

# GUIDELINES ON DOMESTIC WATER ACCOUNTS – TOWARDS A CONSISTENT APPROACH IN THE RSA

Report to the Water Research Commission  
By Sarah Slabbert Associates

WRC Report No. TT 457/10

June 2010



**WATER**  
RESEARCH  
COMMISSION

Obtainable from

Water Research Commission  
Private Bag X03  
Gezina, 0031, South Africa

[orders@wrc.org.za](mailto:orders@wrc.org.za)

The publication of this report emanates from a project entitled *Guidelines on domestic water accounts*

– *towards a consistent approach in South Africa* (WRC Project No. K5/1810).

#### **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.

**ISBN: 978-1-77005-982-5**

**Set Number: 978-1-77005-984-9**

**Printed in the Republic of South Africa**

# EXECUTIVE SUMMARY



## **1. Introduction**

The domestic water accounts<sup>1</sup> (or consolidated accounts) that municipalities send out to consumers on a monthly basis are a key interface between local government and citizens. A municipal account is a unique one-on-one communication event between the municipality and the individual consumer (or customer) to whom the account is addressed.

As such, municipal accounts offer a unique opportunity for municipalities to inform, educate and influence their customers and to establish their communication as clear, accurate and customer friendly.

The research assessed current South African and international regulation, guidelines and research relating to accounts/invoices/bills, with special reference to domestic water accounts. This was supported by a survey of current municipal account practices, as well as a critical analysis of a representative sample of domestic water (or consolidated) accounts. The Tool to evaluate your municipal account (EMI) that was developed, as well as the results of the analysis, was discussed at a workshop with municipal representatives. A survey was also conducted with a national urban sample of 2500 respondents to test three municipal accounts (two from the sample accounts, and a model account that was developed, based on the assessment).

In conclusion, the study developed standards or guidelines for optimising domestic accounts for accessibility, individual needs and transforming consumer behaviour regarding payment and efficient water/resource use.

The sections that follow will briefly refer to the findings of each of these research components.

## **2. Municipal account practices**

The study included a qualitative research component in the form of telephonic interviews with officials from a sample of municipalities to establish the current practices regarding their domestic accounts. 21 municipalities responded to the request to participate in the study:

The interviews were conducted with senior municipal officials who deal directly with the municipal domestic accounts. The questionnaire covered the following sub-sections:

- Account development: the software used, improvement cycle, consumer research, and participatory development;
- Account currently used: information on the account, customer profile and inclusivity;
- User-friendliness of the account: perceptions, account queries, language(s) used on the account; and
- Cost recovery measures in relation to the account.

---

<sup>1</sup> The original terms of reference refers to municipal "accounts"; however, the study recommends the use of the term "invoice" for reasons that are explained in the report.



All the participating municipalities issue monthly a consolidated account of all services that the municipality charges a tariff for, with the exception of Silulumanzi that only issues water accounts. Free basic services are indicated on accounts. All metered connections receive accounts, including indigents with metered house or yard connections.

All the municipalities interviewed have either an outsourced or an in-house financial system that generates their accounts. A range of software companies sells financial systems to municipalities; the Venus system is used most widely. When interviewed, BCX (supplier of the Venus system) and SAP claimed that their systems are completely flexible and customisable. They also claimed that the municipalities themselves determine the layout, the 'look and feel' of the account, as well as the nature and level of detail on the account. However, some systems generate a number of standard options from which municipalities can choose.

Only one municipality reported customer participation in the development of their account. Also, only one institution indicated that they undertake any kind of customer research in connection with the municipal account, for example, on consumer needs regarding accounts, consumers' information needs and communication preferences. However, all respondents believed that their account is user-friendly and easy to understand.

The municipal respondents did not link default in payment with non-comprehension of the account. Figures for account queries varied enormously, were not always available and their reliability might be questionable, yet, it was evident that all the municipalities get account queries every month and they have to pay staff to deal with these queries. According to the respondents, queries relating to customers not understanding the account vary from nil to 40%. Queries generally appear to relate to the accuracy of meter readings and the charges for services, but it was not clear whether customers complained because they did not understand the charges or because they did not agree with the charges.

The described municipal account practices explain why the analysis of the actual accounts found a total lack of standardisation in South African municipal accounts.

### **3. South African and international regulatory requirements for municipal accounts**

#### **3.1. South African regulatory legislation**

The South African laws that regulate consumer accounts in general, and municipal domestic accounts specifically, are the Municipal Systems Act 32 of 2000, the National Credit Act 34 of 2005, the Value-Added Tax Act 89 of 1991, Municipal Property Rates Act 6 of 2004 and the Consumer Protection Act 68 of 2008.

Regulations relate to both the information that should appear in accounts as well as the format.

### **3.2. International regulation**

Countries with VAT legislation, such as the UK (2008) and Australia (1999) require similar information on accounts as the South African VAT Act.

In the USA, Federal or State Commissions may set regulations for the information to appear on bills (standard term used in the USA) and their format.

A publication of the Office of Investor Education and Assistance, U.S. Securities and Exchange Commission, *A Plain English Handbook* (1998) describes and motivates plain English in very specific and quantifiable terms.

### **3. The consumer-friendly account**

At the core of the development of consumer-friendly municipal accounts lies the comprehension or the level of understanding of the particular consumer the account is addressed to. In this respect, consumer needs vary considerably, creating a challenge for the designer of the account. In the final instance, the municipal account must be understandable to both the most and least literate of consumers. For those who do not understand the language of the account, or whose sight is impaired, other measures should be available to assist.

A survey of international best practice and consumer research (Australia Natural Resource Management Ministerial Council 2006, EDF Energy UK 2009, EELCO 2008, Electrogaz 2008, Garland Utilities 2008, India Ministry of Urban Development 2007) concludes that the following features mark a user-friendly account, serving consumers:

- The font should be large and of a high resolution type for easier reading;
- The document should guide attention (e.g. bold, or larger font) to the important aspects of the statement;
- Clear and concise account information;
- Detail that is easy to understand – unnecessary detail that could confuse the consumer should be removed;
- The breakdown of the utility services should clearly be separated;
- Usage charges must be clear and easy to follow;
- Explanatory statements should be in plain language;
- All contact information must be both clear and easy to find on the document;
- Accounts should take individual needs into consideration, such as different languages and special messages for specific customers;
- Uncluttered format; and
- Different payment options.

Following industry's best practices and understanding customer needs are essential in creating a flexible format that will incorporate the needs of all customers.

#### **4. An account that decreases consumers' water and energy footprint**

Research of international best practice indicated four measures that can be successfully employed on accounts to positively influence consumer behaviour to decrease their water and energy footprint: comparative information, targets, incentives, and education. In view of the pending climate change, such actions need to be accelerated.

In 2004, the Council of Australian Government agreed to a National Water Initiative (NWI) with the aim of safeguarding surface and groundwater resources. As part of the NWI, the National Guidelines for Residential Customers' Water Accounts (2006) was developed. The Guidelines document focuses on comparative water consumption information for the individual customer as well as water conservation information. More details appear in the Literature Review.

Tax incentives, or cash incentives for saving water or energy, are further measures to encourage a change in behaviour. The US Federal Energy Policy Act of 2005 provides tax credits for certain energy efficient home or business improvements as incentive to motivate consumers to save energy.

#### **Tool to evaluate municipal invoices (EMI)**

An instrument for the critical analysis of municipal invoices or accounts was developed, based on local and international regulation, local and international best practice and the Plain English Handbook used by US government (1998). The instrument translates qualitative criteria into measurable categories to calculate an index score, which can be used to assess and compare municipal accounts.

The Tool distinguishes five assessment categories:

1. Plain language: clarity and accessibility in language;
2. Plain language: clarity and accessibility in layout and design;
3. Information relating to the account as a unique obligation to pay for goods and services delivered, as regulated by South African law;
4. Information that addresses the integrity of the account as required by South African and international regulation; and
5. Information that addresses water conservation and effective water services as required by international examples of regulation.

In each category, a number of assessment criteria apply. In combination, these assessment categories determine an 'ideal' municipal account that is easy to understand and user-friendly; adheres to policy and legislation; provides enough information to ensure client satisfaction and account validity; and creates a platform from which water conservation and water management issues can be addressed in a manner that will impact on consumer behaviour.

## 4. Application of the EMI tool

The EMI tool was applied at three levels:

- a. To analyse 35 South African municipal accounts (see relevant chapters for a list of the accounts) and six international best practice accounts;
- b. In two case studies (City of Tshwane and eThekweni Metro); and
- c. To test the Tool at a workshop of municipal officials.

The evaluation of 42 accounts on the EMI tool showed that, in comparison to the international accounts, South African municipal account scored well on payment information. The other four categories, however, did not yield same positive results.

The City of Cape Town Metro achieved the highest South African score with 7.571 out of a possible 10 points. The City of Cape Town account is therefore the best practice in South Africa. The new accounts of Tshwane Metro and eThekweni Metro also scored above 7.0. Six South African accounts scored 5.0 or more out of a possible 10; the rest scored below 5.0 (seven below 3.0, ten between 3.0 and 4.0, and 12 between 4.0 and 5.0).

The SA municipal accounts scored very low in the categories of “integrity of information”. Many municipal accounts do not comply with legislation, because they do not show how the amounts that consumers are expected to pay for municipal services are calculated. Accounts that lack the basic integrity may lead to reluctance to pay for municipal services, and paying for services is necessary to fund a continuous supply of sufficient clean water and electricity in this country.

South African accounts also do very little to reduce our water and energy footprint and lag far behind international best practice in this regard.

Customer care and protection have much to improve.

South African municipal accounts are not standardised at all in terms of language, layout and information.

## 5. Survey

A customer survey was conducted to test the EMI tool and the developed model account with a national stratified random sample of 2500 urban respondents.

The survey results showed that:

1. The integrity of South African municipal accounts is in question. **35% of consumers’ doubt the correctness of their municipal accounts.**
2. Understanding and ease to find information correlate with trust in the correctness of the information.
3. Although other aspects such as problems with service delivery might have affected the result, the results of the survey prove that improvement of the clarity of accounts increase

consumers' trust in the correctness of the information. This could be expected to affect also consumers' willingness to pay for services.

4. **The ordinary South African consumer struggles to find basic information on municipal accounts**, such as the amount owed from previous months, the meter reading date, water use and Free Basic Water received:
  - a. It is common practice to use numbers without the unit (R or kl), as well as to include codes that are meaningless to consumers. Consumers have great difficulty to distinguish between numbers without units.
  - b. Consumers, especially those whose home language is not English, find acronyms and abbreviations difficult to decipher.
  - c. Consumers struggle to understand words commonly used on accounts, such as *arrears*, *remittance advice*, *rebate*, *consumption*, *opening balance*, *balance brought forward* and *previous*.
  - d. Consumers confuse litres and kilolitres. The survey confirmed that consumers do not understand kilolitre well as a unit.
  - e. Consumers found it very difficult to work out from the sample accounts the quantity of water consumed, or the quantity of Free Basic Water that the household received.
5. Consumers in the lower LSM groups require some form of explanation or consumer training to understand their municipal accounts.
6. Understanding of the language on the accounts correlates with the home language of the reader. The fact that most accounts are in English only, impairs understanding for the 90% of South Africans whose home language is not English.
7. Understanding correlates with LSM group. The lower LSM groups have more difficulties to understand their municipal accounts than the higher LSM groups.
8. **Simple changes increase consumer understanding of municipal accounts significantly.**
9. The account analyses on the EMI Tool were confirmed by consumers with two conditions:
  - a. The research confirmed that Information density affects the understanding of an account negatively, especially if the account has scored low on language and layout. Readers find an account where a lot of information is squeezed into a small space, with no white space to guide the reader, very difficult to decipher. If the language and layout is clear, readers are able to find the same information easily. Criteria to this effect will have to be added to the EMI Tool.
  - b. The use of codes, abbreviations and acronyms exacerbates understanding problems, particularly for non-English home language speakers.

## 6. Towards standards for municipal accounts

As a final output, a standards document or Guide was developed for the standardisation of municipal accounts. This document:

- Gives a brief overview of the findings of the study;
- Provide standards for municipalities to improve their accounts;
- Explains the EMI Tool and guide municipalities to apply the instrument to their own accounts; and
- Provide examples of local and international best practice.

The Guide is a separate document to this report.

## Conclusions

This study concludes that municipal accounts in South Africa have much to improve on before they will function as a tool to serve consumers and use our water resources effectively.

In particular:

- South African accounts are not standardised at all;
- Many accounts do not meet regulatory requirements;
- Most accounts are:
  - barely legible
  - not user-friendly
  - not customer-orientated at all
  - in English only;
- Most accounts do not communicate water conservation and effective water use;
- Accounts are not used to brand conservation, set consumption targets or give incentives for conservation; and
- Accounts with comparative or historical consumption information, which have been proved to influence consumption behaviour, are rare.

The results of the study show that the EMI Tool, which was developed to evaluate invoices, can be used to effect simple changes that can:

- Make a significant difference to consumers' understanding of their invoices;
- Improve invoice integrity and consumers' willingness to pay; and
- Save critical resources and decrease our water and energy footprint.

The standards and model invoices developed and tested in this study aim to improve the understanding of domestic water invoices, within specific South African regulatory requirements, and contribute to changing behaviour and reducing consumers' water footprint.

Better understanding will improve consumers' trust in the validity of their invoices, which will, in turn, improves consumers' trust in, and support for, their municipalities.

## 7. Recommendations

It is recommended that municipalities:

1. Assess their accounts with the EMI Tool as explained in the Guideline document;
2. Make the necessary adjustments to improve the clarity of their accounts as required by legislation, and particularly by the Consumer Protection Act (68 of 2008). Simple changes can drastically increase clarity for the consumer;
3. Do not use an account that scores less than 7.5 on the EMI Tool;
4. Use the model accounts as basis, since it has tested well with a broad spectrum of consumers;
5. Include on their accounts comparative consumption information and messages that will encourage consumers to save scarce resources ;
6. Use a two page account. The results indicate that a two page account with a summary on the first page and a detailed explanation of tariff structure, meter readings, etc. on the second page, or the back, is a much better option for the broad spectrum of consumers than trying to squeeze all the information onto one page;
7. Provide consumers in the lower LSM groups with education or explanatory information on “how to read your municipal account”. Municipalities should make an explanation of their account available on their websites and they should also send a hard copy once a year to all consumers.
8. Avoid words that confuse consumers. The study found that many consumers are not familiar with the terminology used on municipal accounts, such as ‘consumption’, ‘arrears’, Free Basic Water, ‘balance brought forward’, ‘levy’ and ‘kilolitres’.
9. Provide consumers with municipal accounts in their home language or their language of preference; and
10. Test the clarity of accounts with consumers. The research has shown that municipal officials who work with accounts every day do not know how well the consumers they serve understand these accounts.
11. Be discouraged to use colour printing. It is very expensive and does not necessarily contribute to the clarity of the account. Detail is often lost when these accounts are faxed. The use of pre-printed accounts is also not recommended, because they tend to misalign row information and column headings.

The following supporting actions towards improving and standardising municipal accounts are recommended:

1. There is a need in South Africa to regulate in more specific terms the format of municipal accounts. Local regulation is also not clear on the legal status of an account that does not comply with legislation.
2. In order to raise awareness about the need for standardisation of municipal accounts, we recommend that the executive summary of this report and the Guidelines are distributed to the relevant persons in Treasury, Water Affairs and COGTA. If requested, the documents could be supplemented by a presentation.

3. We recommend that the Guidel be distributed to the Municipal Managers and CFOs of all municipalities.
4. **We doubt that the distribution of the Guide will be sufficient and recommend a series of training workshops for municipalities.**
5. Further paper, electronic and SMS account templates from which municipalities could choose should be developed.

Clear and understandable accounts for consumers are a legislative requirement, but it is also a very important mechanism to improve consumers' trust in the correctness of the information that the municipality has supplied, and the general integrity of municipal accounts. Improved consumer trust could have a significant impact on payment.

New software developments and technology hold exciting possibilities for the design and communication of municipal accounts. For example, accounts could be generated and distributed via SMS, email and interactive websites; thus saving municipalities thousands of Rand on mailing cost, money which could be used to finance the improved services that citizens are currently demanding.

These distribution technologies extend the unique communication opportunities that municipal accounts offer. Countries like Singapore and Australia exploit these opportunities fully in service of the effective management of their critical resources. If South Africa is serious about rescuing our critical resources and Batho Pele, we should employ this valuable tool.



# Contents

EXECUTIVE SUMMARY .....	iii
CHAPTER 1: OVERVIEW .....	2
1    Problem statement .....	3
2    Objective .....	4
3    Methodology .....	5
3.1    Phase 1: Literature review .....	5
3.2    Phase 2: Investigation into current WSA domestic water account practices .....	5
3.3    Phase 3: Develop tool to evaluate municipal accounts (EMI) .....	6
3.4    Phase 4: Develop model templates and test .....	6
3.5    Phase 5: Develop a guideline document that sets standards for municipal accounts .....	7
4    Structure of this report .....	7
CHAPTER 2: LITERATURE REVIEW .....	9
1    Terminology: account/bill/invoice/statement/statement of account? .....	10
2    Domestic water accounts in context .....	10
3    Problem statement .....	10
4    South African research findings .....	11
4.1    DWAF/DFID Study (2005) .....	11
4.2    Results from a Customer Satisfaction survey .....	12
5    International research findings .....	13
6    Regulation relating to the format of municipal accounts .....	15
6.1    South African Regulation .....	15
6.2    International regulation .....	21
6.3    Comparative analysis of invoice requirements .....	25
7    The consumer-friendly utility bill .....	25
7.1    Common criteria for a consumer-friendly utility bill .....	26

7.2	International best practice.....	27
7.3	Lessons learnt from local best practice .....	29
8	Information that supports water conservation .....	30
9	Support measures to enhance the understanding of utility bills .....	32
9.1	Adult education.....	32
9.2	Translating services.....	33
9.3	Toll free lines/Consumer Councils .....	33
9.4	Are utility bills necessary?.....	33
10	Conclusion.....	34
CHAPTER 3: CURRENT MUNICIPAL ACCOUNT PRACTICES IN SA .....		36
1	Introduction .....	37
2	Groundbreaking initiatives.....	37
2.1	The Greater Hermanus Water Conservation Programme .....	37
2.2	The Citizens' voice project .....	38
3	Current municipal account practices .....	38
3.1	Approach.....	38
3.2	WSA Sample .....	39
3.3	WSA Questionnaire .....	41
3.4	Results .....	44
CHAPTER 4: MINIMUM KEY STANDARDS.....		46
1	Introduction .....	47
2	Standards as required by local and international regulation .....	47
2.1	South African regulatory legislation.....	47
2.2	International regulation .....	48
3	Standards based on best practice and consumer research .....	49
4	Standards for an account that decreases consumers' water and energy footprint .....	50

CHAPTER 5: TOOL TO EVALUATE MUNICIPAL INVOICES (EMI).....	51
1    Introduction .....	52
2    Clear and accessible communication .....	53
2.1    Plain language: clarity and accessibility in language .....	53
2.2    Plain language: clarity and accessibility in layout and design.....	54
3    Information .....	56
3.1    Information relating to the account as an individual obligation to pay for goods and services delivered (as regulated by South African law) .....	56
3.2    Information that enhances the integrity of the account as required by South African and international regulation .....	58
3.3    Information aimed at educating and changing behaviour as required by international examples of regulation .....	58
CHAPTER 6: APPLICATIONS OF THE EMI TOOL .....	60
1    Application 1: Evaluating municipal accounts .....	61
1.1    Summary of findings .....	61
1.2    Detailed findings .....	63
1.3    Conclusions .....	65
2    Application 2: two case studies .....	66
2.1    Ethekwini Metro .....	66
2.2    Tshwane Metropolitan Municipality.....	76
3    Application 3: testing the EMI tool in a workshop with municipal officials .....	84
3.1    Aim .....	84
3.2    Programme .....	84
CHAPTER 7: CUSTOMER SURVEY .....	86
1    Introduction .....	87
2    Summary of findings .....	88
3    Conclusions .....	89
CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS .....	90

1	Conclusions .....	91
2	Recommendations .....	92
	REFERENCES .....	95
	ANNEXURES .....	101
1	Current WSA domestic account practices .....	102
1.1	How well do consumers understand their water bill? Good (best) practice .....	102
1.2	How is the account generated? .....	108
1.3	Is the consumer account used to influence behaviour and educate consumers? .....	112
2	Interviews with software service providers.....	117
2.1	Interview with Andries Fourie, Business Connexion – Venus Financial System .....	117
2.2	Interview with Bhavishh Kalan, SAP.....	119
2.3	Interview with Roland Hunter, independent expert, Hunter van Ryneveld .....	119
3	Summary of municipal scores on EMI tool .....	121
4	Survey report .....	123
4.1	Background .....	123
4.2	Methodology.....	123
4.3	Accounts used in survey.....	127
4.4	Survey questionnaire .....	131
4.5	Summary of findings .....	136
4.6	Details of findings.....	137
4.7	Consumer perceptions of their own account .....	147
4.8	Consumer perceptions of the sample accounts .....	148
4.9	The impact of prior knowledge.....	151
4.10	How do people make sense of information? .....	153
4.11	Conclusions .....	154
4.12	Recommendations .....	155

4.13	References .....	157
4.14	Appendices.....	158
4.15	Details of the scoring of Pluto and Venus on the Tool of Critical Analysis .....	159

# CHAPTER 1: OVERVIEW



## 1 Problem statement

The South African laws that regulate consumer accounts in general, and municipal domestic accounts specifically, are the Municipal Systems Act 32 of 2000, the National Credit Act 34 of 2005, the Value-Added Tax Act of 1991, Municipal Property Rates Act 6 of 2004 and the Consumer Protection Act 68 of 2008.

Recent research (Slabbert 2005a WRC 2008, Slabbert 2005b/2006/2007) indicate that **many people in South Africa do not know and cannot articulate how much water they are consuming.**

A study by Rand Water amongst more than a thousand households in the ODI region north of Pretoria showed distrust of water accounts ranging very high in the community (briefing document).

The water accounts that municipalities send out to consumers on a monthly basis are a key interface between local government and citizens. Consumers' level of understanding of their water accounts is therefore indicative of the effectiveness of this communication. A lack of understanding of accounts has a negative impact on customer awareness, accountability, participation and the regulation of water services. It also leads to distrust in the correctness of accounts.

In addition to information on consumption and the amount payable, water accounts offer a unique opportunity for municipalities to engage with their consumers and to communicate for example planned interruptions, new pay points, or longer office hours. Domestic water accounts are furthermore a high potential communication channel through which, especially new consumers, can be educated on basic aspects of the water business such as Free Basic Water, water quality, water meters, and water conservation.

**In this function, the water account is not only a regulatory instrument, but it is a tool to make water users participants to sustainable water services.**

The potential of the water account as a communication tool has been recognised in other water scarce countries such as Australia. For example, the National Guidelines for residential customers' water accounts (National Resource Management Ministerial Council, Australia 2006) states that:

*"customers' water accounts provide a significant opportunity to further engage customers in relation to water conservation... The ultimate objective for the water services provider is to provide customers with information that contributes to customers own water saving efforts, by providing meaningful information on how their water usage compares with other customers – with the goal of triggering a water saving response in terms of water usage behaviour."*

New media such as SMS messages, e-mail, online surveys, iPods, blogs, discussion boards, and social network open exciting new communication channels for the future that could also be utilised by municipalities in their communication with their consumers.

In 2008 the Water Research Commission (WRC), commissioned research with the objective of developing a Guideline for domestic water accounts, in order to enhance consumers' understanding of their water accounts and to develop customer awareness, customer participation and accountability regarding water services. This document is the final report of the study.

## 2 Objective

The objective of the study was to develop a Guideline for domestic water accounts, in order to enhance consumers' understanding of their water accounts and to develop customer awareness, customer participation and accountability regarding water services.

**A Guideline for a standardised water account format would make a valuable contribution towards increased consumer awareness and consumer participation in the management and conservation of the country's water resources.**

In order to achieve these objectives, the study had the following research aims:

1. Assess:
  - a) Current local and international legislation relating to statements of accounts
  - b) Current local and international research on domestic water accounts
  - c) International guideline documents for domestic water accounts
  - d) Criteria that could be applied for a critical analysis of the communicative effectiveness of water accounts
  - e) Local best account practices in the retail industry
  - f) For WSAs:
    - Current account formats
    - Best practices with regard to account format
    - Possible correlation between account format and payment rate
    - Any existing research on consumer needs regarding accounts
    - Any existing research on consumer information needs and communication preferences
    - The process through which domestic water accounts are generated. This would include an investigation into the financial software used by municipalities to create domestic water accounts and their possibilities and constraints
2. Develop model templates of domestic water accounts taking into consideration the outcomes of the assessment phase.
3. Elicit consumer feedback and suggestions on model templates. Revise model templates accordingly.
4. Test the model templates for comprehension with a national sample of consumers.
5. Recommend (in a Guideline document for Water Services Institutions) a standardised format for water accounts. Recommend in the same Guideline document approaches to educate and inform consumers on the water business.
6. Communicate the Guideline document to:
  - Financial software companies
  - Structures in municipalities that buy financial software
  - Stakeholders and the general public



### 3 Methodology

#### 3.1 Phase 1: Literature review

Outputs:

- a. Literature review

Methodology:

For the literature review, the internet, journals and books were consulted in order to investigate:

- Current local and international legislation relating to statements of accounts
- Current local and international research on domestic water accounts
- International guideline documents for domestic water accounts
- Criteria that could be applied for a critical analysis of the communicative effectiveness of water accounts

In addition, the accounts managers of a sample of retailers with a similar target as domestic water accounts will be interviewed in order to establish if lessons can be learnt from local best account practices in the retail industry.

#### 3.2 Phase 2: Investigation into current WSA domestic water account practices

Outputs:

- a. Report on analysis of current practices regarding domestic water accounts

Methodology

- Liaison with key stakeholders and experts to get information on current municipal billing practices.
- In-depth telephonic interviews with officials from a representative sample of the 284 WSAs to establish the current practices regarding their domestic accounts. 21 municipalities responded to the request to participate in the study.

The interviews were conducted with senior municipal officials who deal directly with the municipal domestic accounts. The discussion guide covered the following sub-sections:

- Account development: the software used, improvement cycle, consumer research, and participatory development;
  - Account currently used: information on the account, customer profile and inclusivity;
  - User-friendliness of the account: perceptions, account queries, language(s) used on the account; and
  - Cost recovery measures in relation to the account.
- Interviews with representatives of financial software companies that sell software to municipalities will establish the comparative degree of freedom that these software packages allow.

### 3.3 Phase 3: Develop tool to evaluate municipal accounts (EMI)

#### Outputs:

- a. A tool to evaluate municipal invoices or accounts (EMI)
- b. Analysis of accounts utilising the EMI Tool
- c. Case study report
- d. Workshop report

#### Methodology:

The Tool was developed, based on local and international regulation, local and international best practice and the Plain English Handbook used by US government (1998). The Tool translates qualitative criteria into measurable categories to calculate an index score out of 10, which can be used to evaluate and compare municipal accounts.

In order to refine the EMI tool, it was applied at three levels:

- a. It was used, firstly, to analyse 42 (35 South African, 6 international and 1 model account) municipal accounts (see relevant chapters for a list of the accounts).
- b. Secondly, the EMI Tool was used in two case studies. The City of Tshwane and eThekweni Metro were in the process of revising their bill format. The researchers applied the EMI tool to their draft bills, and wrote a report on how these drafts could be improved.
- c. Thirdly, a workshop was held at the offices of the WRC with municipal officials to discuss and practise the application of the EMI Tool.

### 3.4 Phase 4: Develop model templates and test

#### Outputs:

- a. Model templates
- b. Survey report

#### Methodology:

- Develop draft model templates, based on the literature review, local and international best practice and the EMI tool.
- Test qualitatively with consumers, refine and revise accordingly. Circulate finalised templates to a sample of stakeholders

Test model templates for comprehension with a national matched sample. Inclusion in a syndicated study was proposed as it would be the most cost effective option.

A matched sample methodology, whereby the demographics of one sample is duplicated in other samples, and whereby each sample is exposed to only one example of an account template and consumer communication (monadic testing) was proposed.

Respondents of all three matched samples to be asked exactly the same questions, for example:

- How much must the household pay this month?
- How much water did the household use this month?
- How much is this household in arrears?

### 3.5 Phase 5: Develop a guideline document that sets standards for municipal accounts

Deliverable

- a. Guideline document

Methodology

The Guideline:

- Provide standards for municipalities to improve their accounts;
- Explains the EMI Tool and guide municipalities to apply the Tool to their own accounts; and
- Gives a brief overview of the findings of the study;
- Provide examples of local and international best practice.

## 4 Structure of this report

Chapter 1 (this chapter) gives the reader is given an **overview** of the problem statement, the objectives of the study, methodology and the main components of the study as they appear in the report.

Chapter 2 comprises the **literature review**. The aim of the literature review was to investigate current South African and international legislation, regulation and best practices concerning municipal account formats, consumer-friendly accounts and the use of information to promote water conservation.

Chapter 3 describes the finding of qualitative research on **current practices** regarding the monthly accounts that municipalities send to consumers.

Chapter 4 incorporates the findings of the literature review and current practices into **a set of minimum standards that municipal accounts should meet**.

Chapter 5 describes the development of **a Tool to evaluate municipal accounts (EMI)**. In combination, these assessment criteria in five categories determine an 'ideal' municipal account that is easy to understand and user-friendly; adheres to policy and legislation; provides enough information to ensure client satisfaction and account validity; and creates a platform from which water conservation and water management issues can be addressed in a manner that will impact on consumer behaviour.

Chapter 6 describes **the application of the EMI Tool at three levels**: an evaluation of municipal accounts, two case studies and a workshop with municipal officials.

Chapter 7 discusses in brief the **customer survey** that was conducted with a national stratified random sample of 2500 urban adults. Model accounts were developed, based on the EMI Tool, and, together with two accounts, one with a low index score, and another with an average index score, these accounts were tested for comprehension and trust in the survey. The full details of the survey appear in Annexure IV of this report

Chapter 8 comprises the final output of the study, which is a separate Guide: **Towards standards for municipal accounts.**

In the last chapter of the report the **conclusions and recommendations** of the study are given.

## CHAPTER 2: LITERATURE REVIEW



## 1 Terminology: account/bill/invoice/statement/statement of account?

One of the challenges of this literature review was to find the appropriate term per country for the item that the Terms of Reference of this study refers to as ‘domestic water account’.

‘Account’, ‘statement’ and ‘invoice’ were found to be the least common terms used for this item, whereas ‘bill’, and specifically ‘utility bill’, was found to be the most commonly used.

According to the Cambridge Advanced Learner’s Dictionary (2009), the following are relevant meanings:

- Account = “an agreement with a shop or company that allows you to buy things and pay for them later”; statement of money received and expended, with balance”
- Bill = “request for payment”
- Invoice = “a list of items provided or work done together with their cost, for payment at a later time”
- Statement = “bank statement”

This study will therefore refer to ‘municipal accounts’ for the local item and ‘utility bill’ for other countries.

The legal status of municipal accounts as invoice/bill or account is however not evident and will be revisited after the discussion on the regulatory requirements for municipal accounts.

## 2 Domestic water accounts in context

In terms of the Water Services Act (No 108 of 1997) and Municipal Systems Act (No 32 of 2000), Water Services Authorities (WSAs) establish retail water services tariff policies and set water and sanitation tariffs within the framework provided by DWA.

Currently the Department of Water Affairs and Forestry (DWAF) acts as the national regulator of water services. This function includes the economic regulation of water services, i.e. the *review of investment decisions of water services providers and tariffs* (Strategic Framework for Water Services [2003: 71]).

Municipal accounts are sent out by the water services authority or by its water services provider.

## 3 Problem statement

Not understanding municipal accounts/utility bills appears to be a common problem amongst many consumers of utility services in both the developed and developing world. Research has shown that even businesses, who boast educated and literate accounting staff, at times do not understand their utility bills. In a study, conducted by Payne and Berkeley (2000), the researcher proved that people in commerce and industry, especially smaller businesses, could not understand, for instance, three columns next to each other, indicating previous reading, current reading and usage. They only saw

the figures in the first two columns and assumed that they used more water in this period than in the previous period, and were thus unable to understand the cost.

Another common problem noted by Payne and Berkeley (2000) was the confusion caused by clutter on the account/bill. When there is too much information on a statement, consumers tend to ignore everything and focus only on the amount to pay, which renders the statement of very little use.

It is vastly more complicated for the less literate person, since the barrier of not comprehending the written word in addition to not understanding the detail on the statement make such statements totally inaccessible.

*“When faced with a bill for gas, electricity or water how do we know that we have been charged the right amount? How easy is it to understand how the bill has been calculated? Or to find out what options are available for paying the bill?”* (James & Kearton, 2009)

## 4 South African research findings

### 4.1 DWAF/DFID Study (2005)

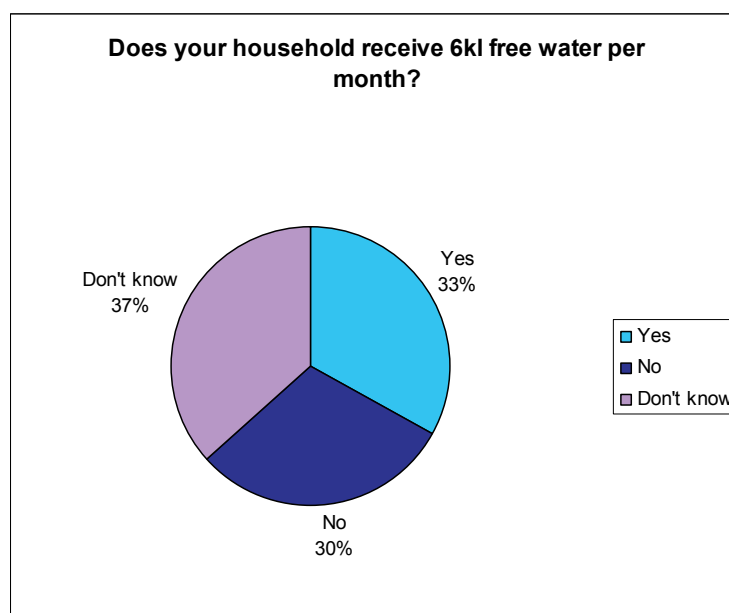
In 2005, DWAF, in collaboration with DFID, undertook an investigation of local and international best practice in the context of water services, customer care and protection.

Below is an extract from the report of this study:

#### Awareness of Free Basic Water

**Question:** *Does the municipality supply your household with 6kl free water per month?*

**Figure 1: Free monthly water**



The respondents in this study were urban customers. The qualitative research indicated that, at that time, most WSAs/WSPs preferred to give 6kl of water free to all their customers, because of the practical difficulties with indigent registers. One could therefore assume that the majority of respondents who gave these answers indeed received 6kl of water per month free of charge. Johannesburg, for example, provided at the time all households with 6kl water per month free of charge; yet 33.3% of customers from Johannesburg said 'no' they don't receive Free Basic Water, and 48.6% said that they 'don't know' if they receive Free Basic Water. The high percentages indicating that they 'don't know', were probably also indicative of customers' difficulty to access information from bills.

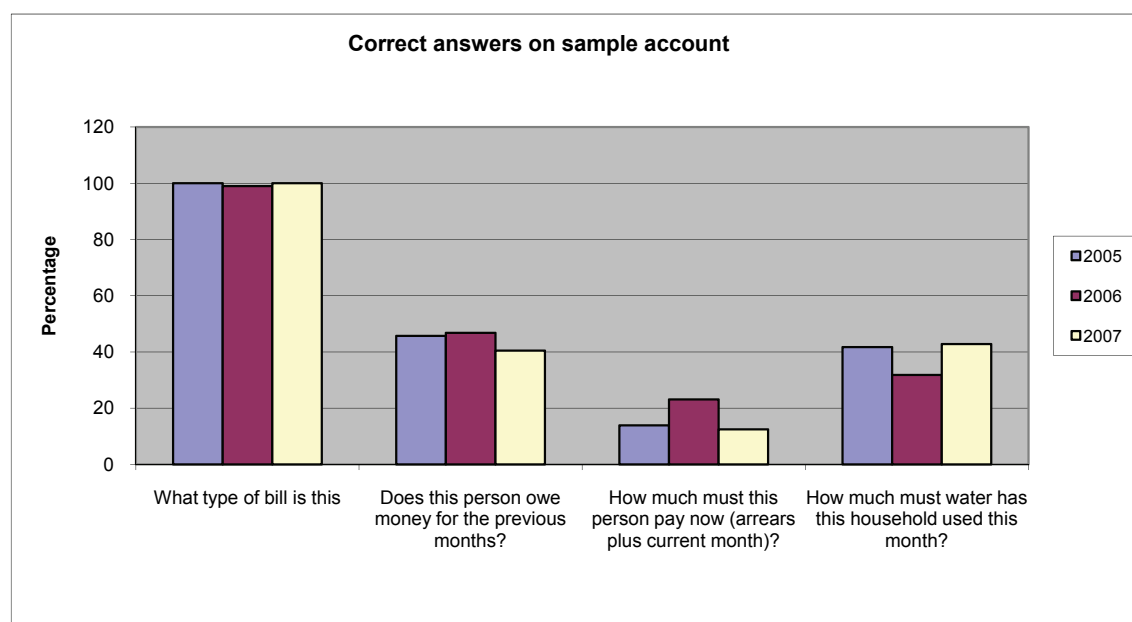
## 4.2 Results from a Customer Satisfaction survey

Results from the annual customer satisfaction survey (2005, 2006 and 2007) of a Water Services Provider in Mpumalanga confirmed the above results.

A sample of the account was shown to all consumers from 24-hour full pressure supply areas. Respondents were asked: *Do you receive an account like this?* All those that said 'Yes', received an account like the example, and were asked a further four questions on the content of the account:

- Questions:**
- C35. What type of account is this?
  - C36. Does this person owe money from previous months?
  - C37. How much must this person pay now (arrears plus current month)?
  - C38. How much water has this household used this month?

**Figure 2: Correct answers on sample account per year**

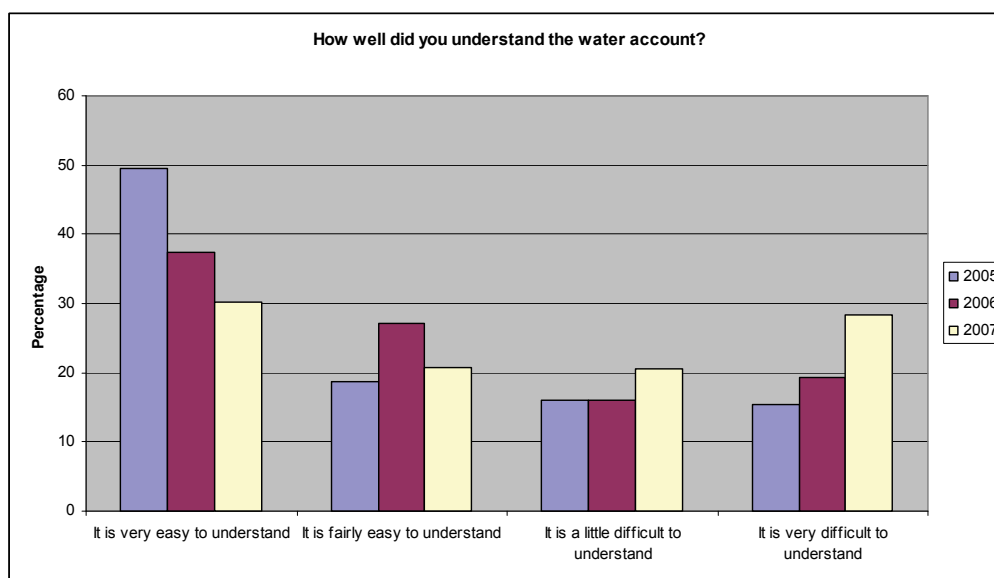




The results for correct answers on the sample account have not changed since 2005. The account is still not understood well. It is evident that consumers know what type of account it is (100% in 2007). They have however difficulty in understanding the content of the account.

Figure 3 shows that, in 2007, more respondents than previously were willing to admit that they found the sample account difficult to understand.

**Figure 3: Comprehension of the water and sanitation account per year**



## 5 International research findings

The above section has already referred to the research of Payne and Berkeley on the comprehension of utility bills.

In 2004, the Council of Australian Governments agreed to a National Water Initiative. The NWI is a policy development pertaining to water management with the aim of safeguarding surface and groundwater resources. As part of the NWI, the National Guidelines for Residential Customers' Water Accounts was developed.

*"Specifically, these Guidelines address the following NWI pricing action to facilitate efficient water use: NWI paragraph 66 (iv): development of national guidelines for consumers' water accounts that provide information on their water use relative to equivalent households in the community by 2006"* (National Guidelines for Residential Customers' Water Accounts, 2006:4)

The Guideline document has two main focus areas: to compare water consumption and to promote water conservation. The Guidelines specifically notes that this water saving initiative (awareness through the use of water accounts) must be placed into the context of a broader, already existing and integrated set of water saving initiatives.

Extensive research produced interesting findings that were all incorporated into the final Guidelines. Research by the Water Services Association of Australia (WSAA) indicated that the unit of measurement, namely kilolitres, proves to be very difficult for consumers to understand. "Customers did not have an understanding of how much a kilolitre was and therefore suggested using litres or some other form of description (i.e. x buckets of water) when billing for water use" (National Guidelines for Residential Customers' Water Accounts, 2006:26).

Research for Sydney Water, found that high consumption customers did not realise that they were using more water than the average consumer (National Guidelines for Residential Customers' Water Accounts, 2006:26).

Further research for the 10<sup>th</sup> Annual National Water Forum conducted by Yarra Valley Water in 2003 (National Guidelines for Residential Customers' Water Accounts, 2006:28) indicated that:

- Information needs to be simple, clear and easy to locate;
- Water consumption graphs must show the same period of consumption for the previous year;
- Colour is a good tool to identify key information; and
- Water usage charges must be clear and easy to follow.

In a survey conducted in Wales by the Wales Consumer Council (2008) it was found that 12% of the consumers find it difficult to understand their utility bills. Those more likely to have problems included people from the lower socioeconomic brackets, those with a long-term illness, health problems or disability and those living in rented accommodation.

Many local authorities implement measures to assist consumers in reading and understanding utility bills. For example, on 12 February 2008 the Wall Street Journal reported that:

*Many other utilities already have made changes. DTE Energy Co., parent of Detroit Edison Co., revamped its bills to itemize charges and spell out its rate tiers. Vectren Corp., a utility based in Evansville, Ind., recently added charts to its bills so customers can quickly see how their gas and electricity use has varied over a 13-month period. The utility also added weather data showing the average temperatures for the current billing period, prior month and year-earlier period, so customers can get a sense of what role weather played.*

*"We felt there was a real need to help consumers understand their personal consumption better," says Jeff Whiteside, a Vectren vice president.*

*Southern California Edison, a unit of Edison International, tapped bill consultants and focus groups to come up with a more readable, useful format for its bills. For instance, consumers told the utility they find the different rate tiers confusing, so the new bill will include a simple graph that shows where a household's usage falls in the tiers and how close it is to lower-cost tiers, as an incentive to conserve.*

## 6 Regulation relating to the format of municipal accounts

'To regulate' means "to control something, or an official rule or the act of controlling" (Cambridge Advanced Learner's Dictionary). Regulation refers therefore to the act of controlling social or other behaviour through rules or restrictions. Regulation can take many forms, including regulation by an Act or law of government, regulation through policy/ strategy/ order, or regulation through a set of guidelines.

In both the local and the international context, the format of municipal accounts is regulated by all of the above mentioned forms of regulation.

### 6.1 South African Regulation

From what could be established from this study, legislation that prescribes the format of a utility account does not exist. Certain pieces of legislation and some policy documents regulate the content of consumer accounts in South Africa, but they do not prescribe the format of the account. Although the Consumer Protection Act 968 of 2008) states that format should be used to make consumer documents clear and understandable, it does not prescribe format. (The guidelines that the Act refer to could be prescriptive)

The credit control policies of water services authorities regulate internal billing procedures. Here as well, the policy documents that have been consulted give broad and general rules. An example from Mogale City appears below:

*Billing Consumers will receive monthly statement/s with an indicated payment due date (currently the seventh of every month). The statement shall contain messages of events within the municipality from month to month. Consumers with disputes on their account/s must pay other services and an average of the disputed service/s (Mogale City Credit Control Policy 2006/2007).*

The following laws and policy documents regulate consumer accounts in South Africa (documents directly applicable to local government or the water sector are listed first):

---

#### 6.1.1 The Municipal Systems Act 32 of 2000

The Municipal Systems Act regulates the conduct of municipalities with regard to charging rates and taxes as follows:

*95. In relation to the levying of rates and other taxes by a municipality and the charging of fees for municipal services, a municipality must, within its financial and administrative capacity—*

*(a) establish a sound customer management system that aims to create a positive and reciprocal relationship between persons liable for these payments and the municipality, and where applicable, a service provider;*

(b) establish mechanisms for users of services and ratepayers to give feedback to the municipality or other service provider regarding the quality of the services and the performance of the service provider;

(c) take reasonable steps to ensure that **users of services are informed of the costs involved in service provision, the reasons for the payment of service fees, and the manner in which monies raised from the service are utilised;**

(d) where the consumption of services has to be measured, take reasonable steps to ensure that the consumption by individual users of services is measured through **accurate and verifiable metering systems;**

(e) ensure that persons liable for payments, receive **regular and accurate accounts that indicate the basis for calculating the amounts due;**

(f) provide accessible **mechanisms for those persons to query or verify accounts** and metered consumption, and appeal procedures which allow such persons to receive prompt redress for inaccurate accounts;

(g) provide accessible mechanisms for dealing with complaints from such persons, together with prompt replies and corrective action by the municipality;

(h) provide mechanisms to monitor the response time and efficiency in complying with paragraph (g); and

(i) provide accessible pay points and other mechanisms for settling accounts or for making pre-payments for services.

---

#### 6.1.2 The Strategic Framework for Water Services

This policy document refers to the right of consumers to information:

*Consumers must be informed with respect to water consumption, credit control, debt collection and disconnection policies, credit control procedures and consumer responsibilities. Communication must be clear and accessible and, wherever practical, in the home language of the consumer. (Strategic Framework for Water Service, 2003)*

---

#### 6.1.3 The National Credit Act 34 of 2005

In the National Credit Act it is prescribed that information to consumers must be in plain and understandable language.

Once interest is being charged on an account, statements of the account must be furnished to the consumer and must meet the following requirements if the consumer requests such a statement of account:

- Must be issued monthly
- The opening balance must be shown in each successive statement of account
- No charge can be levied for issuing the statement of account.

The statement must include the following detail:

- The current balance of the consumer's account;
- Any amounts credited or debited during a period specified in the request;
- Any amounts currently overdue and when each such amount became due; and
- Any amount currently payable and the date it became due.

The statement requested must be delivered orally, in person or by telephone or in writing (including SMS, fax, email, or other form of electronic communication). If a consumer requests a statement of the account for a period of less than a year ago, the statement must be issued within 10 days; if the period is greater than one year, the statement has to be issued within 20 days.

A credit provider is not required to provide a further written statement if it has done so within three months before the request, or if the information is requested more than three years after the account was closed.

---

#### 6.1.4 Value-Added Tax Act 89 of 1991

Since domestic water or municipal accounts charge VAT, the paragraphs below would apply.

Tax invoices must reflect, with some exceptions, all the following details according to Sections 20(4) and 20(5) of the VAT Act (SARS 2009):

- The words 'tax invoice' in a prominent place;
- Name, address and (VAT) registration number of the supplier;
- Name and address of the recipient (as from 1 March 2005, also the VAT registration number of the recipient if registered for VAT);
- Individual serialised number and the date upon which the tax invoice is issued;
- Description of the goods or services supplied;
- Quantity or volume of the goods or services supplied;
- either
  - ▣ the value (i.e. excluding VAT) of the goods or services,
  - ▣ the amount of tax charged, and
  - ▣ total amount including VAT) for the supply (exclusive basis)
- or
  - ▣ the total amount including VAT for the supply, and
  - ▣ either the amount of the tax charged or a statement that it includes VAT and the rate at which the tax is charged (inclusive basis).

Tax invoices sent electronically must be transmitted in encrypted form, using at least 128-bit encryption.

All parties in the document flow process (suppliers, recipients) must retain documents in a readable and encrypted form for five years from the date of generation, receipt or supply. Encrypted documents must be comparable with the paper-based documents.

Original tax documents generated and sent in electronic format must clearly display "Tax Invoice". Any copy extracted from the system, must automatically include "Copy Tax Invoice".

---

#### 6.1.5 Local Government: Municipal Property Rates Act, 6 of 2004

This Act specifies how accounts should refer to property rates charges.

##### **Accounts to be furnished**

27. (1) A municipality must furnish each person liable for the payment of a rate with a written account specifying

- a. The amount due for rates payable;
- b. The date on or before which the amount is payable;
- c. How the amount was calculated;
- d. The market value of the property;
- e. If the property is subject to any compulsory phasing-in discount in terms of section 21, the amount of the discount; and
- f. If the property is subject to any additional rate in terms of section 22, the amount due for additional rates.

(2) A person is liable for payment of a rate whether or not that person has received a written account in terms of subsection (1). If a person has not received a written account, that person must make the necessary inquiries from the municipality.

(3) The furnishing of accounts for rates in terms of this section is subject to section 102 of the Municipal Systems Act.

---

#### 6.1.6 The Consumer Protection Act, 68 of 2008

The Consumer Protection Act (68 of 2008) regulates the information that should appear on a transaction record (account or statement) and consumers' right to information in plain and understandable language. 'Goods or services' are defined to include gas, electricity and water.

##### **Sales records**

26. (1) This section does not apply to a transaction if—

- (a) Section 43 of the Electronic Communications and Transactions Act applies to that transaction; or
- (b) The transaction has been exempted in terms of subsection (3).

(2) A supplier of goods or services must provide a written record of each transaction to the consumer to whom any goods or services are supplied.

(3) The record contemplated in subsection (2) must include at least the following information:

(a) The supplier's full name, or registered business name, and VAT registration number, if any;

(b) The address of the premises at which, or from which, the goods or services were supplied;

(c) The date on which the transaction occurred;

(d) A name or description of any goods or services supplied or to be supplied;

(e) The unit price of any particular goods or services supplied or to be supplied;

(f) The quantity of any particular goods or services supplied or to be supplied;

(g) The total price of the transaction, before any applicable taxes;

(h) The amount of any applicable taxes; and

(i) The total price of the transaction, including any applicable taxes.

#### **Right to information in plain and understandable language**

22. (1) The producer of a notice, document or visual representation that is required, in terms of this Act or any other law, to be produced, provided or displayed to a consumer must produce, provide or display that notice, document or visual representation—

(a) in the form prescribed in terms of this Act or any other legislation, if any, for that notice, document or visual representation; or

(b) in plain language, if no form has been prescribed for that notice, document or visual representation.

(2) For the purposes of this Act, a notice, document or visual representation is in plain language if it is reasonable to conclude that an ordinary consumer of the class of persons for whom the notice, document or visual representation is intended, with average literacy skills and minimal experience as a consumer of the relevant goods or services, could be expected to understand the content, significance, and import of the notice, document or visual representation without undue effort, having regard to—

(a) the context, comprehensiveness and consistency of the notice, document or visual representation;

(b) the organisation, form and style of the notice, document or visual representation;

(c) the vocabulary, usage and sentence structure of the notice, document or visual representation; and

(d) the use of any illustrations, examples, headings, or other aids to reading and understanding.

---

#### 6.1.7 The legal status of municipal accounts

According to article 95 of the Municipal Systems Act (32 of 2000):

"A municipality must ...

(f) provide accessible mechanisms for those persons to query or verify accounts and metered consumption, and appeal procedures which allow such persons to receive prompt redress for inaccurate accounts;

(g) provide accessible mechanisms for dealing with complaints from such persons, together with prompt replies and corrective action by the municipality;

(1-r) provide mechanisms to monitor the response time and efficiency in complying with paragraph (g);

Also:

102. (l) A municipality may--

(a) consolidate any separate accounts of persons liable for payments to the municipality;

(b) credit a payment by such a person against any account of that person; and

(c) implement any of the debt collection and credit control measures provided for in this Chapter in relation to any arrears on any of the accounts of such a person.

(2) Subsection (1) does not apply where there is a dispute between the municipality and a person referred to in that subsection concerning any specific amount claimed by the municipality from that person.

The articles from the Act imply that a municipal account is a statement of money received and expended, with balance; it is not an obligation to pay until it is accepted by the customer within a specific period.

Silulumanzi, Water Services Provider to Mbombela LM was recently involved in a legal dispute regarding this point:

Following a change in property ownership and replacement of the water meter, a customer disputed the correctness of his account. The dispute that arose was less about the correctness of the statement and more about the interpretation that the issuing of the statement itself puts an obligation on the customer.

The new owner opened a water account on the property and then the outstanding balance on that property from the previous owner was transferred to the new owner. The new owner's lawyer sent



Silulumanzi a letter threatening to bring the matter to court as it was assumed Silulumanzi had demanded payment for something for which his client was not liable.

Based on the Municipal Systems Act, Silulumanzi maintained that the current owner should be responsible for paying the outstanding amount as the consumption is always attached to the property, as opposed to the users. However, Silulumanzi was prepared to help locating the previous owner and getting the previous owner to pay for the previous charges.

The new owner argued that the statement meant he had an obligation to pay the amount stated, regardless whether the amount was correct or wrong, and, as such, claimed that he had suffered distress because of this, as he believed the stated outstanding balance was not his responsibility.

On the other hand, Silulumanzi maintained that a statement was the current state of the account, based on the latest information available at the time. This statement could be changed if there was new information that would support the contrary – regardless of whether the customer is or is not responsible for paying the amount outstanding, which will be based on the prevailing law and regulation (Municipal Systems Act).

Silulumanzi further argued that, although it was bound to present accurate figures in the statement, practically, there would always be a possibility of disputes on the figures presented in the statement, which were based on the best information available at the time. The figures presented may be changed. Hence, as opposed to an obligation to pay, the statement is viewed as information provided to customers, which customers may challenge – if they don't agree – within a specific time frame based on the prevailing by-laws and if he/she has better information to show otherwise.

In the end, the new owner accepted this reasoning and retracted from bringing the matter to court.

This reasoning on the legal status of municipal accounts has implications for current credit control policies that municipalities apply even in the case where a consumer challenges the correctness of the account.

This case also has implications for the most appropriate term to refer to municipal accounts: statement, account or bill/invoice, as referred to above.

## 6.2 International regulation

The internet search yielded few results that are specifically applicable to utility bills. Almost all examples of regulation (legislative or other) (in English) on the format of utility accounts or bills that were found on the internet relate to the United States. Examples from other countries refer to the content items of a tax invoice.

In the USA, federal or state Commissions may set regulations for the format of utility bills. Examples are given in the subsections that follow.

---

### 6.2.1 Federal Government, USA

In 2007 a bill (H.R 946. The Plain Language Act 2009) was proposed in Congress that would legalise the use of plain language on any government documents. The bill was successfully passed in the House of Representatives, and was registered as the Plain Language in Government Communication Act of 2008. Due to time constraints, it was cleared from the books and the Senate could not vote on it. The bill was reintroduced in the next session of Congress in 2009 and it is currently referred to the House Committee on oversight and Government Reform. Only when it is passed in Senate can the bill become law (Govtrack.us, 2009, 2010).

---

### 6.2.2 Federal communication commission, USA

In 1999, the Federal Communications Commission released the *Truth-in-Billing Order* to address concerns that there was growing consumer confusion relating to billing for telecommunications service and an increase in the number of entities willing to take advantage of this confusion. Consistent with sections 201(b) and 258 of the Communications Act of 1934, the Commission adopted “broad, binding principles to promote truth-in-billing rather than mandate detailed rules that would rigidly govern the details or format of carrier billing practices. Among other things, section 64.2401 of the rules requires that a telephone company's bill must:

- (1) be accompanied by a brief, clear, non-misleading, plain language description of the service or services rendered;*
- (2) identify the service provider associated with each charge;*
- (3) clearly and conspicuously identify any change in service provider;*
- (4) contain full and non-misleading descriptions of charges;*
- (5) identify those charges for which failure to pay will not result in disconnection of the customer's basic local service; and*
- (6) provide a toll-free number for customers to call in order to lodge a complaint or obtain information.*

---

### 6.2.3 State of California

A servicing order (2007) concerning the State of California's Department of Water Resources and Pacific Gas and Electric company states as follows:

#### 2.5. Format of Utility Bills.

*Utility shall conform to such requirements in respect of the format, structure and text of Utility Bills as Applicable Law and Applicable Tariffs shall from time to time prescribe. Utility shall, subject to the requirements of Sections 1 and 2 of this Service Attachment 1, determine the format and text of Utility Bills in accordance with its reasonable business judgment, and its policies and practices with respect to its own charges.*

## 2.6. Customer Notices.

*(a) If DWR Charges are revised at any time, Utility shall, to the extent and in the manner and timeframe required by Applicable Law, provide Customers subject to Utility Billing Services with notice announcing such revised DWR Charges. Such notice shall, as appropriate, include publication, inserts to or in the text of the bills or on the reverse side of bills delivered to such Customers, and/or such other means as Utility may from time to time use to communicate with its Customers subject to Utility Billing Services. The format of any such notice shall be determined by the mutual agreement of the Parties, subject to approval by the Commission's public advisor.*

*(b) In addition, at least once each year, to the extent permitted by Applicable Law, Utility shall cause to be prepared and delivered to Customers subject to Utility Billing Services a notice stating, in effect, that DWR Power and DWR Charges, including such CRS components of DWR Charges, are owned by DWR and not the Utility, in the case where Utility Bills are presented. Such notice shall be included, in a manner and format to be agreed upon by the Parties, subject to approval by the Commission's public advisor, either as an insert to or in the text of the bills or on the reverse side of bills delivered to such Customers subject to Utility Billing Services or shall be delivered to such Customers by electronic means or such other means as Utility may from time to time use to communicate with such Customers.*

---

### 6.2.4 The state of Arkansas

The Arkansas Public Service Commission regulates the format of utility bills in Arkansas as follows on their website:

#### *(a) About Your Bill*

*Your bill contains many items of information. The Commission requires that most of the charges on your bill be shown individually to help customers understand exactly what they are paying for. This information includes:*

*(b) the period of time covered by the bill;*

*(c) the net amount of all payments and other credits made to your account since your last billing;*

*(d) any previous balance due;*

*(e) the amount of any late payment charge and when it will be applied to your account;*

*(f) the date the bill was mailed;*

*(g) the date the bill is due;*

*(h) a list of the charges and credits which includes deposit instalments and refunds, customer or minimum charges, and taxes;*

*(i) whether the usage was estimated; and,*

*(j) a statement that the customer may contact the company about any billing or service problem, or for a delayed payment agreement.*

*(k) Estimated Billing*

*There may be times when your utility company is unable to obtain an actual meter reading from which to calculate your bill. When that happens, an estimated usage will be entered on your account. You will know when your bill has been estimated -- the company is required to clearly identify it with an "E" or "EST," or the word "ESTIMATED."*

*Some gas and electric utilities allow customers to read their meters and send the reading to the utility each month. If no reading has been received by a utility by the billing date, usage is estimated. No company, however, can estimate your bill for more than two consecutive months.*

---

#### 6.2.5 Australian regulations for tax invoices, 1999

The Australian requirements for tax invoices are very similar to the ones stipulated in the South African Value-Added Tax Act of 1991:

If the total amount, including GST, payable for the supply or supplies to which the tax invoice relates is \$1 000 or more, the tax invoice must contain the following information:

- (a) the words 'tax invoice' stated prominently;*
- (b) the date of issue of the tax invoice;*
- (c) the name of the supplier;*
- (d) the name of the recipient;*
- (e) the address or the ABN of the recipient;*
- (f) a brief description of each thing supplied;*
- (g) for each description, the quantity of the goods or the extent of the services supplied.*

---

#### 6.2.6 United Kingdom

The government of the UK requires similar information on VAT invoices:

- The full company name
- Address where any legal documents can be delivered to
- A unique and sequential identifying invoice number
- The customer's name and address
- VAT registration number
- Date of supply to the customer
- A description sufficient to identify the supply of goods or services
- The quantity of the goods or services with a unit price – excluding VAT

- Rate of VAT per item
- Amount owed without VAT added.

### 6.3 Comparative analysis of invoice requirements

There are many similarities between the regulation of the UK, South Africa and Australia, because these countries have similar VAT legislation. In addition, the South African regulations include broad principles that relate to the rights of consumers, as discussed above.

The USA regulations have some unique features:

- The USA examples of regulatory legislation stipulate that customers must receive a notice when any information on the account is changed or if the payment charges have been revised. The utility is therefore obliged to inform and explain to customers any revision of charges. None of the South African examples refer to such a notice.
- Several of the USA examples state that the account must inform the customer if there are any charges for which failure to pay will not result in disconnection. It is an additional aspect to disconnection that we did not find in the South African regulation.

The USA regulations furthermore include specific requirements for which we could not find equivalents in the other countries investigated, for example the Arkansas restriction on estimated billing.

## 7 The consumer-friendly utility bill

A search of the internet was conducted in order to establish:

- International standards relating to the format of utility bills (bills/accounts);
- Measures taken to ensure that functionally illiterate consumers are able to understand their utility bills; and
- Measures taken to simplify payment.

At the core of the development of consumer-friendly utility bills lies the comprehension or the level of understanding of the particular consumer the account is addressed to. In this respect, consumer needs may vary considerably, creating a challenge for the designer of the utility (water) statement. In the final instance, the utility bill must be understandable to both the most and least literate of consumers. This may not be an attainable goal, leaving the designer with the predicament of determining at which level of literacy the statement should be pitched and designing a document that would be clear and concise for that group and all who are more literate than that group. For the functionally illiterate, i.e. people who can read, but not understand something as complicated as a utility bill, sight impaired or those who do not understand the language, the statement should be provided in other formats.

These measures will be taken into consideration when a Tool is developed to analyse local water account statements with a view to develop more user-friendly statements for all consumers, including those with limited literacy.

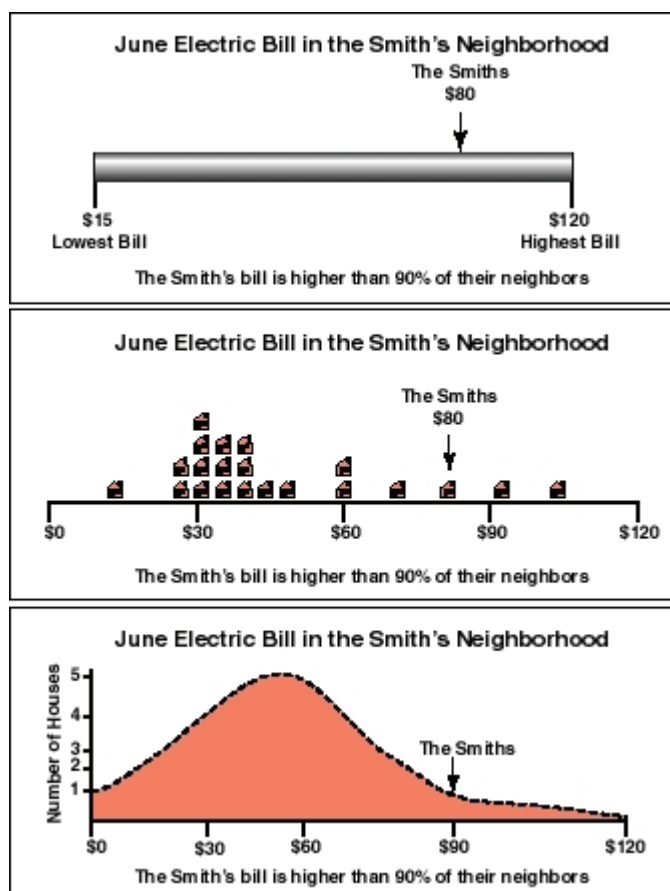
### 7.1 Common criteria for a consumer-friendly utility bill

A publication of the Office of Investor Education and Assistance, U.S. Securities and Exchange Commission, *A Plain English Handbook* (1998) was found to be the most useful on plain language. In contrast to other guideline documents that tend to give only qualitative information, this publication describes and motivates plain English in very specific and quantifiable criteria.

Local authorities, such as that in New Garland USA (2008) have engaged in processes to ensure that their utility bills are consumer-friendly. The following are the elements that need attention when endeavouring to improve the format of a utility bill:

- The font used should be large and of a high-resolution type for easier reading.
- The document should have a visual impact on the reader and guide attention to the important aspects of the statement.
- Clear and concise account information, i.e. the accounting processes, should be stated that it cannot confuse the reader.
- Detail that is easy to understand. All unnecessary detail that could confuse the consumer should be cut.
- The breakdown of the utility services, should there be more than one utility reflected on the statement, should be clearly separated.
- Explanatory statements should be in plain language.
- Plain language on the back of the statement. All contact information must be both clear and easy to find on the document.
- The ability to print statements that take individual needs into consideration, e.g. bills in different languages or containing special messages for specific customers.
- A graph of water consumption for comparison purposes.
- The use of graphs is regarded as very helpful to enhance understanding of the statement (EELCO, 2008). The following is an example:

**Figure 4: Comparative graph of water consumption**



## 7.2 International best practice

When a new type of account is launched it appears to be good practice to accompany it with an insert explaining how to read the new format. The state of New Jersey (Anon., 2004) for instance, makes use of a fact sheet that provides in clear and simple terms an explanation of each single unit displayed on the utility bill.

In 1987, the State of New York (USA) had already begun implementing new rules set by the State Public Service Commission, requiring that all utility bills be in "plain language". The reason for this change was to ensure that consumers would better understand their utility costs and to promote energy saving. The new format included charts of monthly energy use, average outside temperatures (climate affects energy and water use), and an estimated average for energy use among consumers (Kolbert, 1987).

More recently (2008), the town of Blue Springs Missouri has undertaken to upgrade their utility bill. Included in the new bill is:

- A space for general communication to customers, such as news and announcements related to the City;
- A convenient graph documenting the water consumption history of the client; and
- An address chart detailing total water consumption, meter readings, service dates and the total amount due.

EDF Energy (2009), a United Kingdom based energy provider, provided a detailed document explaining the new layout of their bills. They listed the features on the new bill as follows:

- The period the bill is for;
- The customer's account number;
- The date that the payment needs to be received by;
- Any other relevant messages regarding the bill;
- Graphs showing consumption information;
- Meter point reference number; and
- Full bill breakdown.

The sub-continent of India has proven to be another very interesting case study. With a population of more than 1 billion people the water resources are under severe strain. Access to safe drinking water has increased, but poor conditions and diarrhoea lead to millions of deaths each year. Furthermore only around 14% of the population has access to a latrine (India water portal, 2007). In 2007 the Government of India in partnership with the Asian Development Bank, conducted a study to benchmark water utilities in India (Ministry of Urban development Government of India, 2009). Although not studying the utility bill itself, they did find that only a small percentage (24.5%) of the population has water meters and it takes a lot of time for people to receive their water bills.

25% of the population lives below the poverty line and adult literacy is only 61%, which further increases the possibility of people not understanding their bill and then not being able to pay for their water.

Reliance Energy Limited (2009<sup>2</sup>), a leading private sector utility group in Mumbai, has changed the format of their bills to ensure better understanding and increased user-friendliness. The company undertook extensive research across all consumer groups which showed a large degree of customer dissatisfaction. The print was too small and the information cluttered.

---

<sup>2</sup> Date not stated on document, 2009 is presumed correct date.



In order to provide a bill that customers would be satisfied with, Reliance Energy again conducted research among its customers to understand their needs and expectations. It was also important for them to adhere to international standards, incorporating ideas from consultancy and research firms such as Mckinsey, Accenture and Datamonitor.

New features on the bills include:

- Larger print;
- Uncluttered format;
- Full colour;
- Easily understandable tariff charts;
- Details of the past 6 month's billing history;
- Payment options and other information like contact details; and
- Tips on energy conservation.

The bill will also include a toll free number for people to report energy theft and, lastly, it will be available in four different languages.

Examples of accounts that represent international best practice are provided in an appendix of the report on the critical analysis of municipal accounts.

### 7.3 Lessons learnt from local best practice

An interview was conducted with Mr Albert Munnik from the Marketing Division of Telkom. According to Mr Munnik (2008), the Marketing Division is responsible for the format/layout of all accounts processed by Telkom. Telkom had undertaken research into consumer needs and preferences relating to the layout of accounts.

Previously, every account included a summary, directly followed by the detail. This large amount of detail resulted in confused customers. *"Some clients were of the opinion that it was a waste to print the same information twice."* Telkom has not always been sure whether the customers prefer more detail or whether the extra detail is unnecessary. It is however clear that, when working with tariff changes or credit allocated, detail is essential.

Telkom's customer profile is very broad, and can be categorised into three groups, namely residential, small business and corporate. This broad profile increases the difficulty to create a standard account which is suitable for all.

Telkom has therefore taken into account the different income and literacy levels of its customers. Research found that clients from a lower income bracket find the detail on the account of less importance as it creates confusion and suspicion, because it is not fully understood. Higher income

clients however preferred more detail, as it increased the integrity of the account. Currently a client can request which sections of the account they prefer to receive each month.

The accounts are sent out in different cycles, which mean that the customer can choose when to receive the bill. The bill can be rendered on either the 4<sup>th</sup>, 9<sup>th</sup>, 12<sup>th</sup>, 15<sup>th</sup>, 18<sup>th</sup>, 21<sup>st</sup>, 24<sup>th</sup> or 27<sup>th</sup> of every month. All residential accounts are printed and then sent through the post to the customers; corporate clients will sometimes personally collect the account from Telkom's offices.

Good credit control is extremely important and Telkom's method seems to be quite effective as they have a high cost recovery rate. From the day that the account is rendered, customers have 21 days in which to pay their account. If the payment is not made, a complex service suspension system is used to inform customers that they are behind on payment.

Firstly, a small notice is placed on the account itself, notifying customers of any outstanding payments. If payment is not received, the phone numbers of the customers are fed into a data system that makes an automatic phone call notifying the customers of their outstanding payment. After the phone call, the customer has seven days in which to pay. If no payment is made, the customer receives a one way suspension, which means they can receive phone calls but not make any phone calls. If there is no payment within the next seven days, a two-way suspension is activated, according to which no calls can be received or made. In summary, a customer has a total of two weeks (after being notified by phone) to pay the outstanding amount.

*"It has been established that the notice on the invoice is not a very effective measure, and mostly overlooked by customers. The voice message however, is perceived to be more effective than the notice printed on the account"* (Munnik, 2008).

The lessons that Telkom has learned can be summarised as followed:

- Telkom found that the integrity of the account increased with the implementation of the flexible billing system. Clients can clearly see how the total amount on the account was arrived at, and this helps to eliminate any suspicions and reduces the queries received on accounts.
- The client can choose from eight billings cycles which provide flexibility for the payment of the account.
- For informing customers of outstanding payment, phone calls are more efficient than a printed notification on the telephone account.

## 8 Information that supports water conservation

In 2004, the Council of Australian Governments agreed to a National Water Initiative. As part of the National Water Initiative, the Australian National Guidelines for Residential Customers' Water Accounts (2006) was developed to promote water management with the aim of safeguarding surface and groundwater resources.

*“Specifically, these Guidelines address the following NWI pricing action to facilitate efficient water use: NWI paragraph 66 (iv): development of national guidelines for consumers’ water accounts that provide information on their water use relative to equivalent households in the community by 2006”* (Australia Natural Resource Management Ministerial Council, 2006:4).

“The objective of these Guidelines is to identify the key elements that would make Australian residential customers’ water accounts more informative, particularly through the provision of comparative consumption data” (Australia Natural Resource Management Ministerial Council, 2006:8) .

The ability of a municipality to supply comparative data on accounts will be limited by the available water or energy use data and the extent and quality of its demographic data. At a basic level, a municipality should at least be able to compare a daily average usage from month to month and with the same month of the previous year. At the most sophisticated level, customers can compare their own water use with an example of water efficient use by the same household and garden size. Yarra Valley Water in Australia provides this type of information on its water accounts (Australia Natural Resource Management Ministerial Council, 2006:14).

Comparative data provided on a “daily” rather than a monthly basis, is more reliable, because billing periods differ. Research (Australia Natural Resource Management Ministerial Council, 2006:12) has indicated that consumers have a much better understanding of litres and daily usage than a monthly consumption.

Although comparative data alerts consumers of excessive use, potential behaviour change has to be actively supported with information and guidance on how to save water. The National Guidelines advise water service providers to continually engage with customers and actively seek feedback on the usefulness of information provided and if it is influencing customers’ water usage behaviour.

Since space is limited on accounts, consumer education has to be restricted to critical water/energy information such as dam levels, water quality assurance or single tips to reduce consumption with energy or water saving appliances.

Targets are another measure to induce behaviour change. Targets can be either government-set or individually set (Australia Natural Resource Management Ministerial Council, 2006:15). PUB Singapore (2008) has set a national target of ‘save 10 litres per day’. Yarra Valley Water in Australia has set a target of 155 litres per person per day (2009). By showing on the monthly account whether you have been on target for the past month, the account acts as an incentive to bring consumption on target. Linked to these targets is education on how to reach the targets in the form of water or energy conservation tips.

Since people are more likely to change behaviour if the change holds a tangible benefit, the achievement of the targets is remunerated. Customers of Yarra Valley Water, for example, who have met the 155 litres target, can win a 5000 litres rainwater tank (2009).

The Guidelines emphasises that this water saving initiative (raising awareness through accounts) must be placed in the context of a broader, already existing and integrated set of water saving initiatives.

## 9 Support measures to enhance the understanding of utility bills

### 9.1 Adult education

It needs to be accepted that, despite all efforts to make the municipal account/utility bill as consumer-friendly as possible, there will always be some individuals who will be unable to understand the accounts/bills for various reasons. Forms of adult education are used to assist consumers to improve their ability to read and understand utility bills. Adult education may come in the following forms:

The website of a municipality or utility may give on-line explanations of the account. A very good example is available on the website of the Southern California utility.

Adult literacy classes on money matters use several methods to make the utility bill more understandable (Money matters to me, 2008). One such a method is the use of a board game developed specifically for this purpose.

In some second language courses there are modules devoted to the understanding of utility bills (Caldwell Community College and Technical Institute, 2003).

The syllabus for such an adult literacy class (Caldwell Community College and Technical Institute, 2003) could comprise the following modules:

- Read and Understand Utility Bills Vocabulary;
- Read and Understand Utility Bills Vocabulary Matching;
- Read and Understand Utility Bills Crossword Puzzle (MS Excel File);
- Read and Understand Utility Bills Crossword Puzzle Answer Key (MS Excel file);
- Reading and Understanding Utility Bills Exercises Sheet;
- Dialogue- Reporting an Error on a Bill Listening Activity;
- Dialogue- Reporting an Error on a Bill Listening Activity (Teacher's Key);
- A Letter Reporting an Error on a Bill; and
- Utility Bills Vocabulary Flash Cards.

In South Africa, the ward councillors and the ward committees that serve communities could arrange such adult literacy classes.

In the State of Louisiana (USA), the public broadcaster (LPB Learning Port, 2008) includes in the educational content provided, programmes on understanding utility bills. This could have application in the RSA, where the public broadcaster serves the people in their own languages.

## 9.2 Translating services

Certain local authorities provide non-speakers of the language the statement is printed in, with translation services. These translators may be employees, but are mostly volunteers. In the city of Philadelphia (USA) such a service is organised in the local “Chinatown.”

## 9.3 Toll free lines/Consumer Councils

Toll free lines and call centres are commonly used by service providers to clarify service issues. Some local authorities, such as that of Ohio, make use of a Consumers Council which is independent of the local authority, and that has a toll free line available to help consumers to understand items on their utility bills (Anon., 2007).

## 9.4 Are utility bills necessary?

Since understanding utility bills tend to be a universal problem, there appears to be a trend to move away from the need for such bills altogether. Prepaid services and coupons are alternatives.

---

### 9.4.1 Statements by cell phone

Sending a water account/bill by SMS has multiple advantages, particularly if it is sent in the language of the accountholder. The information on an SMS is by nature simplified and, in addition, it overcomes the psychological barrier of “reading” an account/bill. In Rwanda it is possible for a consumer to request an SMS e-bill to be sent to his cell phone. The consumer can then pay the bill through his own bank account (SMS Media, 2008).

---

### 9.4.2 Pre-paid services

It appears to be standard practice in some countries that pre-paid meters replace meters that have to be read. In South Africa, pre-paid electricity is commonly used by certain local authorities, but the pre-paid option is not commonly used for the purchase of water.

---

### 9.4.3 SMS Utility Payment System

This system allows customers throughout Rwanda to pay their utility bills using cash power cards of various denominations produced by SMS Media Rwanda (SMS media, 2008).

Electrogaz uses a different system. Based on scratch card technology, a consumer will send an SMS message to the Electrogaz server with the meter serial number and validation number on the scratch card. They will then almost instantly receive an SMS message with a 20-digit credit voucher for their bills (Electrogaz, 2008). Judges commended this project for “innovation and delivering a service that all are yearning for” (Electrogaz, 2008).

## 10 Conclusion

The cited research studies have all concluded that individuals from all socioeconomic and education levels (rich, poor, literate or illiterate) experience problems with understanding their utility bills. Following a standard, one-size-fits-all approach, only increases the risk that customers will not understand the bill, feel confused, and as a consequence not pay the bill on time.

This conclusion raises the question: What are the critical success factors of a municipal account/utility bill that will best serve the sustainable provision of water to humans, animals and plants?

A municipal account is a unique one-on-one communication event between the municipality and the individual consumer (or customer) to who the account is addressed.

- 1. For any communication to take place, the message must be clear and understandable.**
2. In order to refer to this unique communication event, the account should have a unique reference (e.g. name, address, unique serialised number).
3. Since it is communication that puts an obligation to pay on the addressee, and paying for water services funds a continuous supply of sufficient clean water within a defined distance of a household, the accounts should:
  - State how much is payable, by when and what will happen if the customer don't pay.
  - Have integrity: explain what the consumer pays for, and how much (tariff structure, explanation of goods and services, accurate and verifiable quantity).
  - Explain to the customer, or reinforce the message if it is already known, what the value of the water is that is being bought.
4. Since it is one-on-one communication, the opportunity to provide individualised information should be utilised, e.g. comparative consumption history, tips on how to decrease your monthly bill, or where you can get assistance if you have queries or struggle to pay your account.
5. Since it is aimed at a South African audience, the account should
  - Indicate compliance with South African policy and legislation, e.g. that the poor is subsidised with free basic services
  - Communicate the importance to conserve water (or provide a financial incentive) and educate consumers on how to save water. This could also be individualised by linking the comparative consumption history to high bill customers, or to excess consumption numbers for indigent customers who consume more than the basic amount.

Legislation (in English) that prescribes the format of municipal accounts/utility bills mostly focus on the financial aspects. The South African Consumer Protection Act is advanced in this regard, but the guidance is not very specific. In comparison, the cited examples from the USA have specific requirements aimed at informing the customer, which were not found in the legislation of South Africa, the UK or Australia.

In terms of current regulation, there is definitely a need in South Africa to regulate in specific terms the format of municipal accounts. Local regulation is also not clear on the legal status of an account that does not comply with legislation. National Treasury regulates the maximum number of consecutive months that a municipality can send out estimated accounts (3 months). The legal status of an estimated municipal account needs to be further investigated.

The Australian Guidelines are the only one example we could find of guidelines for municipal accounts that specifically addresses effective measures to encourage and support water conservation and a decrease in consumption.

Guidelines for a 'good' utility bill are more common, but they mainly lay down qualitative criteria that are not easy to measure.

It is necessary to develop an appropriate Tool to evaluate municipal accounts, incorporating the above criteria as they emerged from the literature, to 'measure' the quality of utility bills. Following industry's best practices and understanding customer needs are essential in creating a flexible format that will incorporate the needs of all customers.

## CHAPTER 3: CURRENT MUNICIPAL ACCOUNT PRACTICES IN SA





## 1 Introduction

In view of the objective of this study, i.e. to develop a Guideline for the improvement of the understanding of domestic water accounts, within the regulatory requirements, for Water Services Authorities (WSAs), we assessed the following:

- Case studies of groundbreaking initiatives;
- Current municipal account practices
  - ▣ Current account formats;
  - ▣ Best practices regarding account format;
  - ▣ Possible correlation between account format, the validity of the account and payment rate;
  - ▣ Any existing research on consumer needs regarding accounts;
  - ▣ Any existing research on consumer information needs and communication preferences;
  - ▣ The process through which domestic water accounts are developed.; and
  - ▣ The utilisation of domestic water accounts to influence behaviour and educate the consumer.

## 2 Groundbreaking initiatives

The two case studies below represent groundbreaking initiatives relating to informative billing and community participation in billing processes.

### 2.1 The Greater Hermanus Water Conservation Programme

The aim of this programme was to reduce water consumption in the Greater Hermanus Area (Van der Linde, 1997: 238). Different steps were taken to achieve this goal:

The Greater Hermanus Local Authority (GHLA) was a pioneer for a step tariff programme.

Supply tariffs (a basic monthly tariff) were introduced to provide a sustainable income for the GHLA and accommodate three different economic groups, the indigent, sub-economic and economic groups. However, increasing block tariff rates formed the backbone of this programme. This empowered

“This tariff structure, whereby the more you use the more you pay, is the fairest approach for Greater Hermanus with its huge difference in consumption between mid summer and mid winter”(Van der Linde, 1997: 238). The onus is on the consumer to decide what his budget for water consumption for that month should be.

GHLA also introduced an informative billing system, allowing the consumer to see what their monthly consumption patterns are, which greatly assisted the consumer to budget for his/her water consumption. The project was received very favourably by the community.

## 2.2 The Citizens' voice project

This project is a public education initiative driven by the National Regulator (WIN-SA, 2009). It supports a bottom-up approach to water services regulation, including billing, by actively involving citizens in the local monitoring of water and sanitation services.

The project aims to empower citizens to hold local government accountable through training citizens about their rights and responsibilities and setting up "User Platforms". These platforms serve as monthly meetings between the municipality and the community for ongoing civil society water services monitoring and problem solving.

The programme forces the Water Services Authority to shift its regulatory focus to previously disadvantaged areas and to develop participative ways of engaging with citizens in order to better understand service delivery problems identified through community engagement, including:

- Billing difficulties relating to false estimations and/or faulty meters that need to be corrected;
- Clarity on who qualifies for indigent grants and who does not; and
- Leaks or broken water pipes leading to high bills.

The rest of the chapter focuses on research into current account practices that were undertaken as part of this study.

## 3 Current municipal account practices

### 3.1 Approach

The methodology that was proposed to establish current municipal account practices comprised three aspects:

- a. Liaison with the Department of Provincial and Local Government (the **DPLG**), National Treasury and the Auditor General (research section), as well as independent experts to get information on current municipal billing practices;
- b. Telephonic interviews with a representative sample of the 174 WSAs to:
  - Establish which financial software is used;
  - Get the current payment rate;
  - Obtain a sample account; and
  - Obtain results on any consumer research that the WSA has undertaken on domestic water accounts; and

- c. Interviews with representatives of financial software companies that sell software to municipalities. The aim of these interviews was to establish the comparative degree of freedom that these software packages allow, as well as to explore the possibilities to develop new options.

### 3.2 WSA Sample

Selection criteria:

- Stratified sample of 20 (approximately 10%) of the research universe (number of WSAs);
- Provincial split – try to cover all provinces with the emphasis on provinces with a bigger number of WSAs;
- Coverage of Metropolitan, District and Local Municipalities;
- Urban, peri-urban and rural breakdown; and
- Well resourced vis-à-vis not so well resourced.

Of the municipalities targeted to participate in the study, responses were received from 21. The process followed included an initial telephone call to the chosen municipality to establish the correct contact person. This would then be followed by an email with the letter from the WRC explaining the purpose of the study and the questionnaire with the questions we wish to discuss with them; this approach would in 90% of cases be met with no response warranting a follow-up telephone call. In more than 50% of cases the first telephone call would not be responded to; this would then be followed by an email to the Municipal Manager and/or Chief Financial Officer. If this did not yield any results, a follow-up telephone call was made to determine whether the municipality would remain part of the project or not.

We learnt that certain District Municipalities that were chosen from the DWAF WSA database do not issue accounts and were therefore unable to participate in the study. These were the Cape Winelands (Western Cape), Capricorn DM (Limpopo) and Thabo Mofutsanyane DM (Free State). Therefore, local municipalities were selected as replacements. This affected the initial sample in terms of the number of DMs targeted. One of the Metropolitan Municipalities contacted refused to participate and was replaced by another.

The table below gives a breakdown of the sample of municipalities that were approached and the final list of the municipalities that participated in the study. The list of persons who were interviewed in each participating municipality appears in the References.

**Table 1: Sample of municipalities**

Province	WSA	Comments on the Research Experience
Eastern Cape	1 Metro – Nelson Mandela Bay  1 District Municipality (DM) – Amathole DM	Amathole DM participated in the study by responding to the questionnaire and providing a sample municipal services account.  Nelson Mandela Bay also responded.
Free State	Metsimaholo LM  Mantsopa LM	Thabo Mofutsanyane DM was on the sample list, but the DM does not issue accounts to domestic users and is therefore unable to participate in the study. Replaced with Maluti Water (WSP for Maluti a Phofung LM), which never responded  .
Gauteng	2 Metros – Ekurhuleni MM  City of Tshwane MM	The City of Johannesburg MM indicated that they were unable to participate in the study and were replaced with Ekurhuleni MM which participated in the study by responding to the questionnaire.  The City of Tshwane MM participated as a case study. ,  West Rand DM and Emfuleni LM did not respond.
KwaZulu-Natal	1 Metro – eThekweni  DMs – Ugu DM	After several unsuccessful attempts to contact Uthukela DM telephonically, they were removed from the list.  eThekweni MM participated as a case study.  Ugu DM responded.  Abaqulusi LM also responded.
Limpopo	2 LMs – Polokwane LM  Greater Tzaneen LM	Capricorn DM does not issue accounts to domestic users and were therefore unable to participate in the study.  Bela-Bela DM did not respond to telephonic and email contact.  Polokwane and Greater Tzaneen LMs responded.
Mpumalanga	2 LMs – Mbombela LM;  Govan Mbeki LM  Steve Tshwete LM  Emalahleni LM	For Mbombela we contacted Silulumanzi as their WSP.  Delmas did not respond to telephonic and email contact.  Govan Mbeki, Emalahleni and Steve Tshwete LMs responded as replacements.
North West	1 DM – Bojanala DM  1 LM – Tlokwe LM	Bojanala DM did not respond to telephonic and email contact.  Tlokwe LM and Matlosana LM participated in the study by

		responding to the questionnaire and providing a sample municipal services account.
Northern Cape	LMs – Sol Plaatje LM; Kareeberg LM Ga-Segonyana	The researcher initially did not receive responses to emails sent to both Sol Plaatje and Richtersveld Local Municipalities. Subsequently telephonic contact was made with Sol Plaatje, Kareeberg and Ga-Segonyana.
Western Cape	1 Metro – City of Cape Town MM 1 DM – Cape Winelands DM 1 LM – Overstrand LM	The City of Cape Town MM participated in the study by responding to the questionnaire and providing a sample municipal service account.  Cape Winelands DM does not issue accounts to domestic users and is therefore unable to participate in the study.  Overstrand LM responded.

### 3.3 WSA Questionnaire

A questionnaire was developed to guide the discussions with municipalities. The questions can broadly be categorised as follows:

#### Current Practice

What is the prevailing practice, for example, does the municipality issue a consolidated account of all services rendered or do they issue a separate water account, and if it is consolidated, is the water consumption is clearly explained on the account?

#### How well do consumers understand their water account? Good (best) practice

The type of information that we used as indicators were:

- What is the current rate of payment for services in the municipality;
- How many account queries do they get per month that relate to the non-clarity of the account; and
- Is there is a correlation between the two.

#### How well is the consumer account used for other purposes?

The type of information that we are trying to establish in this category relate to how the municipality is able to use the consumer account as a communication tool.

#### Account development

We established what financial software the municipality uses to generate the account. We also tried to find out from their experience how user-friendly and flexible they perceived the software account to be. Questions included:

- What financial software do you use?

- Why did you choose this option?
- How flexible is this system? Does it allow for customisation?

## **Improvement cycle**

### *General*

- What have you done to improve your account over the past five years?
- Please explain why you have made particular improvements and whether it was successful or not?
- How was that informed by consumer research?

### *Regular consumer research*

- Have you done any research on your account?
- Is this done regularly or was it once off research?
- Could you provide us the results? OR
- Are there any other research/surveys that may have included a question(s) on the domestic water accounts?

### *Participatory development process (involve consumers)*

- Was the community involved in the development of your account?
- If yes, how?

**Current Account** (some of the answers to these questions could be deducted more accurately from the sample account itself)

## **Customer Profile**

### *Socio-economic profile*

- What is the socioeconomic profile of your domestic customers?
- How is this diversity reflected in your account system?

### *Inclusivity*

- Do all domestic customers get accounts? If not, who get accounts?
- Do indigents get accounts?
- Is indigent status marked on the account?
- How do customers receive their accounts? (mail, email, SMS)
- What is your Free Basic Water and Sanitation policy?

## **Information**

### *Information on the account*

- Does the WSA have a separate water (and sanitation?) account for domestic water customers in the municipality?
- If not, is the water component of the account clearly explained?
- Does the account show the Free Basic Water component that the customer is not charged for?

### *Additional information – educating the consumer*

- Do you use the domestic water/sanitation/services account for any other purpose, e.g. communication campaigns, service information, planned interruption info?

## **Account use**

### *User-friendliness of the account*

- How easy do you think your water account, for domestic customers, is to understand?
- Did you do any research or get any other indication that this use of the account has been successful?
- How many queries do you get on average per a month regarding the domestic (water) account?
- What % of these queries relate to non-clarity of the account, as opposed to non-agreement of the charges?
- Is your account only in English?

## **Cost recovery**

### *Payment*

- What is the current rate of payment for services, in particular that of domestic water accounts?
- What are your payment options?
- What pay points do you use?

### *Cost recovery*

- Is the account used for cost recovery purposes, for example, to thank customers for payment, or to remind them that arrears must be paid by a certain day in order to avoid certain actions by the municipality?
- How do you communicate your cost recovery mechanisms – payment options, pay points, arrears, cut off, assistance with payment?

### *Other*

- What is your cut off policy? (What is cut off and when?)
- What assistance do you offer to consumers who cannot afford services?

### 3.4 Results

Detailed results for each question per municipality appear in Annexure I.

The interviews with the software companies appear in Annexure II.

The interviews found that there is a general **low awareness of the importance of clear and accessible accounts** for effective communication with consumers and the possible impact that this could have on cost recovery.

We also found limited awareness of the **legislative and regulatory environment** that compels municipalities to issue comprehensive and clear accounts.

From the limited information available thus far, the **preferred format** for municipalities, from Metro to District and Local Municipalities, appears to be a consolidated account, which reflects the charges and consumption of all services on a single account statement. On the face of it, this does not appear to be of concern to either municipalities or consumers, if the services charged for are clearly reflected on the account, showing how much was consumed and how the amount payable was calculated.

The interviewed municipal officials made no correlation **between account format and payment rate** is difficult to establish.

The findings further indicated that municipalities as a rule do not appear to undertake any kind of **research** on its municipal services accounts, for example, on consumer needs regarding accounts, consumers' information needs and communication preferences. Consumers are generally also **not involved in the development** of accounts.

Most municipalities have a **financial software system** that generates their municipal services (domestic services) accounts. Currently, the financial software package that a municipality uses, also generate their accounts. The financial software packages most commonly used by municipalities are Munisoft, Venus, Samras and SAP (in the case of metros and large municipalities). The three systems represented in the responses received, SAP, Sebata and Venus, appear to have a level of flexibility that allows the municipality to customise the accounts to suit its needs.

**Generally, consumers are not involved in the development of municipal accounts.**

From the investigation, it seems that a guideline for the development of a standard account format, which complies with legislative as well as international best practice requirements, would be welcomed. Both service providers, BCX (for Venus) and SAP, indicated a willingness to participate in a centrally coordinated process towards the development of a simple, user-friendly municipal account.

From the interviews conducted with the municipalities as well as 'experts', either in the field of water or billing practices, the following emerged as an **initial guideline** for the development of a user-friendly, simple, easy to understand and meaningful municipal services account (these are the views of the respondents):



- The account statement must clearly indicate what services are being charged for, i.e. water, electricity, refuse removal, property tax and valuation of property.
- The account must indicate how much of each of the services were consumed during the period.
- The Free Basic Services must be indicated, as well as any other rebates and disbursements.
- The account must show the total amount due, including VAT.
- It must clearly show the accountholder's name, address or stand number and the account number.
- The account must show the date the account should be paid and what the possible penalties are for non-payment.
- It must show the amount still owed from previous months (balance brought forward), and a breakdown of arrears as per month.
- The account must thank the customer for making payments.
- It must communicate cut-off dates due to non-payment, as well as any other possible action to be taken by the municipality.

Finally, the account must be written in plain, user-friendly and accessible language according to the specific profile of the customers. This includes the use of languages other than English, as well as the use of pictures.

The results of this study could have major implications for the financial software industry, beyond domestic water accounts. It would not only indicate how the accounts that existing software generates could be made more user-friendly, but it could also stimulate the development of new financial software packages that follow the Guideline. If water accounts could be standardised as a result of the study, it would contribute to the sustainability of customer understanding of accounts in a migrating/urbanising society.

## CHAPTER 4: MINIMUM KEY STANDARDS



## 1 Introduction

This chapter summarises the minimum key standards that a South African municipal account should meet as they emerged from the previous two chapters.

In brief, a municipal account should:

- ☐ Be clear and accessible to the ordinary consumer (Consumer Protection Act 68 of 2008);
- ☐ Comply with regulation (Municipal Systems Act 32 of 2000, National Credit Act 34 of 2005, VAT Act 89 of 1991, Consumer Protection Act 68 of 2008, Municipal Property Rates Act, 6 of 2004);
- ☐ Have integrity – all readings and charges are correct, accurate and transparent; and
- ☐ Include information that helps consumers to manage their water and energy use effectively.

The details of each of these standards are discussed in the sections that follow.

## 2 Standards as required by local and international regulation

### 2.1 South African regulatory legislation

Regulations that relate to the information that should appear in accounts can be summarised as follows:

- An account must be issued monthly (National Credit Act 34 of 2005);
- Accounts must be accurate (Municipal Systems Act 32 of 2000);
- The opening balance must be shown in each successive statement of the account (National Credit Act 34 of 2005);
- No charge can be levied for issuing the statement of account (National Credit Act 34 of 2005);
- The account must include the current balance of the consumer's account (National Credit Act 34 of 2005);
- Any amounts credited or debited during a period must be specified on the account (National Credit Act 34 of 2005);
- Any amounts currently overdue and when each such amount became due must be shown on the account (National Credit Act 34 of 2005);
- Name, address and (VAT) registration number of the supplier; (VAT Act of 1991, Consumer Protection Act 68 of 2008);
- Name and address of the recipient; (as from 1 March 2005, also the VAT registration number of the recipient if registered for VAT) (VAT Act of 1991, Consumer Protection Act 68 of 2008);
- Description of the goods or services supplied, (VAT Act of 1991, Consumer Protection Act 68 of 2008), the unit price of any particular goods or services supplied or to be supplied (Consumer Protection Act 68 of 2008) and the quantity or volume of the goods or services supplied; (VAT Act of 1991, Consumer Protection Act 68 of 2008);

- The tariff structure (Municipal Systems Act of 2000, VAT Act of 1991, Municipal Property Rates Act, 6 of 2004);
- The date on or before which the amount is payable (VAT Act of 1991, Municipal Property Rates Act, 6 of 2004); and
- The amount due and the amount of any applicable taxes, either on an inclusive or exclusive basis (VAT Act of 1991, Municipal Property Rates Act, 6 of 2004, Consumer Protection Act 68 of 2008).
- The words 'tax invoice' must appear in a prominent place on the account, and the account must have an individual serialised number.
- Tax invoices sent electronically must be transmitted in encrypted form, using at least 128-bit encryption (VAT Act of 1991).

Regulations that relate to the format of accounts focus on accessibility:

- Information to consumers must be in clear and plain language (clear and accessible in the Strategic Framework for Water Services) that the ordinary consumer without specialist knowledge can understand without due effort.
- Communication must be, wherever practical, in the home language of the consumer.

## 2.2 International regulation

Countries with VAT legislation, such as the UK (2008) and Australia (1999) require the same minimum information on accounts as the South African VAT Act.

Other relevant minimum standards in international regulation include:

- When an estimated reading is taken, this should clearly be identified. No estimate must however be given on an account for more than two consecutive months. (The Arkansas Public Service Commission [2009])
- A toll-free number for customers to call in order to lodge a complaint or obtain information (Federal Communications Commission 2005).

The principles of plain language are set out in *A Plain English Handbook* (1998), a publication of the Office of Investor Education and Assistance, U.S. Securities and Exchange Commission. Principles that can be translated into minimum standards for municipal accounts are:

- Consistent use of terminology;
- Consistent spelling;
- No abbreviations or acronyms;
- Symbols, if used, should be explained;
- The unit of numbers (Rand, kilolitre) should be indicated;
- Sans Serif font for headings; Serif font for text;
- Avoid capital letters in text;
- Font size not smaller than 12 pt;

- Important information must be emphasised;
- Functional use of white space;
- Column headings must be clearly emphasised;
- X and Y axis on graphs should be clearly defined and marked; and
- Graphs should have headings.

### 3 Standards based on best practice and consumer research

At the core of the development of consumer-friendly municipal accounts lies the comprehension or the level of understanding of the particular consumer the account is addressed to. In this respect, consumer needs vary considerably, creating a challenge for the designer of the account. In the final instance, the municipal account must be understandable to both the most and least literate of consumers. For those who do not understand the language of the account, or whose sight is impaired, other measures should be available to assist.

The standards listed below should be read against this background.

A survey of international best practice and consumer research (Australia Natural Resource Management Ministerial Council 2006, EDF Energy UK 2009, EELCO 2008, Electrogaz 2008, Garland Utilities 2008, and India Ministry of Urban Development 2007) concludes that the following features mark a user-friendly account, serving consumers:

- Flexible billing with a summary for clients from a lower income bracket and detail for higher income clients (Telkom research [Munnik 2009]);
- The font should be large and of a high resolution type for easier reading;
- The document should guide attention (e.g. bold, or larger font) to the important aspects of the statement.;
- Clear and concise account information;
- Detail that is easy to understand – all unnecessary detail that could confuse the consumer should be removed.;
- The breakdown of the utility services should clearly be separated;
- Usage charges must be clear and easy to follow;
- Explanatory statements should be in plain language;
- All contact information must be both clear and easy to find on the document;
- Accounts should take individual needs into consideration, such as different languages and special messages for specific customers;
- Uncluttered format; and
- More than one payment option.

#### 4 Standards for an account that decreases consumers' water and energy footprint

Research of international best practice indicated four measures that can be successfully employed on accounts to positively influence consumer behaviour to decrease their water and energy footprint:

- Information (in the form of a chart, for example) that allows consumers to compare their household consumption with previous months, or with the average of their area;
- Targets;
- Incentives, such as tax incentives, and
- Consumer education.

## CHAPTER 5: TOOL TO EVALUATE MUNICIPAL INVOICES (EMI)



## 1 Introduction

The minimum standards set out in the previous chapter were used to develop a Tool to evaluate municipal accounts or invoices (EMI). The EMI tool that was developed is based on:

- Regulatory principles for municipal accounts or utility bills as discussed in the literature review;
- Local and international best practice;
- Guidelines for consumer-friendly accounts; and
- The Plain English Handbook used by US government (1998).

Many of these principles are qualitative or descriptive, for example, 'use the active voice instead of the passive' or 'avoid the use of upper case in text'. For the purposes of developing the EMI tool, qualitative criteria were 'translated' into quantifiable criteria to calculate an index score out of a possible 10, which can be used to evaluate and compare municipal accounts.

Municipal accounts received an overall index score out of 10 on the basis of their performance in five categories.

The five categories are:

1. Plain language: Clarity and accessibility in language;
2. Plain language: Clarity and accessibility in layout and design;
3. Information relating to the account as an individual obligation to pay for goods and services delivered (as regulated by South African law);
4. Information that enhances the integrity of the account as required by South African and international regulation; and
5. Information aimed at educating consumers and changing consumption behaviour as required by international examples of regulation.

In combination, the five criteria categories reflect the 'ideal' municipal account. This 'ideal' is an account that:

- Consumers find easy to understand and user-friendly;
- Adheres to policy and legislation;
- Provides enough information to ensure client satisfaction and account validity; and
- Creates a platform from which water conservation and water management issues can be addressed in a manner that will impact on consumer behaviour.

In the sections that follow each of the five criteria categories is discussed in more depth.



## 2 Clear and accessible communication

### 2.1 Plain language: clarity and accessibility in language

The criteria listed in this section refer to aspects of the language of municipal accounts that impact on whether the account is clear, understandable and accessible in terms of language.

This section carries a double weight, because no information is communicated if an account is not clear and understandable.

The criteria for this section are:

Criteria and examples	Source and/or comments
<p>Consistent terminology</p> <p><i>Examples of inconsistent terminology:</i></p> <p>Balance/Amount/Sub-total</p> <p>Account/Statement/Invoice/statement of account</p>	<p><i>Handbook of Plain Language, 1998</i></p> <p><i>Federal Communication Commission, USA – ‘non-misleading language’, avoid ‘consumer confusion’.</i></p>
<p>Understandable terminology</p> <p><i>Examples of problematic terminology:</i></p> <p>‘Levy’, ‘lifeline’ and ‘basic charge’ for fixed charge</p> <p>“remittance advice” for a payment slip/tear off</p> <p>In the course of the study further examples emerged:</p> <p>“rebate”, “arrears”, “balance brought forward”, “sundries”. “previous”</p>	<p><i>(The term ‘levy’ is not widely understood in this meaning and the term ‘basic’ create confusion with Free Basic Services.)</i></p> <p><i>(‘Remittance advice’ is not a commonly used term and therefore not easily understandable.)</i></p>
No language errors or spelling inconsistencies	<p><i>This criterion was brought in when the researchers detected language errors and spelling inconsistencies when evaluating the accounts. Further analysis showed that the type of language errors or spelling inconsistencies occurring is probably not essential for comprehension.</i></p>
No abbreviations or acronyms	<p><i>Handbook of Plain Language, 1998</i></p> <p><i>The survey results showed that consumers</i></p>

	<i>struggle to find critical consumer information, such as water usage, or Free Basic Water, on a bill if it is abbreviated. If the account is not in the home language, the consumer will have even more difficulty to decipher the abbreviation or acronym.</i>
Symbols are explained (if used)	<i>Handbook of Plain Language, 1998</i>
Unit of consumption (e.g. litres for water)	<i>Figures mean nothing without a unit, e.g. 2345 could be a meter reading, R23.34, 2345 litres or 2345kWh.</i>  <i>National Guidelines for residential customers' water accounts, Natural Resource Management Ministerial Council, Australia</i>
Unit of cost (Rand)	<i>Figures mean nothing without a unit.</i>  <i>National Guidelines for residential customers' water accounts, Natural Resource Management Ministerial Council, Australia</i>
Available in home language of consumer (interpreted as 'not only in English')	<i>Strategic Framework for Water Services</i>

## 2.2 Plain language: clarity and accessibility in layout and design

The font type, font size and layout of accounts make a critical contribution to their clarity and legibility.

This section also carries a double weight for same reason as 2.1. The consumer survey confirmed this decision as correct. Consumers cannot access critical information, such as the quantity of water used, or Free Basic Water received, if it is obscured by incomprehensible language and poor layout and design.

Criteria	Source and comments
Consistent font use (not more than two fonts)	<i>Plain English Handbook used by US government (1998) advises a Serif font for the text and a</i>

	<p><i>Sans Serif font for heading, e.g..</i></p> <p><b>Heading</b></p> <p><b>Text</b></p>
Printing is clear and in a legible colour	<i>e.g. blurred printing or printing in a light colour that is illegible</i>
Upper case is avoided in text ( <i>allowed in headings</i> )	<p><i>Plain English Handbook used by US government (1998).</i></p> <p><i>Capital letters are less legible than lower case. Headings were not considered in this evaluation as most accounts would have scored 0.</i></p>
Font size not smaller than 10pt	<p><i>Ideally the font size, especially for 50+ and semi-literate consumers, should not be smaller than 12pt. Since no SA accounts use a font larger than 10pt, and we wanted to be able to reward accounts that use a font size of at least 10pt, this criterion was slackened.</i></p> <p><i>Plain English Handbook used by US government (1998).</i></p>
Total amounts clearly emphasised ( <i>e.g. larger font, colour highlight, bold</i> )	<i>Plain English Handbook used by US government (1998)..</i>
Line spacing 1.15 or more	<i>Plain English Handbook used by US government (1998).</i>
Layout uncluttered ( <i>Distinctive white space between paragraphs</i> )	<i>Plain English Handbook used by US government (1998).</i>
Layout uncluttered ( <i>Functional use of white space</i> )	<i>Plain English Handbook used by US government (1998).</i>
Tables ( <i>column headings are emphasised</i> )	<i>Plain English Handbook used by US government (1998).</i>
Tables ( <i>row information matches column headings</i> )	<i>Plain English Handbook used by US government</i>

	(1998).
Graphs ( <i>X and Y axis are clearly defined and marked</i> )	<i>Plain English Handbook used by US government (1998).</i>
Graphs have headings	<i>Plain English Handbook used by US government (1998).</i>

### 3 Information

#### 3.1 Information relating to the account as an individual obligation to pay for goods and services delivered (as regulated by South African law)

According to the literature survey, South African legislation determines that the information in the table below must be on a municipal account.

Criteria	Source and comments
Tariff structure ( <i>the basis for calculating the amounts due, including Free Basic Services where relevant</i> )	Section 95 of the Municipal Systems Act, 32 of 2000  <b><i>This criterion is repeated in the next category because it affects the integrity of an account.</i></b>
Opening balance	National Credit Act 9, 34 of 2005
Current balance ( <i>interpreted as "the current month's charges" because the total amount due, i.e. the balance after arrears, payments, interest and the current month's charges have been added, is another criterion below</i> )	National Credit Act 9, 34 of 2005
Amounts credited or debited during period ( <i>e.g. payment received, or interest on arrears</i> )	National Credit Act 9, 34 of 2005
Amounts currently overdue and when due ( <i>i.e. age analysis</i> )	National Credit Act 9,34 of 2005
Credit control measures ( <i>e.g. late payment charge/interest on late payments/cut off date</i> )	Strategic Framework for Water Services (2003) – “Consumers must be informed with respect to credit control, debt collection and disconnection

	<i>policies, credit control procedures and consumer responsibilities”.</i>
The words ‘Tax Invoice’	<i>Sections 20(4) and 20(5) of the Value-added Tax Act 89 of 1991</i>
Name and address information of service provider	<i>Sections 20(4) and 20(5) of the Value-added Tax Act 89 of 1991</i>
Name and address of account holder	<i>Sections 20(4) and 20(5) of the Value-added Tax Act 89 of 1991</i>
Individual serialised number	<i>Sections 20(4) and 20(5) of the Value-added Tax Act 89 of 1991</i>
Date of invoice	<i>Sections 20(4) and 20(5) of the Value-added Tax Act 89 of 1991</i>
Description of goods or services supplied ( <i>e.g. water, electricity, sanitation – ‘municipal services’ were not regarded as a description of services</i> )	<i>Sections 20(4) and 20(5) of the Value-added Tax Act 89 of 1991</i>
Quantity or volume of goods/services supplied ( <i>i.e. litres, or KWh consumed</i> )	<i>Sections 20(4) and 20(5) of the Value-added Tax Act 89 of 1991</i>  <i>Strategic Framework for Water Services (2003) – “Consumers must be informed with respect to water consumption”.</i>
Rand value of services ( <i>i.e. amount for water, electricity, etc. service</i> )	<i>Sections 20(4) and 20(5) of the Value-added Tax Act 89 of 1991</i>
VAT amount	<i>Sections 20(4) and 20(5) of the Value-added Tax Act 89 of 1991</i>
Total amount including VAT for the supply	<i>Sections 20(4) and 20(5) of the Value-added Tax Act 89 of 1991</i>

### 3.2 Information that enhances the integrity of the account as required by South African and international regulation

Criteria	Source and comments
Tariff structure	<i>See 3.1: This criterion is repeated here as it has a critical impact on account integrity.</i>
Period of consumption covered in the bill	<i>State of Arkansas – Public service Commission</i>
Current and previous meter reading	<i>Section 95(b) of the Municipal Systems Act 32 of 2005 states: “where the consumption of services has to be measured, take reasonable steps to ensure that the consumption by individual users of services is measured through <b>accurate and verifiable metering systems.</b>” For a meter reading to be verifiable by the consumer, the actual reading must therefore be included on the account.</i>
Distinction between estimated and actual meter readings	<i>State of Arkansas – Public service Commission  The regulation furthermore stipulates that “no company can estimate your bill for more than two consecutive months”</i>

### 3.3 Information aimed at educating and changing behaviour as required by international examples of regulation

In addition to the information listed above, international examples of the regulation of water accounts/utility bills require information on comparative consumption, water conservation, and customer care.

Criteria	Source and comments
Consumer history of consumption	<i>National Guidelines for residential customers’ water accounts, Natural Resource Management Ministerial Council, Australia</i>

Compare consumer consumption with municipal average	<i>National Guidelines for residential customers' water accounts, Natural Resource Management Ministerial Council, Australia</i>
Water conservation information	<i>National Guidelines for residential customers' water accounts, Natural Resource Management Ministerial Council, Australia</i>
Contact information of customer care ( <i>general number of municipality/utility regarded as insufficient</i> )	<i>Federal Communication Commission, USA.</i>  <i>The Municipal systems Act, 32 of 2000, section 95(b) states that a municipality should establish mechanisms for users of services to give feedback to the municipality or other service provider regarding the quality of the services and the performance of the service provider.</i>
A statement that the customer may contact the service provider about any billing or service problem, or for a delayed payment agreement	<i>State of Arkansas – Public service Commission</i>

The exact details of the scoring are explained in the Guideline document.

The chapter that follows describes how the EMI tool was applied at three levels:

1. Application 1: Evaluating municipal accounts;
2. Application 2: Case studies; and
3. Application 3: Workshop with municipal officials.

The tool went through a series of refinements and revisions during these application processes.

## CHAPTER 6: APPLICATIONS OF THE EMI TOOL





## 1 Application 1: Evaluating municipal accounts

The EMI tool was used to analyse 35 South African municipal domestic accounts and six international best practice accounts. See the table below for a list of the South African accounts analysed.

<b>Eastern Cape</b> Nelson Mandela Bay Buffalo City LM Amathole DM	<b>Kwazulu Natal</b> eThekweni Metro (2) Msunduzi LM Ugu DM	<b>Northern Cape</b> Sol Plaatje LM Kareeberg LM Ga-Segonyana Lm
<b>North West</b> Tlokwe LM Matlosana LM	<b>Limpopo</b> Polokwane LM Greater Tzaneen LM	<b>Free State</b> Mangaung LM Mantsopa LM (2)
<b>Mpumalanga</b> Silulumanzi WSP (2) eMalahleni LM Steve Tshwete LM Govan Mbeki LM Msukaligwa LM Nkomazi LM	<b>Western Cape</b> George LM Mossel Bay LM Overstrand LM Hessequa LM Drakenstein LM Cape Town Metro	<b>Gauteng</b> Tshwane Metro Ekurhuleni Metro Johannesburg Metro Mogale City LM Kungwini LM

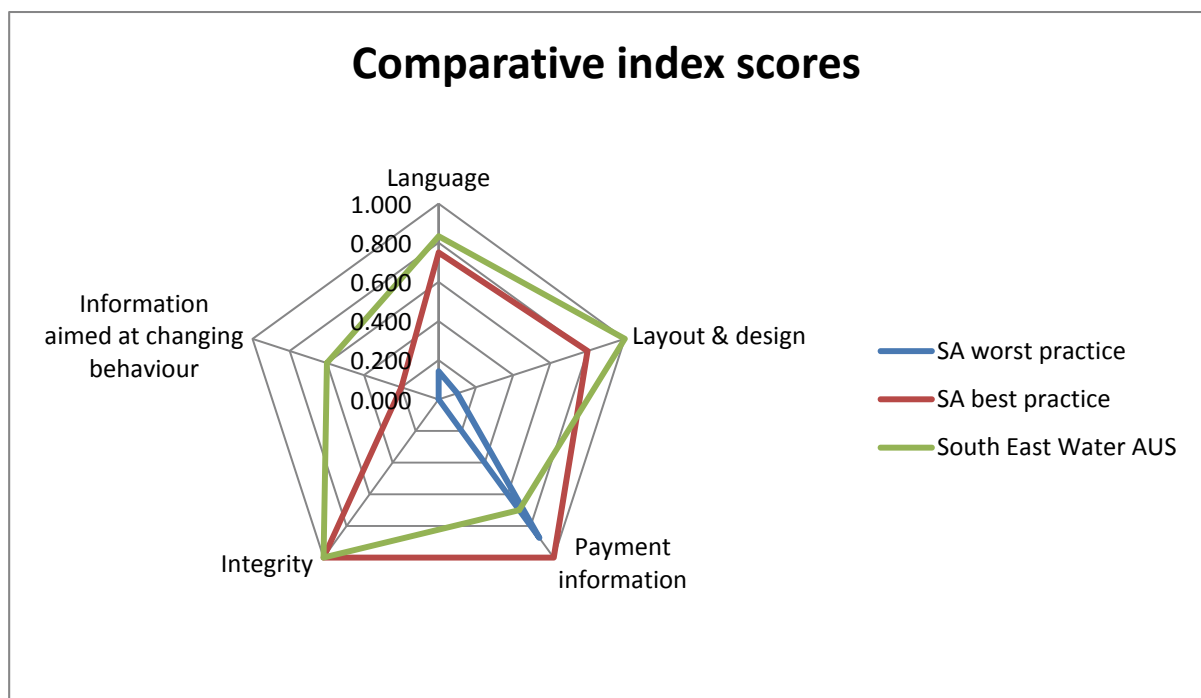
The municipalities that participated in the study were asked to provide the researchers with copies of their accounts. Despite several requests, few of them sent through copies. Additional sample accounts were sourced through the friend-of-a-friend method.

The international accounts analysed are Blue springs USA, New Hampshire USA, EDF Energy UK, Yarra Valley Australia, south East Water Australia and SP Singapore.

### 1.1 Summary of findings

The results showed that, in comparison to the international accounts, South African municipal account scored well on payment information. The other four categories, however, did not yield same positive results as the figure below illustrates.

**Figure 5: Comparison of accounts according to the five assessment categories**



The City of Cape Town Metro, with 7.571 out of a possible 10, got the highest index score of the South African accounts. In terms of the assessment criteria this account could therefore be regarded as the best practice in the South African context. Cape Town was the only sample account where consumers can clearly see that they are rewarded for re-using water (a step tariff for the amount of wastewater put into the sewage system). This is in line with international best practice to reward consumers for saving water and energy.

The new accounts of Tshwane and eThekweni are significant improvements and both score above 7.0 (see 2.1 and 2.2 for a more in-depth discussion).

The index scores of the other South African accounts ranged between 2.34 and 7.0 out of a possible 10.

In the remainder of this section, the findings will be discussed per assessment category.

## 1.2 Detailed findings

### 1.2.1 Clarity and accessibility in language

Only 15 out of the 35 South African sample accounts show the unit of water consumption. When the unit of consumption does appear on the account, kilolitres are used. Yet, it has been found in Australia (Australian Natural Resource Management Ministerial Council, 2006:12) that consumers have a much better understanding of litres than they have of kilolitres. Furthermore, the majority of accounts do not identify numbers as Rand, a meter reading, consumption or an unknown code for office use only, with the result that the obligation is put on the consumer to try and figure out what all the numbers on the account mean. This does not serve customers and render many accounts incomprehensible.

20 out of 35 accounts do not use terminology consistently. The name of the document itself is the main culprit with 'account', 'statement of account', and 'tax invoice' (required by the VAT Act) used interchangeably on the same account. Add the interchangeable use of 'charge', 'levy' and 'amount', or 'balance' and 'sub-total', refer to both fixed charges and free basic services as 'basic' and you lose your customers in a terminological maze where it becomes a major intellectual exercise to decipher your municipal account.

The use of non-standard abbreviations and unexplained acronyms and symbols, which are common to South African municipal accounts, exacerbates the confusion for customers, of whom a significant percentage only have a primary school education, and whose home language is not English (StatsSA, 2004). 'bas', 'b', 'arrea', ACB, DT, BP, 'amp', 'wa', 'gwd', 'chr' are a few examples of mysterious abbreviations and acronyms that customers encounter when they try to make sense of their municipal accounts.

Of the 35 accounts, 13 are in English only, 20 are in English and Afrikaans and two municipalities confirmed that they offer their account in English, Afrikaans and an African language (Cape Town MM – Xhosa, Govan Mbeki LM – Xhosa, South Sotho). In contrast, Yarra Valley Water in Australia, a country with only English as official language, offers their account in 12 languages, including traditional and simplified Chinese, Vietnamese and Arabic!

### 1.2.2 Clarity and accessibility in layout

Most of the sample accounts scored very low in this category. 20 accounts scored below 0.5 out of possible 1.

Uncluttered accounts are also quite rare. 26 of the 35 South African sample accounts are scored as cluttered. Important information gets obscured by detailed information that clutters the account. Little to no space is left between tables, and the text clutters up in single spacing, leaving a big white space underneath.

Many domestic municipal accounts are in such a small font that they are almost illegible – not one account even reached the 10pt minimum standard. The use of capital letters in the text, combined with a small font size further exacerbates the problem.

Table structures are often extremely confusing because the column headings do not match the cell values, or cell descriptions run into another column, pulling the rest of the cells in the row out of line. This is particularly a problem with pre-printed accounts.

Further confusion is created with several tables on top of each other with column lines that do not run through. 11 out of the 35 South African accounts analysed have table structure that is unclear. Totals or important information are not emphasised in 17 of the 35 sample accounts.

---

### 1.2.3 Information relating to the account as a unique obligation to pay for goods and services delivered as regulated by South African law

Only 4 out of the 35 South African accounts analysed complied fully with legislation: Cape Town Metro, Johannesburg Metro, Tshwane Metro (new account, not yet in use) and eThekweni Metro (draft new account). This finding implies that the majority of the analysed accounts do not comply with legislation.

The major issue is that the basis for calculating the amounts due (tariff structure) is not indicated as required by the Municipal Systems Act 32 of 2000, paragraph 95 (e) and the Consumer Protection Act 68 of 2008. This seriously undermines account integrity as the consumer would not know what he/she is paying for. Unfortunately also, some of the tariff structures on the accounts are extremely unclear or difficult to read, for example, George LM's tariff structure sits at the bottom of the page in a font size of approximately 5 point.

There is no standard way in which VAT is included in the accounts. It is placed almost anywhere on the account and can be misunderstood or completely missed. All the accounts show the VAT amount, but, again, it is sometimes difficult to find and unclear.

21 out of a possible 35 accounts don't have an 'opening balance', and when it does appear on the account, it is often called 'sub-total'.

---

### 1.2.4 Information that addresses the integrity of the account as regulated by South African and international regulation

Accurate and verifiable meter readings are the cornerstones of the integrity of municipal accounts. Consumers who do not trust an account or mistrust its accuracy can be expected to be reluctant to pay.

None of the accounts, with the exception of Johannesburg Metro, Cape Town Metro and the new Tshwane account, show the distinction between estimate and actual meter readings.

28 out of 35, which represent a significant number, provide current and previous meter readings, thus enhancing the integrity and validity of accounts.

Cape Town, Johannesburg and the new Tshwane account scored full marks for this category. Five accounts scored zero for this category.

#### 1.2.5 Information that addresses water conservation and effective water service as required by international samples of regulation

A staggering 23 out of a possible 35 accounts scored zero in this category. Only Ugu DM, and the new accounts of Tshwane and eThekweni provide historical consumption information to consumers. Information that compares a household's consumption with other households is absent on South African municipal accounts.

The absence of a customer-orientated approach is also conspicuous. Only Cape Town Metro, Drakenstein LM, Ekurhuleni Metro, Tshwane Metro and Ugu DM have dedicated customer care information. The rest of the sample accounts only provide the municipality's general number.

No information that addresses the conservation and effective use of critical natural resources such as water and energy appeared on 32 of the 35 South African accounts analysed. Exceptions were Nelson Mandela Bay Metro, Msukaligwa LM and Silulumanzi WSP.

### 1.3 Conclusions

SA municipal accounts show a disregard for their customers, particularly their vulnerable customers, as the examples above have illustrated. Many municipal accounts do not comply with legislation, because they do not show consumers how the amounts that they are expected to pay for municipal services are calculated. Accounts that lack the basic integrity may lead to reluctance to pay for municipal services, and paying for services is necessary to fund a continuous supply of sufficient clean water and electricity in this country.

Municipal accounts in South Africa furthermore display a total lack of standardisation in language, layout and information.

In conclusion, the research results confirmed that SA municipal accounts do nothing to reduce our water and energy footprint and lag far behind international best practice.

## 2 Application 2: two case studies

### 2.1 Ethekewini Metro

Teddy Gounden, Manager: Customer education and Capacity Building, Water Services, is a reference group member of this study. He approached the researcher to assist eThekwini with the development of their new bill.

The inputs of the research were given when the process of revising the bill was already underway. The interaction between the municipality and the researcher entailed the following:

- An initial assessment on the Tool of Analysis
- A first report (see below)
- A workshop with Fernanda Deehan to discuss proposed revisions
- A second assessment of the revised bill
- A second report (see below).

---

#### 2.1.1 First report

The first report was based on the draft summary page and detailed page that appear below.

Date	Account Number	Vat Number	Pending Pay-In Slip	Guarantee	Deposit
2009/01/02	83255132947		0.00	0.00	2 570.00

Reference	Details	Amount (Rands)
2008-12-23 CH 2008-12-28 CA	Balance Brought Forward	2 000.00
	Payment Thank You	1 500.00 CR
	Payment Thank You	500.00 CR
	<b>Sub-total</b>	<b>0.00</b>
	This Month's Municipal Charges	500.00
	Credit Authority Instalment	1 000.00
	Credit Authority Interest Charges	100.00
	VAT	50.00
	Current Months Charges	1 650.00
	<b>Total</b>	<b>1 650.00</b>

**Current Balance Payable by <>**

## Detailed Page

Age Analysis					
Description	120 Days +	90 Days +	60 Days +	30 Days +	Current
Account	0.00	0.00	0.00	0.00	1 650.00
Credit Authorities	1 000.00	2 000.00	2 500.00	500.00	0.00
Debt Relief	2 300.00	1 200.00	300.00	200.00	0.00

Debt Summary					
Description	Agreement Amount	Written-off / Installments Raised	Current Write-off / Instalment	Amount Owing	Number of Remaining Periods
Credit Authority Agreement – 2468	10 000.00	3 000.00	1 000.00	6 000.00	6
Debt Relief Agreement – 1234	5 000.00	900.00	100.00	4 000.00	23
Total Amount Due on this Invoice				1 650.00	
Total Debt				11 650.00	

\* Debt Relief period reduced due to payment

# d e t a i l e d   i n v o i c e



## Water

20 Chelmsford Road, Glenwood

Reference - W345349

For queries, contact (031) 1313013

Meter No	Previous Read Date	Previous Consumption Reading	Current Read Date	Current Consumption Reading	Usage
AAK345	05/05/2006	1557kl	07/06/2006	1565kl	8kl

Service from 05/05/2006 to 07/06/2006 33 days Daily Ave : 7.45 kl/day

	Units	Rate	Charge
Water Consumption charge	200 kl	R6.27/kl	R1200.00CR *
Adjustment 24/10/2006 - 13/11/2006			
Adjustment No 002971 - Incorrect Tariff			
Fixed Charge Adjustment 24/10/2006 - 13/11/2006	20 days	R1.1396/day	R25.00CR *
Adjustment No 002971 - Incorrect Tariff			
Free Basic 200 Litres per day for 33 days	6.6kl	0.00	R000.00
Greater than 200 Litres	1.4kl	R6.27kl	R8.78 *
Water Fixed Charge	33 Days	R1.1396/day	R37.61 *
Water Loss Insurance Charge			R10.09 *
Meter Test Charge			R50.00 *

Sub Total

R56.48

VAT Based on items \*

R6.77

## Total Water & Sanitation

R63.25

Rental of Reservoir Sites	1 month	R2000.00/month	R2000.00 *
Cell - C(Dbn North)			
Hire of Water Tanker	4 Deliveries	R313.16/delivery	R1300.00 *

Sub Total

R3300.00

VAT Based on items \*

R500.00

## Total Water Sundries

R3800.00

## Total Water

R3863.35

## Previous Water Accounts

Jan 2006	Feb 2006	March 2006	Apr 2006	May 2006	Jun 2006
R3240.00	R500.00	R350.00	R600.00	R300.00	R350.00
24kl	24kl	16kl	10kl	8kl	7kl
1 kl/day	1 kl/day	0.5 kl/day	0.50 kl/day	0.50 kl/day	0.35 kl/day

kl = kilolitres



We have re-rated the new draft eThekwini account to include the summary and detailed invoice received on 9 June 2009. Please note that this was the first time that we had seen the detailed invoice.

Since the first rating, the critical Tool of analysis has been further refined. The re-rating is based on the refined Tool.

The account's rating improved to 4.658 out of a possible total of 10. Remaining issues that negatively affect the score of the account are the following:

### Language

- a. Inconsistent use of terminology and information (see spreadsheet for the list of examples)
- b. Terms which consumers who do not have English as home language will have difficulty to understand (e.g. sundries)
- c. Badly phrased or incorrect language, e.g. 'previous read date', 'greater than 200 litres – see spreadsheet
- d. There is reference to 'Total Water & Sanitation' on the detailed invoice, but no sanitation charges appear on the invoice. Consumers will be inclined to wonder why not.
- e. Inconsistent spelling
- f. Because a number of municipalities have indicated their intention to include an African language in future, we have decided to hold back the mark for the other language until this language has been introduced.
- g. Some suggestions:
  - i. Clarify "Reference" (tax reference number?)
  - ii. Detailed invoice: Free Basic Water (200 litres per day). 'for 33 days' is irrelevant, because the charge will still be R0.00.

### Layout

- a. The font size is still very small.
- b. White space is not well utilised in the detailed invoice.
- c. Tables
  - i. Because there is no line or any other break between the three tables in the detailed invoice, it is not clear that there are three different tables.
  - ii. The first column of the second table does not have a heading.
  - iii. The totals refer to column sub-headings that don't exist ('Water and Sanitation' and 'Water Sundries').
- d. Some suggestions for the detailed invoice:
  - i. Move the municipality's address and reference to a position below the logo. Add postal code and postal address. That is, if this is the municipality's address.

- ii. Put the customer care number on the summary page and make much more prominent. Repeat on detailed invoice if different for each service.
- iii. 'Consumption period' is an unnecessary repetition. Add two more columns to the first table: usage period (33 days) and Average daily usage Change 'usage' to 'Total usage for period'.
- iv. Add row headings to the historical data table.

### **Integrity of the account**

The integrity of any account is critical (see literature review). If the consumer does not trust the validity of an account, queries will follow and low account integrity is also likely to affect payment negatively.

If the account is not clear and understandable, the customer will tend to mistrust the information (see 1 above).

- a. The account will lose integrity if any information is not correct. For example, we reacted as follows: why is the total usage for the month 8kl, but the daily average is given as 7.45 kl/day? In the 'Previous water Accounts', which is by the way also incorrect, because it includes May and June, the average consumption is given as 0.5 kl/day, which is also incorrect!
- b. We presumed that the historical information was only used illustratively, but suggest that you use 'real' data, because it is only confusing if, for example, June data is included, but the invoice refers to May as the last consumption period. What is this – a projected consumption? Unless explained, it will confuse consumers.
- c. Customers want to know what they are required to pay for. For this reason the refined Tool added tariff structure to the Integrity category. In the detailed invoice several tariffs are not explained, e.g. 'Water consumption charge', 'water loss insurance charge', 'meter test charge', 'adjustment for incorrect tariff'. Consumers can be expected to query these and they will therefore impact negatively on the integrity of the account. These tariffs were also not found in any other municipal account analysed.
- d. Any adjustment based on incorrect tariffs can be expected to have a negative effect on the integrity of your accounts.
- e. A distinction between estimated and actual consumption will improve the integrity of the account.

### **Information aimed at changing behaviour**

- a. A municipal account offers a unique opportunity to influence consumer behaviour regarding the conservation and effective use of scarce resources. This opportunity is not utilised on the new account. We advise against only using inserts for this purpose.
- b. We suggest that you add a column chart to depict historical and comparative data.
- c. Strictly speaking, the account does not have a statement that the customer may contact the service provider about any billing or service problem, or for a delayed

payment agreement, and should score a zero on the last criterion. We awarded a mark, because it is evident from the account that extensive debt relief and delayed payment arrangements exist. However, unless the references to debt relief and Credit Authority instalments and charges are clearly explained somewhere, you can expect consumers to find them very confusing.

- d. We also suggest that you attend to the headings in the Debt Summary table. We could not understand them.
- e. If these debt relief measures are not going to appear on all accounts, the statement referred to in bullet point c would be required for a score.

The accounts that we have received only refer to EASY PAY. We presumed that information on other payment options will be included here, including the bank details of the municipality. The payment slip takes up a lot of space, but municipalities use them to deal with mailed cheque payments. We would be interested to know how eThekweni has resolved this.

### 2.1.2 Second report

EtheKwini revised their draft bill accordingly as follows:

### 2.1.3 Summary page

MR J BLOGGS  
5 SMITH STREET  
DURBAN  
4001

BARCODES  
EASY PAY

Date	Account Number	VAT Number	Guarantee	Deposit
2009/06/01	83255132947	N/A	R 0.00	R 2 570.00

Reference	Details	Amount
Chq no.123 2008/12/23	Balance brought forward	R10 800.00
	Payment - Thank you	R10 800.00 Cr
	Cheque - RD reversal	R 1 500.00
	Balance now overdue and payable immediately	R 1 500.00
	Current month's charges (from detailed invoices)	R 3 000.00
	VAT	R 200.00
	Total current month's charges	R 3 200.00
	<b>Total</b>	<b>R 4 700.00</b>

Current month's charges payable by <Bill Date + Credit period>

### Detailed Page

#### Age Analysis

Description	120 Days +	90 Days +	60 Days +	30 Days +	Current	Total
Outstanding Balance	R 1 500.00	R 0.00	R 0.00	R 0.00	R 3 200.00	R 4 700.00

## 2.1.4 Detail page

If you have any Water queries, please contact (031) 311 3031.

### Water

**Reference - W1214552; 28 Chelmsford Road, Glenwood**

Meter No.	Previous Meter Reading		Current Meter Reading		Usage	
	Date	Reading	Date	Reading	Units/UOM	Days
AJK592	2009/03/02	57253	2009/06/07	57751	498 kl	33

Description	Units/UOM	Rate	Amount
Multi Unit and Bulk Feeder Summary			
Bulk consumption	498 kl		
Internal consumption	-205 kl		
Internal estimated consumption	0 kl		
Reversal of internal estimated consumption	0 kl		
	293 kl	R7.92/kl	R 2 320.56
Management fee	4 units	R7.02/unit	R 28.08
Sub-total			R 2 348.64
VAT raised on items marked with an asterisk (*)			R 328.81
<b>Total Water</b>			<b>R 2 677.45</b>

	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09
Amount	R 2 320.56	R 2 291.45	R 2 285.22	R 2 296.56	R 2 301.23	R 2 320.56
Usage	468 kl	471 kl	472 kl	471 kl	473 kl	498 kl
Usage days	33	30	31	32	32	33
Daily						
Average	15 kl	15 kl	14 kl	14 kl	14 kl	15 kl

### Sanitation

For queries, please contact (031) 311 3031

**Reference - W34534920; 20 Chelmsford Road, Glenwood**

Description	Units/UOM	Rate	Amount
Sewer charges	-	-	R 128.89
Sewer surcharges	-	-	R 12.50
Sub-total			R 141.39
VAT raised on items marked with an asterisk (*)			R 19.79
<b>Total Sanitation</b>			<b>R 161.18</b>

### Trade Effluent

**Reference - W34534920; 20 Chelmsford Road, Glenwood**

Description	Units/UOM	Rate	Amount
Permit TE001117: 05/01/2009 to 07/02/2009			
Trade Effluent Monitoring Charge	-	-	R 505.78
Trade Effluent: Percentage of Water 05/01/2009 to 07/02/2009 79.51%	-	-	R 728.55
Sub-total			R 1 234.33

VAT raised on items marked with an asterisk (\*)

R 0.00

**Total Trade Effluent**

**R 1 234.33**

**Total Water and Sanitation**

**R 4 072.96**

The account's rating has improved quite significantly from 4.658 to 7.143 out of a possible total of 10.

Remaining issues that negatively affect the score of the account are the following:

### Language

- h. Inconsistent use of terminology and information (see spreadsheet for the list of examples). The detail page also starts with the heading 'Water and sanitation/effluent'. On the bottom of this page there is a 'Total Water and Sanitation'. Should this total not read: 'Total Water and Sanitation/Effluent'?
- i. 'CR' to describe the term credit is still used on the summary page.
- j. Some information remains difficult to understand, for example:
  - i. multi unit and bulk
  - ii. Current month's charges on the summary page do not match the total water and sanitation charges on the detail page. This will create confusion.

### Layout

- e. The font size is still small.
- f. White space is not well utilised in the summary invoice as there will be a large white area at the bottom when printed.
- g. Some suggestions for the detailed invoice:
  - i. Put the customer care number on the summary page and make much more prominent. Repeat on detailed invoice if different for each service.
  - ii. The service headings such as 'water', 'sanitation' and 'trade effluent' can be emphasised more. The consumer must be able to see at a glance when the next service starts. A line can also be drawn between the services to indicate a new page.

### Integrity of the account

- a. This account has improved and now scores full marks in this category. Well done!

### Information aimed at changing behaviour

- a. A municipal account offers a unique opportunity to influence consumer behaviour regarding the conservation and effective use of scarce resources. This opportunity is not utilised on the new account. We advise against only using inserts for this purpose.
- b. If the data is available, it would be good if you could also compare the consumer's usage with the municipal average.

- c. The account does not have a statement that the customer may contact the service provider about any billing or service problem, or for a delayed payment agreement.

## 2.2 Tshwane Metropolitan Municipality

The inputs of the research were given to Tshwane MM when the process of revising their existing invoice was almost complete. The interaction between the municipality and the researcher entailed the following:

- Mr Jay Bhagwan, WRC, Director: K3 Water Use and Waste Management, arranged a meeting with Tshwane;
- A presentation on this study to Andile Dyakala, Executive Director: Revenue Management;
- A further presentation at the request of Mr Dyakala to Gloudi Visagie, Director: Debt Collection, who was the project manager;
- An assessment of the new invoice on the EMI Tool;
- A report (see report below);
- A final discussion of the report with Ms Visagie.

---

### 2.2.1 Report to Tshwane

#### **Introduction**

As requested we have rated the new Tshwane account according to the EMI Tool developed as part of the Water Research Commission Account Study.

#### **Rating**

The account's rating is 6.167. out of a possible total of 10.

Note: As instructed, the language and terminology of the old Tshwane account were used for this rating, except for information that does not appear on the old account.

#### **Distinctly improved features: from the previous Tshwane account**

1. Unit of consumption included (kl and kWh)
2. Clear and legible printing
3. Line spacing increased
4. Layout much less cluttered
5. Consumption history graph
6. Addition of the tariff structure and basis for calculations
7. Age analysis
8. Credit control measures

The account scored 16 out of a possible 16 in the category 'information relating to the account as an obligation to pay for good or services'.



---

### 2.2.2 Features that still negatively affect the account's score

#### Language

- a. If the account is not clear and understandable, the customer will tend to mistrust the information. Terms which consumers will probably not understand or have difficulty to understand are *Giskey*, *BP*, *Scale B* (on the old account) and *current account* in the meaning of 'current month's charges.' The term 'current account' (Afrikaans: 'lopende rekening') is typically associated with a cheque account.
- b. Unexplained symbols or codes:
  - i. The symbols for telephone number, fax number, etc. do not add to the clarity of the account, on the contrary: The connection between a mouse and an email address might not be evident to all customers. There is enough space on the account to write out the words.
  - ii. '+', 1;2;3 (for actual/consumer/estimated meter readings), GISkey code, BP code are not explained.
  - iii. A toilet viewed from the side rather from above will give a clearer icon.
- c. The absence of a unit of cost (Rand): It is not evident that '110.25' means R110.25, especially not on a document with a variety of number and code formats.

#### Layout

- a. The font size of some of the headings and figures is still smaller than 10 pt.
- b. WORDS CONSISTING OF ONLY CAPITAL LETTERS PRESENT THE MOST DIFFICULT READING BECAUSE OF THEIR EQUAL HEIGHT, EQUAL VOLUME, AND, WITH MOST, THEIR EQUAL WIDTH.
- c. Total amounts are only emphasised with a larger font or bold in the Age Analysis
- d. Tables: Column headings do not always match row information. Page 1: Heading 'Charge', row information 'incoming payment'. Suggestion: change 'charge' to 'amount'.
- e. The graphs lack headings that explain their purpose.
- f. The first column of the second table does not have a heading.

#### Integrity of the account

The integrity of any account is critical. If the consumer does not trust the validity of an account, queries will follow and low account integrity is also likely to affect payment negatively.

Consumers tend to distrust estimated meter readings. The account makes provision for a distinction between actual and estimated readings with a code, but unless the code is explained, customers will not understand what it means.

Customers want to know what they are required to pay for. The words '*arrangement plan made*' should be made clearer. Consumers can be expected to query this. 'Debt relief arrangement' is suggested. A clear distinction should also be made between the monthly instalment and the current balance.

We would strongly recommend that any reference to debt relief should ONLY occur on accounts where such an arrangement has been made. Unnecessary or irrelevant information impairs understanding.

### **Information aimed at changing behaviour**

- a. A municipal account offers a unique opportunity to influence consumer behaviour regarding the conservation and effective use of scarce resources. This opportunity is not utilised on the new account. We advise against only using inserts for this purpose.
- b. We suggest that you add comparative data to the charts.
- c. The account does not have a statement that the customer may contact the service provider about any billing or service problem, or for a delayed payment agreement.

---

### **2.2.3 Suggestions for further improvement**

#### **Consistent terminology**

We suggest that you carefully check that the terminology use on pages 1 and 2 of the account is consistent. It was difficult to do in the analysis, because the language and terminology on the samples are not the same as will appear on the final product.

#### **Language**

According to the Municipal Demarcation Board only 129 903 of Tshwane's 2 million inhabitants have English as their home language. Sepedi (439 000), Setswana (339 060), and Afrikaans (422 683) are the major home languages of the city. The availability of the account in Sepedi and Setswana will enhance understanding if, and only if, great care is taken with the language. Bad translations will only confuse consumers. The use of a generic Sotho that will accommodate both Sepedi and Setswana consumers could also be explored.

#### **Graphs**

The two graphs on page 2 add valuable historical information for consumers. A bar chart will be more informative. The impact on consumer behaviour will be further enhanced with the addition of comparative information (e.g. the municipal or area average).

#### **Avoid duplicated information**

Take out the VAT row on page 1 and 2, but add to the column heading: 'VAT (14%) where applicable'

#### **Take out information that is irrelevant from the customer's point of view.**

- a. Codes or information that has no meaning for customers should be taken out, incorporated in the bar code or clearly marked 'For office use'.
- b. If the dates in the date column are not relevant to customers, we suggest that you mark them 'for office use' in a shaded column. The payment date will be relevant, but can be put next to payment, for example *Payment received 15/06/2009 – Thank you!*
- c. What does '070423 the balance is now R6002.72' mean? Should be clarified.

### **Avoid unnecessary words**

For example:

Arrangement plan ~~made~~

~~Incoming~~ payment

### **Other suggestions**

- a. Add a heading 'Age Analysis' to the age analysis table.
- b. Award payment with a 'Thank you!'
- c. Negative numbers for credit amounts are not well understood. Rather use the description to make it clear that this is a credit amount.
- d. The dash and minus sign look the same on the account and can be confusing especially on page 2

*Sewerage+*

*Sanitation: Wastewater –Domestic* (dash)

*Sanitation: Free Sanitation – Domestic* (dash or minus sign?)

The repetition of Sanitation is unnecessary.

### **Print colour**

Colour printing often does not fax or scan well, especially white letters on a light colour. Shades of grey to black, bold, blocks and shadows can be very effectively used to differentiate meaning in black and white printing.

Colour printing is considerably more expensive than black and white printing. The use of colour will not necessarily add to the value of the account as language and layout determine the clarity of an account, not the print colour.

Digital printing is less expensive than litho and can be tailored for individual customers or customer groups, which will increase customer satisfaction and the account's integrity, because all information will be applicable to 'my situation'. Pre-printing of accounts does not have this flexibility and is therefore not recommended.

---

#### 2.2.4 Outcome of intervention

The recommendations were adopted by Tshwane as far as it was still possible. Press clippings indicated that the revised invoice was received positively by the customers of Tshwane.

The old and new accounts of Tshwane appear on the following three pages. The old account was a one page account; the new one has a summary page and a detail page.

Tax invoice: 237500809174  
1. Issued: 19/01/09

19000000011173/ 958  
110000000109157



2. Account no.  
5004980758

5701090085000

3. GENERAL INFORMATION										29. CHIEF FINANCIAL OFFICER	
4. Account for <b>P12</b>		5. Stand no. <b>01066</b>		6. Township <b>MORELETAPARK X15, PRETORIA</b>			7. Days <b>38</b>		VAT REG NO. 400142267 400 Pretoria 0304		
8. Site address <b>7 620 RJTGBRS STREET</b>						9. Electricity and water consuming period <b>13/12/08-19/01/09</b>				10. Meter reading unit <b>1213431B</b>	
11. Group account		12. Deposit date <b>07/08/08</b>		13. Deposit <b>1400.00</b>		14. Guarantee date		15. Guarantee		16. Guarantee	
GISKEY: 045601066				UNIT NO: 00000				BP: 893404			
16. Details		17. Meter reading Previous / Present		18. Consumption		19. Units		20. Amount		30. GENERAL INFORMATION	
Balance brought forward								2922.48		• Should you move from this address or require services to be discontinued, please notify the CFO in writing. • If you want your address or any personal particulars to be changed, please submit your request to the CFO in writing. • Please retain all receipts until those payments are reflected on an account statement. • You are responsible for the accuracy of any electronic payments made by yourself. • Payment by post dated cheques is not accepted. • Interest is payable on arrear amounts. • Unpaid accounts will constitute a liability against the property, for which the registered owner can be held liable. LEAKAGES / LOSS OF SERVICES ON PROPERTY: Excessive consumption, water leakage or electricity loss on or in connection with any property will be for the account of the registered consumer of those services and / or for the account of the registered owner of the property. 31. Counter payments also at:      Please use ref no. (Print 28 at bottom of Form) when making Bank Payments. * 14% VAT CHARGES * 14% VAT CHARGES NO INDICATION: NO VAT CHARGES	
19/01/09 - Incoming payment		360098						2922.00-			
*****											
Subtotal &								0.48			
19/01/09-L01603649-83(1:1) 82311		83882		1571		1571		869.86			
Energy charge - Domestic											
19/01/09-L016107742(1:1) 1536		1657		121		121		1167.62			
Water charge - Scale B: domestic											
19/01/09-L016107742(1:1) 1536		1657		121		121		124.62			
Sanitation: Wastewater - Domestic											
VAT 14% on services of R2162.10								302.70			
*****											
Current account &								2465.00			
19/01/09		09/02/09		5004980758		23. AMOUNT DUE		2465.00		32. TEAR-OFF SLIP PAYMENTS BY POSTED CHEQUE: ATTACH ONLY THIS TEAR-OFF SLIP TO YOUR CHEQUE. AN OFFICIAL RECEIPT WILL BE PRINTED ON THE BACK OF THE CHEQUE Size Forms and Printing	
21. Credits included to		22. Final date for payment		2. Account no.							
24. THIS STUB MUST ACCOMPANY PAYMENT											
25. Name <b>REYNERS L</b>		22. Final date for payment <b>09/02/09</b>		2. Account no. <b>5004980758</b>				2465.00			
 0247   		>>>>>> 9 1945 50049807589		<b>CITY OF TSHWANE</b> VAT REG NO. 400142267 400 Pretoria 0304 <b>012 358 9999</b> <b>012 359 6111</b> E-mail: customercare@tshwane.gov.za							
28. Ref no		5004980758									





Tel: 012 358 9999  
 Fax: 012 358 6111  
 E-Mail: [customer@tshwane.gov.za](mailto:customer@tshwane.gov.za)  
 Address: P O Box 408 | Pretoria | 0001

TAX invoice: 100001517935

Issued: 16/07/09

LALOR K W  
 PO BOX 905-298  
 GARSFONTEIN  
 0042

Account No.

2010192594

4902155160180 /

Page: 1 of 2

Account for	P12	Stand no	01035	Township	PRETORIA	Days	35
Address	306 SALDANHA ST SALDANHA ST			Sectional title scheme		Unit no.	00000
Meter reading unit	1208408B	Group account		Deposit date	18/04/05	Deposit	125.41
				Guarantee date		Guarantee	0.00
GISKEY:	023801035			BP:	160958		

DATE	DETAILS	(R) Amount (excl. VAT)	(R) VAT	(R) Amount (incl. VAT)
17/03/09	Balance Brought Forward	1,188.55	0.00	1,188.55
27/03/09	Payment Thank You	-1,188.00	0.00	-1,188.00
16/07/09	<b>Sub Total (A)</b>	<b>0.55</b>	<b>0.00</b>	<b>0.55</b>
16/07/09	Property Rates	407.06	0.00	407.06
16/07/09	Waste Management	64.12	8.98	73.10
16/07/09	Electricity	643.91	90.15	734.06
16/07/09	Water	92.58	12.95	105.53
16/07/09	Sanitation	56.64	7.93	64.57
	VAT 14% on services of R 857.25	0.00	120.02	0.00
16/07/09	<b>Total Current Levy (B)</b>	<b>1,264.31</b>	<b>120.01</b>	<b>1,384.32</b>
<b>TOTAL AMOUNT PAYABLE (A+B)</b>		<b>1,264.86</b>	<b>120.01</b>	<b>1,384.87</b>
An average consumption has been used as meter reader was unable to take a reading. Please phone 012 - 3589999 to solve the problem.				

90 Days	90+ Days	Total charge (excluding VAT)	Total VAT	Total charge (including VAT)
0.00	-124.86	1,264.86	120.01	1,384.87
	<b>DUE DATE</b>	<b>06/08/09</b>	<b>AMOUNT PAYABLE</b>	<b>1,384.87</b>

THIS STUB MUST ACCOMPANY PAYMENT

Name	Final date for payment	Account no	
LALOR K W	06/08/09	2010192594	1,384.87

Please use this Ref. no. when making Bank Payments

Ref. no. 2010192594

TAX invoice: 100001517935

CITY OF TSHWANE VAT REG NO 4000142267



20101925942



012 358 9999  
 012 358 6111  
[customer@tshwane.gov.za](mailto:customer@tshwane.gov.za)  
 P O Box 408 | Pretoria | 0001



Account No.

2010192594

Page: 2 of 2

DATE	ICONS	DETAILS	(R) AMOUNT (excl. VAT)	(R) VAT	(R) AMOUNT (incl. VAT)
17/03/09		Balance Brought Forward	1,188.55	0.00	1,188.55
27/03/09		Payment Thank You	- 1,188.00	0.00	- 1,188.00
		Sub Total (A)	0.55	0.00	0.55
16/07/09		<b>Property Rates</b> Residential Other Market Value: 885000.00 Tariff: 0.0090000 Imperm. Value: 15000.00 Valuation Rebate: 35000.00 2009/03 Market Value - Imperm. Value x Tariff w 12 Less: Valuation Rebate X Tariff w 12 Less: Domestic Rebate of 35%	652.50 - 26.25 - 219.19	0.00 0.00 0.00	652.50 - 26.25 - 219.19
16/07/09		<b>Waste Management</b> City cleaning charge - domestic City Cleaning Charge Waste removal charge - domestic Waste Removal Charge	32.06 32.06	4.49 4.49	36.55 36.55
16/07/09		<b>Electricity</b> Reading dates: Curr 17/04/09 Prev 14/03/09 ( 34 days) Meter: 05-49426(Estimate) Curr 42746 Prev 41584 Cons 1162 KWH Energy charge - domestic  Month ■ Actual    □ Estimate	643.91	90.15	734.06
16/07/09		<b>Water</b> Reading dates: Curr 17/04/09 Prev 14/03/09 ( 34 days) Meter: 37209240(Estimate) Curr 378 Prev 360 Cons 18 KL Water charge - Scale B: domestic  Month ■ Actual    □ Estimate	92.58	12.96	105.54
16/07/09		<b>Sanitation</b> Reading dates: Curr 17/04/09 Prev 14/03/09 ( 34 days) Meter: 37209240(Estimate) Curr 378 Prev 360 Cons 18 KL Sanitation: Wastewater - Domestic	56.64	7.93	64.57
16/07/09		<b>VAT</b> VAT 14% on services of R857.25 Total Current Levy (B)	0.00 1,264.31	120.02 120.01	0.00 1,384.32
		<b>Total Amount Payable</b>	<b>1,264.86</b>	<b>120.01</b>	<b>1,384.87</b>

### 3 Application 3: testing the EMI tool in a workshop with municipal officials

#### 3.1 Aim

As part of the process of informing municipalities of the research, a one day workshop with representatives of selected municipalities was held. The workshop took place at the Water Research Commission in Pretoria on 30 July 2009. Municipal representatives from across South Africa were invited to take part in the workshop. Unfortunately, due to the 2009 municipal strike, some of the delegates were unable to attend.

The following individuals attended:

- Zingi Dlova, Amathole DM
- Xola Nombutuma, Amathole Dm
- Nonzwakazi Booï, Amathole DM
- Christie Munien, Cape Town MM
- Ken Sanpersad, Ekurhuleni MM
- Allen Kitley, Ekurhuleni MM
- Teddy Gouden, eThekweni MM
- Raymond Taye, Manguang Metro (was not able to make it due to flight delays)
- Charles Ledwaba, Polokwane LM
- Pieter Tobing, Silulumanzi WSP
- Andries Klopper, Sol Plaatje LM
- Derick Karsten, Sol Plaatje LM
- Jay Bhagwan, WRC
- Hlengiwe Cele, WRC
- Charmaine Dladla WRC
- Richard Peasey, Beehive Consulting
- Petunia Selowa, the DPLG (COGTA)

The aim of the workshop was to inform stakeholders of the findings of the research, introduce them to the EMI tool and give them the opportunity to apply the tool and assess its effectiveness.

#### 3.2 Programme

The workshop programme comprised the following activities:

1. Welcome by Mr Jay Bhagwan, research director of the WRC;
2. Introduction to the study, presented by Dr Sarah Slabbert, the project leader. She then proceeded to show and explain the literature findings with specific emphasis on South African regulation and international best practice.
3. Ms Carmel Joseph presented the findings of the study done on Current Municipal Account Practices.



4. Dr Slabbert introduced the delegates to the Tool to evaluate municipal accounts (EMI) and explained the findings from the various municipal accounts that were evaluated.
5. As a practical exercise, the delegates evaluated in pairs two accounts on the EMI tool to evaluate municipal accounts (EMI) and reported on their findings and their experience with each account, as well as the use of the Tool to evaluate municipal accounts. Each pair received two account examples, one example of an account with a high EMI score and one example of an account with a low EMI score.
6. Finally, a presentation on the use of technology to increase the effectiveness of communication to consumers, as well as possible electronic alternatives to the standard paper based municipal account was given by Mr Richard Peasey from Beehive Consulting. The use of an interactive website from where consumers can log on, view and pay their accounts was demonstrated, as well as the use of emails and SMS messages to receive accounts.

## CHAPTER 7: CUSTOMER SURVEY



## 1 Introduction

As a final step in the process of developing guidelines on domestic water accounts, Nielsen South Africa was sub-contracted to conduct a survey in order to test the following hypotheses:

1. Whether consumers' understanding and perceptions of the sample accounts correlate with index scores on the Tool of Critical Analysis;
2. Whether there is a correlation between
  - consumers' actual understanding of the sample accounts,
  - their perceptions of the clarity of language and ease to find information, and
  - their trust in the accuracy of these sample accounts.

The key features of the survey were the following:

Three accounts were selected from the 35 accounts scored on the Tool of Critical Analysis. Only South African accounts were selected in order to avoid another variable. The three accounts were selected to represent the spectrum of index scores:

- a. An account that was amongst the three lowest of the scores;
- b. An account that scored close to 5 out of 10; and
- c. A model account that scored 10 out of 10 on the Tool.

For reasons of cost effectiveness; the survey was put onto one of the existing syndicated studies that are conducted by the major market research houses. The OMNIBUS survey of Nielsen South Africa was used because the research has worked with the company before on similar projects and the fieldworkers have become familiar with key aspects of domestic water services.

The OMNIBUS survey covers adults, aged 16 years and over, from all race groups. An area-stratified, probability sample of 2500 households was drawn.

In brief, the survey questionnaire covered the following:

Question 1 was included to investigate the impact of prior knowledge of municipal accounts on understanding. 72.5% of respondents received a municipal account; 27.5% do not.

For question 2, a projective technique was used to avoid respondents' over-reporting their own ability to understand and find information on their municipal accounts. Respondents were also asked to indicate to what extent the people in their area trust their municipal account to be correct.

Question 3a-3d asked basic information on the account:

- The amount owed from previous months
- The date on which the account must be paid
- The date of the last water reading
- The quantity of water used during the account period

- The quantity of Free Basic Water that this consumer has received.

Question 4 asked the same questions as Question 1, but with reference to the account (Mars, Pluto or Venus) that was shown to the respondent.

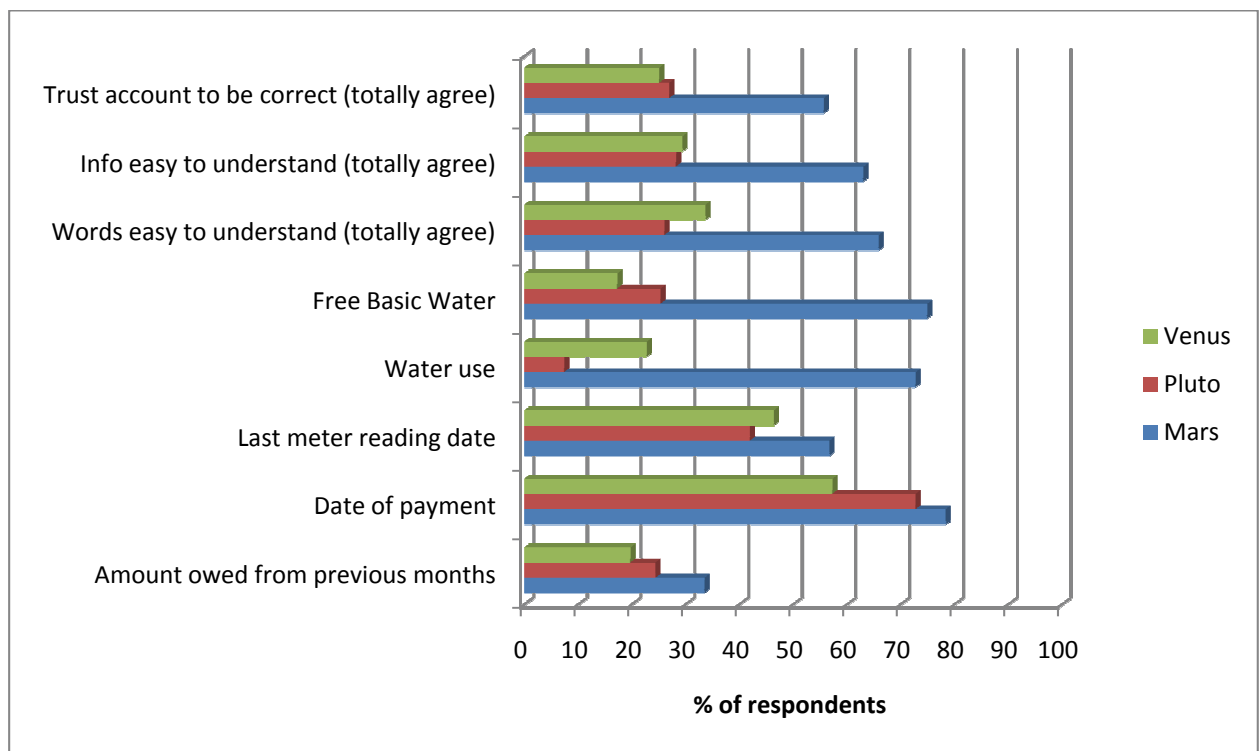
**The details of the methodology and findings are discussed in detail in a separate report that appears in APPENDIX IV.**

## 2 Summary of findings

The figure below clearly shows that the Mars/model account performed significantly better than the other two accounts in all respects. This confirmed hypothesis 1.

Mars also did significantly better than the other two accounts on perceptions of ease to understand and find information, and trust in the correctness of the account. This confirmed hypothesis 2.

**Figure 6: Summary of findings**



Although the general results confirmed the hypotheses, some of the detailed results differed from the expected pattern.

### 3 Conclusions

The results of the survey confirmed Hypotheses 1 and 2, namely:

1. Consumers' understanding and perceptions of the sample accounts correlate with index scores on the EMI Tool;
2. There is a correlation between
  - consumers' actual understanding of the sample accounts,
  - their perceptions of the clarity of language and ease to find information, and
  - their trust in the accuracy of these sample accounts.

## CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS



## 1 Conclusions

This study concludes that municipal accounts in South Africa have much to improve on before they will function as a tool to serve consumers and use our water resources effectively.

In particular:

- South African accounts are not standardised at all;
- Many accounts do not meet regulatory requirements. Local regulation is also not clear on the legal status of an account that does not comply with legislation;
- Regulatory requirements are general and not specific to the format of municipal accounts;
- Most accounts are:
  - ▣ barely legible
  - ▣ not user-friendly
  - ▣ not customer-orientated at all
  - ▣ in English only;
- Most accounts do not communicate water conservation and effective water use;
- Accounts are not used to brand conservation, set consumption targets or give incentives for conservation; and
- Accounts with comparative or historical consumption information, which have been proved to influence consumption behaviour, are rare.

The survey results showed that:

1. The integrity of South African municipal accounts is in question. **35% of consumers' doubt the correctness of their municipal accounts.**
2. Understanding and ease to find information correlate with trust in the correctness of the information.
3. Although other aspects such as problems with service delivery might have impacted on the result, the results of the survey prove therefore that improvement of the clarity of accounts increases consumers' trust in the correctness of the information. This could be expected to impact also on consumers' willingness to pay for services.
4. **The ordinary South African consumer struggle to find basic information on municipal accounts**, such as the amount owed from previous months, the meter reading date, water use and Free Basic Water received:
  - a. It is common practice to use on accounts numbers without the unit (R or kl) as well as to include codes that are meaningless to consumers. Consumers have great difficulty to distinguish between numbers without units.
  - b. Consumers, especially those whose home language is not English, find acronyms and abbreviations difficult to decipher.
  - c. Consumers struggle to understand words commonly used on accounts, such as *arrears, remittance advice, rebate, consumption, opening balance, balance brought forward* and *previous*.

- d. Consumers confuse litres and kilolitres. The survey confirmed that kilolitre is not understood well as a unit.
  - e. Consumers found it very difficult to work out from the sample accounts the quantity of water consumed, or the quantity of Free Basic Water that the household receives.
- 5. Consumers in the lower LSM groups require some form of explanation or consumer training to understand their municipal accounts.
- 6. Understanding of the language on the accounts correlates with the home language of the reader. The fact that most accounts are in English only impairs understanding for the 90% of South Africans whose home language is not English.
- 7. Understanding correlates with LSM group. The lower LSM groups have more difficulties to understand their municipal accounts than the higher LSM groups.
- 8. **Simple changes dramatically increase consumer understanding of municipal accounts.**
- 9. The results on the EMI Tool were confirmed by consumers with two conditions:
  - a. The research confirmed that Information density impacts negatively on the understanding of an account if it is combined with low scores on language and layout. Readers find an account where a lot of information is squeezed into a small space, with no white space to guide the reader, very difficult to decipher. If the language and layout is clear, readers are able to find the same information easily. Criteria to this effect will have to be added to the EMI Tool.
  - b. The use of codes, abbreviations and acronyms exacerbates understanding problems, particularly for non-English home language speakers.

The standards and model accounts developed and tested in this study could assist consumers to understand their invoices better and trust the validity of their accounts, which will, in turn, improve consumers' trust in, and support for, their municipalities. It could furthermore make a valuable contribution towards increased consumer awareness and consumer participation in the management and conservation of their country's water resources.

## 2 Recommendations

It is recommended that municipalities:

- 6. Assess their accounts with the EMI Tool as explained in the Guideline document;
- 7. Make the necessary adjustments to improve the clarity of their accounts as required by legislation, and particularly by the Consumer Protection Act (68 of 2008). Simple changes can drastically increase clarity for the consumer;
- 8. Do not use an account that scores less than 7.5 on the EMI Tool;
- 9. Use the model accounts as basis, since it has tested well with a broad spectrum of consumers;
- 10. Include on their accounts comparative consumption information and messages that will encourage consumers to save scarce resources ;
- 11. Use a two page account. The results indicate that a two page account with a summary on the first page and a detailed explanation of tariff structure, meter readings, etc. on the



second page, or the back, is a much better option for the broad spectrum of consumers than trying to squeeze all the information onto one page;

12. Provide consumers in the lower LSM groups with education or explanatory information on “how to read your municipal account”. Municipalities should make an explanation of their account available on their websites and they should also send a hard copy once a year to all consumers.
13. Avoid words that confuse consumers. The study found that many consumers are not familiar with the terminology used on municipal accounts, such as ‘consumption’, ‘arrears’, Free Basic Water, ‘balance brought forward’, ‘levy’ and ‘kilolitres’.
14. Provide consumers with municipal accounts in their home language or their language of preference; and
15. Test the clarity of accounts with consumers. The research has shown that municipal officials who work with accounts every day do not know how well the consumers they serve understand these accounts.
16. Be discouraged to use colour printing. It is very expensive and does not necessarily contribute to the clarity of the account. Detail is often lost when these accounts are faxed. The use of pre-printed accounts is also not recommended, because they tend to misalign row information and column headings.

The following supporting actions towards improving and standardising municipal accounts are recommended:

1. Given the above conclusions, there is definitely a need in South Africa to regulate in specific terms the format of municipal accounts. The legal status of a municipal account as an invoice or statement needs to be clarified for consumers.
2. Consumers mistrust estimated consumption, which in turn impact negatively on account integrity. National Treasury regulates the maximum number of consecutive months that a municipality can sent out estimated accounts (3 months), but this is not common knowledge amongst the general public. The legal status of an estimated municipal account needs to be further investigated.
3. In order to raise awareness about the need for standardisation of municipal accounts, we recommend that the executive summary of this report and the Guidelines be distributed to the relevant persons in Treasury, Water Affairs and COGTA. If requested, the documents could be supplemented by a presentation.
4. We recommend that the Guidelines are distributed to the Municipal Managers and CFOs of all municipalities.
5. **We doubt that the distribution of the Guidelines will be sufficient and recommend a series of training workshops for municipalities.**
6. Further paper, electronic and SMS account templates from which municipalities could choose should be developed.

Clear and understandable accounts for consumers are a legislative requirement, but it is also a very important mechanism to improve consumers’ trust in the correctness of the information that the

municipality has supplied, and the general integrity of municipal accounts. Improved consumer trust could have a significant impact on payment.

New software developments and technology hold exciting possibilities for the design and communication of municipal accounts. For example, accounts could be generated and distributed via SMS, email and interactive websites; thus saving municipalities thousands of Rand on mailing cost, money which could be used to finance the improved services that citizens are currently demanding.

These distribution technologies extend the unique communication opportunities that municipal accounts offer. Countries like Singapore and Australia exploit these opportunities fully in service of the effective management of their critical resources. If South Africa is serious about rescuing our critical resources and Batho Pele, we should employ this valuable tool.

## REFERENCES



Anon. 2007. OCC good resource for consumers. *Grassroots Clippings: Monthly newsletter of the Ohio Township Association*. May 2007.

<http://cpmra.muohio.edu/otaohio/PublicRelations/Grassroots/May2007.pdf> Date of access: June-Aug 2008.

ANON. 2004. Understanding your energy and natural gas bills. *The New Jersey advocate*. Summer 2004. <http://www.state.nj.us/rpa/RPAsummer04.pdf> Date of access: June-Aug 2008.

Arkansas Public Service Commission. <http://www.arkansas.gov/psc/index.htm> Date of access: 17 February 2009.

AUSTRALIA.1999. Background to Tax Invoices. <http://law.ato.gov.au/atolaw/>. Accessed: 18 February 2009.

Caldwell Community College and Technical Institute Basic Skills Department. 2003. [http://www.nc-net.info/ESL/Caldwell/Year\\_2/Lesson\\_Plans/UtilityBills/lessonutilitybills.doc](http://www.nc-net.info/ESL/Caldwell/Year_2/Lesson_Plans/UtilityBills/lessonutilitybills.doc) Date of access: June-Aug 2008.

Cambridge Advanced Learner's Dictionary. 2009.

<http://dictionary.cambridge.org/define.asp?key=67252&dict=CALD> Date of access: 18 Feb 2009

City of Blue Springs Missouri. 2008. <http://www.bluespringsgov.com/index.asp?NID=713> Date of access: 10 Feb 2009.

Consumer Council for Water. 2008. <http://www.ccwater.org.uk/> Date of access: June-Aug 2008.

EDF Energy UK. 2009. [http://www.edfenergy.com/products-services/for-your-home/documents/new\\_bill.pdf](http://www.edfenergy.com/products-services/for-your-home/documents/new_bill.pdf) Date of access: 13 Feb 2009.

EELCO. 2008. <http://www.eelcoenergyefficientlampco.com/Utility.html> Date of access: June-Aug 2008.

Electrogaz. 2008. <http://www.electrogaz.co.rw> Date of access: June-Aug 2008.

Garland Utilities. 2008. <http://www.garlandutilities.org/> Date of access: June-Aug 2008.

Govtrack.us. 2009. <http://www.govtrack.us/congress/bill.xpd?bill=h110-3548> Date of access: 13 Feb 2009.

Govtrack.us 2010. <http://www.govtrack.us/congress/bill.xpd?bill=h111-946> Date of access: 1 March 2010.

INDIA. Ministry of Urban Development. 2009. 2007 Benchmarking and data book of water utilities in India. <http://www.indiawaterportal.org/data/datastats/2007-Indian-Water-Utilities-Data-Book.pdf> Date of access: 8 Feb 2009.

India water portal. 2007. <http://www.water.org/waterpartners.aspx?pgID=887> Date of access: 8 Feb 2009.

JAMES, H. & KEARTON, L. 2009. Double trouble: Debt and disconnection in Wales. [http://www.consumerfocus.org.uk/en/content/cms/News\\_Press/Double trouble Debt/Double trouble Debt.aspx](http://www.consumerfocus.org.uk/en/content/cms/News_Press/Double_trouble_Debt/Double_trouble_Debt.aspx) Date of access: June-Aug 2008.

KOLBERT, E. 1987. New plain utility bills being mailed to patrons. <http://query.nytimes.com/gst/fullpage.html?res=9B0DE2D6113EF934A25750C0A961948260&n=Top/Reference/Times%20Topics/Subjects/C/Consumer%20Protection>

Date of access: 11 Feb 2009.

LPB Learning Port. 2008. <http://www.lpb.org/education> Date of access: June-Aug 2008.

Mogale City. 2006/2007. Credit Control Policy.

Money matters to me. 2008. <http://www.moneymatterstome.co.uk/Interactive-Workshops/default.htm> Date of access: June-Aug 2008.

MUNNIK, A. 2008. Verbal communication with the author. Pretoria. (Cassette recording in procession of the author)

Natural Resources Management Ministerial Council. 2006. National guidelines for residential customers' water accounts. <http://www.awa.asn.au> Date of access: 16 March 2009.

PAYNE, C.T. & BERKELY, L. 2000. Utility bill comprehension in the commercial and industrial sector: Results of field research. <http://eetd.lbl.gov/payne/publications/UtilityBillComprehension.pdf> Date of access: June-Aug 2008.

Reliance Energy. 2009<sup>3</sup>. [http://www.rel.co.in/newsmedia/pdf/press\\_release230304\\_newbill.pdf](http://www.rel.co.in/newsmedia/pdf/press_release230304_newbill.pdf) Date of access: 13 Feb 2009.

Sarah Slabbert Associates. 2008. Water Services Barometer Study for Sigodi Marah Martin and the Water Research Commission.. WRC Report TT 353/08.

Sarah Slabbert Associates. 2005. Customer Care and Protection study for Sigodi Marah Martin, DFID and the Department of Water Affairs and Forestry

Sarah Slabbert Associates. 2005/2006/2007. Customer satisfaction surveys for a Water Services Provider. Unpublished.

SMS Media. 2008. [www.smsmedia.rw](http://www.smsmedia.rw) Date of access: June-Aug 2008.

---

<sup>3</sup> Date not stated on document, 2009 is presumed correct date.

State of California. 2007. Servicing Order from the Department of Water Resources and Pacific Gas & Electric company.

South African Revenue Service. 2009. VAT Tax Invoices. <http://www.sars.gov.za/tools>.

SOUTH AFRICA. 2005. The National Credit Act 34 of 2005. Pretoria: Government Printer.

SOUTH AFRICA. 2003. The Department of Water Affairs and Forestry: The Strategic Framework for Water Services. Pretoria: Government Printer.

SOUTH AFRICA. 2000. The Municipal Systems Act 32 of 2000. Pretoria: Government Printer.

SOUTH AFRICA. 1997. Water Services Act 108 of 1997. Pretoria: Government Printer.

SOUTH AFRICA. 1991. Value added Tax Act of 1991. Pretoria: Government Printer.

SOUTH AFRICA. 2008. Consumer Protection Act 68 of 2008. Pretoria: Government Printer.

UNITED KINGDOM. 2009. Practical advice for business.

<http://www.businesslink.gov.uk/bdotg/action/>

UNITED STATES OF AMERICA. The Federal Communications Commission. 1999. Truth-in-Billing Order.

UNITED STATES OF AMERICA. Office of Investor Education and Assistance, U.S. Securities and Exchange Commission. 1998 A Plain English Handbook. [www.plainlanguage.gov](http://www.plainlanguage.gov). Accessed January 2009.

Van der Linde, J.A. 1997. Water and sanitation for all: Partnerships and innovations. Hermanus water conservation programme. Paper given at the 23<sup>rd</sup> WEDC Conference, Durban. 1997.

WIN-SA. 2009. Lesson series, Lesson 20: Public accountability through "Citizen's Voice": City of Cape Town shares good practise. <http://www.win-sa.org.za>. Date of access: 1 April 2009.

Contact details for Municipalities that participated in the investigation into current WSA domestic water account practices:

<p>Amathole District Municipality</p> <p>Yimile Zote</p> <p>Chief Financial Officer</p> <p>Tel. 043 701 4093</p> <p><a href="mailto:yimilez@amatoledm.co.za">yimilez@amatoledm.co.za</a></p>	<p>Abaqulusi Local Municipality</p> <p>Gerhard Engelbrecht</p> <p>Finance Department</p> <p>Tel. 034 982 2133</p>
<p>City of Cape Town Metropolitan Municipality</p> <p>Jaco de Bruyn</p> <p>Head: Water Services Development Planning</p> <p>Tel. 021 590 1424</p> <p><a href="mailto:jaco.debruyn@capetown.gov.za">jaco.debruyn@capetown.gov.za</a></p>	<p>Ekurhuleni Metropolitan Municipality</p> <p>Finance Department</p> <p>Tel. 011 820 4029</p> <p><a href="mailto:jeanvd@ekurhuleni.com">jeanvd@ekurhuleni.com</a></p>
<p>Emalahleni Local Municipality</p> <p>Ernesta Hurn</p> <p>Finance Department</p> <p>Tel. 013 690 6280</p>	<p>Ga Segonyana LM</p> <p>Ruth Orleyn</p> <p>Debt Collecting Department</p> <p>Tel. 053 712 9300</p>
<p>Kareeberg LM</p> <p>Mrs Groenewald</p> <p>Tel. 053 382 3012</p>	<p>Matlosana Local Municipality</p> <p>Kevin Weitsz</p> <p>Asst. Director Revenue Office</p> <p>Directorate: Finance</p> <p>Tel. 018 487 8044</p>
<p>Metsimoholo LM (Sasolburg)</p> <p>Finance Department</p> <p>Tel. 016 976 0029</p> <p><a href="mailto:emfs@lantic.net">emfs@lantic.net</a></p>	<p>Nelson Mandela Bay Metropolitan Municipality</p> <p>Mbhuzeli Ngqala</p> <p>Director Revenue Management</p> <p>Tel. 041 506 1201</p>
<p>Overstrand LM</p> <p>Elmarie Hooneberg</p> <p>Tel. 028 313 8000</p>	<p>Polokwane LM, Limpopo</p> <p>Joubert van Niekerk</p> <p>Assistant Manager: Revenue</p>

<a href="mailto:ehooneberg@overstrand.gov.za">ehooneberg@overstrand.gov.za</a>	Email: <a href="mailto:joubertvN@polokwane.gov.za">joubertvN@polokwane.gov.za</a>
<p>Silulumanzi</p> <p>Pieter Tobing</p> <p>Tel: 013 7526839</p>	<p>Sol Plaatjie LM</p> <p>Brian Anthony</p> <p>Budget Office</p> <p>Tel. 053 830 6437</p>
<p>Steve Tshwete Local Municipality</p> <p>Frans Naude</p> <p>Executive Manager: Finance</p> <p>Tel. 013 249 7000</p>	<p>Tlokwe LM</p> <p>Teresa Van Wyk</p> <p>Chief Accountant: Finance</p> <p>Tel. 018 299 5183</p> <p><a href="mailto:teresav@potch.co.za">teresav@potch.co.za</a></p>
<p>Ugu District Municipality</p> <p>Maxwell Pawandiwa</p> <p>General Manager</p> <p>Tel. 039 688 5843</p>	



## ANNEXURES



**WATER**  
RESEARCH  
COMMISSION

## 1 Current WSA domestic account practices

### 1.1 How well do consumers understand their water bill? Good (best) practice

Question	Amathole DM Eastern Cape	City of Cape Town MM Western Cape	Steve Tshwete LM Mpumalanga	Ekurhuleni MM Gauteng
What is the current rate of payment for services, in particular that of domestic water accounts?	Payment rate: 44%	91%	99%	Payments are not allocated toward specific services.
How many queries do you get per month regarding the domestic (water) account?	Approximately 5 000 account queries per month. This equates to approximately 1% of the number of households in the District Municipality.	Information not available at the time of submission.	6-10 account queries per month.	No records available.
What % of these queries relate to non-clarity of the account, as opposed to other queries about the account, e.g. meter readings, arrears?	3% of queries relate to non-clarity of the account.	Information not available at the time of submission.	None	The majority of queries on water levies relate to meter readings.
How easy do you think your water account is, to understand for domestic customers?	Municipal perception: Account is clear and simple.	Account is well set out. The grand total is reflected on the front of the account and the details of how the amounts are calculated, appear on the back of the account per type of service. Available in three languages.	Understandable and user-friendly.	This layout has been in place for more than five years and was developed with the community; it is therefore accepted that it is easily understandable.
Have you done any research on your account?	No research has been undertaken on the account.	Information not available at the time of submission.	No research has been undertaken on the account.	No research or surveys done.
Question	Overstrand LM Western Cape	Metsimaholo LM Free State	Tlokwe LM North West	Mantsopa LM Free State

<b>What is the current rate of payment for services, in particular that of domestic water accounts?</b>	78%	78.2%	Payment for water is currently 120%.	<sup>4</sup> 82-93% (Pieter Le Roux)  60% (Dirk Spangenberg)
<b>How many queries do you get on average per month regarding the domestic (water) account?</b>	600	300	Receive on average 150 queries per month.	Very few. Relate mostly to water consumed or balance brought forward. (Payment is due on the 15 <sup>th</sup> of the month. If it is paid on the 16 <sup>th</sup> , that payment will be reflected on the next month's account). Consumers are reminded by letter delivered in person. This is roughly around the 20 <sup>th</sup> of the month. Approximately 40 to 50 notices get sent out per month.
<b>What % of these queries relate to non-clarity of the account, as opposed to other queries about the account, e.g. meter readings, arrears?</b>	1%	15%	Approximately 10% relate to non-clarity of the account.	Non-clarity on accounts not as much as non-agreement of charges.
<b>How easy do you think your water account is to understand for domestic customers?</b>	The latest survey indicates 97%.	Very easy to understand.	Account is comprehensible with enough information for the consumer.	It is easy to understand and very clear.
<b>Have you done any research on your account?</b>	Yes, surveys are done on a regular basis.	No research or surveys are conducted on the account.	No research or surveys are conducted on the account.	No

---

<sup>4</sup> Both Pieter le Roux and Dirk Spangenberg from Mantsopa Municipality answered a questionnaire. The answer to this question was different as Mr Le Roux answered 82-93% and Mr Spangenberg answered 60%.

<b>Question</b>	<b>Govan Mbeki LM Mpumalanga</b>	<b>Kareeberg LM Northern Cape</b>	<b>Ga Segonyana LM Northern Cape</b>	<b>Sol Plaatjie LM Northern Cape</b>
<b>What is the current rate of payment for services, in particular that of domestic water accounts?</b>	Improved cost recovery rate since the pay point moved to the Shoprite & Pick n Pay: 60-64% to 84%	Approximately 50% due to high rates of unemployment in the area	Estimated payment rate is less than 50% , even the ones that can afford to pay, don't want to'	78% significantly down with the advent of the international economic downturn.
<b>How many queries do you get on average per month regarding the domestic (water) account?</b>		Not many, about 2-3 per month	About 10 per month usually around the due date for payment.	Approximately 800 per month
<b>What % of these queries relate to non-clarity of the account, as opposed to other queries about the account, e.g. meter readings, arrears?</b>	Most queries relate to incorrect accounts. Billing is not always correct. Some meters are damaged.	Mostly queries seek clarity on the actual account for example: consumption vs. cost	Most queries/complaints relate to non-agreement with the amount reflected on the account. The problems seem to be internal ones where the municipality does not do meter reading monthly nor does it use a system of estimation. Therefore in the months when meters are not read the account sometimes reflect R0 balance , meaning that the following month the account is very high.	The municipality does not do meter readings every month, during the months that the amounts are estimated it is usually higher than normal and consumers are not happy to pay the estimate amount and generally complain about this.
<b>How easy do you think your water account is to understand for domestic customers?</b>	It is well understood	Most people in the municipality do not seem to understand the account; the age analysis on the account is not clear	Yes it is well understood.	Some find the account difficult to understand, because the arrears amount is usually carried over as a consolidated amount to the next month's account, it does not show the breakdown in terms of services.
<b>Have you done any research on your account?</b>	No	No	No	No

<b>Question</b>	<b>Nelson Mandela Bay Eastern Cape</b>	<b>Ugu DM KwaZulu-Natal</b>	<b>Silulumanzi WSP to Mbombela LM Mpumalanga</b>	<b>Emalahleni Mpumalanga</b>
<b>What is the current rate of payment for services, in particular that of domestic water accounts?</b>	89.3%	70%	On average 96% but this figure differs from area to area.	88%
<b>How many queries do you get per month regarding the domestic (water) account?</b>	502	2106	180 per 24000 accounts that are sent out.	Approximately 120
<b>What % of these queries relate to non-clarity of the account, as opposed to other queries about the account, e.g. meter readings, arrears?</b>	Approximately 20% of queries relate to the non-understanding of the account	Non-clarity – 40% Non-agreement – 60%	The queries all relate to administrative or billings matters. They do not relate to the non-clarity of the account.	5% of the queries received on a monthly basis, relate to people not understanding the account.
<b>How easy do you think your water account is, to understand for domestic customers?</b>	It is relatively easy to understand	It is easily understandable, because the services are classified separately	"We are not very happy with our account". We know that it is not well understood.	
<b>Have you done any research on your account? Could you provide us the results, or any other research/surveys that may have included a question(s) on the domestic water accounts?</b>	No	No research/survey has been conducted, but customers have raised some concerns about the format of the statement ,we are currently looking at changing the statement format make it more user-friendly and easy to understand	Yes. A 2007 customer satisfaction survey indicated that 15.2% of respondents receiving an account similar to the example answered correctly with regard to how much that person owed for the current month. 28.4% found the sample water account 'very difficult'.	No

<b>Question</b>	<b>Abaqulusi</b>	<b>Greater Tzaneen LM Limpopo</b>	<b>Matlosana LM North West</b>	<b>City of Tshwane MM Gauteng</b>
<b>What is the current rate of payment for services, in particular that of domestic water accounts?</b>	Approximately 90%	Not sure.	83% for the overall services, the municipality has not done any studies on the water component thereof.	94% for all services plus rates inclusive.
<b>How many queries do you get per month regarding the domestic (water) account?</b>	About 20	Quite a lot. Most queries relate to non-agreement of charges or people request more information regarding the account itself.	25	We had about 302 queries on water matters. This is based of February 2009 figures.
<b>What % of these queries relate to non-clarity of the account, as opposed to other queries about the account, e.g. meter readings, arrears?</b>	Nil	Couldn't say all queries are handled by the same department this included queries regarding property tax or levies.	5% non-clarity	20% (61) would be on non-clarity and 80% (241) on non-agreement of charges  If we add the 129 from water administration then the total is 431. 20% non-clarity would amount to 87 the remaining 344 would be non-agreement of charges. This is based of February 2009 figures.
<b>How easy do you think your water account is, to understand for domestic customers?</b>	Believe that the account is understood very well and therefore the limited number of queries.	Hard to say – for Karin it's relatively easy to understand, but every person understands the account differently depending on various factors such as education, whether you can read or write, etc.	Believe that the account is very easy to understand.	To understand the current invoice is very complex and thus the City is in the process to review the invoice layout.
<b>Have you done any research on your account?</b>	No	No	No	No

Question	Polokwane LM  Limpopo			
What is the current rate of payment for services, in particular that of domestic water accounts?	<p>The current payment rate for payment ranges between 70-80%.</p> <p>Customers are able to pay their municipal accounts at municipal pay points, ACB via bank, EasyPay and electronic payments.</p> <p>All users receive an account, including indigents who receive an account showing the subsidy amount only.</p>			
How many queries do you get per a month regarding the domestic (water) account?	Approximately 10% of the 60,000 accounts that are issued monthly.			
What % of these queries relate to non-clarity of the account, as opposed to other queries about the account, e.g. meter readings, arrears?	<p>Queries generally relate to the additional charge where water restrictions are not adhered to. For example, if households exceed 19kl an additional charge on a sliding scale is applied.</p> <p>Other queries relate to the accuracy of meter readings or where the municipality utilises estimates.</p>			
How easy do you think your water account is, to understand for domestic customers?	Reasonably easy to understand and believe that most consumers understand the account. The account includes the meter number and reading, the date of issue and due date, it also distinguishes between the costs for water, electricity, refuse removal and rates. Water adjustments are also indicated on the			

	account.  The account is available in English only.			
Have you done any research on your account?	No			

## 1.2 How is the account generated?

Question	Amathole DM	City of Cape Town M	Steve Tshwete LM	Ekurhuleni MM
What financial software do you use?	Venus	SAP	In-house designed financial system.	Venus
Why did you choose this option?	Based on market research the Venus system suited their needs best.	SAP has a comprehensive MIS and after doing market research the City decided that it suited their needs best.	Current system has been used by the municipality for 27 years.	The metro started off with 13 legal structures of which 10 were using the Venus system.
How flexible is this system? Does it allow for customisation?	The account is flexible and can be adjusted to accommodate the functions required by the municipality.	SAP is highly configurable and easily aligned to the City's needs. Customised reports can be set up – requires training of staff. New modules are continually being produced based on the City's needs.	The system was designed by the LM so that it can be easily adjusted to accommodate required changes.	The system is undergoing constant improvement and is very flexible.



Question	Overstrand LM	Metsimaholo LM	Tlokwe LM	Mantsopa
What financial software do you use?	DB4	Venus	In-house designed financial system.	Seбата (Windows based).
Why did you choose this option?	It satisfies the municipality's needs.	The decision was based on a comparative between various service providers.	The system was designed according to the municipality's needs.	Previously it was Fintel. The municipality has used this system since 1994.
How flexible is this system? Does it allow for customisation?	It does allow for customisation.	Flexible and allows for customisation.	Flexible system that allows for customisation.	The system has a few options for accounts. Previously they used pre-printed accounts. Now they have switched to the standard Seбата account and print on white A4 paper, which is much cheaper and allows the municipality to give more detail on the account. It is more flexible, because it can handle both short and long accounts.

Question	Govan Mbeki LM	Kareeberg LM	Ga Segonyana LM	Sol Plaatje LM
What financial software do you use?	Seбата FM since July 2005. The system was developed in the Northern Cape. The company is Kimberley based.	Fantique Trade System which was developed for the municipality by a Cape Town based company.	Munisoft software for approximately one year	Venus implemented since July 2008
Why did you choose this option?	It works for them.	The municipality has been using the system for about 20 years now, it is easy, affordable and they receive good service from the service provider.	Municipal decision	After much research that was undertaken this seemed to be the best option available to the municipality. This system allows for very comprehensive reporting and allows the municipality to fully comply with national treasury requirements.
How flexible is this system? Does it allow for customisation?	The system has a few options for accounts. Previously they used pre-printed accounts. Now they have switched to the standard Seбата account	Very flexible; it has even allowed the municipality to include data on the new Property Rates Act.	Not very flexible and therefore not easy to make changes. This could however also be a function of the employees still learning	The system is fairly flexible, but needs to be simplified quite a lot. Training is also required as it still takes an employee twice as long to perform similar tasks as per

	and print on white A4 paper, which is much cheaper.  Xhosa and Sesotho accounts are printed on A4 paper.		the system.	the previous system.
--	--	--	-------------	----------------------

Question	Nelson Mandela Bay	Ugu DM	Silulumanzi	Emalahleni
<b>What financial software do you use?</b>	The municipality uses an in-house developed system, called Consolidated Billing System.	Currently Custima, but we are in a process of migrating to a new system Logosoft.	Venus in the past, currently the billing module of Edams (Cyprus).	Venus
<b>Why did you choose this option?</b>	The system is very easy to maintain.	With the old system we couldn't do customisation and the new system meets our specifications and it is customisable.	The system meets our needs best.	This system is used by all fairly big municipalities.
<b>How flexible is this system? Does it allow for customisation?</b>	Very flexible.	The new system ,Logosoft is very much flexible and it does allow for customisation.	Yes, it is flexible. We provide the specifications and the bill is customised accordingly.	It is fully flexible and allows for customisation.

Question	Abaqulusi	Greater Tzaneen LM	Matlosana	City of Tshwane MM
<b>What financial software do you use?</b>	Munisoft 3i, with the accounts being printed by an external service provider. The municipality has been using this system since 2002.	Promus	Venus	SAP
<b>Why did you choose this option?</b>	The system is suitable for all the municipality's requirements.	The municipality has used this system for the last 15 years	It is flexible and easy to operate. It was a Council decision.	Strategy for Corporate Integrated Transactional processing.
<b>How flexible is this system? Does it allow</b>	Even though this system is quite flexible the	The system is quite flexible after you have gotten used	Very flexible and easy to	Yes, per standard Change

<b>for customisation?</b>	municipality uses a standard version thereof.	to it.	use.	Management Processes.
---------------------------	---	--------	------	-----------------------

<b>Question</b>	<b>Polokwane LM Limpopo</b>			
<b>What financial software do you use?</b>	The municipality uses a system developed by internal programmer. This system grows as the municipality requires. However, the system does not fully comply with the reporting requirements and the municipality is currently looking at other options. The account is issued monthly and is consolidated.			
<b>Why did you choose this option?</b>	This system at the time complied with the municipality's requirements, however, has recently become inadequate in terms of national treasury reporting requirements			
<b>How flexible is this system? Does it allow for customisation?</b>	It can be customised as and when the city requires.			

### 1.3 Is the consumer account used to influence behaviour and educate consumers?

Question	Amathole DM	City of Cape Town MM	Steve Tshwete LM	Ekurhuleni M
<b>Do you use the domestic water/sanitation/ services account for any other purpose, e.g. communication campaigns, service information, planned interruption info?</b>	The monthly account is used to communicate with consumers.		Account is only used as a 'tax invoice' and municipality does not intend to use it for any other communications.	The account is rarely used for other communications although there is a small space on the statement itself. The EMM post the account in an envelope together with a newsletter.
<b>Did you do any research or receive any other indication that this use of the account has been successful?</b>	Municipality has done no research to determine how well the account has been accepted as a communication tool.	Information not available at the time of submission.	Municipality has indicated that there is no need for additional research as they don't intend to use ('misuse') the account for any other communications.	No
<b>What have you done to improve your account over the past five years? Please explain why you have made particular improvements and whether it was successful or not?</b>	One improvement that the ADM has made to the account was to issue a pre-printed bank deposit slip clearly indicating which account the payment should be made to, as well as clearly marking the consumer's account number in order to reduce the number of unidentified deposits.	The current account layout was developed five years ago and enhanced to be available in three languages.  Consumers can also choose to receive accounts by email & can choose to pay the account electronically.	The municipality does not undertake research on the consumer account. The only kind of 'research' that they have done is an audit of addresses of consumers that are issued with an account statement ,to ensure that they meet the Post Office standards and can be correctly delivered to the rightful recipients.  Another improvement is that the account is locally printed by a single service provider for all areas within the municipal boundaries and is of higher quality.  The accounts are sorted electronically which leads to quicker delivery. From time to time the font type on the account is changed to be more prominent/ easily legible.	Third party vendors were added to the account. Metered information display was amended. Property rates rebates were added.

Question	Overstrand LM	Metsimaholo LM	Tlokwe LM	Mantsopa LM
<b>Do you use the domestic water/sanitation/services account for any other purpose, e.g. communication campaigns, service information, planned interruption info?</b>	Yes, the account is used for communications such as planned service interruptions.	It is used for service information and communication campaigns.	The account has a space where short messages can be printed.	Yes, we sometimes add a message, e.g. a message on the new valuation roll, but we have found that consumers do not read this information/or don't see it. There is not a lot of space on the account. People only see the "total" on the account and don't look any further.
<b>Did you do any research or receive any other indication that this use of the account has been successful?</b>	Believe that it has been successful.	No	According to payment rates the account has been successful.	No
<b>What have you done to improve your account over the past five years? Please explain why you have made particular improvements and whether it was successful or not?</b>	Listened to the consumers, conducted a survey and implemented a step tariff.	In the process of improving the account due to new Property Rate Act requirements.	Improvements:  Consumer is told if the readings are actual or estimates.  Account has been more understandable. Account shows the payment due date, as well as the age analysis of the account.  Consumers receive SMS notification if their accounts are in arrears.	Nothing, except for moving from pre-printed accounts to standard accounts.  Customers' complaints are listened to, but certain issues must still be addressed on account.

Question	Govan Mbeki LM	Kareeberg LM	Ga Segonyana LM	Sol Plaatje LM
Do you use the domestic water/sanitation/services account for any other purpose, e.g. communication campaigns, service information, planned interruption info?	No, they use inserts.	Yes the account is used for short messages, such as advising the consumers to conserve water.	No	The account is used for promotion and advertising of municipal functions and services. It is also used for planned interruption announcements, etc.
Did you do any research or receive any other indication that this use of the account has been successful?		No, research has been undertaken yet they believe that the account has been implemented quite successfully.	No, research has been undertaken yet they believe that the account has been implemented quite successfully.	No research is being undertaken as the municipality does not have the required resources for this.
What have you done to improve your account over the past five years? Please explain why you have made particular improvements and whether it was successful or not?	Everybody who owns a property receives an account, irrespective of the level of service. Multilingual accounts in English, Afrikaans, isiXhosa and Sesotho.	The system that the municipality uses to generate the account is more modern and electronic, which has cut down quit significantly on manual work and improved the accuracy of the account.	The account now has an easy pay number which allows consumers to pay their accounts at the Shoprite, Checkers and Pick n Pay.	Since the introduction of eVenus the account is much more comprehensive yet easy to understand.

Question	Nelson Mandela Bay	Ugu DM	Silulumanzi	Emalahleni
Do you use the domestic water/sanitation/services account for any other purpose, e.g. communication campaigns, service information, planned interruption info?	Yes the account is used for information/announcements.	Yes	Yes, currently the account includes a message on cholera prevention. We also include from time to time separate information on inserts.	Yes, the account is used for short messages related to the account or payments. However, it is not used for general communication.
Did you do any research or receive any other indication that this use of the account has been successful?	No	No research has been done, but we have received responses from customers regarding the information printed on their statements.	No	No
What have you done to improve your account over the past five years?	The Municipality has made improvements to meter reading validations to	The municipality has changed the information appearing at the back of	We have changed the software package.	Believe that the account is now much more user-

<b>Please explain why you have made particular improvements and whether it was successful or not?</b>	ensure accuracy of accounts.	the customer's account, it is now more informative. Information included is in regard to credit control, disconnections, tampering with meters, banking details, call centre contact details and toll free number.	Silulumanzi is currently doing research on an alternative format, involving consumers. The outcomes will be incorporated in our account format.	friendly.
---	------------------------------	--	---	-----------

<b>Question</b>	<b>Abaqulusi</b>	<b>Greater Tzaneen LM</b>	<b>Matlosana</b>	<b>City of Tshwane MM</b>
<b>Do you use the domestic water/sanitation/ services account for any other purpose, e.g. communication campaigns, service information, planned interruption info?</b>	Yes the municipality does try to use the account for communication purposes however, this is very limited by the account just being a single page. The municipality does have a newsletter that is used for more general communication.	Yes, there is an information block on the account – it communicates info such as “openbare vergaderings rakende die munisipaliteit en publiek of veraderings in die tariewe”.	Yes , the account is used for cost recovery and a reminder as to the due date.	No
<b>Did you do any research or receive any other indication that this use of the account has been successful?</b>	No	No	No research has been done in this regard however, they state that no complaints have been received in this regard.	No
<b>What have you done to improve your account over the past five years? Please explain why you have made particular improvements and whether it was successful or not?</b>	The system was upgraded in September 2009. There is a User Group that meets regularly which decides on what new features are required and decides as a group. Statutory requirements are automatically changed. The upgrade introduced many new features.	No changes — used to print the account on pre-printed paper in-house. Now Focus Form is responsible for the printing of the account which makes it more cost effective.	The water usage portion was improved for understandability.	Due to time constraint the invoice layout remained the same after moving from one billing system to another in 2005. An investigation on changing the invoice layout was done, to accommodate the needs of the customer and is almost ready to be changed and communicated to the public. The wording was changed on the invoice to make it more understandable and user-friendly to the customer. A new invoice layout will be launched within 2009.

Question	Polokwane LM Limpopo			
Do you use the domestic water/sanitation/ services account for any other purpose, e.g. communication campaigns, service information, planned interruption info?	Additional notices are sent out with the account to remind users where account payments are late. The additional notice also communicates the consequences for accounts in arrears. The municipality has a 'cut off' policy for electricity and a limited flow for non-payment of water accounts. The municipality also communicates to consumers on how they can apply to make special arrangements where consumers cannot afford to pay for services.			
Did you do any research or receive any other indication that this use of the account has been successful?	No research is conducted on the account			
What have you done to improve your account over the past five years? Please explain why you have made particular improvements and whether it was successful or not?	Have changed the format with the inclusion of colours and columns; account is issued together with newsletter. General information – not only payment related information – is included on the back of the account.			



## 2 Interviews with software service providers

Questions to the service providers of financial software services for municipalities related to:

1. The process through which accounts are generated;
2. The driver of this process – the software companies or the municipalities; and
3. The flexibility of financial systems – How easy will it be for their systems to be customised to conform to a national guideline?

### 2.1 Interview with Andries Fourie, Business Connexion – Venus Financial System

Business Connexion started working with municipalities in 1990 on the development of a suitable financial software package, namely Venus, which they developed from scratch. The Venus system evolved from its predecessor, the Mercury system and in terms of future developments they are planning to expand the system into the e-Venus system. The system is currently being utilised in 84 municipalities country-wide and covers the full spectrum from Metros (Ekurhuleni) to Local, and District Municipalities.

The system is used to generate the full municipal account, including all the services that municipalities provide and charge a tariff for. The municipalities themselves determine the layout, the 'look and feel' of the account, as well as the nature and level of detail on the account. They also develop and define the specifications of the content, as well as the design and layout of the account. According to Mr Andries Fourie, BCX literally designs the system according to the specifications of the municipalities, including the terminology and language(s) used on the account. Some of the smaller municipalities have pre-printed account statements and due to the cost implications might be reluctant to re-design account statements until current stock has been utilised. It has been BCX's experience that, unfortunately, most municipalities do not have sufficient resources to consult widely with communities on what would make their account statement more user-friendly. However, they believe that the flexibility of the Venus system allows them to be able to develop very user-friendly accounts as it is able to produce a very basic up to relatively complex statement. Mr Fourie also suggests that to make accounts easier to understand some municipalities have opted for pictures on the account statement and others have even attempted to use the local languages. For example, to indicate the actual cost charged for water this component would be represented by a tap with running water.

Some municipalities, for example Emfuleni and Tshwane, use the monthly account to distribute a newsletter.

New developments and technology in the arena of financial software, in particular in relation to the design and development of municipal account statements, hold new possibilities for the design and communication of municipal accounts. For example, account statements could be generated and disseminated via SMS, email and active websites. New technology also enables municipalities to issue 'meter accounts'. How this works, is that the consumers are able to read their own water meter and generate a printout on-site of the actual consumption; the consumer would then make

payment of the actual charge generated from the water meter. However, the cost of new technologies has prevented municipalities to fully exploit these options.

Mr Fourie gave a guideline for municipal accounts. According to him, the minimum information that must be reflected on the monthly account statement is the following:

- Reference to the valuation of the property and therefore the rates and taxes applicable.
- Water usage as per water meter reading – including the actual number of days being charged; Free Basic Water must be indicated as well.
- Sanitation – the rate that is being charged must be clearly identified and explained.
- Refuse removal – there are specific peculiarities depending on the nature of the consumer, for example: restaurants must have their refuse removed daily whilst domestic households only once a week, therefore the relevant rates must be clearly reflected.
- Electricity – the actual usage as per meter, including the number of days being charged for.
- Information relating to final notices and disconnection must be communicated via the account.

A standard account would certainly be more cost-effective as the economies of scale could be brought to bear if one national supplier was used.

BCX has indicated a willingness to participate in a workshop discussion on the findings of this research study, as they believe that they have gained valuable experience over the past 15 years and could provide useful insights into the design of guidelines for a user-friendly, standardised municipal account statement. With a footprint in 84 municipalities, they would want to be part of the process early on in order to transit their clients into a possible new account format.

Finally, Mr Fourie's philosophy about the account statements being generated and disseminated by municipalities is: "An account tells you about the attitude of the municipality and how well it's managed."

## 2.2 Interview with Bhavish Kalan, SAP

According to Mr Kalan, SAP has been providing total integrated solutions in the areas of human resources, procurement and billing to municipalities, as well as water and other utilities for the past five years. Some of their clients include the Metropolitan Municipalities of Cape Town, Johannesburg and Tshwane, the Capricorn District Municipality, as well as Lephele Water and Rand Water Board. SAP prides itself on having been able to find international best practice in the area of water billing and applied it successfully in South Africa, in particular at the City of Cape Town, which has been written up as a 'success story' case study. At the City of Cape Town, SAP believes that it has been able to assist the municipality to replace more than 100 disparate and outdated systems; it could provide a single view of the City and the citizen through a unified ERP system; it was able to show a return on investment in a record time of two years rather than the anticipated four and it was able to increase municipal payment rates from 85% in 2003 to 98% in 2005.

They believe that their system is completely flexible and customisable and that it really relies on the needs and specifications of the client. They see their clients as business owners who must decide on what they want to see on the system and the account and SAP simply designs the blueprint thereof. An account generated on the SAP platform can be faxed, mailed, emailed and could be available online. They are currently investigating the option of municipal accounts being sent out via SMS. Mr Kalan indicated that they always insist on a change management process to accompany the roll out of the system. The change management is aimed at both the employees through the training and development process but also for citizens through focus group discussions and electronic and written communications.

SAP provides back office support to its clients, in other words, they will provide the training for employees and ensure that all the systems are effectively linked. This makes sure that all service charges are generated and integrated into a single account, and once payment is made, it is reflected on the system immediately, updating the customer's profile in real time.

SAP has also indicated a willingness to participate in a workshop discussion on the findings of this research study.

## 2.3 Interview with Roland Hunter, independent expert, Hunter van Ryneveld

According to Roland Hunter, former CFO at the City of Johannesburg and currently an international public sector consultant, the hypothesis of the correlation between the low services payment rates and the lack of understanding of the municipal account, is certainly worth testing. For example, if consumers cannot understand what the amounts and utilisation on the account represents, they may be less likely to pay their account on time. Effective communication in order to avoid 'non-payment caused by non-comprehension' would therefore be critically important. There are, however, some complexities to be borne in mind with municipal accounts. Firstly, that the account is usually a consolidation of the various services that the municipality provide and charge for. Secondly, that some of these services, namely water and electricity are affected by the government policy on Free Basic Services. Thirdly, that there is other factors that cause non-payment for services by consumers, such as service delivery failures. It would not really make a difference to the client

how well the account is structured or how user-friendly it is, if they are not happy with the level of services received.

The experience at the City of Johannesburg has shown that municipalities are complex institutions with multiple processes that make it very difficult for them to change their invoice. However, when this is the consequence of a change of business process, then extensive communication and consultation is required such as focus group discussions with the various categories of customers.

The following are some suggestions for what would represent a good municipal services account practises:

- It must show the outstanding balance that the consumer still owes from the previous period.
- It must show the amount of water consumed.
- It must show the unit cost for water.
- It must show the VAT amount.
- It must show the new total owed.
- It must have a graph or some representation of the historic usage of water, for example the last 12 month's consumption, as a comparison for the consumer.
- It must have a message about the importance of conserving water as a scarce resource.

Other less straightforward components of the account should include, for example:

- If the municipality makes use of an estimate for two months and only reads the meter on the third month. It must show line by line how the estimate reversal is done on the account so that the consumer understands that they paid an estimated amount, but that this is corrected with actual meter reading on the third month.
- If the municipality has a complicated tariff structure, this must be explained on the account. For example: 0-6 kl of water is considered to be part of the Free Basic Water; 6-10 kl would have a specific cost per unit, and so forth.
- If the municipality wishes to use the account as a communication tool, it should be to reinforce a billing/financial message. Information which is extraneous to the account should be limited.

### 3 Summary of municipal scores on EMI tool

The table below summarises the index scores for a sample of 35 municipal accounts per category. The score for each of the five categories has been calculated out of 1. The first two categories carry a double weight, i.e. they represent a score out of 2.

Municipality	Language	Layout & design	Payment information	Integrity of consumption	Information aimed at changing behaviour	Total index out of 10
<b>Polokwane LM</b>	0.285	0.200	0.875	0.000	0.000	1.943
<b>Ga-Segonyana LM</b>	0.000	0.800	0.813	0.250	0.000	2.661
<b>Sol Plaatjie LM</b>	0.286	0.200	0.688	0.750	0.000	2.749
<b>Silulumanzi Nelspruit</b>	0.286	0.400	0.813	0.250	0.200	2.784
<b>Matlosana LM</b>	0.500	0.800	0.688	0.000	0.000	2.840
<b>Amathole LM</b>	0.286	0.800	0.688	0.250	0.000	2.891
<b>Nelson Mandela Bay MM</b>	0.286	0.800	0.813	0.000	0.200	2.999
<b>Nkomazi LM</b>	0.286	0.600	0.750	0.500	0.000	3.051
<b>Kungwini LM</b>	0.571	1.000	0.667	0.000	0.000	3.197
<b>Steve Tshwete LM</b>	0.750	0.200	0.813	0.500	0.000	3.233
<b>Msukaligwa LM</b>	0.571	0.400	0.625	0.500	0.200	3.280
<b>Mogale City LM</b>	0.857	0.600	0.625	0.250	0.000	3.331
<b>Mosselbaai LM</b>	0.857	0.600	0.688	0.250	0.000	3.421
<b>Tlokwe LM</b>	0.857	0.800	0.688	0.250	0.000	3.707
<b>Mantsopa LM indigents</b>	0.286	1.000	0.813	0.500	0.000	3.713
<b>Ugu DM</b>	0.286	0.400	0.813	0.750	0.400	3.784
<b>eMalahleni LM</b>	0.571	1.000	0.625	0.500	0.000	3.851
<b>George LM</b>	0.750	0.400	0.938	0.750	0.000	4.054
<b>Greater Tzaneen LM</b>	0.857	0.800	0.688	0.500	0.000	4.064
<b>Overstrand LM</b>	0.750	0.800	0.813	0.500	0.000	4.090
<b>Tshwane MM</b>	0.750	0.600	0.813	0.500	0.200	4.090

<b>Mantsopa LM</b>	0.286	1.000	0.875	0.750	0.000	4.159
<b>Mangaung LM</b>	0.571	1.000	0.750	0.500	0.200	4.316
<b>Silulumanzi Matsulu</b>	0.500	1.400	0.750	0.250	0.200	4.429
<b>Govan Mbeki LM</b>	0.857	1.000	0.813	0.500	0.000	4.529
<b>Hessequa LM</b>	0.500	1.400	0.875	0.500	0.000	4.679
<b>Msunduzi LM</b>	1.000	0.800	0.813	0.750	0.000	4.804
<b>eThekwini MM</b>	1.143	1.333	0.750	0.000	0.200	4.894
<b>Kareeberg LM</b>	1.000	1.400	0.813	0.250	0.000	4.947
<b>Ekurhuleni MM</b>	0.500	1.200	0.875	0.500	0.400	4.964
<b>Buffalo City LM</b>	1.000	1.000	0.750	0.750	0.000	5.000
<b>Drakenstein LM</b>	1.143	1.200	0.750	0.500	0.200	5.419
<b>Blue Springs USA</b>	1.000	2.000	0.615	0.500	0.200	6.164
<b>Johannesburg MM</b>	0.571	1.800	1.000	1.000	0.000	6.244
<b>eThekwini MM new</b>	0.857	1.600	0.938	1.000	0.600	7.136
<b>Tshwane MM New</b>	1.000	1.833	1.000	1.000	0.400	7.476
<b>Cape Town MM</b>	1.500	1.600	1.000	1.000	0.200	7.571
<b>Yarra Valley AUS</b>	1.714	1.091	0.833	0.750	1.000	7.697
<b>SP Singapore</b>	1.333	1.818	0.929	0.750	0.600	7.757
<b>New Hampshire USA</b>	2.000	1.333	0.857	1.000	0.600	8.271
<b>Prototype</b>	2.000	2.000	1.000	1.000	1.000	10.000

## 4 Survey report

### 4.1 Background

As a final step in the process of developing guidelines on domestic water accounts, Nielsen South Africa was sub-contracted to conduct a survey in order to test the following hypotheses:

3. Whether consumers' understanding and perceptions of the sample accounts correlate with index scores on the Tool of Critical Analysis;
4. Whether there is a correlation between
  - consumers' actual understanding of the sample accounts,
  - their perceptions of the clarity of language and ease to find information, and
  - their trust in the accuracy of these sample accounts.

### 4.2 Methodology

#### 4.2.1 Survey of September-November 2009

The key features of the survey were the following:

Three accounts were selected from the 35 accounts scored on the Tool of Critical Analysis. Only South African accounts were selected in order to avoid another variable. The three accounts were selected to represent the spectrum of index scores:

- d. An account that was amongst the three lowest of the scores;
- e. An account that scored close to 5 out of 10; and
- f. A model account that scored 10 out of 10 on the Tool.

Not all accounts were eligible for selection:

- For some municipalities the researchers only had an Afrikaans copy;
- A significant number of accounts were bilingual and we did not want to bring in another variable;
- Some of the copies were not good, especially the pre-printed colour ones;
- The font size on many accounts is so small that copies are illegible.

For reasons of cost effectiveness; the survey was put onto one of the existing syndicated studies that are conducted by the major market research houses. The OMNIBUS survey of Nielsen South Africa was used because the research has worked with the company before on similar projects and the fieldworkers.

The OMNIBUS survey covers adults, aged 16 years and over, from all race groups. An area-stratified, probability sample of 2500 households was drawn.

A copy of the questionnaire appears in the next section. The questionnaire was translated into Afrikaans, Zulu, Xhosa, Tswana, Southern Sotho and Northern Sotho. **THE QUESTIONNAIRE WAS PILOTED AND SUBSEQUENTLY ADJUSTED AND IMPROVED.**

Personal at-home interviews were conducted in the home language, or preferred language of the respondent. The interviews were conducted using a structured questionnaire on a CAPI (Computer Assisted Personal Interview) machine as well as show cards.

The final time frame of the field work was as follows:

- Final questionnaires: 24 September 2009
- **Field briefing: 08 October**
- **Field start: 09 October**
- **Field end: 26 October**
- Clean data file to Data Processing: **28 October**
- Data processing: **28 October-9 November**
- Tables/data available: **9 November 2009**

A 20% validation check was done personally or telephonically on the work of each interviewer. The results have been post weighted to estimated population proportions.

- The analysis was done by specified demographic breakdowns:
  - ▣ Race
  - ▣ Monthly household income
  - ▣ Home language
  - ▣ Gender
  - ▣ Provinces
  - ▣ Living Standards Measure (LSM)<sup>5</sup>

**An analysis of the data identified serious quality problems with the fieldwork. At a meeting on 29 January 2010 Nielsen agreed that the fieldwork quality was unacceptable and the company offered to re-do the full study.**

---

<sup>5</sup> The Living Standards Measure (LSM) has been developed by the South African Advertising Research Foundation. It is built around a set of 29 household variables, e.g. sewing machine, flush toilet in/outside house, traditional hut, electric stove. There are 10 LSM groups.



#### 4.2.2 Survey of February-March 2010

The new study was not part of an OMNIBUS, but the same sampling principles and fieldwork methodology were followed as for the first study. Since it was a matched sample, a quota principle was added to match the three samples as closely as possible. Details of the sample appear in Appendix 1.

The new questionnaire was again piloted and adjusted and improved accordingly

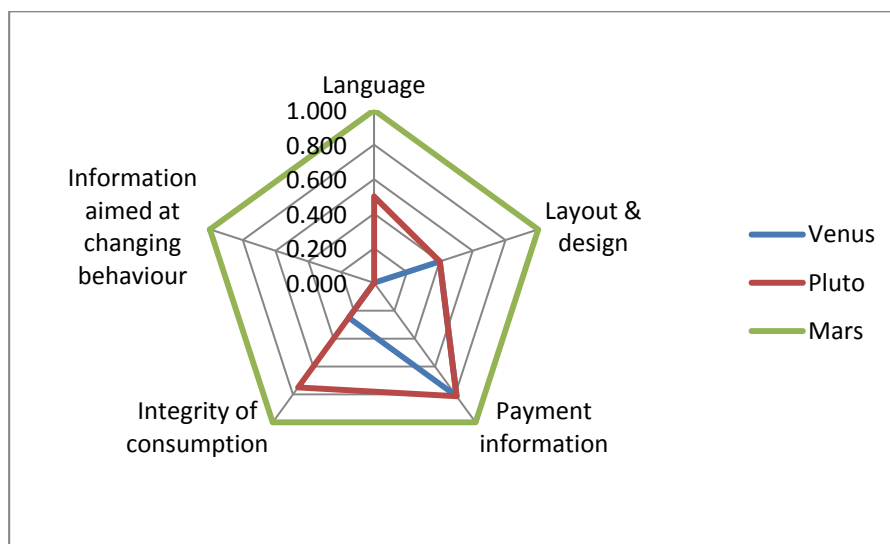
For the new study, two other South African accounts were selected, based on the same principles as above. The data on the model account was altered. Names and any information that could identify the municipality or the consumer were taken out. The three accounts were given pseudonyms: Mars, Pluto and Venus. Each respondent was shown one of the accounts.

The following information about each of the selected accounts is relevant for this study:

- Mars is a two-page account with a summary on the first page and detail on the second page.
- Pluto and Venus are one page accounts.
- The three accounts have a similar layout structure.
- Mars is the model account that was developed by the researchers based on the Tool of Analysis. Mars scored **10** out of a possible 10 on the Tool.
- Pluto is the domestic account of a Local Municipality. This account scored **4.804** out of a possible 10 on the Tool.
- Venus is also the domestic account of a Local Municipality. This account scored **2.661** out of a possible 10 on the Tool.

The figure below depicts the comparative index scores.

**Figure 7: Comparison of three selected accounts on the Tool of Critical Analysis**



Pluto and Venus have the same score on payment information and layout and design. They also both scored zero in the category “information aimed at changing behaviour”. Venus scored zero in the category of “language” as well.

The main difference between the two accounts lies in the density of information on the account. Pluto has additional information (property tax, tariff structure and rebates) that Venus does not have. Pluto also has two columns for charges, one for “charge” (excluding VAT) and one for the “Amount” (including VAT).

Both accounts lost points for using abbreviations and acronyms – the difference was that Pluto’s were critical water information (curr, prev, cons, readdt). The full analysis of these two accounts appears in Appendix 3.


Mars, Pluto and Venus appear in the next section.

## 4.3 Accounts used in survey

### 4.3.1 Mars/model account

page 1

**MARS MUNICIPALITY**  
123 Green Street, Mopani 9876  
PO Box 654321 9876  
www.municipality.co.za  
VAT no. 12345678900

  
Tax invoice number: 12345/12

Mrs AB Chetty  
11 Blue Avenue  
Blueridge  
9876

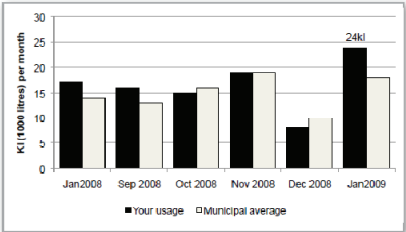
Date	03/02/2009
Address	191 Anderson Street, Blueridge 9876
Stand Number/Portion	M12-345
Township	Estate
Property Size	1000m <sup>2</sup>
Number of dwellings	1
Date of valuation	01/07/2007
Municipal valuation	R900,000

Previous Invoice	R 565.00
Payment received 15/01/2009	R 500.00 Thank you!
Interest on outstanding amount	R 6.50
Balance	R 71.50 Outstanding
This month's charges	R 1274.98 See back for detail, VAT and tariff structure

**Total due R 1346.48 Payable by 1 March 2009**

**Compare your water usage**  
Your average usage for the invoice period: 774 litres per day  
average usage for the invoice period: 582 litres per day

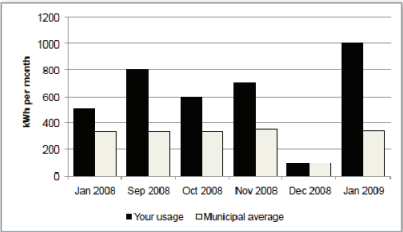
high!



Month	Your usage	Municipal average
Jan 2008	18	15
Sep 2008	16	14
Oct 2008	15	16
Nov 2008	19	18
Dec 2008	8	10
Jan 2009	24	18

**Compare your electricity usage**  
Your average usage for the invoice period: 33.8 kWh per day  
average usage for the invoice period: 11.3 kWh per day

high!








Month	Your usage	Municipal average
Jan 2008	500	350
Sep 2008	800	350
Oct 2008	600	350
Nov 2008	700	350
Dec 2008	100	100
Jan 2009	1000	350

**Save our precious water. Do not wash dishes under a running tap.  
Electricity is expensive. Please switch off when not in use.**

**Important!**  
Your services will be cut off or restricted if your payment is late.  
Interest will be charged on outstanding amounts.  
Contact Customer Care for any queries or if you need to arrange a payment plan.  
Payments can be made at any municipal Service Centre, Post office, Easy Pay, bank (Account no. 9876543, branch code 5432). Cheques should be made out to 'Municipality'. Use the invoice number as reference.

**Customer Care 0800 123 4567**

# MARS MUNICIPALITY page 2

Invoice Details		Subtotals	Totals
	<b>Property rates</b>		<b>R 326.67</b>
	Period	31 days	
	ERF 99 99	Residential property	
	Property rates	R900000 x R0.04/12	R 326.67
	VAT		R 00.00
	<b>Electricity</b>		<b>R 592.80</b>
	Period	31 days	
		Meter number	0001123
	Meter readings	234 (actual reading taken on 31/12/2008)	
		1234 (estimated for the period 01/01/2009 to 31/01/2009)	
	Usage	1000kWh	
	Usage Charge	1000 kWh at R0.47 / kWh	R 470.00
	Fixed Charge		R 50.00
	VAT		R 25.11
	<b>Water</b>		<b>R 204.49</b>
	Period	31 days	
		Meter number	26981
	Meter readings	123450 (actual reading taken on 30/12/2008)	
		123474 (actual reading taken on 31/01/2009)	
	Usage	24 000 litres (24 kilolitres)	
	Usage Charge	(6000 litres free basic water)+(6000 litres at R3.33/1000 litres)+(8000 litres at R7.10/1000 litres)+(4000 litres at R13.15/1000 litres)	R 129.38
	Fixed Charge		R 50.00
	VAT		R 25.11
	<b>Sewerage</b>		<b>R 103.14</b>
	Period	31 days	
	Usage	13 000 litres (13 kilolitres)	
	Usage Charge	(3866 litres free) + (3867 litres at R4.01/1000 litres) + (5155 litres at R8.52/1000 litres) + (112 litres at 9.32/1000 litres)	R 60.47
	Fixed Charge	Based on stand size	R30.00
	VAT		R 12.67
	<b>Refuse</b>		<b>R 47.88</b>
	Period	31 days	
	Fixed charge		R 42.00
	VAT		R 5.88

<b>This month's charges (incl VAT)</b>	<b>R 1 274.98</b>
--	-------------------

## AGE ANALYSIS

Total amount outstanding	This month's charges	30-60 Days	60-90 Days	90 Days +	Installment plan
R 1 346.48	R 1 274.98	R 71.50	R 0.00	R 0.00	

Please return this slip if you pay  
by mail

Mrs AB Chetty  
11 Blue Avenue  
Blueridge  
9876






Invoice Number	0123456/12
Total Due	R 1346.48
Date Due	1 March 2009
Total Amount Enclosed	

Easy Pay, Post Office, ABSA City of, Account number: 123456789, Branch code: 632778, Reference: 0123456/12

### 4.3.2 Pluto account

PLUTO MUNICIPALITY					
TAX INVOICE					
14 School Rd, Pluto, 8462 Tel: 083 9300 Fax 083 0901					
ACCOUNT NO.	ACCOUNT DATE	ELECTRICITY/WATER ENQUIRIES	RATES ENQUIRIES		
STREET ADDRESS / STAND		VAT REGISTRATION NUMBER		TAX INVOICE NUMBER	
LOCATION		CASH	0.00	DEPOSIT	0.00
PROPERTY DESCRIPTION		LAND	13000	VALUATION IMPROVEMENTS	132000
		AREA m2	570m2	ASSESSMENT RATES	2084.19
DATE	DETAILS	TARIFF	CHARGE	VAT	AMOUNT
30/09	BALANCE BROUGHT FORWARD				2908.35
<b>ASSESSMENT RATES:</b>					
02/10	INTEREST ON ARREARS	0.180000	5.21	0.00	5.21
30/10	RATES RESIDENTIAL - IMP	0.019229	190.69	0.00	190.69
30/10	RATES RES1 RESIDENTIAL - IMP	0.004678	46.39	0.00	46.39
30/10	RATES RES2 RESIDENTIAL - IMP	0.002183	21.65	0.00	21.65
30/10	RATES RESIDENTIAL - LAND	0.097660	105.80	0.00	105.80
30/10	RATES RES1 RESIDENTIAL - LAND	0.042239	45.76	0.00	45.76
30/10	RATES RES2 RESIDENTIAL - LAND	0.008313	9.00	0.00	9.00
<b>REFUSE:</b>					
02/10	INTEREST ON ARREARS	0.180000	0.54	0.00	0.54
30/10	REFUSE LIFELINE	26.430000	26.43	3.70	30.13
30/10	DOMESTIC REBATE - INDIGENT	1.000000	26.43	3.70	30.13
<b>SEWERAGE:</b>					
02/10	INTEREST ON ARREARS	0.180000	0.74	0.00	0.74
30/10	SEWERAGE LIFELINE	40.860000	40.86	5.72	46.58
30/10	DOMESTIC REBATE - INDIGENT	1.000000	40.86	5.72	46.58
<b>WATER CONSUMPTION:</b>					
30/10	WATER CONSUMPTION - INDIGENT			97.38	792.97
ReadDt=21/10/2008 Days=32 Curr=3826 Prev=3741 Cons=85.00					
	6.40kl	4.421667	28.30		
	6.40kl	3.520000	22.53		
	72.20kl	8.930000	644.76		
30/10	W/CONSUMP. REBATE 6KL			3.96	32.26
	6.40kl	4.421667	28.30		
	78.60kl	0.000000	0.00		
90 DAYS +		60 DAYS	30 DAYS	CURRENT	VAT TOTAL
1170.44		997.34	740.57	940.89	93.42
					TOTAL DUE
					3849.24
					FINAL DATE FOR PAYMENT
					30/11/2008

REMITTANCE ADVICE		NAME AND ADDRESS	
BRANCH NO:			
ACCOUNT NO.:			
  0208		ACCOUNT NUMBER TOTAL DUE	
		R3849.24	
 >>>>			

### 4.3.3 Venus account

#### VENUS MUNICIPALITY

Private Bag X1533, VENUSVILLE, 8480  
Cnr Church & Nelson Mandela Rd, Venusville, 8480  
Tel: (083) 7129300  
Fax: (083) 712 3581

#### TAX INVOICE/STATEMENT OF ACCOUNT

Account number	0006502911	Account Date	27 FEB 2009
		Tax invoice No.:	0006502911200902
		VAT registration No	48901171974890117197
EKSTEEN S A		ERF Description	23 -000002969 -0000 -0000
VARINGSTRAAT 109		Market Value	0.00
VENUSVILLE		Land area	112.00
		Deposit	100.00
		Street	VARINGSTRAAT 109

#### METER READINGS

Meter No.	Meter Type	Old Reading	New Reading	Heading date	Consumption
1 000000000682892	ELECTRICITY	3231.000	3231.000	13/2/2009	A
2 000000000000989	WATER	453.000	460.000	13/2/2009	A 7.000

#### ACCOUNT DETAILS

Date	Code	Description	Units	Tariff	Value	
		Opening Balance			5,695.49	
02/03/2009	000602	SEWERAGE	1.000 @	29.04000 *	29.04	
02/03/2009	000802	REFUSE	1.000 @	52.88000 *	52.88	
02/03/2009	000202	BASIC ELECTRICI BASIC CHAR	1.000 @	44.79000 *	44.79	
02/03/2009	000302	BASIC SEWERAGE BASIC CHARG	1.000 @	44.86000 *	44.86	
02/03/2009	000704	WATER	6.000 @	.00000 *	0.00	
02/03/2009	000704	WATER	1.000 @	3.05000 *	3.05	
	009008	VAT			24.45	
120 DAYS		90 DAYS	60 DAYS	30 DAYS	Current	VAT
						24.45
5,063.52	195.59	195.59	240.79	199.07	TOTAL DUE	
					5894.56	

#### REMITTANCE ADVICE

ACCOUNT NO	0006502911
NAME	EKSTEEN S A
TOTAL DUE	5,894.56
TOTAL DUE ON OR BEFORE	20/03/2009

#### ACCOUNT NO



EASY PAY ||||| 01 560 0065 0291 10

#### 4.4 Survey questionnaire

In brief, the survey questionnaire covered the following:

Question 1 was included to investigate the impact of prior knowledge of municipal accounts on understanding. 72.5% of respondents received a municipal account; 27.5% do not.

For question 2 a projective technique was used to avoid respondents' over-reporting their own ability to understand and find information on their municipal accounts. Respondents were also asked to indicate to what extent the people in their area trust their municipal account to be correct.

Question 3a-3d asked basic information on the account:

- The amount owed from previous months
- The date on which the account must be paid
- The date of the last water reading
- The quantity of water used during the account period
- The quantity of Free Basic Water that this consumer has received.

Question 4 asked the same questions as Question 1, but with reference to the account (Mars, Pluto or Venus) that was shown to the respondent.

The full questionnaire appears below.

Study ID	(101-105)	Resp. No.	(106-109)
	_____		_____
Interviewer No.	(113-116)	Interview Length	(117-118)
	_____		_____
No. Of Queries	(119-120)	Reference No.	(121-124)
	_____		_____

<b>Q1</b>	<b><u>Q1 to be included in demographical questions</u></b>	Code	Route
	Do you receive a municipal account for services like water, sanitation and electricity each month? <b>[SA]</b>	( )	
	a. Yes.....	1	
	b. No (specify).....	2	

Q2

ONLY ASK QUESTION IF ‘YES’ IN Q1

SHOWCARD OF SCALE.

I am going to read to you four statements about your own municipal account. Please say for each statement if you TOTALLY AGREE, AGREE SOMEWHAT, DISAGREE SOMEWHAT or TOTALLY DISAGREE with the statement. (ASK ONE STATEMENT AT A TIME)

	TOTAL Y AGREE	SOMEWHA T AGREE	SOMEWHA T DISAGREE	TOTALLY DISAGREE
a. People in our area find the words on their municipal accounts easy to understand.	1	2	3	4
b. It is easy for people in our area to find information on their municipal accounts.				
c. People in our area trust their municipal account to be correct				



<b>Q3a    <u>SHOW RESPONDENT THE SAMPLE MUNICIPAL ACCOUNT</u></b>	
How much money does this person owe from previous months?	
	<b>ACCOUNT SAMPLE</b>
	( )
a. (Specify) .....	1
d. The amount does not appear on the account .....	2
e. Could not find the amount on the account/Don't know.....	3

<b>Q3b    On what date must the account be paid?</b>	
<b>[SA]</b>	
	<b>ACCOUNT SAMPLE</b>
	( )
a. (Specify) .....	1
b. The date does not appear on the account .....	2
c. Could not find the date on the account/Don't know .....	3



Q3e How much <b>FREE BASIC WATER</b> , in litre or kilolitre, does this household receive? [SA]	
	ACCOUNT SAMPLE
	( )
a. (Specify. RESPONDENT MUST GIVE THE UNIT, e.g. litre or kilolitre).....	1
b. The quantity does not appear on the account.....	2
c. Could not find the quantity on the account/Don't know.....	3

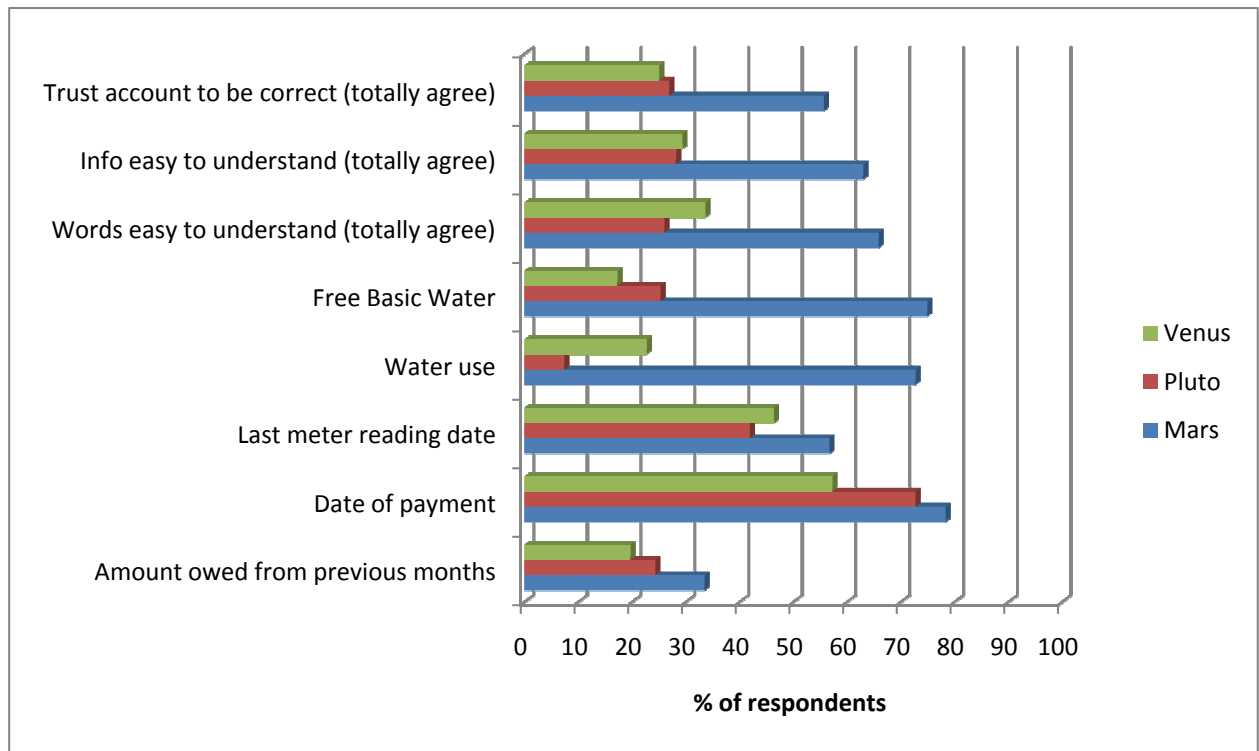
Q4 <b><u>SHOWCARD OF SCALE.</u></b>				
I am going to read to you four statements about this account. Please say for each statement if you TOTALLY AGREE, AGREE SOMEWHAT, DISAGREE SOMEWHAT, or TOTALLY DISAGREE with the statement. (ASK ONE STATEMENT AT A TIME)				
	TOTALLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	TOTALLY DISAGREE
a. The <u>words</u> on this account were easy to understand	1	2	3	4
c. It was easy to find <u>information</u> on this account.				
d. I trust this account to be correct				

#### 4.5 Summary of findings

The figure below clearly shows that the Mars/model account performed significantly better than the other two accounts in all respects. This confirmed hypothesis 1.

Mars also did significantly better than the other two accounts on perceptions of ease to understand and find information, and trust in the correctness of the account. This confirmed hypothesis 2.

**Figure 8: Summary of findings**



Although the general results confirmed the hypotheses, some of the detailed results differed from the expected pattern. These are discussed in the sections below.

## 4.6 Details of findings

### 4.6.1 Amount owed from previous months

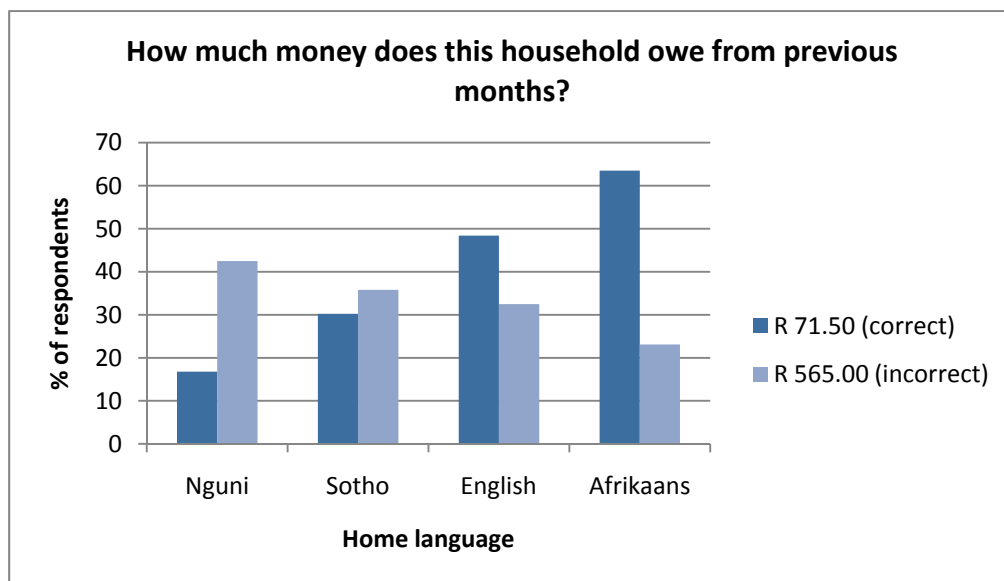
#### 4.6.1.1 Mars

The question “How much does this household owe from previous months?” was not clear enough even though the question was translated for respondents. 33.4% of respondents gave R71.50, the “balance outstanding” as their correct answer, whereas 35.7% gave R565.00, the amount of the “previous invoice” as the correct answer. In effect, therefore, 69.1% gave one of these amounts as the answer.

The words “previous invoice” on Mars could have lead respondents to select this amount as the correct answer. We found in the pilots that the word “previous” was not well understood amongst African respondents in the lower LSMs, which could have added to the confusion. The model account has subsequently been revised to read “Last month’s invoice”.

The highest LSM groups (8-10) understood the question significantly better than the other LSM groups.

**Figure 9: Impact of LSM on Question 3a – “amount owed from previous months”**



Afrikaans respondents (63.5% correct answers) had the least problems with this question.

#### 4.6.1.2 Pluto and Venus

Since neither Pluto nor Venus showed any payments or interest, the clarity of the question did not affect their results.

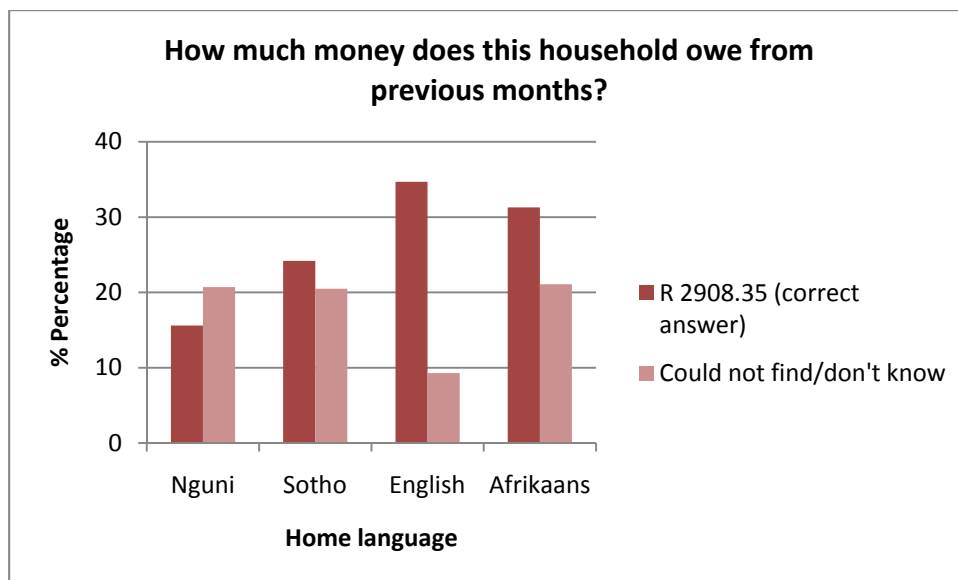
However, both these accounts had a low percentage of correct answers for this question. Respondents could not relate “opening balance” or “balance brought forward” to the amount owed from previous months. Almost the same percentage could not find or did not know the answer. This was despite the fact that many respondents tend to give any amount on the account as answer if they do not know the correct answer.

	Reference on account	% correct answers	could not find information/don't know
Pluto	“balance brought forward”	24.3 %	18.6%
Venus	“Opening balance”	19.6%	18.4%

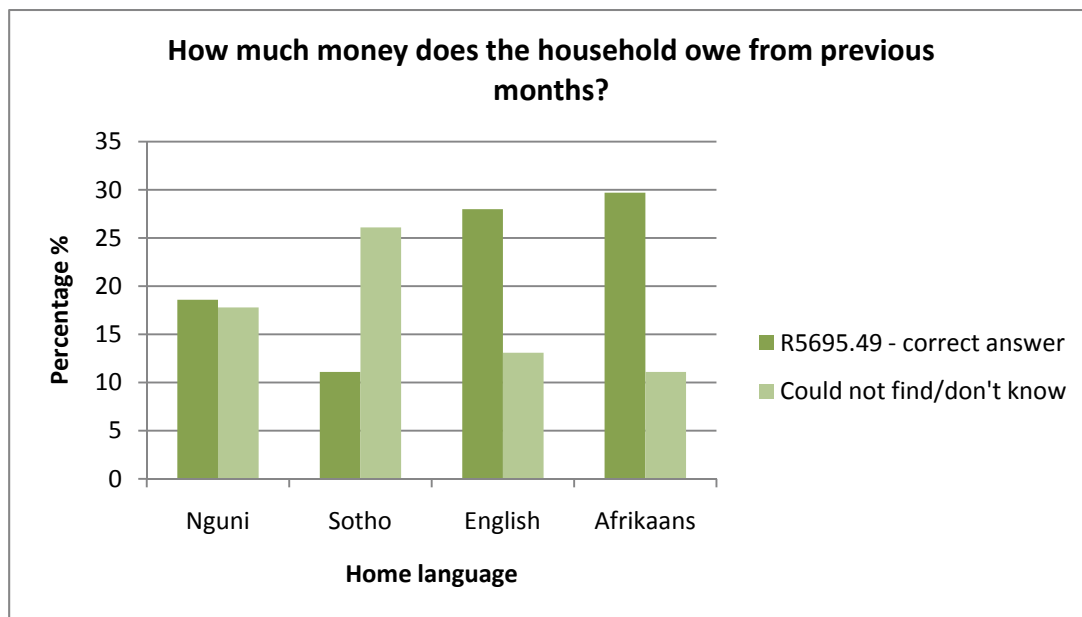
The semantic implication of “something brought over from the past” probably explains why “Balance brought forward” was better understood to be the amount owed from previous months than “opening balance”.

The figures below show the correlation with the home language of respondents. English home language respondents gave the largest percentage correct answers and the lowest percentage “could not find/don’t know” answers.

Figure 10: Pluto – correlation with home language



**Figure 11: Venus – correlation with home language**



The figure below shows the correlation of correct answers and “could not find information/don’t know” with LSM group.

**Figure 12: Pluto – correlation with LSM group**

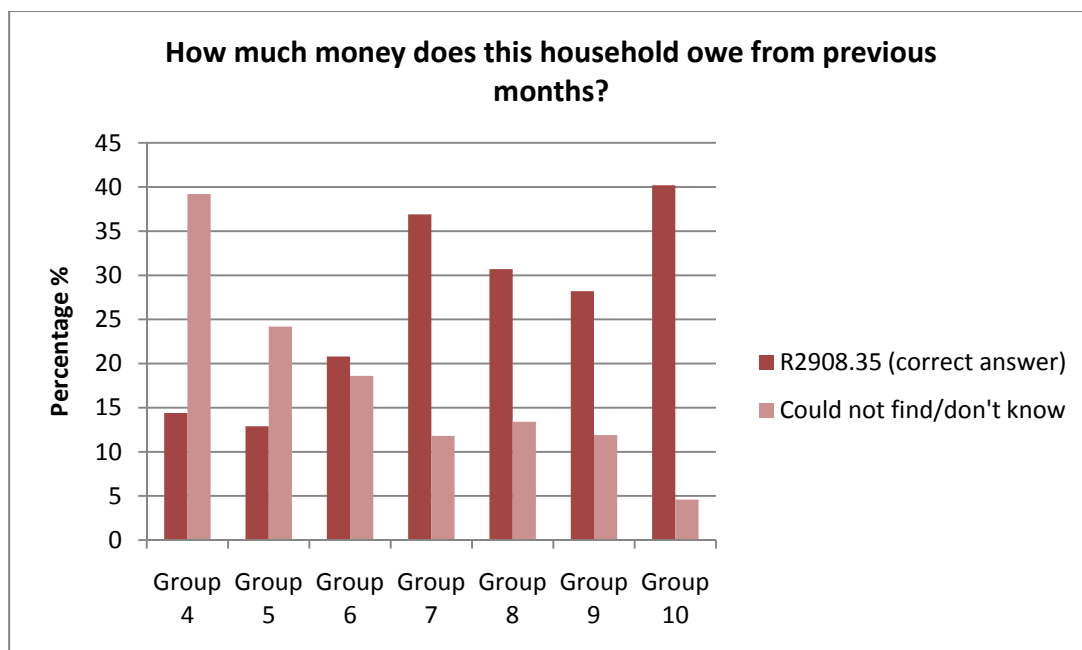
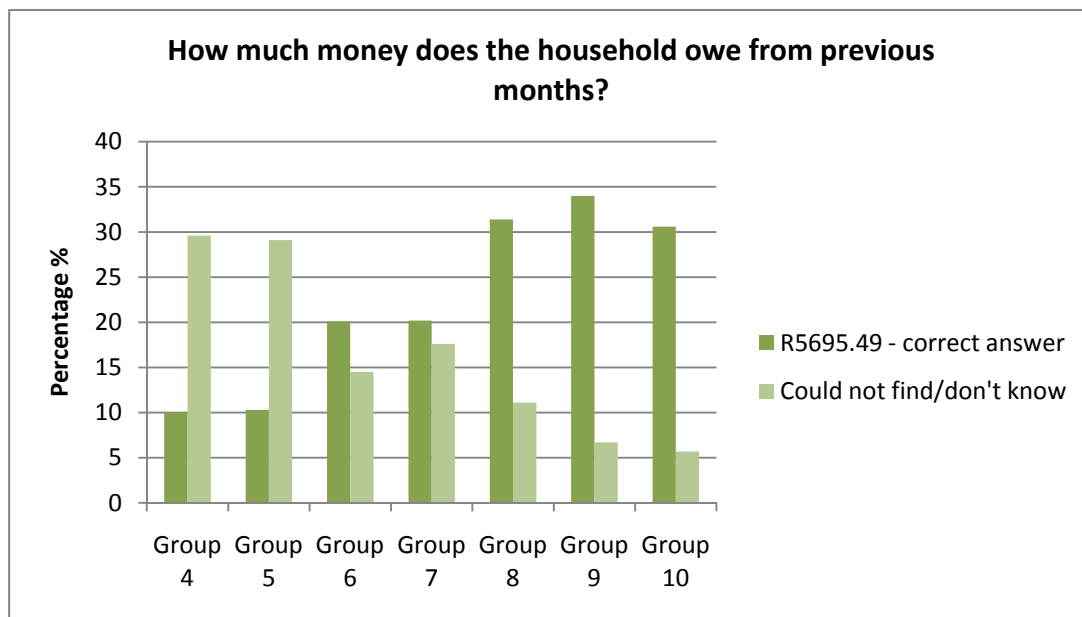


Figure 13: Venus – correlation with LSM group



We have to conclude that “balance brought forward” and “opening balance”, common phrases on accounts and statements, are not well understood by the ordinary South African consumer. The problem is exacerbated for the lower LSM groups and for consumers whose home language is an African language.

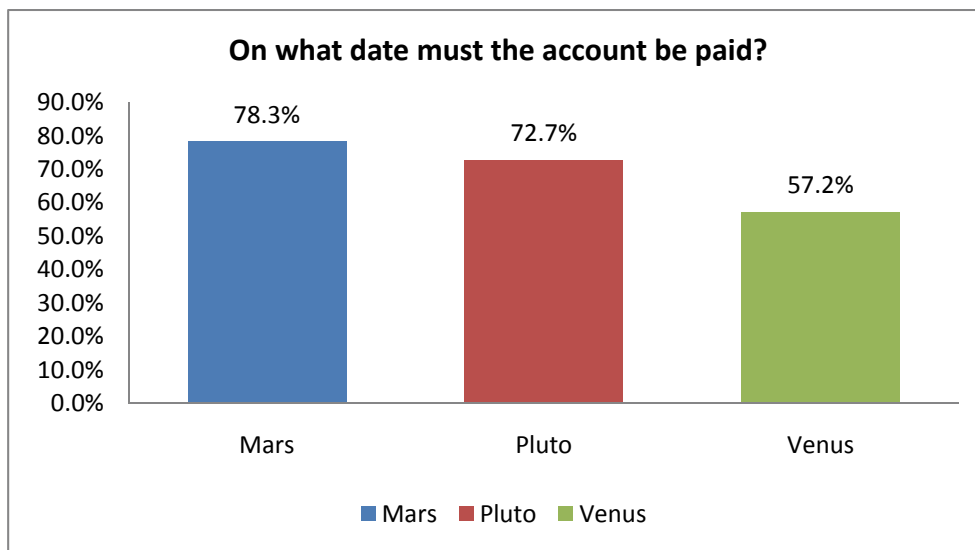
#### 4.6.2 Date of payment

On most municipal accounts the total amount due and the date of payment are the most prominent. According to the discussions that we had with consumers, this is in many cases the only information that consumers usually look for.

The respondents in the survey therefore had little trouble finding the date of payment. On Venus the information was less conspicuous – the date appears only in the remittance advice – hence the lower percentage correct answers.



**Figure 14: Comparison of correct answers for date of payment**



#### 4.6.3 Meter reading date

##### 4.6.3.1 Mars

56.7% of respondents provided the correct answer. This question was not fully clear to all respondents for the following reason:

Two reading dates and readings are provided in the water information section: the previous water meter reading date and its reading, and the latest water meter reading date and its reading. For the sake of account integrity, it is important to provide both these sets of information as the user needs them to calculate the number of accounting days and the household's water use during the period.

The pilots showed that some respondents interpreted "last" as the oldest reading. "last" was changed to "latest" and the words ("the most recent") were added in brackets. Unfortunately the confusion persisted. 22.3% of respondents gave the oldest date as the answer instead of the newest one.

In total 78% of respondents gave one of the reading dates as answer.

No demographic pattern could be detected for this result.

#### 4.6.4 Pluto and Venus

Both Pluto and Venus had only one reading date. They were therefore not affected by the question.

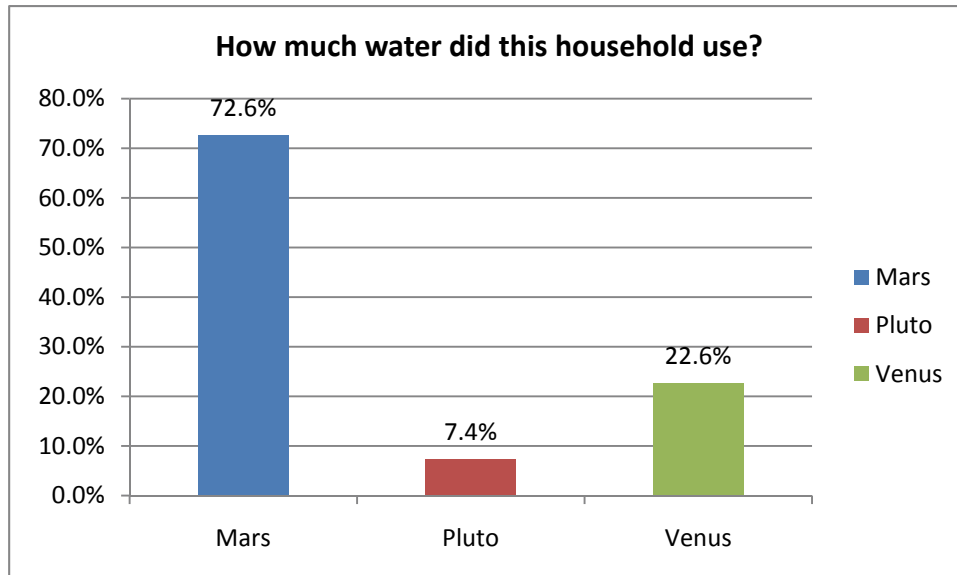
The percentage of correct answers for Pluto (45.9% correct) is very similar to Venus (46.3% correct).

The reading date on the Pluto account is with all the other water information, but it is indicated with an abbreviation "ReadDt". The reading date on Venus is clearly indicated as "Reading date", but the information is in a separate table and not close to the other water information.

#### 4.6.5 Quantity of water used

The figure shows Mars with a best score (72.6%), far above the other two accounts.

**Figure 15: Water use**

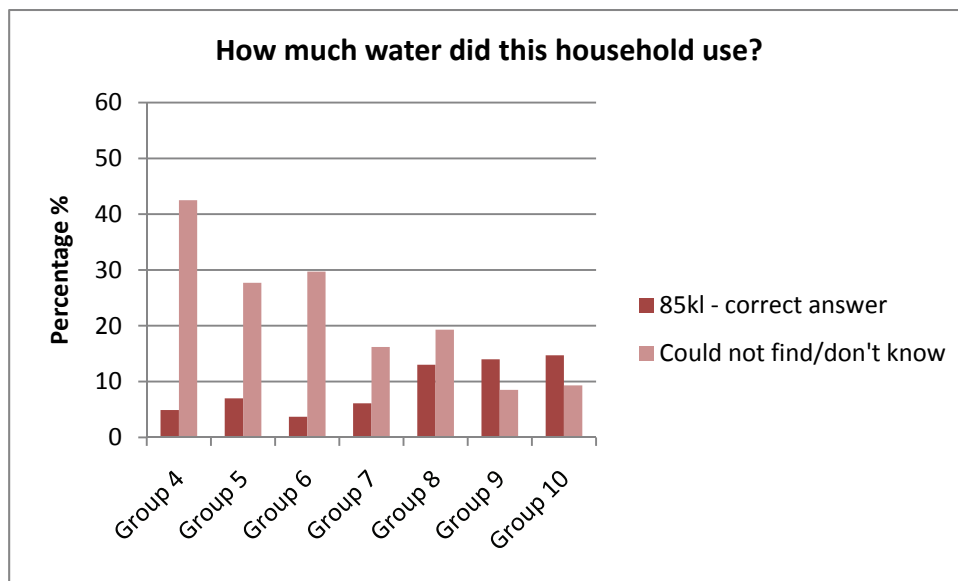


Respondents struggled to get the correct answer for Pluto. Only 7.4% gave the correct answer. This municipality serves 150 000 households, according to the Water Services National Information System. The implication of this survey is that less than 10% of households are able to read on their municipal account what their monthly water consumption is.


The question can well be asked: how do municipalities or government in general, expect consumers to save water or use water wisely, if their monthly water use is presented in such an incomprehensible manner on accounts that not even the highest LSM groups can understand it.

Only 14% of respondents in the highest two LSM groups found the correct answer on the account.

Figure 16: Pluto – correlation with LSM group



There could be various reasons for this disappointing result:

<div>  <b>WATER CONSUMPTION:</b> </div>				
30/10	WATER CONSUMPTION - INDIGENT		97.38	792.97
	ReadDt=21/10/2008 Days=32			
	Curr=3826 Prev=3741			
	Cons=85.00			
	6.40kl	4.421667	28.30	
	6.40kl	3.520000	22.53	
	72.20kl	8.930000	644.76	
30/10	W/CONSUMP. REBATE 6KL		3.96-	32.26-
	6.40kl	4.421667-	28.30-	
	78.60kl	0.000000	0.00	

- The total consumption is referred to with a non-standard abbreviation: “Cons=85.00”. No unit of measurement is given. Unless readers know that “Cons” refers to water consumption, they would not recognise the number as the quantity of water used.
- All the other water quantities in the step tariff structure indicate “kl”, which explains why many respondents gave one of these quantities as the answer.

Venus, although it did better than Pluto, also scored low. Only 22.6% of respondents found the correct answer.

When one analyses the information on the account more closely, it becomes clear why the score was so low:

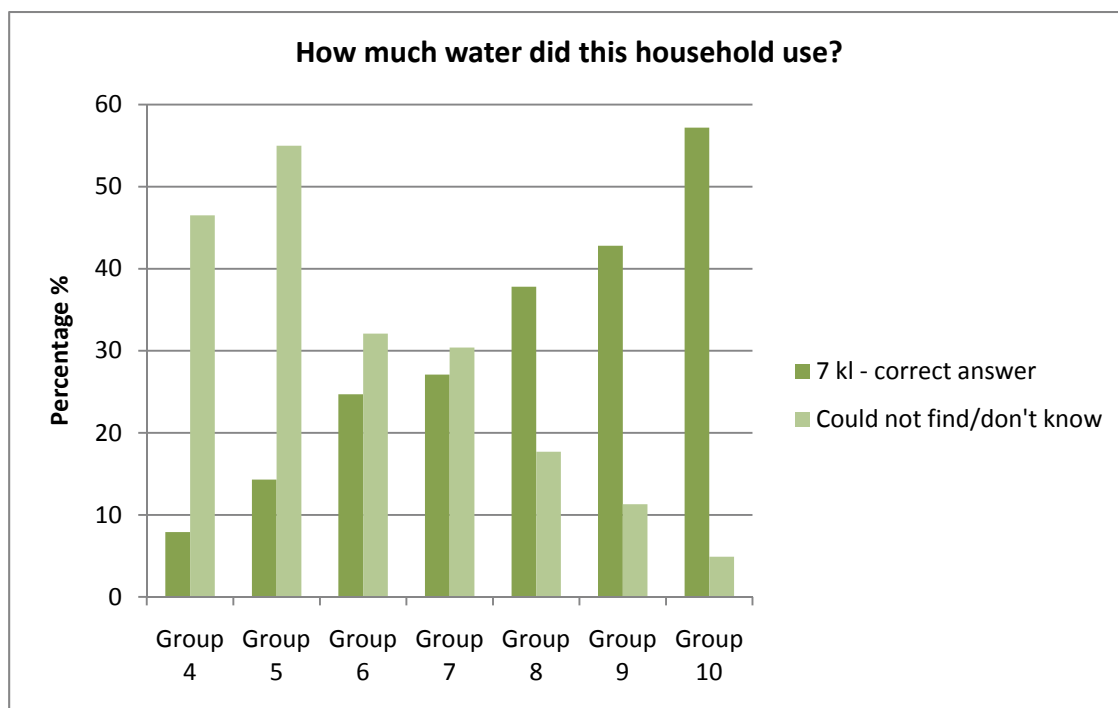
Description	Unit	Tariff	Value
WATER	6.000 @	.00000 *	0.00
WATER	1.000 @	3.05000 *	3.05

Readers have to decipher that:

- The two numbers under the horizontal heading “WATER” refer to a quantity of water used, which have to be added to get to 7 units of water. The reader has to infer further that the unit is kilolitre.
- The first quantity is charged at a zero tariff (.00000), hence the the consumer receives 6kl of free basic water.
- The second quantity, 1 kl was charged at 3.05000 (R3.05) per kilolitre.

The correlation with LSM group on this question is very distinct as the figure below illustrates.

**Figure 17: Venus – correlation with LSM group**



#### 4.6.6 Free Basic Water

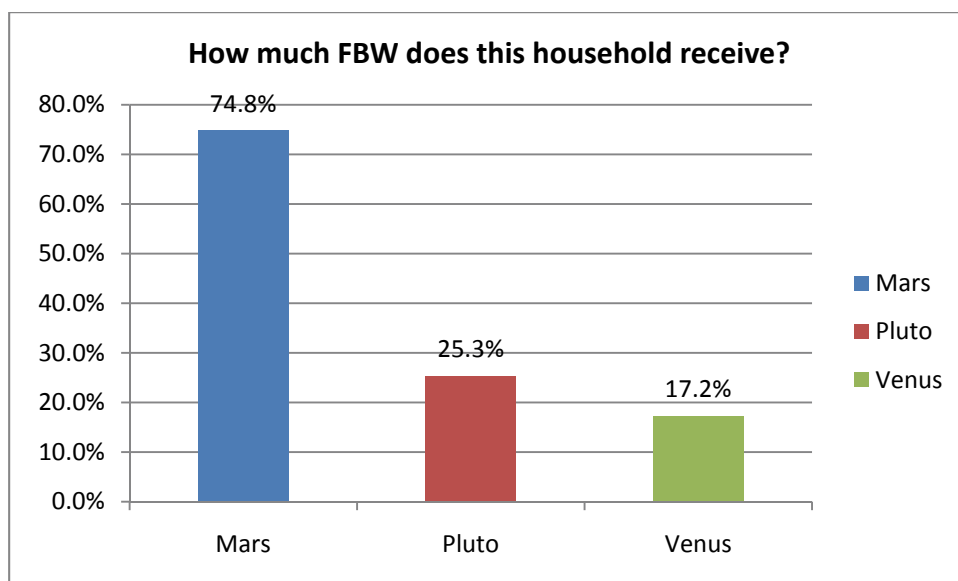
Free Basic Services is a key government policy that provides basic services to the poor. From a political perspective it is therefore important that citizens are aware of whether they receive free basic water, or not, and if they do receive it, how much free basic water do they get.

Previous research (WRC report) has indicated that the awareness of Free Basic Water is low amongst the general public.


The survey confirmed this finding. Only 25% of respondents could give the correct quantity of Free Basic Water for Pluto; for Venus the figure was even lower – 17%. This study has found in the analysis that municipal accounts are very unclear in the way in which they indicate Free Basic Water.

The survey also showed that it is possible to indicate the quantity of Free Basic Water clearly on a municipal account. The principles of document design and plain language were applied in the development of Mars (model account). 75% of respondents gave for Mars the correct answer to the question on the quantity of Free Basic Water.

**Figure 18: Free Basic Water – comparison of % correct answers**

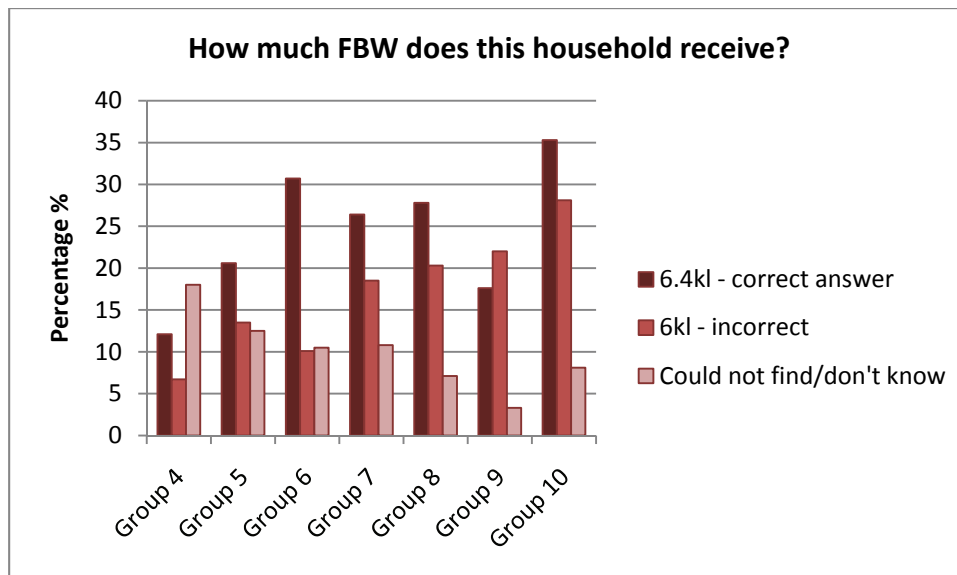


In order to find the quantity of free basic water on Pluto, consumers have to go through a complex deduction exercise.

 <b>WATER CONSUMPTION:</b>					
30/10	WATER CONSUMPTION - INDIGENT			97.38	792.97
	ReadDt=21/10/2008 Days=32				
	Curr=3826 Prev=3741				
	Cons=85.00				
	6.40kl	4.421667	28.30		
	6.40kl	3.520000	22.53		
	72.20kl	8.930000	644.76		
30/10	W/CONSUMP. REBATE 6KL			3.96-	32.26-
	6.40kl	4.421667-	28.30-		
	78.60kl	0.000000	0.00		

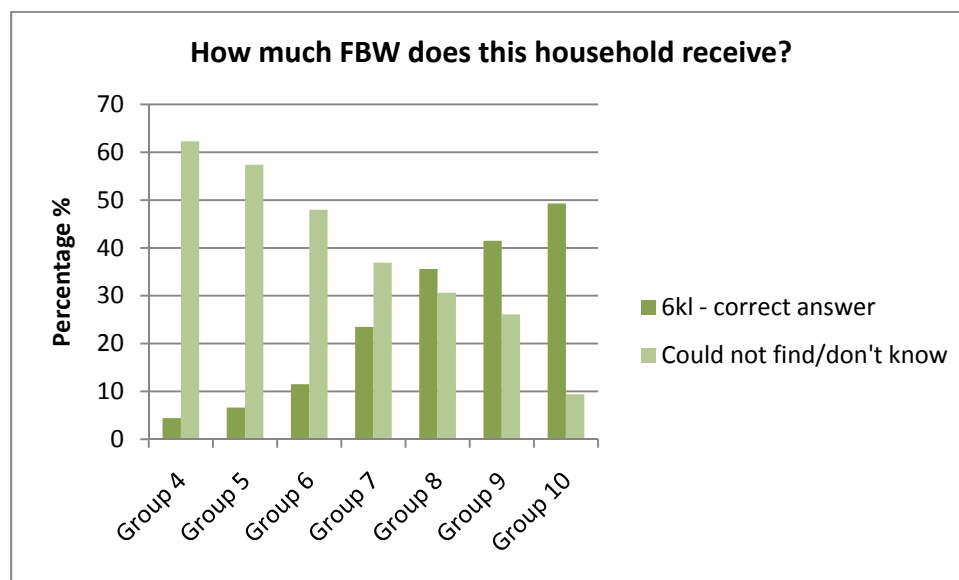
For the Pluto account above, the first 6.4kl used is charged at a tariff of 4.421667 (sic). This is then deducted again as a “rebate” and becomes the Free Basic Water quantity! However, the rebate is called “REBATE 6KL” which respondents found very confusing. The chart below shows the confusion between 6.4 kl and 6kl across LSM groups.

**Figure19: Pluto – quantity of Free Basic Water**



The difficulties for readers to decipher water consumption on the Venus account were explained above. The impact of LSM on consumers' ability to find the correct answers on the sample accounts is dramatic, as the chart below illustrates. About 60% of consumers in the LSM groups 4-5, the target group of Free Basic Services, could not find the answer to the question on the quantity of Free Basic Water on the sample account; a staggering low percentage of 5% managed to figure out the correct answer from the account.

**Figure 20: Venus – quantity of FBW**



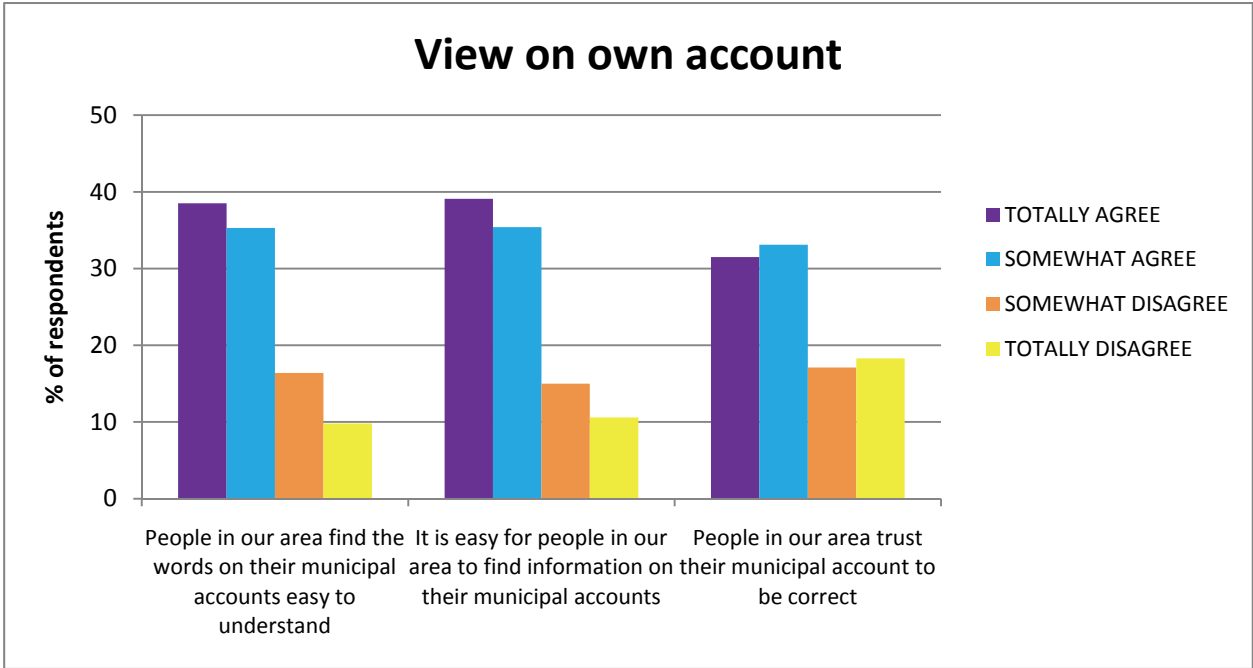
#### 4.7 Consumer perceptions of their own account

Respondents were asked to evaluate their own municipal accounts. They were given three statements to which they were asked to respond to on a four point scale (totally agree, agree somewhat, disagree somewhat, totally disagree). Previous research (Slabbert 2005, 2008) has shown that respondents, particularly respondents in the lower LSMs, tend to over report their ability to understand and find information. A projective technique was used to counter this type of over reporting.

- a. People in our area find the words on their municipal accounts easy to understand.
- b. It is easy for people in our area to find information on their municipal accounts.
- c. People in our area trust their municipal account to be correct

The results are summarised in the chart below:

Figure 21: Respondents’ perceptions of their own municipal account



25% of urban adults who receive a municipal account disagree that it is easy to understand, or find information, on their municipal accounts

**35% disagree (of which 17% totally disagree) that they trust their municipal accounts to be correct.**

Aspects surrounding trust are, however, very subjective and it is possible that consumers, due to problems with service delivery, project trust against the total experience of the municipality and therefore mistrust any information issued by their municipality.

It is evident that municipalities have much to improve in this area.

4.8 Consumer perceptions of the sample accounts

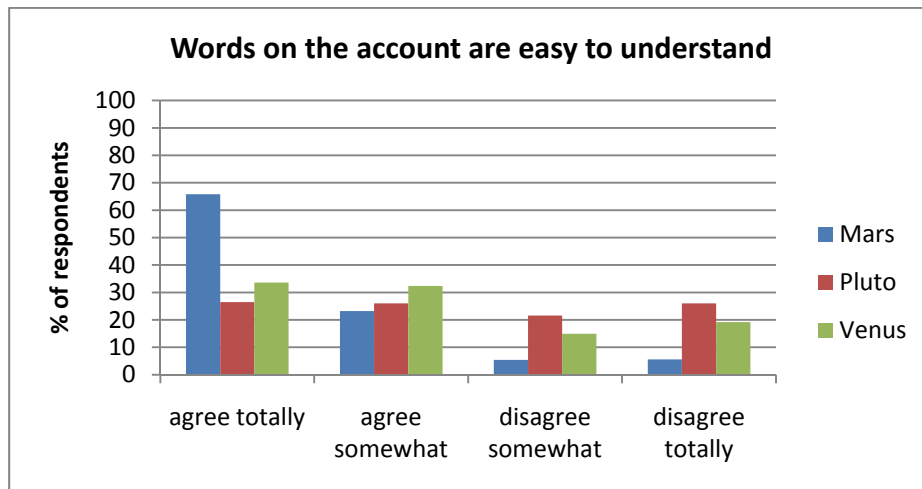
4.8.1 Words are easy to understand

The figure shows that most respondents (65.8%) agree totally that the words on the Mars account are easy to understand. Only 10% disagreed. As stated above, changing “previous invoice” to “last month’s invoice” should further improve comprehension.

Venus and Pluto were rated less favourably.



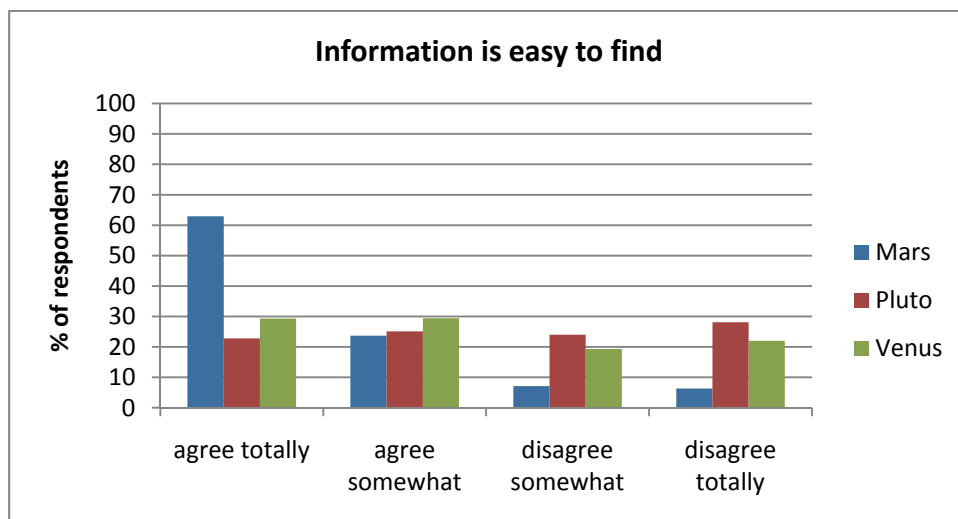
**Figure 22: Comparison of respondents' perceptions of sample accounts**



#### 4.8.1.1 Information is easy to find

This figure reflects the answers as above. This means that understanding words and finding information are reflected in the same way. Just as respondents totally agreed that words on Mars are easy to understand (65.8%), they indicated in the same ratio compared to Venus and Pluto that information is easy to find (62.9%).

**Figure 23: Comparison of respondents' perceptions of the sample accounts**

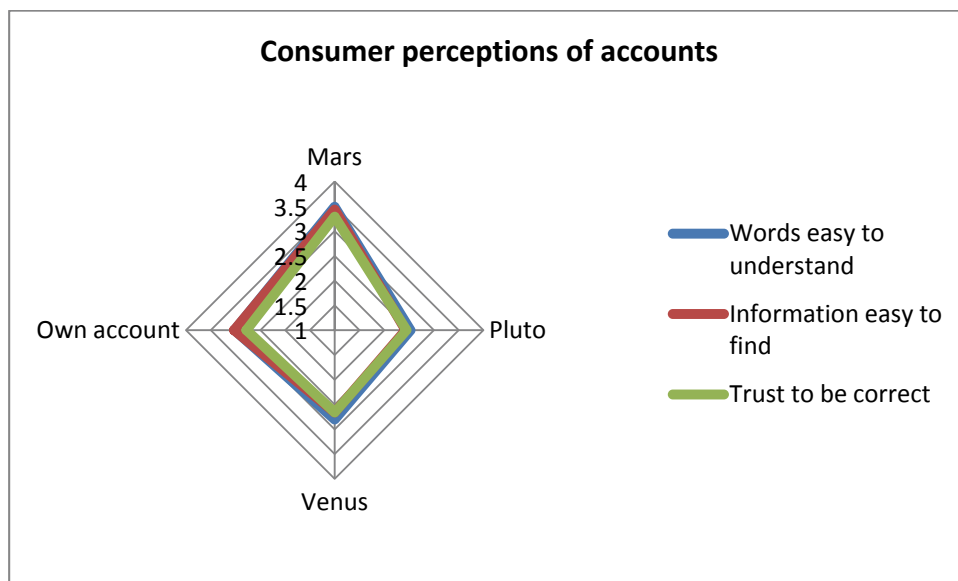


#### 4.8.1.2 Respondents' trust in the account

The chart below further shows the correlation between understanding and ease to find information and trust in the correctness of the account. The vertical axis depicts the average score and ranges from 1 to 4 (Totally disagree=1; disagree somewhat=2; agree somewhat=3; totally agree=4).

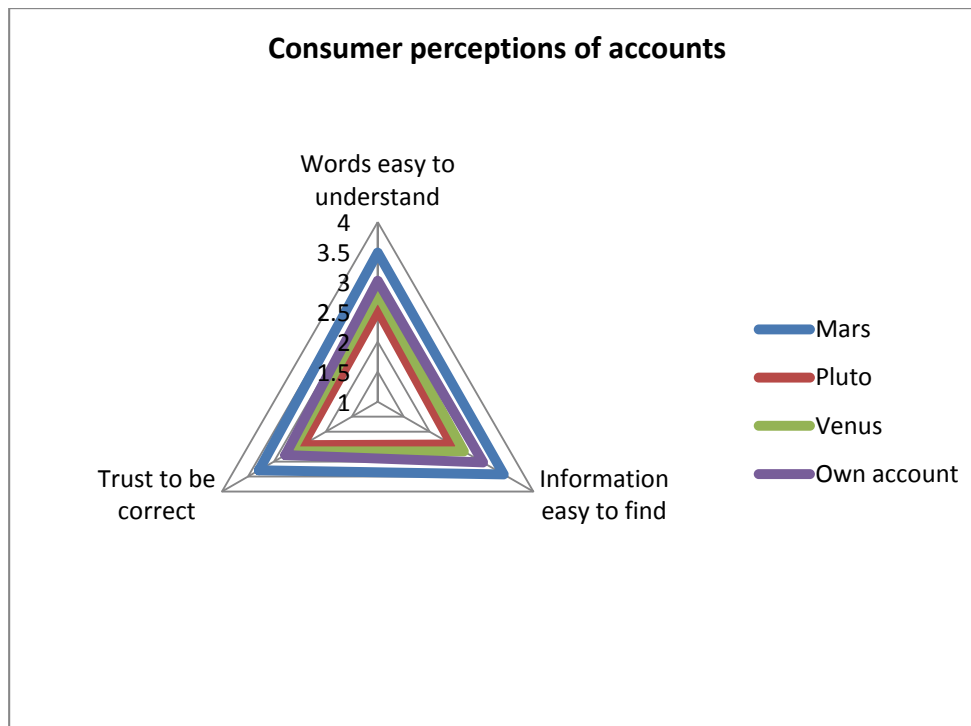
If information is easy to find and words are understandable, it is safe to say that consumers will tend to trust the correctness of account.

**Figure 24: Correlation of clarity, ease to find information and consumer trust in the correctness of municipal accounts**



The next chart compares consumer perceptions of Mars, Pluto, Venus and respondents' own municipal accounts.

**Figure 25: Comparison of consumer perceptions for Mars, Pluto, Venus and respondents' own municipal accounts**



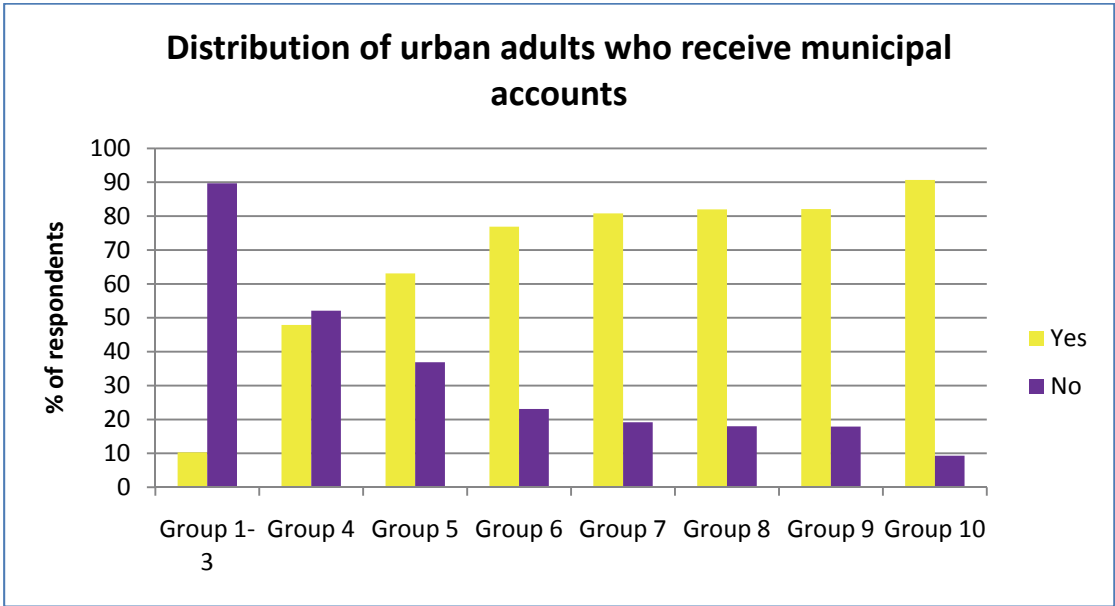
As previously stated, trust may also be a reflection of the respondent's perception towards the municipality that issues the account. Respondents did not know the real names of municipalities involved in this study, but perceptions towards municipalities might be negative across the board and the lack of trust might reflect perceptions towards municipalities in general and not just a lack of trust in the correctness of the specific account.

**The results prove that clarity and ease to find information improve consumers' trust in the correctness of the account.**

#### 4.9 The impact of prior knowledge

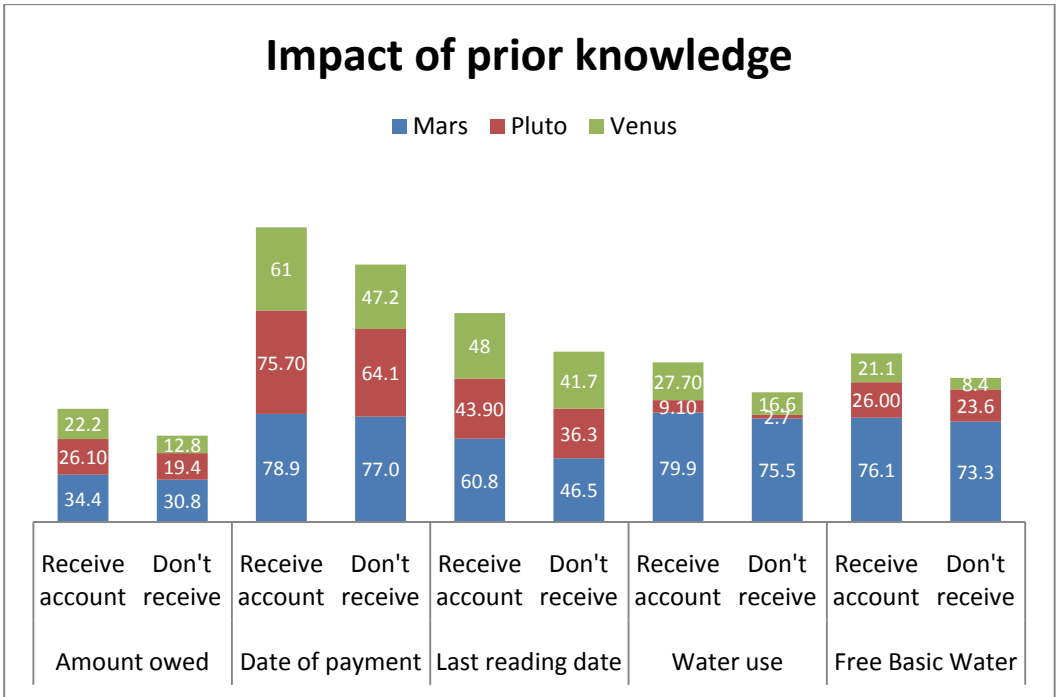
According to the survey, 72,5 % of urban adults receive municipal accounts; 27.5% do not. 72.5% of the total number of respondents indicated that they do indeed receive a monthly municipal account. Respondents from LSM group 1-3 (10.3%) and 4 (47.9%) were the least likely to receive a municipal account as the figure below indicates.

Figure 26: Percentage of urban adults that receive a municipal account



Most findings saw a difference between these two groups although not all differences were significant. Respondents who do not receive a municipal account found it more difficult to get the correct answers and they also have less trust in the correctness of the account that they have seen as the chart below illustrates.

Figure 27: “Receive a municipal account” versus “do not receive a municipal account”



#### 4.10 How do people make sense of information?

The results give fascinating insight into the way that people make sense of information that they do not fully comprehend.

1. Respondents matched the answer with familiar content in the question: ask “previous month” and they will look for the exact words on the account; ask a date and they will answer a date; ask an amount and they will answer an amount. When no units (Rand or kilolitres) appear on the account, readers might give any number as answer, whether it is a meter reading, an amount or a quantity of water or electricity.
2. On the Pluto account, respondents confused the “Charge” (excl VAT) and the “Amount” (incl VAT) columns. Without unit, the decimal point creates further confusion. For example, some respondents answered R521 instead of 5.21 as it appeared on the Pluto account.
3. On the Venus account, respondents confused “tariff” and “value”, probably because they are not very familiar with either of the two words. The five decimals (20.04000) used for the tariff structure does not add to the clarity of these amounts.
4. Respondents tended to give information in a larger font, bold, or in any other manner highlighted, as the answer when they were unsure of the answer.
5. Many respondents rounded off amounts.

---

##### 4.10.1 Aspects that respondents found difficult

Respondents experienced the following aspects difficult to understand:

- Numbers without unit: Consumers have great difficulty to recognise the unit of a number if it is not given. Both the Pluto and Venus accounts use numbers without indicating the unit with the result that meter readings were interpreted as amount or water consumption, and vice versa.
- The distinction between litre and kilolitre;
- Abbreviations and acronyms, particularly non-standard abbreviations such as “cons”, “w/consump”, “char”.
- Inconsistencies terminology such as “value”, “charge” and “amount”;
- “Balance brought forward” or “opening balance”;
- Comprehension of negative numbers was not tested in this survey, but we have tested this in consumer satisfaction studies (Slabbert 2005/2006/2007): consumers do not understand the meaning of negative numbers on accounts.

#### 4.11 Conclusions

The results of the survey confirmed Hypotheses 1 and 2, namely:

3. Consumers' understanding and perceptions of the sample accounts correlate with index scores on the Tool of Critical Analysis;
4. There is a correlation between
  - consumers' actual understanding of the sample accounts,
  - their perceptions of the clarity of language and ease to find information, and
  - their trust in the accuracy of these sample accounts.

Specifically, the results showed that:

1. The integrity of South African municipal accounts is in question. **35% of consumers' doubt the correctness of their municipal accounts.**
2. Understanding and ease to find information correlate with trust in the correctness of the information.
3. Although other aspects such as problems with service delivery might have impacted on the result, the results of the survey prove therefore that improvement of the clarity of accounts increases consumers' trust in the correctness of the information. This could be expected to impact also on consumers' willingness to pay for services.
4. **The ordinary South African consumer struggle to find basic information on municipal accounts**, such as the amount owed from previous months, the meter reading date, water use and Free Basic Water received:
  - a. It is common practice to use on accounts numbers without the unit (R or kl) as well as to include codes that are meaningless to consumers. Consumers have great difficulty to distinguish between numbers without units.
  - b. Consumers, especially those whose home language is not English, find acronyms and abbreviations difficult to decipher.
  - c. Consumers struggle to understand words commonly used on accounts, such as *arrears, remittance advice, rebate, consumption, opening balance, balance brought forward* and *previous*.
  - d. Consumers confuse litres and kilolitres. The survey confirmed that kilolitre is not understood well as a unit.
  - e. Consumers found it very difficult to work out from the sample accounts the quantity of water consumed, or the quantity of Free Basic Water that the household receives.
5. Even for Mars, there was a fall out of approximately 30-40% in LSM Groups 4 and 5. This implies that consumers in these LSM groups require some form of explanation or consumer training to understand their municipal accounts.
6. Understanding of the language on the accounts correlates with the home language of the reader. The fact that most accounts are in English only impairs understanding for the 90% of South Africans whose home language is not English.
7. Understanding correlates with LSM group. The lower LSM groups have more difficulties to understand their municipal accounts than the higher LSM groups.

8. Sex and age were in general not significant. Province, race and household income correlated with LSM group and were not significant on their own.
9. The high scores of Mars proved that **simple changes dramatically increase consumer understanding of municipal accounts**.
10. The results on the Tool of Critical Analysis were confirmed by consumers with two conditions:
  - a. The research confirmed that Information density impacts negatively on the understanding of an account if it is combined with low scores on language and layout. Readers find an account where a lot of information is squeezed into a small space, with no white space to guide the reader, very difficult to decipher. If the language and layout is clear, as in Mars, readers are able to find the same information easily. Criteria to this effect will have to be added to The Tool of Critical Analysis.
  - b. The use of codes, abbreviations and acronyms exacerbates understanding problems, particularly for non-English home language speakers.

#### 4.12 Recommendations

It is recommended that municipalities:

12. Assess their accounts with the Tool of Critical Analysis as explained in the Guideline document;
13. Make the necessary adjustments to improve the clarity of their accounts as required by legislation, and particularly by the Consumer Protection Act (68 of 2008). Simple changes can drastically increase clarity for the consumer;
14. Do not use an account that scores less than 7.5 on the Tool of Critical Analysis;
15. Use the model account as basis, since it has tested well with a broad spectrum of consumers;
16. Include on their accounts comparative consumption information and messages that will encourage consumers to save scarce resources ;
17. Use a two page account. The results indicate that a two page account with a summary on the first page and a detailed explanation of tariff structure, meter readings, etc. on the second page, or the back, is a much better option for the broad spectrum of consumers than trying to squeeze all the information onto one page;
18. Provide consumers in the lower LSM groups with education or explanatory information on “how to read your municipal account”;
19. Provide consumers with municipal accounts in their home language or their language of preference; and
20. Test the clarity of accounts with consumers. The research has shown that municipal officials who work with accounts every day do not know how well the consumers they serve understand these accounts.

Clear and understandable accounts for consumers are a legislative requirement, but it is also a very important mechanism to improve consumers’ trust in the correctness of the information that the

municipality has supplied, and the general integrity of municipal accounts. Improved consumer trust could have a significant impact on payment.



#### 4.13 References

Sarah Slabbert Associates. 2008. Water Services Barometer Study for Sigodi Marah Martin and the Water Research Commission.. WRC Report TT 353/08.

Sarah Slabbert Associates. 2005a. Customer Care and Protection study for Sigodi Marah Martin, DFID and the Department of Water Affairs and Forestry

Sarah Slabbert Associates. 2005b/2006/2007. Customer satisfaction surveys for a Water Services Provider. Unpublished.

South African Revenue Service. 2009. VAT Tax Invoices. <http://www.sars.gov.za/tools>.

SOUTH AFRICA. 2005. The National Credit Act 34 of 2005. Pretoria: Government Printer.

SOUTH AFRICA. 2003. The Department of Water Affairs and Forestry: The Strategic Framework for Water Services. Pretoria: Government Printer.

SOUTH AFRICA. 2000. The Municipal Systems Act 32 of 2000. Pretoria: Government Printer.

SOUTH AFRICA. 1997. Water Services Act 108 of 1997. Pretoria: Government Printer.

SOUTH AFRICA. 1991. Value added Tax Act of 1991. Pretoria: Government Printer.

SOUTH AFRICA. 2008. Consumer Protection Act 68 of 2008. Pretoria: Government Printer.

## 4.14 Appendices

### 4.14.1 Field report

#### Raw Score

	Venus	Pluto	Mars
<b>GENDER</b>			
Male	407	434	411
Female	421	418	426
	828	852	837
	2517		

<b>LSM</b>	Venus	Pluto	Mars
1		1	
2	8	4	11
4	76	72	72
5	116	134	119
6	258	237	219
7	158	141	167
8	102	107	119
9	63	76	80
10	23	61	32
	828	852	837
	2517		

<b>AGE</b>	Venus	Pluto	Mars
16	18	17	17
17	20	13	17
18-20	64	64	69
21-24	83	89	110
25-29	111	114	104
30-34	73	110	95
35-39	91	89	89
40-44	59	56	49
45-49	67	69	75
50-54	72	55	57
55-59	40	48	38
60-64	45	46	37
65-69	39	46	36
70 +	46	36	44
	828	852	837
	2517		

<b>RACE</b>	Venus	Pluto	Mars
Black	413	440	461
White	148	224	166
Coloured	175	116	134

#### Percentage

	Venus	Pluto	Mars
<b>GENDER</b>			
Male	16	17	16
Female	17	17	17

<b>LSM</b>	Venus	Pluto	Mars
1	0	0	0
2	0	0	0
4	3	3	3
5	5	5	5
6	10	9	9
7	6	6	7
8	4	4	5
9	3	3	3
10	1	2	1

<b>AGE</b>	Venus	Pluto	Mars
16	1	1	1
17	1	1	1
18-20	3	3	3
21-24	3	4	4
25-29	4	5	4
30-34	3	4	4
35-39	4	4	4
40-44	2	2	2
45-49	3	3	3
50-54	3	2	2
55-59	2	2	2
60-64	2	2	1
65-69	2	2	1
70 +	2	1	2

<b>RACE</b>	Venus	Pluto	Mars
Black	16	17	18
White	6	9	7
Coloured	7	5	5

Indian	92	72	76
Total	828	852	837
			2517

Indian	4	3	3
--------	---	---	---

#### 4.15 Details of the scoring of Pluto and Venus on the Tool of Critical Analysis

Municipal account analysis: Venus				
1	Clear and accessible language	Yes	No	Comments
1.1	Consistent terminology/information		0	<i>invoice/statement/account</i>
1.2	Understandable terminology/information		0	<i>basic/remittance advice</i>
1.3	No language errors or spelling inconsistencies		0	<i>electrici/charg/basic sewerage basic/NO/No</i>
1.4	No abbreviations or acronyms		0	<i>no/cnr/rd/@/char</i>
1.5	Symbols explained	N/A		
1.6	Unit of consumption ( <i>e.g. litres for water</i> )		0	
1.7	Unit of cost (Rand)		0	
1.8	Available not only in English		0	<i>English only</i>
	TOTAL	0	7	<b>OUT OF A POSSIBLE 9 MINUS NON APPLICABLES</b>
	INDEX SCORE	0.000		<b>DOUBLE WEIGHT</b>
2	Clear and accessible layout & design	Yes	No	Comments
2.1	Consistent font use (not more than two fonts)	1		
2.2	Printing is clear and in a legible colour		0	<i>Headings not clearly printed due to colour</i>
2.3	Avoid capital letters in text		0	
2.4	Font size not smaller than 10pt		0	
2.5	Total amounts clearly emphasised ( <i>e.g. larger font, bold</i> )	1		
2.6	Line spacing 1.15 or more		0	
2.7	Layout uncluttered ( <i>distinctive white space between paragraphs</i> )		0	
2.8	Layout uncluttered ( <i>functional use of white space</i> )		0	
2.9	Tables ( <i>row information matches column heading</i> )	1		
2.10	Tables ( <i>column headings emphasised</i> )	1		<i>Emphasis not clear</i>
2.11	Graphs ( <i>X and Y axis clearly defined and marked</i> )	N/A		
2.12	Graphs have headings	N/A		
	TOTAL	4	10	<b>OUT OF A POSSIBLE 12 MINUS NON APPLICABLES</b>
	INDEX SCORE	0.800		<b>DOUBLE WEIGHT</b>

3	Account as obligation to pay	Yes	No	Comments
3.1	Tariff structure (i.e. the basis for calculating the amounts due, including Free Basic Services where relevant)	1		
3.2	Opening balance	1		
3.3	Current balance		0	
3.4	Amounts credited or debited during period (e.g. payment received, or interest on arrears)		0	
3.5	Amounts currently overdue and when due	1		
3.6	Credit control measures (e.g. late payment charge/interest on late payments/cut off date)		0	
3.7	The words 'Tax Invoice'	1		
3.8	Name and address information of service provider	1		
3.9	Name and address of account holder	1		
3.10	Individual serialised number	1		
3.11	Date of invoice	1		
3.12	Description of goods or services supplied (e.g. water, electricity, municipal services too general)	1		
3.13	Quantity or volume of goods/services supplied (e.g. litres, or kWh)	1		<i>It looks as if there are two Fixed Charges for sewage</i>
3.14	Value of services (Rand amount for water, etc.)	1		
3.15	VAT amount	1		
3.16	Total amount including VAT for the supply	1		
	TOTAL	13	16	<b>OUT OF A POSSIBLE 16 MINUS NON APPLICABLES</b>
	INDEX SCORE	0.813		
4	Information related to the integrity of the invoice/bill	Yes	No	Comments
4.1	Tariff structure (i.e. the basis for calculating the amounts due, including Free Basic Services where relevant)		0	<i>so unclear that consumers will not understand</i>
4.2	Period of consumption covered in the bill		0	
4.3	Current and previous meter reading	1		
4.4	Distinction between estimated and actual meter readings		0	
	TOTAL	1	4	<b>OUT OF A POSSIBLE 4 MINUS NON APPLICABLES</b>
	INDEX SCORE	0.250		
5	Information aimed at water conservation and effective water services ,	Yes	No	Comments
5.1	Consumer's consumption history		0	
5.2	Compare consumer consumption with municipal average		0	
5.3	Water conservation information		0	

5.4	Contact information of customer care ( <i>not only general number</i> )		<b>0</b>	
5.5	A statement that the customer may contact the service provider about any billing or service problem, or for a delayed payment agreement		<b>0</b>	
	TOTAL	<b>0</b>	<b>5</b>	<b>OUT OF A POSSIBLE 5 MINUS NON APPLICABLES</b>
	INDEX SCORE	0.000		
	TOTAL INDEX	2.661		OUT OF 10

Municipal account analysis – Pluto				
1	Clear and accessible language	Yes	No	Comments
1.1	Consistent terminology/information	1		
1.2	Understandable terminology/information		0	<i>remittance advice/arrears/rebate /lifeline</i>
1.3	No language errors or spelling inconsistencies	1		
1.4	No abbreviations or acronyms		0	<i>curr/prev/cons/w/consump/R EB1/Readdt/</i>
1.5	Symbols explained	1		
1.6	Unit of consumption ( <i>e.g. litres for water</i> )	1		<i>kl</i>
1.7	Unit of cost (Rand)		0	
1.8	Available not only in English		0	<i>English only</i>
	TOTAL	4	8	<b>OUT OF A POSSIBLE 9 MINUS NON APPLICABLES</b>
	INDEX SCORE	1.000		<b>DOUBLE WEIGHT</b>
2	Clear and accessible layout & design	Yes	No	Comments
2.1	Consistent font use (not more than two fonts)	2		<i>bonus point for serif for text and Sans Serif font for headings</i>
2.2	Printing is clear and in a legible colour		0	<i>text printing not clear, part of letters missing</i>
2.3	Avoid capital letters in text		0	
2.4	Font size not smaller than 10pt		0	<i>7-8pt</i>
2.5	Total amounts clearly emphasised ( <i>e.g. larger font, bold</i> )		0	
2.6	Line spacing 1.15 or more		0	
2.7	Layout uncluttered ( <i>distinctive white space between paragraphs</i> )		0	<i>no space between services</i>
2.8	Layout uncluttered ( <i>functional use of white space</i> )		0	<i>large empty white space</i>
2.9	Tables ( <i>row information matches column heading</i> )	1		
2.10	Tables ( <i>column headings emphasised</i> )	1		
2.	Graphs ( <i>X and Y axis clearly defined and marked</i> )	NA		

11				
2. 12	Graphs have headings	NA		
	TOTAL	4	1 0	OUT OF A POSSIBLE 12 MINUS NON APPLICABLES
	INDEX SCORE	0.8 00		DOUBLE WEIGHT
3	Account as obligation to pay	Yes	N o	Comments
3. 1	Tariff structure ( <i>i.e. the basis for calculating the amounts due, including Free Basic Services where relevant</i> )	1		
3. 2	Opening balance		0	balance brought forward
3. 3	Current balance		0	
3. 4	Amounts credited or debited during period ( <i>e.g. payment received, or interest on arrears</i> )	1		
3. 5	Amounts currently overdue and when due (age analysis)	1		
3. 6	Credit control measures ( <i>e.g. late payment charge/interest on late payments/cut off date</i> )		0	
3. 7	The words 'Tax Invoice'	1		
3. 8	Name and address information of service provider	1		
3. 9	Name and address of account holder	1		
3. 10	Individual serialised number	1		not filled in??
3. 11	Date of invoice	1		
3. 12	Description of goods or services supplied ( <i>e.g. water, electricity, municipal services too general</i> )	1		
3. 13	Quantity or volume of goods/services supplied ( <i>e.g. litres, or kWh</i> )	1		
3. 14	Value of services ( <i>Rand amount for water, etc</i> )	1		
3. 15	VAT amount	1		
3. 16	Total amount including VAT for the supply	1		not clearly indicated that it is VAT included
	TOTAL	13	1 6	OUT OF A POSSIBLE 16 MINUS NON APPLICABLES
	INDEX SCORE	0.8 13		
4	Information related to the integrity of the invoice/bill	Yes	N o	Comments

4.1	Tariff structure (i.e. the basis for calculating the amounts due, including Free Basic Services where relevant)	1		
4.2	Period of consumption covered in the bill	1		
4.3	Current and previous meter reading	1		
4.4	Distinction between estimated and actual meter readings		0	
	TOTAL	3	4	<b>OUT OF A POSSIBLE 4 MINUS NON APPLICABLES</b>
	INDEX SCORE	0.750		
5	<b>Information aimed at water conservation and effective water services ,</b>	Yes	No	<b>Comments</b>
5.1	Consumer's consumption history		0	
5.2	Compare consumer consumption with municipal average		0	
5.3	Water conservation information		0	
5.4	Contact information of customer care ( <i>not only general number</i> )		0	
5.5	A statement that the customer may contact the service provider about any billing or service problem, or for a delayed payment agreement		0	
	TOTAL	0	5	<b>OUT OF A POSSIBLE 5 MINUS NON APPLICABLES</b>
	INDEX SCORE	0.000		
	TOTAL INDEX	4.804		OUT OF 10