers, Pretoria.

Mwamuka, A., 2011. Zwelihle Community Profile published 2011.

Naidoo, N. & Chidley, C., 2009. Guideline for the Implementation of Sanitation and Hygiene Education Programmes in Informal Settlements by, Pretoria.

Naidoo, N., Chidley, C. & McNamara, A., 2008. The implementation of hygiene education programmes in informal settlements, Pretoria: Water Research Commission.

Naidoo, N., Mdala, B., Mphake, K. & Chidley, C., 2007. The effectiveness of sanitation awareness and education programmes in informal settlements, Pretoria.

Nance, E. & Ortolano, L., 2007. Community Participation in Urban Sanitation: Experiences in Northeastern Brazil. Journal of Planning Education and Research, 26, pp.284–200.

News24, 2013. Cape Town seeks interdict for protesters. news24, 40.

Nicholson, Z., 2013a. Cape Town's botched toilet contract. Cape Times.

Nicholson, Z., 2013b. City urges mediation as Barcelona toilets remain unserviced. Cape Times, p.3.

Ntema, L.J., 2011. Self-help housing in South Africa: Paradigms, policy and practice. University of the Free State.

O'reilly, K., 2005. Ethnographic Methods, New York: Routledge.

OECD, 2008. Cape Town, South Africa, Cape Town.

Overstrand Municipality, 2010. Water Services Development Plan for 2009/2010, Hermanus. Available at: http://www.ncbi.nlm.nih.gov/pubmed/20952307.

Overstrand Municipality, 2013. Tender No SC1375/2013: Provision of cleaning services in Hermanus area with a contract period ending 30 June 2016, Hermanus.

Parliamentary Monitoring Group, 2000. Independent Development Trust: briefing. Public Works Portfolio Committee meetings. Available at: http://www.pmg.org.za/minutes/20001031-independent-development-trust-briefing [Accessed January 18, 2014].

Parry-Jones, S., 1999. Optimising the selection of demand assessment techniques for water supply and sanitation projects, Loughborough: London School of Hygiene & Tropical Medicine and WEDC.

Penner, B., 2010. Flush with Inequality: Sanitation in South Africa. The Design Observer Group. Available at: places.designobserver.com/entryprint.html?entry=21619 [Accessed September 12, 2013].

Pillay, U., Tomlinson, R. & du Toit, J., 2006. Democracy and Delivery: Urban policy in South Africa, Cape Town: Human Sciences Research Council.

Ramphele, M., 1993. A Bed Called Home: Life in the Migrant Labour Hostels of Cape Town, Cape Town: New Africa Books.

Robins, S., 2013. Politicisation of human waste.pdf. Cape Times.

Robins, S., 2014. The history and politics of poo. Cape Times.

Ross, F. & Spiegel, 2000. Diversity and fluidity amongst poor households in Cape Town and the heterogeneity of domestic consolidation practices: some cases. Tanzanian Journal of Population Studies and Development, 7(2), pp.147–69.

RSA, 1995. Labour Relations Act (No. 66 OF 1995), Pretoria: Republic of South Africa.

RSA, 1996. Constitution of the Republic of South Africa, South Africa.

RSA, 1997a. Land Survey Act, Republic of South Africa.

RSA, 1997b. Water Services Act, Republic of South Africa.

RSA, 1998. Municipal Structures Act, Republic of South Africa.

RSA, 2000. Municipal Systems Act, RSA.

SA Cities Network, 2011. Progress made with settlements upgrade. Cape Town: SA Cities Network.

Sabatier, P., 1986. Top-Down and Bottom-Up Approaches to Implementation Research: a Critical Analysis and Suggested Synthesis. Journal of Public Policy, 6(1), pp.21–48.

SABC, 2013. Protesters blockade N-2 in Cape Town. SABC, (June). Available at: www.sabc.co.za/news/a/5ce9a98040244c28a9a2eb0b5d39e4bb/Protesters-blockade-N-2-in-Cape-Town--20130627.

Sacred Heart Parish, 2009. Zwelihle, Hermanus.

SAHRC, 2013. Findings and Recommendations, SAHRC: Johannesburg.

SAHRC, 2014. Report on the Right to Access Sufficient Water and Decent Sanitation in South Africa: 2014, Johannesburg.

SAITRP, 1985. Emerging approaches to urban housing provision in South Africa, Cape Town.

SAPA, 2010. Community needs bullet-proof toilets - SAHRC, Cape Town: IOL. Available at: http://www.iol.co.za/general/news/newsprint.php?art_id=nw20100604172843193C788098&sf=.

SAPA, 2013a. Sanitation workers protest in Cape Town despite interdict. Johannesburg: Times. Available at: www.timeslive.co.za/local/2013/05/27/sanitation-workers-protest-in-cape-town-despite-interdict?service=print.

SAPA, 2013b. Striking janitors dump faeces on. Cape Town: news24. Available at: www.news24.com/news24/SouthAfrica/News/Striking%E2%80%91janitors%E2%80%91dump%E2%80%91faeces%E2%80%91on%E2%80%91N2%E2%80%9120130521.

SAPA & Cape Times, 2010. Toilets without walls - “DA is racist,” Cape Town: IOL.

Schaub-Jones, D., 2005. Sanitation Partnerships: Beyond storage, London.

Schaub-Jones, D., 2010. Solving stubborn water and sanitation challenges in South Africa: How government can work with communities and local entrepreneurs to make water and sanitation for all a reality, Cape Town: Building Partnerships for Development.

Schouten, M.A.C. & Mathenge, R.W., 2010. Communal sanitation alternatives for slums: A case study of Kibera, Kenya. Physics and Chemistry of the Earth, Parts A/B/C, 35(13–14), pp.815–22. Available at: http://www.sciencedirect.com/science/article/pii/S1474706510001312.

Schroeder, M., 2009. For the love of the dance. University of Cape Town.

Schulze, R., Horan, M., Seetal, A., Schmidt, E. & Schmidtt, E., 2007. Roles and perspectives of the policy-maker, affected water sector and scientist in integrated water resources management: a case study from South Africa, Routledge.

Shelembe, N., 2014. RDP units are matchbox houses ¬- Malema. SAPA. Available at: http://www.iol.co.za/news/politics/rdp-units-are-matchbox-houses-malema-1.1640622#.Ux7iC-eSxCg.

SJC, 2011. Press statement: SJC Welcomes Mayor de Lille’s Consideration of Janitorial Services for Sanitation Facilities in Informal Settlements, SJC: Cape Town.

SJC, 2012a. City fails to acknowledge problems with janitorial services. Cape Town: Cape Times.

SJC, 2012b. Media Release: New Janitorial Service Could Improve Sanitation Conditions For More than 350,000 People in Cape Town’s Informal Settlements, SJC: Cape Town.

SJC, 2012c. SJC Demands Policy and Plan for City of Cape Town’s Janitorial Service for Toilets and Taps in Informal Settlements, SJC: Cape Town.

SJC, 2013. Progress report city of cape town janitorial service for flush toilets, SJC: Cape Town.

Snodgrass, K., 2010. Water-bodies and Anti-bodies : Perceptions of Water among Children in Mandela Park. University of Cape Town.

Spiegel, 1986. Hard data or bleeding heart data: the value of qualitative data in research in a rural village in Matatiele district. Development Southern Africa, 3(2), pp.253–64.

Spiegel, A., Watson, V. & Wilkinson, P., 1996. Domestic diversity and fluidity among some African households in Greater Cape Town. Social Dynamics, 22(1), pp.7–30. Available at: http://dx.doi.org/10.1080/02533959608458599.

Spiegel, A., 1997. Using Clanship, making kinship: The dynamics of reciprocity in Khayelitsha. African Anthropology, IV(2), pp.37–76.

Spiegel, A., 2005. From expose to care: Preliminary thoughts about shifting the ethical concerns of South African social anthropology. Anthropology Southern Africa, 28(3/4), pp.133–41.

Spiegel, A., Watson, V. & Wilkinson, P., 2005. Women, difference and urbanisation patterns in Cape Town, South Africa. Anthropology Southern Africa, 28(1/2), pp.31–38.

SPP-WC, 1984. Khayelitsha, new home - old story: A dossier of forced removals of Cape Town's african population, Cape Town: Surplus People Project - Western Cape.

StatsSA, 2011. Census 2011 Metadata, Pretoria.

Still, D., Walker, N. & Hazelton, D., 2009. Basic sanitation services in South Africa: Learning from the past, planning for the future, Pretoria. Available at: http://www.wrc.org.za/SiteCollectionDocuments/Free Software/TT 414.pdf.

Stofile, L., 2013. Access to Water and Sanitation in the City of Cape Town Informal Settlements: An Environmental Health Perspective Centre for Research in HIV and AIDS, ed. 5th HIV-in-Context Symposium: Urbanisation, Inequality and HIV, (021). Available at: http://www.hivaids-uwc.org.za/docs/posters2013/Access_to_water_and_sanitation-LenaStofile.pdf.

Taing, L., Spiegel, A. & Armitage, N., 2011. Cape Town's problematic vacuum sewer: A reflection on the social, technical and institutional blockages that constrain municipal management. In ICUD. International Water Association.

Taing, L., Cornelius, L., Spiegel, A. & Armitage, N.P., 2011. Cape Town's problematic vacuum sewer: Recommendations to address an informal settlement's complex sanitation challenge. In 2nd Southern African Young Water Professionals Conference, 3-5 July. Pretoria: IWA.

Taing, L., Armitage, N., Ashipala, N. & Spiegel, A., 2013. TIPS for sewering informal settlements: Technology, Institutions, People and Services (Report No. TT 557/13), Pretoria: Water Research Commission.

Taing, L., Pan, S., Hilligan, J., Spiegel, A. & Armitage, N.P., 2013. Challenges facing sanitation-provision partnerships for informal settlements: a South African case study. Journal of Water, Sanitation and Hygiene for Development, 3(2).

Tapscott, C., 2010. The challenges of building participatory local government. In L. Thompson, ed. Participatory Governance ? Citizens and the State in South Africa. Cape Town, pp. 81–94.

Tempelhoff, J.W.N., 2012. From Makhaza to Rammulotsi: Reflections on South Africa's "toilet election" of 2011. Historia, 57(1), pp.82–102.

Theron, J. & Visser, M., 2010. Waste management and the workplace. University of the Western Cape: Law Democracy and Development, 10(3), pp.1–17.

Theron, J. & Perez, T., 2012. The prospects of decent work in municipal services: Case studies in care work and waste management (Monograph 02/2012), Cape Town. Available at: www.idll.uct.ac.za.

Theron, J., 2013. Non-standard work arrangements in the public sector, Cape Town.

Thetford, Porta Potti Qube 165 - Thetford. Thetford. Available at: http://www.thetford-europe.com/en/products/toilets/portable-toilets/porta-potti-qube-165.aspx [Accessed November 12, 2013].

Thom, A., 2012. Toilet janitor service just a flash in the pan. Cape Times, p.5.

Tissington, K., 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice 1st ed., Johannesburg: Socio-Economic Rights Institute of South Africa.

UCT, Guide to Research Ethics: Research on Human Subjects, UCT Faculty of Humanities.

UN JMP, 2008. Progress on drink water and sanitation: Special focus on sanitation, New York.

UN JMP, 2010. Progress on sanitation and drinking-water, Geneva.

VPUU, 2010. BM/France Section Informal Settlement Upgrade Baseline Survey, Cape Town.

Van Vuuren, S. & Van Dijk, M., 2011. Waterborne Sanitation Design Guide, Pretoria.

Wall, K., Bhagwan, J., Ive, O. & Kirwan, F., 2012. To do or not to do: Experiences from the application of social franchising principles for water services O&M in the Eastern Cape. In WISA 2012 Biennial Conference & Exhibition, 6-10 May. Cape Town: Water Institute of South Africa.

Wall, K. & Ive, O., 2013. Social Franchising Partnerships for Operation and Maintenance of Water Services: Lessons and Experiences from an Eastern Cape Pilot, Pretoria: Water Research Commission.

Watson, V., Wilkinson, P. & Spiegel, A., 1996. Devaluing diversity - National housing policy and african household dynamics in Cape Town. Urban Forum, 7(1), pp.1–30.

Watson, V. & McCarthy, M., 1998. Rental housing policy and the role of the household rental sector: Evidence from South Africa. Habitat International, 22(1), pp.49–56. Available at: http://www.sciencedirect.com/science/article/pii/S0197397597000234 [Accessed January 19, 2014].

Watson, V., Wilkinson, P. & Spiegel, A., 2001. Houses for All? Post-apartheid housing policy and shelter needs within the African population of Cape Town, South Africa. In V. Polakow & C. Guillean, eds. International Perspectives on Homelessness. Westport: Greenwood Press, pp. 289–308.

Wild, S., 2013. Technology alone cannot solve toilet trouble: The Western Cape has become a battleground over open. Mail & Guardian.

Wilkinson, P., 1998. Housing policy in South Africa. Habitat International, 22(3), pp.215–29. Available at: http://www.sciencedirect.com/science/article/pii/S0197397598000010 [Accessed January 19, 2014].

Wilkinson, P., 1984. The sale of the century? A critical review of recent developments in African housing policy in South Africa. In Second Carnegie Inquiry into poverty and development in Southern Africa, 13-19 April. Cape Town: Carnegie Foundation. Available at: http://www.opensaldru.uct.ac.za/bitstream/handle/11090/438/1984_wilkinson_ccp160.pdf?sequence=1.

Winter, K., Armitage, N.P., Carden, K. & Spiegel, A., 2010. Why things fail: Greywater management in informal settlements, South Africa. In WISA Conference. Durban: Water Institute of South Africa.

WorleyParsons and EcoNomics, 2012. Water Services Development Plan for 2012/2013, Hermanus.

WSISU, 2010. Informal settlements: Categories and recommended service levels (Internal document), City of Cape Town.

WSISU, 2013. List of EPWP workers (Internal documents), City of Cape Town.

WSISU & Taing, L., 2011. Community Workers appointment process (Draft internal document), City of Cape Town.

WSUP, 2011. When are communal or public toilets an appropriate option?, London: Water and Sanitation for the Urban Poor.

Yin, R.K., 2003a. Applications of case study research 2nd ed., Thousand Oaks, California: Sage Publications, Inc.

Yin, R.K., 2003b. Case study research design and methods 3rd ed., Thousand Oaks, California: Sage Publications, Inc.

Zille, 2009. City of Cape Town introduces sms line for public to report water and sanitation problems (9 March 2009 Media Release), Cape Town.

Van Zyl, J. & Van Dijk, M., 2011. Waterborne Sanitation Operations Guide, Pretoria.

A. Research team biographies

The Project Leader for our study was **Andrew 'Mugsy' Spiegel**. Professor Spiegel has been a researcher and lecturer in Social Anthropology since the mid 1970s and was Head of Social Anthropology at UCT (University of Cape Town) from 1999 to 2008. His published work, all of it focused on southern Africa, has been concerned with labour migration, rural and urban poverty, especially the role of kinship in such contexts, and with uses of notions of tradition, racism, as well as with research ethics (Spiegel 1997; Spiegel 2005; Spiegel 1986). He has also published on the socio-linguistics of the word spaza and on the movement practice called eurhythmy, the latter reflecting a persisting research interest in Waldorf Schools. He has worked extensively and published with urban planning academics on how housing provision is affected by notions of household and domestic fluidity (Spiegel et al. 1996; Spiegel et al. 2005; Watson et al. 2001; Watson et al. 1996; Ross & Spiegel 2000), and has, for the past six years, worked collaboratively with civil engineers and environmentalists on urban sanitation, especially in informal settlements (Armitage et al. 2010; Winter et al. 2010; Armitage et al. 2009; Taing, Armitage, et al. 2013; Taing, Pan, et al. 2013).

Lina Taing, the lead researcher on the team, is a PhD candidate in the Public Administration programme at UCT. She has a BA in Anthropology from UCLA and a Master of Integrated Water Management degree from the University of Queensland. She has previously worked in California, the UK, and Liberia for various health NGOs in their operations, fundraising, training and community outreach teams. She has co-authored a Water Research Commission report (Taing, Armitage, et al. 2013) and several papers (Taing, Pan, et al. 2013; Taing, Spiegel, et al. 2011; Taing, Cornelius, et al. 2011) on how various institutional and socio-political issues constrain service provision in Cape Town's informal settlements. She has worked alongside City of Cape Town officials in their offices for two years during a previous WRC study to gain insight into the daily struggles they encountered when managing sanitation provision in informal settlements. She continued working with these same officials for the presently reported upon study, in addition to undertaking ethnographic fieldwork in BM Section (Khayelitsha).

Kerry Vice (nee Snodgrass) is currently a Social Anthropology Masters student scheduled to graduate from the University of Cape Town in 2014. Kerry completed her undergraduate degree in 2009 majoring in political science and social anthropology. She then completed her Bachelor of Social Science Honours in 2010 specialising in the field of medical anthropology and focusing on water-related illnesses amongst children in an informal settlement in Cape Town (Snodgrass 2010). Whilst doing that research, she engaged with issues related to poor sanitation that greatly influenced the health of children. Her Masters research has pursued this line of interest and focused on the relationship between public toilet facilities and public health issues among adolescents in informal settlements within the township of Zwelihle.

Matthew Schroeder is a UCT Social Anthropology Masters student. He graduated with an Honours in Social Anthropology at UCT in 2009. His Honours dissertation focused on power and agency within hip-hop culture in Cape Town, based on nine-months of fieldwork with a renowned local breakdancing group in Athlone (Schroeder 2009). He has been a part of the K5/2120 team since April 2013 and has been conducting fieldwork in Masiphumelele; also the fieldwork site for his

Master's thesis, which focuses on notions of ownership around public and communal sanitation and how these are played out in informal settlements in contemporary post-apartheid South Africa.

Namhla Sicwebu is a UCT Social Anthropology Honours candidate. She has been a part of the research group since December 2012 and assisted Ms Vice as a research assistant and translator in Zwelihle. She is currently writing up an Honours research essay on the symbolism people associate with toilets and how this may or may not influence their perceptions, expectations and interactions with such facilities in BM Section (Khayelitsha).

B. SJC

The Social Justice Coalition (SJC) is a non-governmental organisation (NGO) that advocates for improvement with regard to Khayelitsha residents' safety and security concerns. One of the original SJC staff members explained that the organisation's interest in sanitation stemmed from the group's initial workshops on security and safety. He explained that many of the participants complained about how "unsafe" it was to use communal toilets in informal settlements.

The Social Justice Coalition (SJC) has publicly sparred with CoCT officials over the unsatisfactory state of janitorial services in Khayelitsha informal settlements in major South African news publications (Thom 2012; Kings 2012; Mthembu 2012b; CoCT 2012; Mthembu 2012a; Koyana 2013; SJC 2012a). It is important to note, however, that SJC and CoCT's relationship has not always been so tumultuous. Both SJC (2011; 2012b) and De Lille (de Lille 2012a) state that the inception of the Mayor's Project janitorial service was due to the former's campaigns and the two organisations' collaboration. According to several SJC staff members and CoCT officials, the relationship between SJC and CoCT's Executive Management had soured by late-2012. SJC members had accounted for this in saying that CoCT had not released a policy and implementation plan for janitorial services as they had promised (SJC 2012c).

Another reason for their fall-out may be that SJC leadership had refused the municipality's request to help manage and to administer the janitorial service similar to how NGOs serve as project coordinators and community intermediaries in other municipal projects (CORC & Ikhayalami 2011; de Lille 2013c; CoCT 2013d). SJC staff said they refused these responsibilities because their role is to encourage "CoCT to do its job". Furthermore, they noted that their skill sets lie in advocacy and not project management, thus it would be inappropriate for them to assist the municipality in such a capacity.

Several CoCT officials involved in service provision and consultants who assisted in the review of WSISU's janitorial service had noted that many points SJC members had made about the failings of the janitorial service were valid, however, they were unsure how they could work with a group that only "criticised the city." All of the interviewed officials and consultants said Executive Management officials not to talk to SJC members given the bad publicity that the group had brought the municipality, which some said divided them as they wanted to work with SJC to improve sanitation services in Khayelitsha settlements. Moreover, the same interviewees had said that they were unsure how SJC would use such information, which - if traced back to them - could lead to a heavy-handed reprimand from their line managers or the Mayor's office. Two interviewed officials also expressed their frustration that there was "limited acknowledgement" of how CoCT's janitorial service had improved either the existing sanitation situation in informal settlements or how newly employed workers benefitted from the scheme (albeit for a limited amount of time). This sentiment seemed to be shared by Executive Management (Koyana 2013).

The Director of one of the nation's leading Water and Sanitation Departments had once stated that he had been present after the results for the *Water Dialogues* report (Goldberg et al. 2009) were presented at a Parliamentary meeting. He said that the senior official present from CoCT's Water and Sanitation Department who was also present at the same meeting had acted "defensively" in response to the report findings. He said that after the presentation he took the

senior official aside and advised the official to learn how to engage with such groups and to listen to their critiques for the purpose of constructively improving service delivery. Yet it seems that as long as the ANC and DA battle for control of Cape Town and the Western Cape, the Executive Management of CoCT will continue to be non-transparent for fear that information provided can be used against them during municipal, provincial and general elections.

C. Sample field note

As noted in Section 2.5.3, writing field notes are the primary research method we used when recording empirical data. Each field researcher was meant to note: (1) the questions s/he had asked and the answers they received; (2) the content of the conversations s/he had had; and (3) what s/he had experienced or observed at a certain time. The goal in recording these details was so that a researcher did not have to rely on memory alone when recalling an experience, story or event.

The field note included in this report is an example of what Ms Taing observed early one morning in BM Section on a rainy day. Ms Taing had arranged the day prior to meet a janitor (who is referred to as X2 below) at the ablution block so that they could drive together to WSISU's Bellville offices. The janitor explained the day before that needed to replace some uniform items and to address a problem she had with clocking-in. Ms Taing asked X2 if she could shadow her when she was in Bellville, and X2 agreed. The two decided that they would meet the next day at 7:00 at the ablution block to carpool together. The sample field note does not include any identifiers such as names so as to protect the identities of the people Ms Taing interacted with.

3 June 2013

I got to the ablution block at 7:15, which was fifteen minutes later than I had intended. I stopped in front of X1's house on Lansdowne Road and put my hazards so that vehicles could see my car was stopped at the side of the road. It was really rainy and dark. I didn't see X2 [the janitor I was meeting] by the road so I jumped out of my car to fetch her from inside the ablution block. I saw a woman who was wearing a large pea coat that covered her body walk out of the facility and thought it was X2 because she was wearing pants overall with a reflective stripe. As I neared her though I saw that it was someone that I did not recognise. We greeted one another and I continued past her into the ablution block.

The ablution block was very dark, and I felt a little tentative about going in because it seemed empty. The peak hour for the facility must have just passed, or people were staying indoors because it was so cold. I quickly walked past the men's units towards the women's toilets to see if X2 was there. It was too quiet when I got to the women's corridor though so I turned around to leave because I didn't feel safe in the ablution block when I was alone. I was almost at the exit of the facility when I saw a light coming out of the men's shower stalls out of the corner of my eye. I knew then that one of the security guards was in so I walked past the men's toilets and peered through the space between the door and the concrete doorframe. I could see X3 sitting on the bench through the crack. I also saw that she had padlocked the door from inside the shower room so I knocked on the door and I said hi to her.

X3 got up to unlock and open the door for me. As I walked in I commented on the nice nest she had set-up for herself. She had folded two blankets in half and spread them across the concrete benches. She sat back down on the bench and covered herself with another blanket. To her right was a glowing paraffin lamp, and on the floor in the centre of the room was a heater which was probably also fuelled by paraffin. The space stank of paraffin due to the lack of ventilation.

I commented on the smell of gas, and X3 just looked bewildered. Rather than explaining I asked if X2 was there, but she looked confused again. I wasn't sure if X3 couldn't understand me because I spoke in English so I asked the same question again but used X2's isiXhosa name, but she still looked confused and didn't say anything. I said I would call X2 from my car and said bye. I wanted to be in my car because it would be a lot warmer than the ablution block, and it would be a "private" space where I could call X2 and write up my notes. I walked back to Lansdowne Road and got into my car. I locked the doors and turned the ignition so I could heat the car. I then called X2 but she didn't pick up. I sent her a Whatsapp to let her know I was still waiting for her.

(7:22) The only light on the road are from cars and taxis that are whooshing past me. There are no working streetlights or area lighting on this stretch of Lansdowne Road. The lights from the next street (towards Spine Road) are working, and there are lights in the distance at the Mew Way turnoff.

(7:40) There’s enough light now from the sun now, which started to peek through the clouds about ten minutes ago. [My research assistant] saw me waiting in my car for X2 when he walked past to go buy tea. I said I'd come by his house later to “go walking” around BM. He was wearing his rain jacket and the gumboots I bought him. X2 still hasn’t answered the Whatsapp or SMS I sent.

D. Children's posters

Using a variation of a method, referred to earlier where video cameras were given to research participants (Berg & Slabbert 2012), field researcher Ms Vice also used photography as a means to allow her research participants themselves to capture images of day-to-day conditions in Zwelihle. Ms Vice worked with a group of twelve teenage girls who were asked to take photographs of what they associated with *privacy*, *safety*, *clean* and *healthy* environments. She divided her participants into four groups of three girls each, and asked that each group focus on a particular theme. They then made posters using the photographs and discussed why they associated certain places with privacy, safety, etc. Below is an example of the *unsafe space* poster that one of the groups prepared.

Figure C-1: Poster of photographs depicting 'Unsafe Spaces'.

E. Children's drama production

One of the research methods used to gain insight into the ideas and perceptions associated with understandings of 'hygiene' as well as the role that janitors play at the public toilets in Zwelihle, was drama production. Ms Vice worked with a group of thirteen to fifteen teenage girls who wrote their own script, and acted out a drama centred on the social dynamics at play when a community shares toilet facilities. Their mandate was brief as they were asked to produce a fictional account of anything in relation to public toilets. Although they had the freedom to produce any genre and were unlimited in terms of context, they selected a drama around issues very similar to those in Zwelihle's informal settlements.

Their drama portrays the poor conditions of toilets that were to be shared by community members, and the resultant hazardous status of the toilets due to a lack of cleaning and maintenance. A community member who falls ill after using the toilets visits the doctor for treatment. After diagnosing yet another patient with diarrhoea, the doctor is prompted to contact the health inspector in order to address the poor state of the toilets as the cause for ill health among residents. The health inspector and the doctor then initiate a cleaning service by recruiting members of the community, the majority of which are unemployed and desperate for work. The sick community member is stigmatised as she is prevented from using the toilets by the new janitors as they fear that her germs will be transferred to other toilet users, as well as themselves. As the story unfolds, it depicts many parallels to 'real life' in Zwelihle's informal settlements relating to competitiveness for local work, the propensity for some residents to purposefully dirty toilets out of malice or mischievousness, and a high incidence of diarrhoea among children.

The value of this fictional production lies in the strong connection that is drawn between health and sanitation, and the social complexities involved in providing and maintaining such a facility. Health and hygiene imperatives are not only reflected as the motivation behind implementing a janitorial service, but also as issues over which discontent among the janitors can potentially arise.

Drama transcript (English translation)

Scene 1:

Two women go to use the public toilets. They make noises complaining of the smell.

Woman 1: "Hayi, I can't even breathe. I am leaving you and this toilet smell".

Two women walk off.

Scene 2:

A woman visits her neighbour and knocks.

Neighbour: "Come in"

Visitor: "Hey how are you doing?"

Neighbour: "I'm doing alright thanks"

Visitor: “Don’t you want to take a walk with me?”

Neighbour: “Sure”

The friends walk past the toilet block.

Visitor: “Sho, can you smell that?”

Neighbour: “Oh that smell!”

Visitor: “Ja, it is these toilets!”

(Neighbour agrees)

Visitor: “Let’s go and sit there and get some rest” *(She points to a bench further away and they go and sit down).* “Wow, the problem with the toilets really needs to be fixed. They need to get people to clean the toilets, because if we don’t we are going to get diseases!”

Neighbour: “Is there someone who fixes these toilets?”

Visitor: “Yes there is!”

Neighbour: “Phew, I will never do that, I will never!”

Visitor: Would you mind walking with me to the toilet? I really need it!”

Neighbour agrees, and they walk to the toilet.

Visitor: “Phew, the toilets smell so bad!”

Neighbour holds her nose. The friends say goodbye and go home.

3 MONTHS LATER

Scene 3 opens with the neighbour’s visitor coughing violently and feeling sick.

Neighbour goes to see her friend.

Neighbour: “Wow, you have been sick for quite some time, you have a fever let us go to the doctor”.

Visitor groans in pain as they walk to the doctor. They arrive at the clinic a few minutes later and see the doctor.

Doctor: “What is wrong, what is happening?”

Neighbour: “I don’t know doctor”

Doctor: “What is wrong with you?”

Visitor: “I don’t know doctor I can’t stop coughing!”

Doctor examines the patient.

Doctor: “You feel like someone who has diarrhoea”

The patient screams with fright.

Doctor: “Don’t scream, we can cure this. I am going to give you some tablets, and an injection, and I will send a health inspector to your area to inspect the public toilets”.

The neighbour and the visitor leave the doctors rooms and walk home. On the way they bump into two women.

Women 1: “What, why are you walking with a sick lady? Don’t you know that diseases spread?”

Neighbour leaves her friend and runs away. The women also run off afraid the sick lady will touch them. They chase her away saying, "Hamba!"

Women 1 goes to the toilet.

Women 1: "Phew these toilets smell, I don't know how people use them"

Scene 4:

The health inspector and the doctor arrive at the public toilets.

Doctor: "Hello health inspector, I called you to look at the toilets and the water in the area because people are getting sick, and they come to me, but I want to know the cause of their illness"

Health inspector: "How so?"

Doctor: "My patients are all getting sick from the same thing, as they live in the same area"

Health inspector: "What sickness is that?"

Doctor: "Diarrhoea."

Health inspector: "Doctor, are you going to call the people for the meeting?"

Doctor: "Yes."

Doctor informs the residents of a meeting regarding the public toilets.

Health inspector: "I have looked at your toilets and seen that they are dirty. If you want to get well they need to be cleaned."

People complain and say that no matter how they try to clean them they will always be dirty.

Health inspector: "I understand, but you need to treat these toilets as you would treat the toilet in your own home and not spread faeces on the wall. I will try and get cleaners for these toilets; can I have a few volunteers?"

Two women volunteer to clean the toilets.

Doctor: "To add to what the health inspector says, you need to stop being stingy with your money and buy your own toilet paper."

Women 1: "But some of us don't work, so where must we get it from? No, the municipality must provide us with toilet paper?"

Health inspector: "You cannot use other types of paper, so I will try and get the municipality involved. I will also try and get another block of toilets built."

Volunteers ask if they got the job and the inspector confirms. The women are happy.

Scene 5:

The new janitors walk across their neighbourhood to the offices of the health inspector.

Janitors: "When can we start with our work?"

Health inspector: "You can start working today, I will bring you the supplies."

Janitors: "What do we do if people make a mess immediately after we just clean?"

Health inspector: "You have to be polite, and ask them nicely not to mess. You cannot talk to them roughly or hit them."

Janitors: "And what if people make a mess while I am trying to clean?"

Health inspector: "Then you clean again because that is what you are being paid to do."

Janitors: “Are we going to get paid?”

Health inspector: “Yes, R150 per day.”

Janitors: “If people throw their dirty water in the toilet will it block?”

Health inspector: “No of course not.”

Health inspector: “You deal with the people, I will bring the supplies.”

Janitor 1 speaks to Janitor 2

Janitor 1: “Don’t tell anyone how much we get paid, because they will kill us for the money.”

They walk to their neighbours.

The janitors tell their neighbours that they have a job. One neighbour is excited, and asks if she can borrow R200.

Janitors: “What! We have to go and clean all that mess and you expect us to lend you money while you sit and do nothing! Sorry we can’t.”

Neighbour: “I will return it at the end of the month!”

Janitor: “No you never do.”

Neighbour: “But you used to borrow money from me all the time!”

Janitor: “Well now I don’t even care. You waste your money on sunglasses and eyelashes.”

Scene 6

Janitors start cleaning and exclaim at how dirty the toilets are.

Residents come and use the toilets while they clean.

Resident 1: “Can I have some toilet paper please?”

Janitor: “No you should have brought your own.”

Resident 2 wipes her faeces on the wall and the janitors chase them away.

Janitor 2: “I want to quit, the smell is too bad.”

Janitor 1: “Come one, just stay for one day.”

Janitor 1: “There is no way that the sick lady is going to come in here!”

Janitor 2 agrees.

The sick lady and her friend walk by and the janitors scream at her and chase her away saying that they don’t want her to infect them and others. They are also shocked that the neighbour is walking with the sick lady. They complain that the sick lady does not respect them.

Janitor 1: “No she can’t use these public toilets, she will infect us, is she crazy!? I don’t care what she uses, she must just stay in her own house!”

Janitors are tired of work so they throw down their things and walk off.

Scene 7:

The sick lady goes back to the doctor.

Doctor: “What is wrong?”

Sick lady: “It is my stomach, my stomach, it is so painful doctor!”

Doctor: “I gave you medicine, you should be better! We even got ladies to clean the toilets.”

Sick lady: “No doctor, they don’t allow people with diseases to use the toilets.”

Doctor: “You need to go to the toilet regularly and release what is in your stomach. Do you still have your treatment?”

Sick lady: “Yes doctor, I’ll take it.”

Doctor:” I’ll talk to the health inspector about the janitors.”

Janitor: “Where did you come from?”

Sick lady: “I’m going to the toilet.”

At first the janitors try to chase her away but they see the health inspector and the doctor coming and they allow her in. Sick lady uses toilet. Health inspector and doctor arrive.

Health inspector: “What are you doing?”

Janitors: “We are cleaning.”

Health inspector: “How can you have cleaned when it smells so bad?”

Janitors: “The people keep messing.”

The sick lady complains that the janitors did not allow her to use the bathroom.

Health inspector: But I’m paying you, you are sharing R150 per day!

Janitor 1: “What!? No we are each getting R150.”

Health inspector: “You are fired! We are getting other workers.”

Janitors: “We’re done!”

Scene 8

The doctor and health inspector walk towards the group of community members and asks for workers, but the people chase them away.

Community: “Haisuka, go away!”

Janitor 1: “If we chase you away, you are chased away. We want you out of here.”

Health inspector: “Keep quiet!”

One community member volunteers for the job and the previous janitors tell her to keep quiet.

Health inspector: “Listen, if there is anyone who would like to volunteer to clean the toilets I will pay you R400 per day.”

The sick lady volunteers to clean the toilets.

Janitor 1 threatens to kill the sick lady for going against the group. The community chase her away for going against what they think is right.

Health inspector: “This lady has volunteered to work so we are going to build her a house. I hope you don’t burn it down.”

The community get up and chase away the doctor, the health inspector and the volunteer.

THE END

F. Cell phone application questions

25 BM residents were asked to share their sanitation experiences in BM Section, and they were asked the following questions:

1. Name
2. Please take the GIS coordinates of where the Resident lives
3. Cell phone number (Note to Resident: This will only be used if follow-up questions are necessary, and will not be shared with others)
4. Are you male or female? MALE/FEMALE
5. What is your year of birth?
6. Where were you born? (AUDIO)
7. Where was your home before you moved to BM, and how did you relieve yourself then? (For example, in a field, in what facilities, etc.) (AUDIO)
8. What year did you move to BM, and why did you move here? (AUDIO)
9. Who else lives in your house, and how are they related to you? (AUDIO)
10. What do you do to be able to buy things such as food? (AUDIO)
11. How far have you gone in school? (AUDIO)

The next questions will focus on your experiences with sanitation, water and refuse services in BM Section.

12. **Sanitation**
    a. Where do you go to relieve yourself when you are at home in BM and when you are not home (e.g. school, work, etc.)? (AUDIO)
    b. Please take a picture of where you relieve yourself when at home.
    c. Do you pee or help yourself here? PEE ONLY/HELP YOURSELF ONLY/BOTH
    d. Please select if it is a (a) toilet, (b) bucket, (c) in an open place or field, or (d) other.
        i. If it is a toilet:
            1) Who put the toilet there? (AUDIO)
            2) Do you share the toilet with people who do not live with you? YES/NO
                a. If YES:
                    i. How many other people do you share this toilet with?
                    ii. Can you lock it?
                        1. Where did you get the lock?
                            a. Municipality
                            b. Contractor
                            c. Bought myself
                            d. Other – (NB: Add manual field to enter information)
                    iii. How many keys are there? (NB: Add manual field to enter information)

3) Who cleans this toilet? (AUDIO)
4) What is cleaned? (AUDIO)
5) Are you happy with this arrangement? (AUDIO)
6) Is there a problem with the toilet? YES/NO options
    a. If YES:
        i. What is the problem?
            1. Blocked toilet
            2. Unclean toilet
            3. Missing or broken toilet
            4. Missing or broken door
            5. Leaks
            6. Other – (NB: Add manual field to enter information)
        ii. Have you reported the problem? YES/NO
            1. If YES, who have you reported it to?
                a. Community leader
                b. Ward Councillor
                c. Municipal janitor
                d. Municipal official
                e. Other – (NB: Add manual field to enter information)
            2. If NO, why have you not reported it? (AUDIO)

ii. If it is a bucket:
    1) Please take a picture of where you discard its contents.
    2) Please explain why you choose to discard here. (AUDIO)
iii. If it is in an open field or place, please explain why you relieve yourself here. (AUDIO)
iv. If it is other, please explain what you do to relieve yourself, and why you do this. (AUDIO)

e. How many times a day do you pee or relieve yourself here?
f. Do you pee or relieve yourself here during the:
    i. Day only
    ii. Night only
    iii. Day and Night
g. If you leave your home, do you feel safe relieving yourself here, or discarding your contents here? (AUDIO)
h. What do you use to clean yourself?
    i. Toilet paper
    ii. Newspaper
    iii. Cloth
    iv. Other – (NB: Add manual field to enter information)
i. Where do you clean your hands afterwards, and what do you use to clean them? (AUDIO)

j. Do you also relieve yourself elsewhere when in BM? YES/NO
    i. If YES, repeat 11c.

13. Water

a. Please take a picture of where you get your water.
    i. Do you share the tap? YES/NO
    ii. Is there a problem with the tap? YES/NO options
        1) If YES:
            a. What is the problem?
                i. Missing or broken tap
                ii. Leaks
                iii. Other – (NB: Add manual field to enter information)
            b. Have you reported the problem? YES/NO
                i. If YES, who have you reported it to?
                    1. Community leader
                    2. Ward Councillor
                    3. Municipal janitor
                    4. Municipal official
                    5. Other – (NB: Add manual field to enter information)
                ii. If NO, why have you not reported it? YES/NO (AUDIO)
b. For what did you use this water? (Select all that apply)
    i. Bathing
    ii. Cooking
    iii. Cleaning the house
    iv. Toilet
    v. Other (NB: Add manual field)
c. Please take a picture of where you discard water.
d. Do you also get water from somewhere else? (AUDIO)

14. Rubbish/refuse

a. Please take a picture of where you throw away rubbish/refuse.
b. Do you sometimes throw away your waste (ilindle) inside? (AUDIO)

15. Are there particular sicknesses in BM due to sanitation problems? If you think there are, what can you do to avoid these sicknesses? (AUDIO)
16. What do you think about the way sanitation is provided in BM? (AUDIO)

G. *Aides-memoire*

While as researchers we have in some respects worked in what may seem to be idiosyncratic ways – to accommodate the specifics of the site and its particular social dynamics – a set of standardised questions was drawn up prior to fieldwork and was used to guide each researcher's work – and also to produce three sets of comparable data. These questions were aggregated in a set of sample-population directed aides-memoire. This does not, however, mean that we worked with a standardised questionnaire or interview schedule. Rather it means that in the course of engaging in participant observation, we obtained answers to each theme/topic listed in the aides-memoire about individuals, settlements etc.

Among the data gathered both from individual residents and in the respective settlements are demographic information, life histories (including migration and employment patterns), and both individuals' and generally the settlement's housing experiences, especially in relation to residents' access to sanitation facilities. As regards the three settlements, data collected in each includes population size and housing densities, number, type and quality of utilities (solid waste, toilets, stand pipes, electricity/lighting, drainage, roads) and other services that are provided – including provision for environmental risks such as flooding. Further such data includes ease/difficulty of ability to access health services, education, transport and commercial outlets. The character and degree of authority of local leadership structures and their relationship with broader based civic organisations and local authorities has also been recorded for each settlement – primarily because earlier studies have shown that such structures and their relationships with each other can be pivotal in efforts to introduce, maintain and manage toilet and related facilities.

Below is a schedule of themes to be addressed vis a vis:

i) Sampled informal settlement residents in each of the three selected research sites

ii) Janitorial staff in each of the three selected research sites

iii) Janitorial managers in or responsible for each of the three selected research sites

iv) Municipal officials in or responsible for janitor-serviced public toilet facilities in their respective municipalities

v) Civil society activists concerned with provision of toilet facilities and public health services in informal settlements in the Western Cape

vi) Sanitation facilities in each of the three research-site informal settlements

1) ***Sampled informal settlement residents in each of the three selected research sites***

- Personal demographic information
- Length of time as a resident in settlement
- Composition of present household, its size, and its social dynamics
- Housing experiences especially in relation to access to sanitation facilities
- Personal life histories including migration, household relationships and employment patterns

- Perceptions of and behaviour relating to hygiene and public health concerns
- Expectations of basic sanitation service provision in and/or around own residential area
- Safety in relation to toilet use in and/or around own residential area
- Experiences and expectations of janitorial services in and/or around own residential area
- Toilet accessibility, particularly at night and alternative sanitation arrangements in and/or around own residential area

2) ***Janitorial staff***

- Personal demographic information
- Place of residence – especially in relation to right to hold a janitor job
- Employment history
- Experience of obtaining and retaining janitorial job
- Extent and nature of janitorial service training
- Materials provided to permit provision of (or limiting capacity to provide) janitorial service
- Number of toilets/toilet blocks for which each individual janitor is responsible, and how time is used to ensure all are managed
- Relationship with other members of janitorial team – especially where shift work is the norm
- Other responsibilities relating to toilets
- Relationship with janitorial supervisors and managers
- Relationship with municipality – kind of contract and how it works
- Average monthly earnings as a janitor
- Relationships with toilet users
- Perceptions of and behaviour relating to hygiene and public health concerns
- Expectations regarding basic sanitation service provision
- Safety of toilet users
- Own safety in relation to janitorial duties

3) ***Janitorial supervisors/managers***

- Personal demographic information
- Place of residence – especially in relation to occupying management role
- Employment history
- Previous experience of sub contracting and of managing personnel
- Experience of obtaining (and retaining) the particular supervisory/management job/contract presently held
- Extent and nature of supervisory/management training
- Materials provided/made available to enable janitors to deliver adequate service
- Relationship with janitorial staff (employees if contractor; workers if municipal official)
- Relation to municipality – kind of contract and how it works

- Average monthly earnings from janitorial supervision/management role
- Perceptions of and behaviour relating to hygiene and public health concerns
- Expectations regarding basic sanitation service provision
- Safety of toilet users
- Safety of janitorial staff for whom responsible/who are employed
- Own safety in relation to janitorial management duties

4) ***Municipal officials***

- Personal demographic information
- Place of residence
- Employment history
- Extent of experience of participation in designing, implementing and managing sanitation services
- Roles and responsibilities in relation to janitorial services in informal settlements
- Relationship with janitorial staff and supervisors/managers
- Perceptions of and behaviour relating to hygiene and public health concerns
- Expectations regarding basic sanitation service provision
- Understanding of municipal and/or national policy regarding basic toilet provision (including its relation to other sanitation and waste-water service provision)

5) ***Civil society activists***

- Personal demographic information
- Place of residence
- History of civil society involvement – particularly sanitation related activism
- Experience of engagement with government policy: its critique and its creation
- Relationship with those on behalf of whom the activist believes s/he is acting
- Relationship with government (all levels) officials and representatives concerned with sanitation service provision
- Perceptions of and behaviour relating to hygiene and public health concerns
- Expectations regarding basic sanitation service provision and how those relate to policy and practice

6) ***Sanitation facilities in informal settlements***

- Location, type, and number of toilets
- State of such toilets
- Ratio of toilets to numbers of households and to population of settlement
- Materials utilised for cleaning and maintenance
- Materials provided to users
- Presence of washbasins/stand pipes
- Provision for gender separation
- Provision for solid waste disposal

- Hours of operation and accessibility
- Whether facility has on site or roving janitors
- Structure of shift work by janitors and their relationship (other than as co-workers) with one another, with local authorities and power holders
- Presence or not of local street committee (or equivalent) and its/their role vis a vis the facility.

H. Sample questionaire template

The *aides-memoire* that was drawn up by the research team for this study was applied in the design of interviews conducted during fieldwork. Various themes – such as access to sanitation facilities and health concerns – headlined groupings of questions which aimed to gain some understanding of the attitudes, perspectives and experiences of research participants. Presented below is the template based on the *aides-memoire* themes used in the Masiphumelele case study for the gathering of: demographic data (Section H.1); and residents' and municipal janitors' viewpoints (Sections H.2 and H.3) of sanitation/janitorial services in the informal settlement.

As is typical of ethnographic fieldwork, the questions were not fixed and the questions asked – as well as their sequence and thematic grouping – were influenced by the environment and mood of interviews and discussions undertaken. It was found that keeping conversation flowing smoothly and amicably depended in large part to being sensitive to the perceived feelings of interviewees, guiding but not controlling discussion and introducing and pursuing themes relevantly. As such, conversation topics were not only directed by themes contained in the *aides-memoire*, but also by what was revealed (and not revealed) by participants, and reactionary prompts and questions in relation to what was said.

H.1 Demographic data

Participant category	
Name	
Cell no	
Shack no	
Sex	
Age	
Date of birth	
Place of birth	

Marital status	
Dependents	
Household composition	
Household conditions	
Residential history	
Employment history	
Religion	
Languages	

H.2 Residents' questionaire

1. Housing experiences especially in relation to access to sanitation facilities
2. Perceptions of and behaviour relating to hygiene and public health concerns
3. Expectations of basic sanitation service provision in and/or around own residential area

4. Safety in relation to toilet use in and/or around own residential area
5. Experiences and expectations of janitorial services in and/or around own residential area
6. Toilet accessibility, particularly at night and alternative sanitation arrangements in and/or around own residential area
7. Suggestions: toilet facilities and janitorial services

H.3 Janitors' questionaire

1. Experience of obtaining and retaining janitorial job
2. Extent and nature of janitorial service training
3. Materials provided to permit provision of (or limiting capacity to provide) janitorial service
4. Number of toilets/toilet blocks for which each individual janitor is responsible, and how time is used to ensure all are managed
5. Relationship with other members of janitorial team – especially where shift work is the norm
6. Other responsibilities relating to toilets
7. Relationship with janitorial supervisors and managers
8. Relationship with municipality – kind of contract and how it works
9. Average monthly earnings as a janitor
10. Relationships with toilet users
11. Perceptions of and behaviour relating to hygiene and public health concerns
12. Expectations regarding basic sanitation service provision
13. Safety of toilet users
14. Own safety in relation to janitorial duties
15. Suggestions: toilet facilities and janitorial services

I. BM Section's chemical & portable flush toilets

I.1 Chemical toilets

A chemical toilet comprises of a seat positioned above a 100-litre (ℓ) receptacle in a plastic superstructure. Supplied by the municipality in areas that are difficult to sewer but are accessible by vehicle, CoCT generally aims to provide one chemical toilet that can be shared between five households. CoCT officials said the units are rented from a contactor, who is meant to empty and to dose the latrines 2-3 times a week with 10-ℓ of odour-inhibiting chemicals. In addition, a CoCT official said that the contractor was required to hire local residents as janitors for the facilities from 1 July 2013 to ensure that the facilities were clean to use during weekdays.

Figure H-1: The remains of chemical toilets that were supposedly burned down by residents on 31 December 2012 because they had not been emptied for some time and smelled terrible (left) and children playing on unanchored units by the Kuils River (Taing, January & February 2013).

Despite the merits or reasons for providing a chemical toilet, there have been many critics against the system, primarily around issues with regular emptying of the facilities (Goldberg et al. 2009; Nicholson 2013a). In general, both women and men complained that chemical toilets “smell”, and said they did not like the units because then they, too, would smell after use. One man added that he was afraid to use a chemical toilet because he feared that someone would tip the structure whilst he was using it (Figure H-1). Some proponents of the system noted that they did not have alternatives where they resided. One young man explained that he preferred the chemical toilets over the full-flush facilities because they tended to be cleaner.

Given the many concerns made about hygiene when using chemical toilets, WSISU officials had stated they began providing a janitorial service similar to those offered for flush and chemical facilities on 1 July 2013 in Khayelitsha informal settlements. For this janitorial service, local residents from informal settlements were hired by the contractor to clean the facilities on the days it is not serviced (i.e. when the contents of the facility are emptied by a honeysucker). No further data, however, was gathered on this new janitorial service given the researchers' time constraints and focus on flush facilities.

I.2 Portable flush toilets

CoCT currently allocates portable flush toilets (PFTs) manufactured by the companies Fiamma and Thetford on a single household basis throughout the Metro. CoCT officials and BM residents alike generally referred to them as *porta-potties* or *qubes*, after the manufacturers' product or model name (Thetford n.d.). Some residents who opposed PFT distribution and CoCT officials who supported them also referenced the units' function or situation where they are generally used. The residential critics derogatorily referred to PFTs as "glorified buckets"; the latter officials as "camping toilets". However, a CoCT official explained that after May 2013 they were asked by the Executive Mayor's office to only refer to the units as PFTs rather than the manufacturer's product name. We hence refer to the units generically as PFTs in this report, except in instances where interviewees may have referred to it as something else.

It is made up of two parts that fit together: a seat with a 15ℓ flush tank above a 20ℓ storage tank that collects the waste. Users are meant to refill the upper flush tank on a regular basis, and the service provider Sannicare are meant to collect filled storage tanks and replace them with clean tanks three times a week.

CoCT previously provided PFTs in either structurally dense informal settlements where it was difficult to provide communal services, or for elderly or disabled residents. Despite the high O&M costs, officials said there was a large push by CoCT to use these sanitation units on a mass scale from 2011-13. This push was on account of residents' demands of household sanitation options that address privacy, dignity, safety and vandalism concerns that are said to plague municipality-provided communal facilities. De Lille (2013a).

According to WSISU, there were 930 PFTs provided to BM Section in May 2013 (de Lille 2013a). Generally women and children reported using portable flush toilets in open spaces adjacent to their dwellings (i.e. their yards or the space between their home and their neighbour's), sometimes in full view of a footpath or a neighbour's window. Users reported they preferred leaving the units outside, rather than inside as intended by CoCT, because it was: (1) too smelly to have indoors, (2) 'away' from their living space, and (3) easier for the contractor to service if outdoors. The few who had kept it inside generally claimed they only used it to urinate at night. One woman said she kept her "porta-potty" indoors so that children would not play or tamper with the units if it is left outdoors. A young boy was also observed dumping his household's night soil bucket (which people never complained about) into a PFT.

Some, however, did note that they did not like the “undignified buckets” provided by CoCT, with the provision of PFTs being widely demonstrated against in August 2013 (Dambo 2013). Similar to the chemical toilet issue of contractors perhaps charging for services that are not done, CoCT has hired local residents to monitor the number of tanks picked up in BM Section and the number of tanks emptied at Borchard's Quarry Treatment Works.

Figure H-2: A porta-potty in BM Section (left); a tank that is to be collected by the porta-potty service provider (centre); and 'cleaned' tanks left on Lansdowne Road by the service provider for users to pick-up (right) (Taing, January-March 2013).

J. Study products

Supplementary policy brief:

L. Taing & A. Spiegel (Forthcoming), **Amending Free Basic sanitation policies and practices: Lessons from informal settlement janitorial programmes**, Water Research Commission: Pretoria, South Africa.

Conference papers, presentations & posters:

- A.D. Spiegel (2013), **Co-operation and Partnerships in Urban Drainage and Sanitation Provision: Experiences in Cape Town's informal settlements (Paper/presentation)**, 18th World Anthropology Congress, Manchester, UK August 2013
- L. Taing, D. Faure, A. Spiegel & N.P. Armitage (2013), **Adapting South Africa's Free Basic Services policy: From "community owned" toilets to household & public sanitation services in Cape Town (Poster/presentation)**, 3rd IWA Development Congress and Exhibition, International Water Association, Nairobi, Kenya, 14-17 October 2013.
- A. Spiegel (Forthcoming), **Public, Communal or Shared?: Toilets in Cape Town's informal settlements (Paper/presentation)**, 2014 Anthropology Southern Africa Conference, Grahamstown, July 2014.

Student dissertations & theses:

- N. Sicwebu (2014), **Communal toilets at BM Section: History shapes the perception and attitudes of women in relation to toilets**, BSocSci Honours report, Department of Social Anthropology, University of Cape Town.
- K. Vice (Forthcoming), **TBD title**, MSocSci dissertation, Social Anthropology, University of Cape Town.
- M. Schroeder (Forthcoming), **TBD title**, MSocSci dissertation, Social Anthropology, University of Cape Town.
- J. Hilligan (Forthcoming), **TBD title**, MA dissertation, Social Anthropology, University of Cape Town.
- L. Taing (Forthcoming), **TBD title**, PhD thesis, Public Administration, University of Cape Town.