

LAKE VICTORIA WATER & SANITATION INITIATIVE FAST TRACK CAPACITY BUILDING PROGRAMME

ILLEGAL USE REDUCTION OPERATIONAL MANUAL

#

Prepared by:

NWSC- External Services, Uganda

July 2008





Preamble

This manual is specifically meant to provide a basis for establishing and institutionalizing an Illegal Use Reduction Unit (IURU). The main objective is to reduce illegal water consumption through proactive, effective and comprehensive identification and investigation of illegal water consumers in the water supply areas. It is also meant to devise and establish mechanisms that will compel the identified illegal consumers to desist from reverting to bad practices of illegal consumption. The unit shall be dedicated to tasks on the systematic detection and handling of illegal use consumers, which shall result in the overall improvement of Unaccounted for water (UFW).

The manual highlights the procedures/guidelines on how to detect various categories of illegal connections. The templates for documentation of illegal connection operations are included in this manual to guide the staff in effective documentation and monitoring of tasks. The system of control and amendment to the procedures shall also be highlighted to ensure streamlined operations and implementation of the designed system. It is recommended that the manual be circulated to all staff and Supervisors in the illegal use reduction unit

Table of Contents

Preamble	
Table of Contents	i
Table of Figures	i\
Table of Plates	iv
Amendment Procedure	\
Circulation and Control	V
Key Definitions	vi
CHAPTER ONE	
Introduction	
1.0 Background	
1.1 Rationale	
1.2 Scope and Objectives	
1.3 Manual outline	
CHAPTER TWO	
Operating Procedures	
2.0 Benefits of Institutionalizing an Ilegal Use reduction	
2.1 Categories of Illegal Usage Cases	
2.1.1 Meter By - Pass	
2.1.2 Illegal Connection	
2.1.3 Illegal Reconnection	
2.1.4 Fetching water at a point before the meter	
2.1.5 Meter reversal	
2.1.6 Meter Tampering	
2.2 Practical reduction of Illegal Use of Water	
2.2.1 Institutionalizing an Illegal Use Reduction Unit.	
2.2.2 Illegal Use Reduction Policy	
2.2.3 Publicity and Amnesty	
2.2.4 Reward mechanism for informers	
2.2.5 Fines	
2.2.6 Payment Agreements	
2.3 Identification and investigation of Illegal Use Case	
2.3.1 Procedures for identification and investigation of	
2.3.2 Procedures for the identification and investigati	
2.3.3 Procedures for the identification and investigati	<u> </u>
2.3.4 Procedures for the identification and investigati	on of fetching before the Meter
13	an of Matan navanal 46
2.3.5 Procedures for the identification and investigati	
2.3.6 Procedures for the identification and Investigati	
2.4 Steps to be taken for illegal cases identified	
2.5 Technical corrective or preventive interventions for	
3.5.1 Meter By pass	
2.5.2 Illegal Connection	
2.5.3 Reconnection	
2.5.4 Fetching before the meter, meter reversal and	meter tampening1 <i>1</i>

СНА	PTER THREE	18
	Result Areas and Performance Indicators	
3.0	Key Result Areas	18
3.1	Performance Indicators	18
3.2	Monitoring and Evaluation of Indicators	
СНА	PTER FOUR	20
Reg	uirements	20
4.1 .	Equipment	20
4.2	Human Resource	20
4.2	2.1 Skills	20
	2.2 Responsibilities	
APP	ENDICES	22
	ENDIX 1 – ILLEGAL CONNECTION FORM USED IN NWSC KAMPALA WATER	
	ENDIX 2 – MONTHLY REPORT	

Table of Figures	
Figure 1: An illustration of a meter by pass	5
Figure 2: Sketch showing a typical meter by pass	12
Figure 3: Flow chart for procedures for identifying a meter b	by pass or illegal connection
	14
Figure 4: Example of a sample form for illegal use	16
Table of Plates	
Plate 1: Examples of meter by passes in the field	5
Plate 2: An illegal connection made onto the network	6
Plate 3a: A connection that allows a customer to fetch water	er before the meter and b)
An example of what a reversed meter shows	7
Plate 4: Typical example of a suspected illegal connection.	13
Plate 5: Example of a meter that has been reversed	

Amendment Procedure

It is recommended that the procedure stipulated in the manual is followed by the staff and Supervisors in carrying out investigations for illegal use reduction. Compliance with the procedure will ensure consistency, efficiency and effectiveness in carrying out the investigations and accordingly target efforts in the most prone areas for the overall improvement of performance.

Where amendments to the manual are to be effected, the proposed amendment should be presented and discussed in a workshop consisting of all Managers of the utility. Once the proposed amendment is confirmed genuine and justified, the amendment is sanctioned and the updated manual produced. The updated manual is circulated to all staff and Supervisors to ensure they implement the new procedures. The staff shall also be sensitized on the new procedures and the justification for the amendments, to ensure common understanding and sense of direction.

Circulation and Control

This manual should be widely circulated to ensure that all staff and Supervisors involved/working in concerned Departments/Sections receive a copy for their review and implementation. Wide circulation of the manuals shall ensure accountability and sense of ownership of the procedures and increase its effectiveness and streamlined system of operations.

However, there is need to have a certain level of control on the persons receiving the copies to minimize abuse and cost of production of the copies.

Key Definitions

Water Losses

The difference between System Input and Authorized Consumption. Water losses can be considered as a total volume for the whole system, or for partial systems such as transmission or distribution schemes, or individual zones. Water Losses consist of Physical Losses and Commercial.

Commercial Losses

- Includes all types of inaccuracies associated with customer metering as well as data handling errors (meter reading and billing), plus unauthorized consumption (theft or illegal use).
- Commercial losses are at times called Apparent Losses or Non-Technical Losses.

Un Authorized Consumption

- Any unauthorized use of water. This may include illegal water withdrawal from hydrants (for example for construction purposes), illegal connections, bypasses to consumption meters or meter tampering.
- Un Authorized consumption of water is what is popularly known as illegal Usage of Water

CHAPTER ONE

Introduction

1.0 Background

In March 2004, UN HABITAT in association with the Governments of Kenya, Tanzania and Uganda launched the Lake Victoria Region Water and Sanitation Initiative (LVWATSANI) to address the water and sanitation needs of the people particularly the poor in the secondary towns around Lake Victoria. The Lake Victoria Region Water and Sanitation Initiative (LVWATSAN) has been designed to achieve Millennium Development Goal (MDG) targets for water and sanitation in small urban centers, taking into account the physical planning needs of these urban centers together with attention to drainage and solid waste management as an integral part of environmental sanitation. The initiative has a clear pro-poor focus and is intended to generate desirable outcomes that have a lasting effect on the poor. Amongst the outcomes is institutionalized capacity building programmes to ensure sustainability of water supply systems.

A Capacity Building Workshop was held at the UN HABITAT Headquarters in Gilgiri from 16th - 18th October 2006, organized by UN HABITAT with the aim of identifying capacity building activities required to support and sustain infrastructure investments under LVWATSAN. The Workshop brought together over 80 participants drawn from Ministries of Water, local authorities; water and sanitation service regulators and providers; private sector; Nongovernmental organizations; Community-based Organizations and international and regional experts. As part of the deliberations, a fast track capacity building programme was identified as an urgent necessity to ensure that the necessary capacity is in place to effectively manage and operate the expanded water and sanitation systems.

UN HABITAT identified, the National Water and Sewerage Corporation (NWSC) through its External Services Unit as a suitable partner with potential, experience within the region and competence to carry out the fast track capacity building programme. As such, UN HABITAT under a cooperation agreement contracted NWSC ES to take on the consultancy services in this regard. The NWSC was tasked with developing training modules and a comprehensive training programme that would result in: improved sustainability of the investments in each of the utilities, predicated on adequate cost recovery systems; an expansion of the revenue base;

improved customer relations as well as more effective operational systems geared at reduction of unaccounted for water.

As a beginning, five towns around Lake Victoria region i.e. Kisii and Homa Bay in Kenya, Muleba and Bukoba in Tanzania, and Kyotera in Uganda were selected as the ideal towns. However at the inception of implementation, Kyotera in Uganda was not included as the issue of its management is yet to be sorted out by the Directorate of Water Development (DWD), Uganda. NWSC ES sent an expert team (ET) during the period 11th – 29th June 2007 to carry out a situational analysis and training needs assessment. The team visited the towns of Muleba and Bukoba between 11th – 15th June 2007 and Homa Bay and Kisii between 25th and 29th June 2007.

Based on the findings of the training needs assessment, the NWSC ES services developed a fast track training and programme for change agents in the above towns. The training of the change agents was successfully conducted for a period of six days at NWSC, Uganda. The training covered the priority areas of Billing & Revenue Collection, Water demand management focused on unaccounted for water, customer care and preparation of performance improvement programmes. The training was conducted using a mixture of approaches including presentation, case studies, field work and attachment to specific functional Departments. This was done to ensure that the participants receive an all round training to maximize on its benefits.

As part of the Terms of Reference (TOR), the NWSC ES also held 3-day workshop for all management and staff in each of the selected towns during which, Performance Improvement Programmes (PIPs) were prepared using a participatory management approach.

The NWSC subsequently carried out tailor made on-job training covering functional areas of billing, customer, revenue management and reduction of unaccounted for water with specific attention paid to water audits, illegal water use and leakage control. One of the key outputs of the on-job training and the Cooperation Agreement is the preparation operational manual. **THIS PARTICULAR MANUAL IS ONE FOR SYSTEMATIC ILLEGAL USE REDUCTION.**

1.1 Rationale

The rationale for preparation of the manual is to have documented and streamlined procedures for implementation of activities. The documented procedures are to ensure that staff carry out their roles and responsibilities with minimum supervision and new staff quickly cope up with the requirements for their jobs. This conforms with the overall water sector perspective of designing and implementing Quality Management Systems (QMS).

1.2 Scope and Objectives

The scope of this illegal use reduction manual shall cover all the different categories of illegal connections normally found in consumer premises and the procedures/guidelines for their investigations and identification.

The objectives of the Illegal Use Reduction Unit include the following:

- (i) To reduce illegal consumption through proactive, effective and comprehensive identification & investigation of illegal water consumers in the water supply area(s).
- (ii) To devise and establish mechanisms that will compel the identified illegal consumers to desist from reverting to the bad practices of illegal consumption.
- (iii) To maximize collection of fines that has been levied on the identified illegal consumers.

1.3 Manual outline

Chapter one entails the background, rational, scope and objectives of the manual. It also explains the circulation, control of the manual and a manual amendment procedure.

Chapter two details the operating procedures which is the main purpose of this manual.

Chapter three entails the key result areas and the performance indicators that help the management to set realistic targets for the implementing team, and aid decision making as well.

Chapter four details the logistics required for implementation, this also includes the human resource, equipment and or skills and abilities required for the key team.

CHAPTER TWO

Operating Procedures

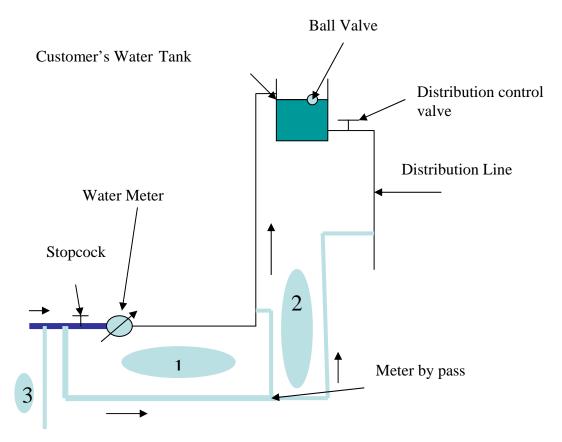
2.0 Benefits of Institutionalizing an Ilegal Use reduction Unit

- 1. Reduction of illegal consumption reduces Non Revenue Water
- 2. Reduced Operational costs—less chemicals and electricity optimized production
- 3. More water availed for legal consumption.
- 4. Increased revenue through the fines levied on the identified illegal consumers.
- 5. Better Planning Reliable demand projections
- 6. Optimized operation of the distribution system

2.1 Categories of Illegal Usage Cases

2.1.1 Meter By - Pass

- The consumer is a customer, with a meter.
- The customer has an alternative pipe taping water before the meter. This water may simply by pass the meter to roof tank (1); Direct to the house (2); to the garden or a combination of two or the three cases (see Figure 1).



To Garden/Yard Tap

Figure 1: An illustration of a meter by pass



Plate 1: Examples of meter by passes in the field

2.1.2 Illegal Connection

- The consumer is not even a customer to the water supply system.
- They have simply connected themselves to the network (Plate 2)



Plate 2: An illegal connection made onto the network

2.1.3 Illegal Reconnection

The customer has been disconnected for non-payment, but they go ahead and reconnect themselves to the network.

2.1.4 Fetching water at a point before the meter

The customer consumes water that is not metered by closing the stop cork, removing the meter then they connect a horse pipe to the network and fetch water. After they have fetched water they return the meter (Plate 3).

2.1.5 Meter reversal

The customer installs the meter in reverse order so that it counts backwards to a desired reading. When satisfied they turn the meter to the correct position. Meter reversal may entail reversing the meter readings manually.

a) b)



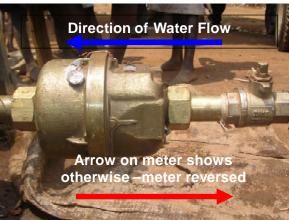


Plate 3a: A connection that allows a customer to fetch water before the meter and b) An example of what a reversed meter shows

2.1.6 Meter Tampering

The customer intentionally corrupts the meter so as to affect its efficiency. This may include; reducing or distorting mechanical gears, boiling meter so as to melt internal components, breaking meter reading glass, introducing impurities etc.

2.2 Practical reduction of Illegal Use of Water

2.2.1 Institutionalizing an Illegal Use Reduction Unit

The first step in addressing illegal usage of water is institutionalizing an illegal use reduction frame work. The procedures that can be adopted to institutionalize the framework include:

2.2.2 Illegal Use Reduction Policy

Develop an Illegal Use Reduction Policy. The Top management together with the technical team should develop this policies / stand of the water supply system concerning illegal usage of water.

For instance it is illegal for any consumer to;

- By pass a meter,
- Reconnect themselves if disconnected due to non payment
- Reverse a water meter

- Tamper with any meter (If a customer feels that a meter is not functioning well) they should simply report the matter to the service provider. The service provider shall not be liable for any meter tampered with by any body other than the authorized staff
- Connect themselves to the network (illegal connection)
- The penalties should as well be defined for instance if caught with any offence you will be charged 200Dollars as a fine, in addition customers will pay
 - 100 Dollars if the offence is an illegal connection,
 - o 70 Dollars if it's a reconnection offence,
 - o 150 Dollars if the customer tampered with or reversed the meter,
 - An equivalent of 12 month average consumption if the offence is a meter by pass and
 - An equivalent of 24 month of estimated average consumption if the offence is illegal connection

The policy has to be very clear and practical. Also not that the fines should be a little high (In Uganda the fine is about 200 dollars) because a fine is supposed to be a deterrent (to prevent people from doing wrong, otherwise if it is low people will not be scared as they can easily pay if caught.

2.2.3 Publicity and Amnesty

Publicity

After developing a policy, it is important to notify the public about your position as a water service provider on the issue of illegal use of water. This can be done through all the modes of communication i.e. Radio announcements, public gatherings, news papers and distribution of fliers.

Amnesty

After the community has understood your position on illegal usage, the next stage is to start cleaning up. The number of people of illegal cases may be so many that dealing with each of them legally may be uneconomical.

Amnesty is therefore paramount at this stage. An **amnesty period of three month is realistic**, during which customers who declare that they have illegal connections will not be penalized. For instance give the following conditions, the customers can be advised to:-

- i. Illegal Connection Apply for a new connection, avail all necessary documents and then we shall formalize the connection.
- ii. Illegal reconnection you will be excused from the fines you will simply clear your water bill to zero
- iii. Meter By Pass We shall simply remove the meter by pass (But relocate the meter to out of the premise if safe or close to the perimeter wall to minimize the temptation)
- iv. Meter tampering you will pay a small fee for replacement of the meter (Quote the cost of the meter)
- v. Meter reversal and fetching before the meter We shall correct the meter position (But remove stop cork for such a customer as well) Stop corks give the customers ample time to close off water, remove and reverse meters and or fetch before the meter

Ensure that the publicity is sound so that information reaches the entire service area for positive results.

2.2.4 Reward mechanism for informers

Once the amnesty period expires, it is important to start the hunt. Much as the sole responsibility of tracing for illegal cases falls on the illegal use reduction team, they can never comb the entire area. Informers are handy when it comes to reporting these cases.

A clear reward mechanism should be put in place. A provision of funds should be put in place preferably in form of replenish-able imprest to facilitate quick payment of rewards. Note that the informers are simple people who need cash, so be sure to have cash for them at all times (The given sum arrived at from experience should be available)

2.2.5 Fines

The penalties should as well be defined for instance if caught with any offence you will be charged 200 US \$ (United States Dollars) as a fine, in addition customers will pay

- 100 US\$ if the offence is an illegal connection,
- o 70 US\$ if it's a reconnection offence,
- 150 US\$ if the customer tampered with or reversed the meter,
- An equivalent of 12 month average consumption if the offence is a meter by pass and an equivalent of 24 month of estimated average consumption if the offence is illegal connection

Note that estimation of consumption should be objective; otherwise you may end up with a lot of uncollected fines/revenue.

2.2.6 Payment Agreements

Where customers can not pay off fines at once, agreements should be signed with the culprits with clear install payments on monthly basis. The monthly amount should be realistic otherwise the system will be frustrated since the customer in addition has to pay for the current consumption.

The date for the monthly payment (e.g. every 30th day of the month) should be indicated as well in the agreement for proper monitoring of the system. To enhance monitoring of the install payment, a computerized system should be designed to ease verification on regular basis (daily or weekly)

2.3 Identification and investigation of Illegal Use Cases

Before carrying out any investigation, information concerning the pipe network is very important. Have as much information about the network as possible, otherwise you might waste valuable time if you are not investigating from a known point. To ease your/cut down on the number of accounts to visit, ensure that you have helpful lists such as:-

- i. List of Target/suspicious customers generated from data base querying
- ii. Bad History customers customers who once had an illegal problem with the water service provider (Theft is a habit, so keep record of all defaulters and keep revisiting them at least after every 4 month).
- iii. Suppressed accounts List of customers who were cut off supply but have not returned to pay for the service and get reconnected (every one needs water so do not assume that these people are off supply (revisit and investigate them.
- iv. List of people who once applied for water but did not complete the new connection process for one reason or another. (By the time one applies for water, they really need it. Their not coming back may imply that the applicant got a cheaper option of getting water. So ensure that you acquire sufficient contact details for whoever expresses interest in water.
- v. List of customers who are supposed to be off supply.

Ensure 100% investigation of reported/suspected illegal consumption cases (*All suspect and reported cases must be investigated*)

2.3.1 Procedures for identification and investigation of Meter By passes

In order to identify and investigate a meter by pass the following steps should be taken:

- 1. Close the stop cock, feel the pipe just before the meter, if there is a vibration in the pipe, then there is reason to suspect a meter by pass as water flow induces a vibration in the pipe.
- Check the water tank; press the ball valve down to see if there is water inflow. No water is expected to reach the roof tank once the stop cork is closed. Presence of water implies that there is a meter by pass
- 3. Close off the distribution lines from the tank and check taps in the house. No water is expected, presence of water implies that there is a by pass. Note however that when these taps are opened there may be back flow from the pipe between the tank and the tap for about 1 minute.
- 4. Now reverse the above process, Open all the lines to ensure full water supply, on doing this all taps should be receiving water. If there is any tap that does not receive water it is very likely that it is an illegal line (it implies that a gate valve has been closed).
- 5. Now check if the direct lines (commonly the garden tap and or the kitchen line) still receive water.
- 6. At this stage we do not expect any water at any tap at all.
- 7. Reverse the process and check the taps which don't have water. Note that all taps should be having water after opening the taps. If there is a tap without water, it implies that a control valve has been closed.

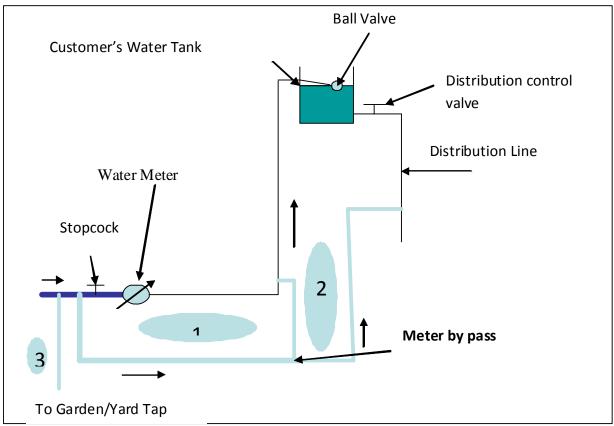


Figure 2: Sketch showing a typical meter by pass

2.3.2 Procedures for the identification and investigation of Illegal Connections

Revisit all customers who once applied for water and did not complete the process. It may be because they got a cheaper option of getting connected to the water network (illegal connection).

Use informers – these are handy. You must be able to pay them cash, as this category of people need money for survival on a daily basis.

Use Local leaders – you may have an arrangement with the local leader to record for you new connections in there respective areas per month (say an incentive of 300 shillings per new connection reported), then reconcile the new connections reported with those that were connected as per your records (illegal cases will then be identified).

In cases where universal metering has not been achieved, it is important to ask customers who are on supply with out meter and are suspected to be illegal connections for at least a water bill. If nothing is available then confirm that it is an illegal connection.



Plate 4: Typical example of a suspected illegal connection

Figure 3 shows a typical flow chart of the steps to take when identifying an illegal connection or meter by pass.

2.3.3 Procedures for the identification and investigation of Illegal Reconnection

Make a list of customers who are supposed to be off supply. Reconnections are common in the evening and during the week ends when the customers do not expect the service provider to visit them at all. So revisit these customers at the appropriate time.

2.3.4 Procedures for the identification and investigation of fetching before the Meter

Make a list of customers whose consumption is inconsistent and those whose consumption is too low. Fetching before the meter is common in the evening and during the week ends when the customers do not expect the service provider to visit them at all. So revisit these customers at the appropriate time.

2.3.5 Procedures for the identification and investigation of Meter reversal

Ensure that arrows on the meter point in the direction of flow; otherwise it implies that the meter has been reversed. The position of the stop cork also suggests the direction of flow. Conventionally, the stop cork is at the upstream part of the flow direction (Before the meter). However be careful to note if the stop cork is indeed before the meter because there are instances where stop corks are placed after the meter to prevent meter tampering.

Another indicator of a meter reversal is a lower reading than previous reading.

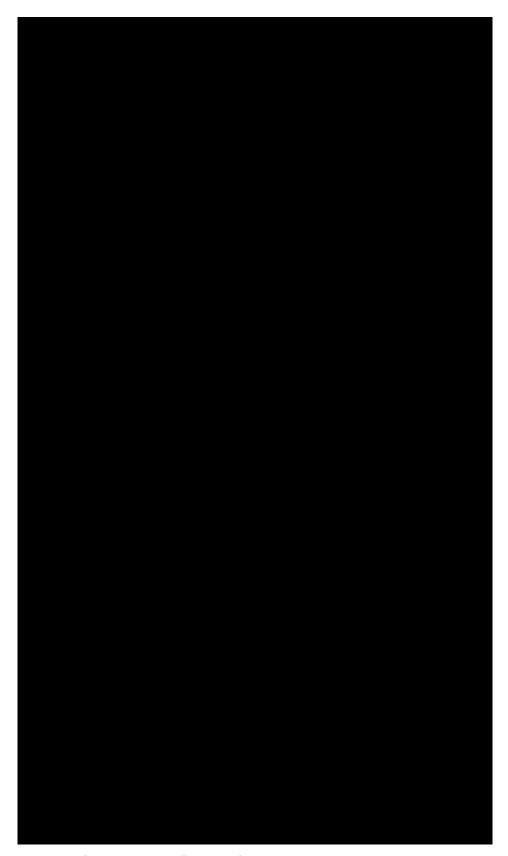


Figure 3: Flow chart for procedures for identifying a meter by pass or illegal connection

Another way of identifying these cases is through sampling meter readings (meter reading audits). Pick on a set of customers and monitor their customer meter readings several times through the month. Once a reduction is noticed this should be reported as an illegal case of meter reversal.

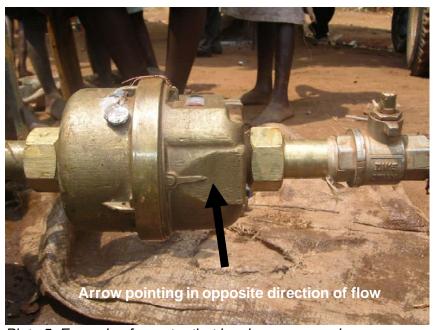


Plate 5: Example of a meter that has been reversed

2.3.6 Procedures for the identification and Investigation of Meter Tampering

Meter tampering includes physical or manual reversal of the meter readings. When a meter is tampered with signs include:-

- A shiny body of water meter implying that it is being held every now and then.
- Loose fittings at the meter connection, implying that the fitting are opened so often this can be evidenced by leaking at the fittings.
- Pipe wrench marks on the fittings.

2.4 Steps to be taken for illegal cases identified

Action 1. Summarize findings on a form indicating the kind of illegal offense discovered at the property. Complete two copies of the form and return one to office. Leave the second form at the customers premise that indicates clearly the contacts of the illegal use reduction Unit office. A sample of such a form is shown in Figure 3. This report must be endorsed by the manager. (See Appendix 1 for a typical form used in NWSC – Kampala Water).

Action 2. Disconnect the customer from the taping point from the main so as to avoid the customer reconnecting themselves.

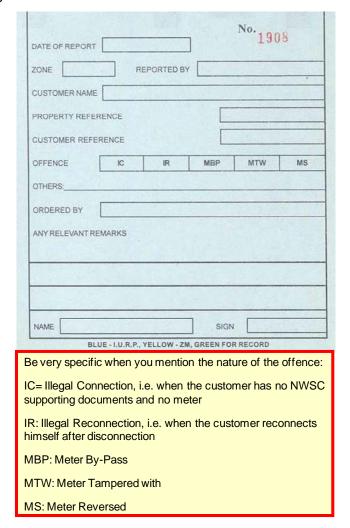


Figure 4: Example of a sample form for illegal use

Action 3. Compute the fines and write a letter to the customer informing them of the fine that has been levied to them. In the letter invite the customer to the office for further discussion. These letters should be in accordance with the Law and should be signed by the Commercial Manager and copied to the Managing Director and Billing Clerk (s).

Action 4. If the customer cannot pay all the fine at ago, sign a payment agreement with them.

Action 5. Follow up and collect all fines levied. Payment of all fines shall be made at the designated Cash office(s).

Action 6. Effect reconnection of paid up customers upon issuance of reconnection orders by the Commercial Manager. Reconnection orders should be copied to the Billing Clerk(s).

2.5 Technical corrective or preventive interventions for the different illegal connections

3.5.1 Meter By pass

Relocate metering point out of customers premise if safe or install meter as close as possible to the perimeter wall. This lessens the length of pipe available to the customer's disposal therefore reducing illegal usage.

2.5.2 Illegal Connection

- Continuously use informers
- Regularly revisit people who once applied for water and did not return.
- Ensure 100% / universal metering to avoid confusion in the system existence of legal unmetered accounts may at times work against the service provider as it may be difficult to easily identify the illegal cases.
- Follow up suppressed accounts (People who have been disconnected for no payment and have not returned).
- Carry out water network patrols especially in areas where mains intensification and extension have been carried out with a view of identifying possible illegal connections on such new mains.

2.5.3 Reconnection

Carry out effective disconnection of customers when ever you are disconnecting them. Effective disconnection is from the distribution main and not at the customers metering point.

2.5.4 Fetching before the meter, meter reversal and meter tampering

- Use lockable chambers
- Use strong metallic clamps
- Remove all stop corks (the presence of stop corks gives customers ample time to stop the water, remove and tamper with meter).

CHAPTER THREE

Key Result Areas and Performance Indicators

3.0 Key Result Areas

- Devise and establish mechanism for identification of illegal consumers
- Maximise collection of fines levied on identified illegal consumers
- Reduce illegal consumption.

3.1 Performance Indicators

To effectively carry out illegal use reduction, the following performance indicators need to be determined.

Table 1: Performance Indicators for Illegal Use Reduction

#	Performance Indicators	Unit
1	Investigation to unearth illegal connections carried out	No.
2	Illegal connections identified	No.
3	Total amount of fines invoiced to illegal consumers	Shs
4	Amount of levied fines collected	Shs
5	% amount of levied fines collected	%
6	No of disconnections of illegal cases effected	No.
7	No of reconnections of illegal cases effected.	No.

3.2 Monitoring and Evaluation of Indicators

The monitoring and evaluation (M&E) during the implementation of the illegal use reduction tasks shall be through the M&E sub-committees in charge of specific zones. The sub-committees will regularly move, at an interval to be determined by management, around the network to verify activities of the illegal use reduction unit. The illegal use reduction unit shall be required to keep records of quantifiable performance indicators to facilitate verification by the sub-committees.

The sub-committees will then meet with the respective zonal staff of the illegal use reduction unit on a weekly basis to discuss constraining issues and strive to find solutions. The entire

M&E team will then meet bi-weekly to have a holistic overview of the implementation status. At each stage of the meeting, the agreed way forward on the constraints and achievements will be communicated to the respective operating zones.

The evaluation of the performance of the illegal use reduction unit shall be carried out at the end of each month and each sub-committee shall highlight constraints experienced and proposed way forward, which are then discussed in a meeting chaired by the illegal use reduction In-charge.

CHAPTER FOUR

Requirements

4.1 Equipment

These facilities are used to pin point location of pipe after confirmation of existence of fraud.

- 1. An up to date block map
- 2. Tools e.g. pick axes, spades and hoes
- 3. A set of assorted equipment are used for locating pipes, these include; metallic pipe locator, plastic pipe locator (hammer plus noise leak detector) and a Geo radder.

Where the assorted equipment is not available, items 1 and 2 can be used. The location of fraud pipe will be based on try and error. This makes the map and knowledge on the network very handy.

4.2 Human Resource

4.2.1 Skills

The general skills required for the illegal Use reduction team leader include;

- Ability to use the assorted equipment and train others
- Ability to analyze data for fishy consumption patterns
- Integrity is key as the challenge of bribes is expected.
- Understanding of the pipe network is very important as the water facilities are buried.
- Assertiveness / boldness are very important note that the team will be dealing with wrong people/ thieves.

4.2.2 Responsibilities

Set up of basic framework (these first 3 responsibilities will be short leaved but are very important for a successful launch of the program)

• In liaison with TOP Management develop a policy that will address the offences this should be passed by the Government as well.

- Spear head educating the public about the law, offences and corresponding penalties or fines.
- Spear Head the issue of amnesty to the defaulters /culprits

Post/After Amnesty

- Monitor and advice management on the usage/ abuse of fire hydrants.
- Conduct / coordinate meter reading audits to check for meter reversal cases, conspiracy and quality of meter readings.
- Generate list of suspicious consumers, customers i.e customers who once applied for a new connection and are not yet connected, customers who are supposed to be off supply, customers with suspicious consumption patterns.
- · Prepare a schedule for field work and assign work to the different field staff
- Be a custodian for all field date, evidence e.t.c.
- Manage agreements signed with defaulters.

APPENDICES

APPENDIX 1 – ILLEGAL CONNECTION FORM USED IN NWSC KAMPALA WATER



KAMPALA WATER SUPPLY AND SEWERAGE SERVICE AREA



OPERATED BY KAMPALA WATER ON BEHALF OF NATIONAL WATER AND SEWERAGE CORPORATION

Serial No. 20549	Froperty Fieference No.	25		
Dale	Customer Reference No.			
Zore	Disconnection Executed by			
Nature of illegal Consumption four c	In Witness of		*	
Hidgal Connection	Zore Manager			
2. Illegal Reconnection	Gustomer Name			
3 Meter By-Pass	Gustnoor Phono			
Meter (ampered With	Est mated Monthly Consumption	81		m
5 Other	Tarif DOMESTIC	COMMERCIAL	GOVANST	PSP
	ELLEGAL CONNECTION N	Customer Ref		
Customer Name		1		
Customer Name Physical Address		Customer Ref		
Customer Name Physical Address This is to bring to your attention that of An Illegal Wallington	enty (ter	Customer Ref		
Customer Name Physical Address This is to bring to your attention there A/ An Illegal Wa B/ An Illegal Wa	erty ftet in hvestigstich at your premises have te iter Connection ifer Re-connection	Customer Ref		
Costomer Name Physical Address This is to bring to your attention than a A/ An Illegal Wa B/ An Illegal Wa C/ A Motor By-	enty filet in investigation at your premises have relater Connection far Re-connection Page	Customer Ref		
Customer Name Physical Address This is to bring to your attention that of Art Illegal Walls Art Illegal Walls C/ A Motor By-I O/ A Motor By-I O/ A Motor Tam	enty filet in investigation at your premises have relater Connection far Re-connection Page	Customer Ref		
Customer Name Physical Address This is to bring to your attention than a A/ An illegal Wa B/ An illegal Wa C/ A Motor By-I D/ A Motor Tam E/ Other: Consequently, we are disconnecting to	enty filet in investigation at your premises have relater Connection far Re-connection Page	Customer Ref	ve	uronan
Customer Name Physical Address This is to bring to your attention that of African Wallegal W	enty iter In investigation at your premises have relater Connection Iter Re-connection Pass Ippored With	Customer Ref wealed that you have y network and reque n	est that you app	aroner
Customer Name Physical Address This is to bring to your attention than a A/ An illegal Wa B/ An illegal Wa C/ A Mater By-I D/ A Mater Tam E/ Other: Consequently, we are disconnecting to our offices at 6th Street - Industrial Are Please note that under THE WATER S Ushs 400,000/= plus an estimated characteristic characteristics.	erty fort In averagestical at your premises have relater Connection Face spored With the above premises from our water supply the - within 24 hours for further legal action SENERAL RATES ORDER, 2002 SECTION SIZE for water consumed in the previous	Customer Ref wealed that you have y network and reque n	est that you app	arone)
Customer Name Physical Address This is to bring to your attention that of African Wallegal W	erty fter In averages on at your premises have relater Connection Fass Ippored With the above premises from our water supply the - within 24 hours for further legal action SENERAL RATES ORDER, 2002 SECT. SIGNERAL RATES ORDER, 2002 SECT. SUPERVISOR	Customer Ref evealed that you have y network and reque n ION 4, you are liable 24 months.	ekt thaf you app	

APPENDIX 2 – MONTHLY REPORT

A concise monthly report on Illegal Use Reduction shall be prepared by the illegal use reduction unit. The report shall include;

- Suspected illegal consumption Cases
- Confirmed cases of illegal consumption
- Total amount of fines invoiced to illegal consumers
- Amount of levied fines collected
- No. of reconnections and disconnections of illegal cases effected
- Main constraints and challenges faced
- Proposed way forward
- Any other information that is required by management.