

**MANGAUNG LOCAL MUNICIPALITY**

**FINANCIAL MANAGEMENT POLICY**

**WATER ESTIMATE POLICY**

**APPROVED JUNE 2011**

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## 1. DECLARATION OF INTENT

At its broadest level, the Municipal Finance Management Act No.56, 2003 endeavours “to secure sound and sustainable management of the fiscal and financial affairs of the municipalities and municipal entities by establishing norms and standards and other requirements”.

In particular Chapter 8 of the Municipal Finance Management Act No.56, 2003 places the onus on the accounting officer to manage the financial administration of the municipality and for this purpose to take all reasonable steps to ensure:

- that the resources of the municipality are used effectively, efficiently and economically and
- that full and proper records of the financial affairs of the municipality are kept in accordance with any prescribed norms and standards.

## 2. OBJECTIVE

The objective of the policy document is to ensure that water consumptions are reliably estimated when no meter readings are available for those meters where water consumption most probably did occur.

This policy document addresses the following areas:

1. What gives rise to an estimate being levied
2. When will estimates be levied
3. How estimates are calculated
4. Reasonability calculation for long outstanding estimates
5. Provision adjustment at year end

## 3. TERMINOLOGY AND DEFINITIONS

In this policy, unless the context indicate otherwise, a word or expression to which a meaning has been assigned has the same meaning and –

**Actual consumption** – means the measured consumption of any consumer.

**Average consumption/interim** - means the estimated average consumption of a consumer, per meter, over the last year.

**Consumer** – means

- a) Any person who occupies premises to whom, and in respect to which premises, the Municipality:
  - i. Has agreed to provide water services;
  - ii. Is actually providing water services;
  - iii. Has entered into an agreement with the Municipality for the provision of water services to or on any premises;
- b) The owner of any premises to which the Municipality is providing water services;

- c) Where water services are provided through a single connection to a number of accommodation units or consumers or occupiers, means the person to whom the Municipality has agreed to provide such water services; and
- d) Any end-user who receives authorised water services from the Municipality or other water service institutions.

**Consumer period** – means the period between successive monthly readings or reading estimates irrespective of the period between reading dates.

**Open Estimates** – Is all meters for which interims were levied during the year and at year end, no actual reading has been captured which means this is still an open estimate.

#### **4. SCOPE OF APPLICATION**

This policy directs those officers who are charged with accounting of water estimates, as well as those charged with the calculation of the year-end provisions.

#### **5. GOVERNING PRESCRIPTS**

- 5.1.** Municipal Finance Management Act
- 5.2.** Venus System: Meter Maintenance Manual
- 5.3.** Water Service By-Law
- 5.4.** GRAP 9: Revenue

#### **6. GUIDING PRINCIPALS**

Water Services Bylaw Paragraph 7(3): The Municipality may estimate the quantity of water services provided in respect of a period or periods within the interval between successive measurements and may charge a consumer for the services so estimated.

Venus Meter Maintenance Module (page 10):

The estimate will be levied in the absence of actual meter readings. These estimates will automatically be reversed once actual readings are received.

GRAP 9: Revenue:

Revenue should be recognised as follows:

Paragraph 20 - Rendering of services: When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction shall be recognised by reference to the stage of completion of the transaction at the reporting date. The outcome of a transaction can be estimated reliably when all the following conditions are satisfied:

- (a) The amount of revenue can be measured reliably.
- (b) It is probable that the economic benefits or service potential associated with the transaction will flow to the entity.
- (c) The stage of completion of the transaction at the reporting date can be measured reliably.
- (d) The costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

## **7. PROCEDURES**

Refer to Annexure A of the policy

- 7.1 When will estimates be levied to consumers
- 7.2 Timeframes for a billing run
- 7.3 Exception reports
- 7.4 Current calculation of water estimates
- 7.5 Venus module calculation of water estimates
- 7.6 Year-end adjustments on open water estimates with no actual readings
- 7.7 Year-end provision on actual and estimates

## **8 MANAGEMENT REPORTING**

A monthly report to the General Manager: Revenue Management should occur on all problems and progress regarding replacement of water meters.

## **9 IMPLEMENTATION AND REVIEW**

This policy is effective from 1 July 2009.

This policy shall be reviewed annually.

Procedures	Implemented	Source of Information	Time frame	Responsibility	Recommendation
	Yes/No				
<b>7.1) ESTIMATED LEVIES</b>					
Estimates will be levied in one of the following 3 circumstances: i) At initial setup of a meter/account in Venus a parameter is activated that will block the financial system (Venus) so that for a particular billing run it will not determine an estimate even if there is no actual reading for the meter, e.g. standing fire water meters.	Yes	Venus system	Monthly	Billing section	
ii) Manually by the Finance department with the review of exception report BP421 where they identify meters with zero consumption, but for which they can prove that there was water consumption, for example meters that are broken.	Yes	Venus system/Manual correction	Monthly	Billing section	
iii) In the absence of an actual meter reading due to one of the following reasons the financial system will calculate an estimate:	Yes	Venus system	Monthly	Billing section	
· <b>01</b> – Premises closed					
· <b>02</b> – Dangerous dogs					
· <b>03</b> – Meter out of order (reported)					
· <b>04</b> – Weather conditions					
· <b>05</b> – KVA less than 80% of average					
· <b>06</b> – Full of water					
· <b>07</b> – Bees or ants					
· <b>08</b> – Entrance refused					
· <b>09</b> – Soil, plants or grass – reported					
· <b>10</b> – Building material, refuse					
· <b>11</b> – Sprayers open					
· <b>12</b> – Covered by vehicle					
· <b>13</b> – Leakage					

<ul style="list-style-type: none"> <li>• <b>14</b> – Road impassable</li> <li>• <b>15</b> – Reading verified</li> <li>• <b>16</b> – Due to other circumstances</li> <li>• <b>17</b> – Meter face misstated</li> </ul>							
iv) These estimates will automatically be reversed by the financial system once actual readings are received.			Yes	Venus system	Monthly	Billing section	
<b>7.2 TIME FRAMES FOR A BILLING RUN</b>							
i) All actual meter readings as per cycle need to be captured by the dates as stipulated below and will be adjusted accordingly to make provision for days that fall within weekends:			Yes	Meter reading books	Monthly	Financial systems: Data Typists	
<b>CYCLES</b>	<b>DUMMY RUN</b>	<b>LIVE RUN</b>					
100	15 <sup>th</sup> day of the month	16 <sup>th</sup> day of the month					
101	17 <sup>th</sup> day of the month	18 <sup>th</sup> day of the month					
102	18 <sup>th</sup> day of the month	19 <sup>th</sup> day of the month					
103	19 <sup>th</sup> day of the month	22 <sup>nd</sup> day of the month					
104	22 <sup>nd</sup> day of the month	23 <sup>rd</sup> day of the month					
105	23 <sup>rd</sup> day of the month	24 <sup>th</sup> day of the month					
ii) The Finance department: Billing need to communicate to the data typists responsible for capturing, the applicable time frame for each of the water meter cycles to ensure that all the meter readings are captured in time (see procedure 6.2 for dates)			No	Venus	Monthly	Department Finance: Billing	To be followed up with data typist on controls to ensure all meter books have been captured
<b>7.3 EXCEPTION REPORTS</b>							

The following exception reports should be run and reviewed on a monthly basis for each billing cycle before the dummy billing run (BM30) is done:	Yes				Snr Accountant Billing
<b>7.3.1 Report BP421 (Meter reading deviations)</b> - all meter reading exceptions and deviations, that include the following output reports:	Yes	Venus system	Monthly before billing cycle	Department Finance: Billing and Department Infrastructure	
1) Report to list all deviations with remarks on readings uploaded	Yes				
2) Report to list all normal deviations without reading remarks (those not listed on 1 <sup>st</sup> report)	Yes				
3) All no readings (RRR)	Yes				
4) All zero consumptions where the current and previous readings are the same and both are read type "3" reports	Yes				
5) Report to list all meters that have BG305 interims greater than 1. Will be used to do maintenance to prevent high levies	Yes				
6) The report to list all possible interim reversals (read-type 3) received for this period	Yes				
7) Report to list all possible interims to be levied for this period	Yes				
<b>Procedures to be executed on this report:</b>					
<ul style="list-style-type: none"> <li>· All deviations and exceptions should be identified on this report. It should be investigated, adjustments made and properly documented.</li> <li>· The report with all the proposed changes/adjustments should be signed by the Manager: Billing as evidence of review.</li> </ul>	Yes	Venus system	Monthly before billing cycle	Billing section	

<p>· All reports should be filed with the supporting documents for audit purposes.</p>					
<p><b>7.3.2 Report BP405</b> – Meters with zero consumption that have interims/estimates for longer than 5 months.</p>		<p>Venus system</p>	<p>Monthly before billing cycle</p>	<p>Billing section</p>	<p>1) Report BP405 be reviewed by the senior accounting officer whereby she indicates which of these meters are valid standing meters.</p>





					review
· The report should be signed by the Manager: Billing as evidence of review.	No				
<b>7.3.4 Report “Interim Ind_water” for all meters setup not to estimate if there is no actual reading</b>	No	Venus	Monthly	Department Finance: Billing	
A system extract named “Interim Ind_Water” (Meters with no actual readings or estimated consumption)					1) The report which show all accounts that is set up not to calculate an interim to be investigated and reviewed by manager: Billing to ensure accuracy and completeness of water estimates
· This extract should be drawn by the Manager: Billings on a monthly basis					
<b>Procedures on this report</b>					
1.) All meters appearing on this report should be investigated and the setup of water meters appearing on this report should be changed to enable the system to estimate consumption on these water meters during the month when no actual meter reading is taken	No				
· Notes should be made on the report as to whether or not the setup was changed to allow for estimates	No				
· The report should be signed by the Manager: Billings as evidence of review.	No				
2.) The staff responsible(data typists) for the capturing of water meter readings need to make sure of the following:	Yes	Venus	Monthly	Department Financial systems:	1) The standing meters with water consumption should be marked in the financial system in order to lower the risk of human error in the manual process. Its possible that the senior accounting officer miss a standing meter for which a interim were levied the previous month,
i) All meter readings where no actual readings exist need to be identified in the financial system (venus) by capturing a “01” type in the applicable field, which will enable the system to calculate an interim for the specific meter/account.				Data processing department	

ii) Where an actual meter reading was available the data typist need to capture a type“03” in the applicable field which will mean that no interim/estimate will be levied as the actual meter readings is available.					this will result in the system using the actual reading (even if the same as previous month) and automatically reverse the interims levied.
<b>7.4 CURRENT CALCULATION OF WATER ESTIMATES</b>					
<b>7.4.1 Information</b>					
Estimates are calculated by dividing the total measured consumption of water by that consumer –  (a) During the preceding three months by three; or (b) During the corresponding period in the previous year by three; or	Yes	Venus system	Monthly	Department Finance: Billing	1) The calculation of the water estimate should be done as per the Venus manual
(c) During the following three months by three.					
Estimates on the Bloem CC financial system, per meter number, was carried over to the Venus financial system at take-on of the Venus system on 1 July 2005.	Yes	BloemCC to Venus 2005	Take-on	Department Finance: Billing	
<b>7.4.2 Calculation</b>					
New estimates are calculated or changes are made to the estimates carried over from the Bloem CC financial system in four instances:  (a) New meter is installed (b) New meter is installed and there has been a meter on the premises before (c) Consumer queries the estimates used on the account (d) Municipal officials identify a significant deviation between the actual readings and the estimate	Yes	Manually on the Venus system	Monthly	Department Finance: Billing	2)Report “BG310” needs to be updated periodically to update the consumption profile of a particular debtor thereby enabling the system to generate a reliable and accurate consumption pattern, which will be utilised by the system in the month when the debtor is billed, based on

<p>The report should be signed by the Manager: Billings as evidence of review.</p> <p>Estimate/average is calculated by venus whereby the system allows you to change the estimate calculated by venus this will then be changed to estimate as calculated by MLM based on the explanation as per above procedure.</p>				<p>estimated consumption.</p>
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<b>7.4.3</b> <b><u>Reports available</u></b>					
<b>BG305</b> – Water and electricity interim maintenance	Yes	Venus system	Monthly	Department Finance: Billing	
This function enables the municipal official to maintain interim consumptions for debtors per meter. The interim amount may be modified and then updated at the municipal officials' request					
<b>7.5 VENUS CALCULATION OF WATER ESTIMATES - HOW ESTIMATES SHOULD BE SET UP TO BE CALCULATED (TO BE IMPLEMENTED)</b>					
<b>7.5.1</b> <b><u>Information</u></b> Estimates are based on the last year's actual (type 3) meter readings. Out of these actual readings an estimate is calculated separately for summer and winter months.	No				1) Report "BG310" needs to be updated urgently.
<b>7.5.2</b> <b><u>Calculation</u></b> Each month in the calendar year is linked to one of two seasons, winter or summer. The system determines which months out of the last years' actual readings are summer months and which are winter months. To calculate the estimate for summer months the actual readings, out of the last years' actual readings, which are for summer months are added together and divided by the number of summer months in the last year's actual reading months. The estimate for winter months is calculated in the same way.	No				2) Run Batch report "BG315" a work file which could be used by MLM to determine what the impact will be of updating BG310 periodically
<b>7.5.3</b> <b><u>Reports available</u></b>					
<b>BG305</b> – Water and electricity interim maintenance	Yes				

<p>This function enables the municipal official to maintain interim consumptions for debtors per meter. The interim amount may be modified and then updated at the municipal officials' request.</p>					<p>3) All the adjustments made to estimates/averages calculated by the system be logged and reviewed by the Finance: manager Billing</p>
<p>MLM must monthly run Report "BG305". The purpose behind the running of this report is to periodically update all modified interim amounts per meter.</p>					
<p><b>BG310</b> – Batch update water and electricity interim consumption</p> <p>This function enables the municipal official to issue a request for the updating of water interims in a batch.</p>	<p>No</p>				<p>4) Report BG310 must be updated monthly in the venus dummy for venus to be able to calculate an accurate interim/estimate</p>
<p>MLM must periodically run Report "BG310". The purpose behind the running of this report is to periodically update the consumption profile of a particular debtor thereby enabling the system to generate a reliable and accurate consumption pattern, which will be utilised by the system in the month when the debtor is billed, based on estimated consumption.</p> <ul style="list-style-type: none"> <li>- This report need to be reviewed by manager billing for reasonableness of estimates calculated by the system</li> <li>- The reviewed report need to be signed and filed.</li> </ul>					
<p><b>BG315</b> – Batch work file water and electricity interim consumption</p> <p>This function is basically the same as the BG310 function with the difference being that this function will not update interim consumptions, it will produce a report / work file with the information.</p> <p>The function can be run to produce a report or to create a</p>	<p>No</p>				<p>5) Run Batch report "BG315" a work file which could be used by MLM to determine what the impact will be of updating BG310 periodically</p>

<p>report and update the interims. The report that will be generated provides for a run-parameter of a % deviation. This % deviation is based on the difference between the current average and the newly calculated average.</p>					
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7.6 YEAR END ADJUSTMENTS ON OPEN WATER ESTIMATES WITH NO ACTUAL READINGS					
<i>Information</i>					
The Municipality should process an adjustment at year end based on the outcome of a reasonability test performed on the meters for which estimates were levied but no actual reading was available for the 12 month period.	Not yet, considered for 2010 year-end				
<i>Calculation</i>					
The average actual consumption per debtor type for the year should be calculated, as this will be the most reliable information available to re-perform the calculation for these estimates that were levied for the meters with no actual readings for the 12 month period. A year end adjustment should be processed for the difference.					
<b>Procedures:</b>					
1.) Obtain a list of all open water estimates as per 30 June:  a) As minimum should include the following: i) Account number ii) Meter number iii) Code/Reason for estimate iv) Date of last meter reading and last meter reading Prepare a list from the information above that includes only the meters where estimates/interims were levied for 12 months and longer.	No	Venus	Yearly	Department Financial systems	1)The department financial systems and BCX assist with the gathering of the information for the reasonability calculation on the open estimates
2.) Obtain the sheet with all the transaction that were levied on the actual readings for the 12 month period ending 30 June:  b) As minimum should include the following:	No	Venus	Yearly	Department Financial systems	



i) Account number					
ii) Meter number					
iii) Debtor type					
iv) Date of last meter reading and last meter reading					
v) Meter reading (Current & previous)					
vi) Consumption (Current & average)					
3.) Obtain report BP405 that list all meters with zero consumption for longer than 5 months. <ul style="list-style-type: none"> <li>· Identify all meters with zero consumption for which interims/estimates were levied.</li> </ul> 4.) Obtain report BP432 that list all meters for which interims/estimates have been levied for longer than 5 months. <ul style="list-style-type: none"> <li>· Identify all meters that have interims for longer than 12 months.</li> </ul> Compare this with the data obtained in step 1&2	No	Venus	Yearly	Department Financial systems	
5.) Calculate the average actual consumption per debtor type for the year based on the information obtained in step 2.	No	Venus	Yearly	Department Finance: Billing	
6.) Recalculate the list of estimates with no actual readings by applying the average actual consumption as calculated in step 2 to calculate a new estimate based on the average for all the estimates with no actual readings for the year.	No	Venus	Yearly	Department Finance: Billing	
7.) Proof that there was water consumption on estimates with no actual readings for 12 months by comparing if electricity were consumed for that specific address.	No	Venus	Yearly	Department Finance: Billing	1) Need to identify all accounts/meters for which no actual readings existed for the past 12 months for which a interim were levied.

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Effective date: 1 July 2011

Reviewed date: Annually

					2) Need to proof that these meters have to be levied by comparing per address if there was electricity consumption as the auditors are of opinion that these meters that has been estimated for 12 month or longer should have a zero estimate.
8.) Calculate the total over/(under) estimated water income for the current year. Subtract the average actual consumption per debtor type as calculated in step 6 from the estimates with no actual readings for 12 months see step 1.	No	Venus	Yearly	Department Finance: Billing	
9.) Prepare the journal for the year end correction to water income due to the over / (under) estimated water income. Date of journal is 30 June  a. If the amount calculated in step 7 indicates that water income is understated, the effect of the calculation be corrected with a jnl by finance at year end. i. Debit: 1076-03-2-10-1115 (Sale of water) ii. Credit: 9000-05-5-31-0130 (Sundry debtors R&G) iii. Journal description: Correcting the understatement of water estimates as at year end b. If the amount calculated in step 13 indicate that water income is overstated i. Debit: 9000-05-5-31-0130 (Sundry debtors R&G) ii. Credit: 1076-03-2-10-1115 (Sale of water) iii. Journal description: Correcting the overstatement of water estimates as at year end <b>(only on AFS, not on debtors books)</b>	No	Venus	Yearly	Department Finance: Billing	

10.) Documentation supporting the journal should be attached to the journal. This include: a. Calculation from step 1 to step 7 b. Document describing what information was used and how the information was obtained	No	Venus	Yearly	Department Finance: Billing	
11.) This journal should be authorised and signed by the Manager: Finance before it is captured on the financial system (venus)	No	Venus	Yearly	Department Finance: Billing	

<b>7.7 Year end provision</b>					
1.) Obtain a list of billings in July of the next financial year a. As a minimum the list should include the following i. Account number ii. Meter number  iii. Date of meter reading in July of the next financial year (if no actual reading was made indicate as such)  iv. Date of last meter reading before July of the next financial year  v. Total levy in July of the next financial year	No	Venus	Yearly	Department Finance: Billing & IT	The information required for the provision calculation be prepared by Department financial systems (Mr K de wet) and BCX (Conrad)
2.) Obtain a list of billings in June of the current financial year a. As a minimum the list should include the following i. Account number ii. Meter number iii. Date of meter reading in June and the actual reading iv. Date of last meter reading v. Total levy for June of the current financial year	No	Venus	Yearly	Department Finance: Billing	
3.) Calculate the number of days by calculating the number days from the last billing date in June of the current financial year up to 30 June.	No	Venus	Yearly	Department Finance: Billing	

4.) Multiply the number of days calculated in step 10 per meter by the water tariff for the applicable year.	No	Venus	Yearly	Department Finance: Billing	
5.) Prepare the journal for the year end provision to water income Date of journal is 30 June	No	Venus	Yearly	Department Finance: Billing	
a. The amount as calculated in step 1-5 indicates the amount to be provided					
i. Debit: xxxxxx ii. Credit: xxxxxx iii. Journal description: Provision for water income as at year end					
6.) Documentation supporting the journal should be attached to the journal. This include:  a. Calculation from step 1 to step 5  b. Document describing what information was used and how the information was obtained	No	Venus	Yearly	Department Finance: Billing	
7.) This journal should be authorised by manager: Finance before it is captured the financial system (venus), signed and filed for audit purposes.	No	Venus	Yearly	Department Finance: Billing	
8.) Prepare the journal to reverse the year end provision that was made. <b>Date of journal is 1 July</b>  a. Reversal journal if year end provision journal was step 6 i. Debit: xxxxxx ii. Credit: xxxxxx iii. Journal description: Reversal of provision for water income as at year end	No	Venus	Yearly	Department Finance: Billing	

The original provision calculation and the jnl be attached to the reversal as support for audit purposes.					
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<b>7.8 Management Reporting</b>					
<b>Monthly reporting to the General Manager: Revenue Management should occur on the following matters:</b>					
<b>7.8.1 BG310 (Batch update water and electricity interim consumption )</b>					
The report is required to be run and printed on a monthly basis after the last billing run of the month  Register should be kept for the run and update of report 10 that include the following: § by whom the report was updated, § what day the report was updated and § a signature of a witness to the update of the report					
<b>7.8.2 BP432 (Interims for 5 months or more)</b>					
Refer to section 7.3.3 above.					
<b>7.8.3 A system extract named "Interim Ind_Water" (Meters with no actual readings or estimated consumption)</b>					
Refer to section 7.3.4 above.					
<b>7.8.4 BP405 (Interims for 5 months or more on meters with zero consumption)</b>					
Refer to section 7.3.2 above.					