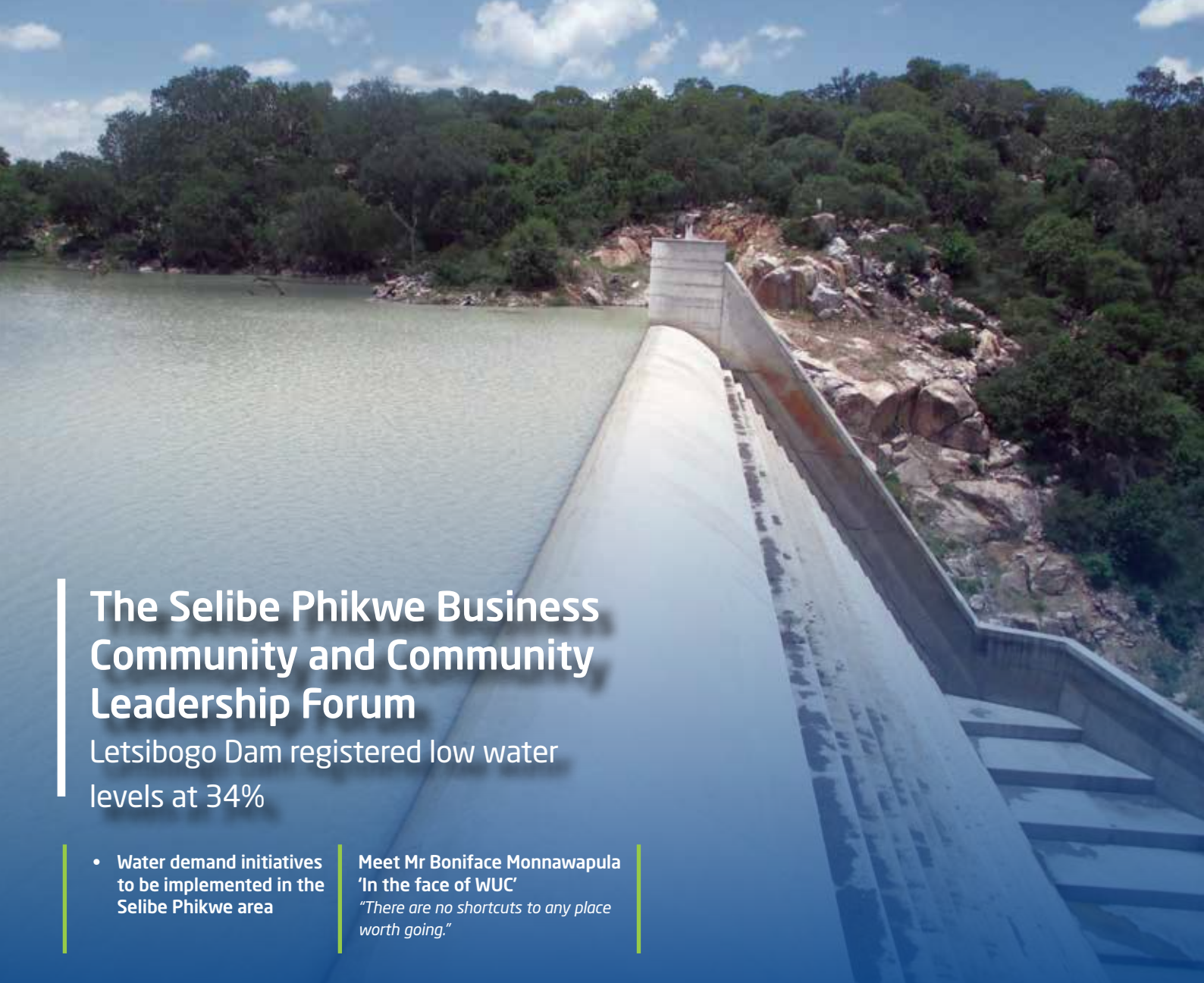


Sedibeng

Newsletter, February Issue 2016



The Selibe Phikwe Business Community and Community Leadership Forum

Letsibogo Dam registered low water levels at 34%

- Water demand initiatives to be implemented in the Selibe Phikwe area

Meet Mr Boniface Monnawapula
'In the face of WUC'

"There are no shortcuts to any place worth going."



We keep it flowing, *for you*

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Hon Minister of Finance
Kenneth Mathambo

- Infrastructure Development a priority



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MMEWR Permanent Secretary
Mr Kgomotso Abi

MMEWR Hosts the 2016
Open Day in Bobonong



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WUC assures the Selibe Phikwe continued water supply amidst low levels of the Letsibogo Dam

- Water demand initiatives to be implemented in the Selibe Phikwe area

The Selibe Phikwe Business Community and Community Leadership Forum

Letsibogo Dam registered the lowest water levels at 34%

Mmetla Masire - Acting WUC CEO



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Health and safety with
Leene Gakefiwe

Guidance on permit to work systems



Editorial

Mmoloki Ntjidzi Ntesang Chief Editor

Water is a basic commodity of life, something that we become lifeless without. Those that are mandated with its provision can be viewed as having the lives of people in their hands.



The February issue presents a number of interesting stories ranging from the 2016/17 Budget Speech highlights, the assurance of water supply to the Selibe Phikwe Business Community and Community Leadership as well as a glimpse on safety.

Topical issues still remain, it hasn't rained adequately yet, will the Water Utilities Corporation manage to keep it flowing?

The answer is 'YES, WUC will manage to see to it that Bastwana get water'.

The water situation is being monitored nationwide, coming up with intervention

initiatives to ensure the available water resources sees us through to the next rainy season.

However, it is not the end of rainy season yet, let us anticipate March will turn the situation around bringing more and more rains.

Enjoy the rest of the contents in this publication as you and your families contribute to water conservation by being water wise.

Vision

"To be a world-class water utility"

Mission

"To provide sustainable quality water and wastewater management services in a cost effective and environmentally friendly manner to the economy"

Values

- Botho**
We display a strong work ethic and respect for people.
- Batho Pele/ People First**
We understand and exceed expectations by putting the customer first.
- Therisanyo/ Consultation**
We value open and free exchange of views and ideas.
- Botswerere/ Quality**
We provide high quality products and service delivery to our customers.
- Kgetsi ya Tsie/ Teamwork**
We believe in working together to accomplish more.

EDITORIAL TEAM

Mmoloki Ntjidzi Ntesang - Chief Editor (Senior Communications and Public Relations Officer) | Khumo Mugibelo - (Senior Communications and Public Relations Officer) Lorato Phuthe (Corporate Communications and Public Relations) Mareledi Selabe (Corporate Communications and Public Relations Officer) Tshhegofatso Bakgaleng (Senior Environmental Officer)

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Letsibogo Dam (file photo)

The Selibe Phikwe Business Community and Community Leadership Forum

Letsibogo Dam registered the lowest water levels at 34%

WUC assures the Selibe Phikwe continued water supply amidst low levels of the Letsibogo Dam

Article by Lorato Phuthe

In its endeavor to establish and maintain stronger relationships based on constant communication with its stakeholders, the Water Utilities Corporation (WUC) recently held a Business Community and Community Leadership Forum in the town of Selibe Phikwe.

The aim of the forum was to share different perspectives, solicit support and identify a strategic approach where the Business Community and Community Leadership's input will be integrated in a broader strategy to keep water flowing in the Selibe Phikwe Township and the surrounding areas.

The forum was prompted by the declining water situation of the Selibe Phikwe Cluster and this will help to manage the risks that may come due to the low water levels of the Letsibogo Dam.

In his remarks when addressing the forum, the Acting Chief Executive Officer for the Water Utilities Corporation Mr Mmetla Masire expressed grave concern at the current water situation in Selibe Phikwe. Masire stated that the water levels from Letsibogo Dam, source of water for the Selibe Phikwe area, dropped from 85% to 34% after the Gaborone Dam dried up in December 2014, the situation that poses a difficult time to everyone inclusive of WUC, stakeholders and the community of Selibe Phikwe.

In assurance for continued water supply Mr Masire said the Corporation decided to relieve the Letsibogo Dam and supply Selibe Phikwe from Shashe Dam. "The current rains realized as the rainy season closes is a sign of hope towards the Letsibogo Dam to impound significant amount of water", said Masire.

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Letsibogo Dam (file photo)

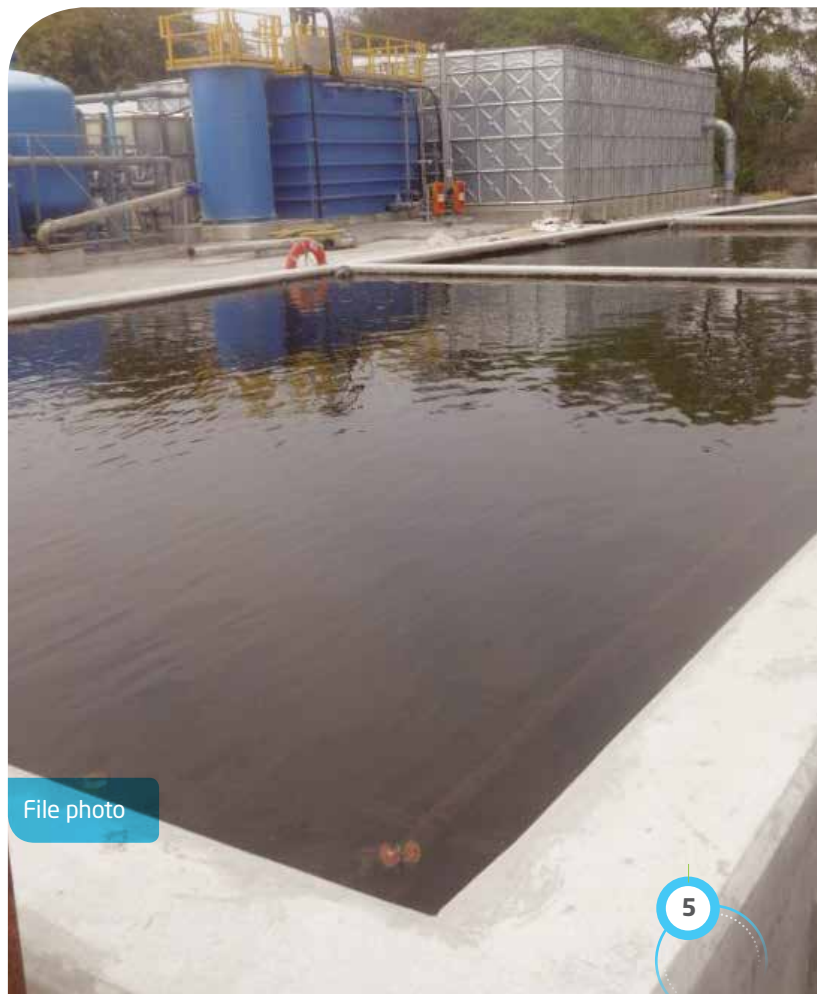
The Water Utilities Corporate Communication Manager Ms Matida Mmipi highlighted the importance of water conservation as the only means to ensure that the available water last longer.

On their part, the Business Community and Community Leadership of Selibe Phikwe and the surrounding areas urged WUC to rehabilitate its infrastructure, key being replacement of old pipes.

They said the frequent burst defeat the noble idea of conserving the little available water. They also urged the Corporation to increase its vehicle fleet so as to respond promptly to water issues in the area.

On other related issues the forum was updated on the intention of WUC to convert the postpaid meter system to pre-paid meter system which will illuminate the burden of high bill complaints brought about postpaid metering. In areas serviced with sewerage network customers were advised to connect to the sewerage network.

The Forum was welcomed by all the attendees saying it allowed for face-to-face interaction which triggered lively debates and frank feedback. They applauded the Corporation for engaging them in such a platform.



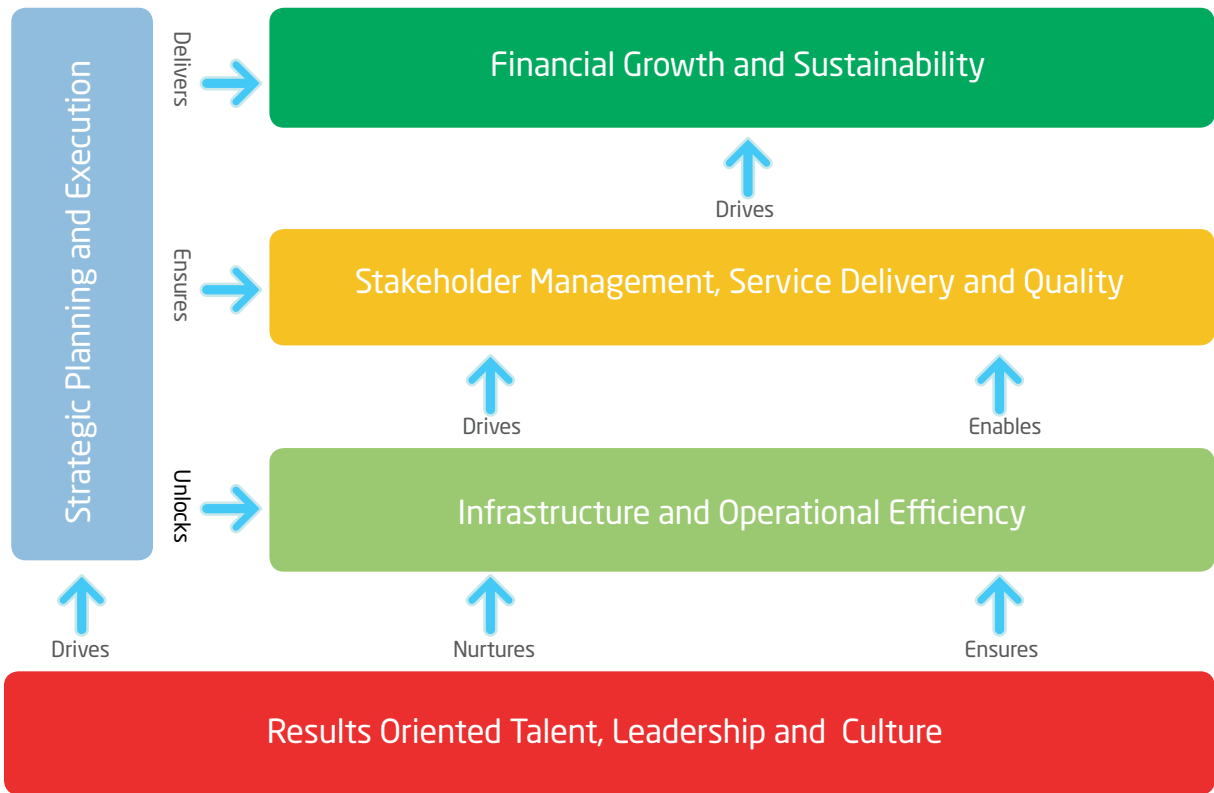
File photo



We keep it flowing, *for you.*

WUC Strategy 2015 to 2018

Strategic Themes: 2015 - 2018





We keep it flowing, for you


INTRODUCTION OF WASTEWATER TARIFF

The Water Utilities Corporation will introduce a wastewater charge for all customers connected to the central wastewater system with effect from the 1st of December 2015. Customer bills in Gaborone, Francistown, Lethakane, Selibe Phikwe, Palapye and Serowe will carry the wastewater

charge in December 2015. The programme will be gradually rolled out to other areas in the country. The charge is stepped and calculated based on the amount of potable water used per month as follows:

WASTEWATER TARIFF EFFECTIVE DECEMBER 2015					
Minimum Charge	0-5,000 L	5 -15,000 L	15 -25,000 L	25 - 40,000 L	40,000 L
None	P0.50	P2.00	P3.00	P4.00	P5.00

Sample of Water Bill



WATER UTILITIES CORPORATION

Committed to: PROVIDING A QUALITY WATER SERVICE

WATER UTILITIES CORPORATION SEDIBENG HOUSE PRIVATE BAG 00276 GABORONE	TAX INVOICE VAT	REGISTRATION NO: C03895701113 Invoice Date: <input type="text" value="30.11.2015"/> Date Printed: <input type="text" value="25.11.2015"/> Customer No: <input type="text" value="123456"/> Invoice No: <input type="text" value="002020716035"/> Customer VAT REG. No: <input type="text"/>
--	------------------------	--

CUSTOMER DETAILS	Customer VAT REG. No:
A. N. NAME	
Plot No: 1234	

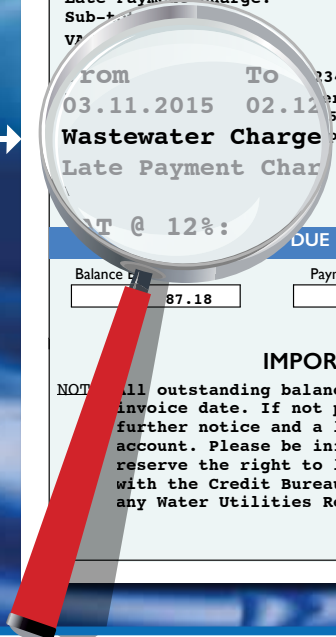
TRANSACTION DESCRIPTION	AMOUNT (Pula)													
Consumption charges for the period: 03.11.2015 - 02.12.2015														
Utility Contract 0000511132 Plot: 1234 Security deposit: 250,00														
<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">From</th> <th style="width: 15%;">To</th> <th style="width: 15%;">Meter No.</th> <th style="width: 15%;">Prev. MR</th> <th style="width: 15%;">New MR</th> <th style="width: 20%;">Cons (Kl)</th> </tr> <tr> <td>03.10.2015</td> <td>02.11.2015</td> <td>C-TAB6858</td> <td></td> <td>584589</td> <td>5.0000</td> </tr> </table>	From	To	Meter No.	Prev. MR	New MR	Cons (Kl)	03.10.2015	02.11.2015	C-TAB6858		584589	5.0000		
From	To	Meter No.	Prev. MR	New MR	Cons (Kl)									
03.10.2015	02.11.2015	C-TAB6858		584589	5.0000									
Water Charge For Consumption Period: 03.10.2015-02.11.2015	70.70													
Late Payment Charge:	0.00													
Sub-t	70.70													
VAT	8.48													
<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%;">From</th> <th style="width: 15%;">To</th> <th style="width: 15%;">Meter No.</th> <th style="width: 15%;">Prev. MR</th> <th style="width: 15%;">New MR</th> <th style="width: 20%;">Cons (Kl)</th> </tr> <tr> <td>03.11.2015</td> <td>02.12.2015</td> <td>56789</td> <td>7,483</td> <td>7,483</td> <td></td> </tr> </table>		From	To	Meter No.	Prev. MR	New MR	Cons (Kl)	03.11.2015	02.12.2015	56789	7,483	7,483		
From	To	Meter No.	Prev. MR	New MR	Cons (Kl)									
03.11.2015	02.12.2015	56789	7,483	7,483										
Wastewater Charge	12.99													
Late Payment Charge	0.00													
	1.56													
TOTAL DUE INCLUDING VAT														
	93.73													

Balance b/f	Payments	Current Charge	Total Due
87.18	100,00	93.73	80.91

IMPORTANT INFORMATION

NOTE: All outstanding balances on your bill must be settled within 30 days of the invoice date. If not paid, your water service may be disconnected without further notice and a late payment charge of P88.00 will be charged to your account. Please be informed that we subscribe to the Credit Bureau and we reserve the right to list any payment defaulters and 'refer to drawer' cheques with the Credit Bureau. Payments may be made in cash, by cheque or EFT/POS at any Water Utilities Revenue Office.

New Wastewater Charges





The 2016/17 Budget Speech Highlights

- Infrastructure Development a priority
- The North South Carrier (NSC) II from Palapye to Mmamashia covered under the Development Budget
- An increasing water storage capacities

The water supply situation has declined in the country, the situation that prompted the Government to give it priority in the Development Budget. Prolonged drought, erratic and below average rainfall and the failing infrastructure are contributing factors to a decline in supply.

Addressing the Second Session of the Eleventh Parliament in November 2015 His Excellency Lieutenant General Doctor Seretse Khama Ian Khama stated that the Government will give priority to water and the same was reiterated by Honourable Minister of Finance and Development Planning Mr O.K. Mathambo when giving the 2016/17 Budget Speech in February 2016.

Below are some key extracts from his speech which address the water situation:

Madam Speaker, the preparation of the budget proposals for the 2016/2017 financial year was guided by priorities, as presented in the 2016/2017 Budget Strategy Paper. These priorities were discussed extensively during the Budget diPitso held with relevant stakeholders late last year. Among the top national priorities to be addressed through the 2016/2017 budget are: economic growth; employment creation; and poverty eradication. Accordingly, resources are proposed for allocation to: infrastructure development to address the challenges of inadequate water and electricity supply; social infrastructure to address existing backlogs of classrooms and health facilities; and land servicing to facilitate business opportunities.

Key Thematic Areas For 2016/2017 Financial Year

Investing in Infrastructural Development

Water

Madam Speaker, to address the water situation, Government has embarked on a number of projects in various districts to ensure security of water and improved waste water management.

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For the Greater Gaborone area, Government intends to meet water demands by, among others, increasing water storage capacities and construction of new primary water pipelines. Phase II of the North-South Carrier Water Scheme, which involves construction of a parallel pipeline to the existing line is underway. Other initiatives include exploring the possibilities of accessing water from Lesotho and the Chobe-Zambezi area.

In addition, initiatives are underway to reclaim waste water, as an alternative water resource. The construction of a waste water reclamation plant in Mahalapye is underway. This Plant will produce 3.9 million Cubic Meters of water per annum, with a potential to irrigate 40 hectares of agricultural land.

It is expected that the reclaimed waste water initiative will reduce pressure on usage of portable water on agricultural production. Moreover, Government through Botswana Institute for Technology Research and Innovation, has set-up a world class Centre for

Material Sciences that will assist in the development of new materials in the water purification sector and air filtration, amongst others.

2016/2017 Budget Proposals

Development Budget

The second largest share of P3.43 billion or 23.1 percent is proposed for the Ministry of Minerals, Energy and Water Resources. The budget caters for energy and water infrastructure in order to address the current supply shortages which have affected the welfare of Batswana.

The major energy infrastructure projects include; Morupule A Power Station rehabilitation at P135 million, North-West Electricity Transmission Grid at P225 million and Rakola sub-station at P257 million. In addition, the Botswana Power Corporation requires cash injection of P1.35 billion to cater for emergency power supply and P257 million under ESP for rural electrification.

The water infrastructure projects include: the North South Carrier (NSC) II from Palapye to Mmamashia; Mahalapye and Palapye network extensions; connection of Kanye and Molepolole to NSC; Maun Water Supply and Sanitation and Kanye Sanitation; country-wide ground water investigation; as well as various water supply interconnections

Compiled by Mmoloki Ntesang

Source:

2016 Budget Speech

**By Honourable O.K. Matambo
Minister of Finance and Development
Planning
Delivered to the National Assembly on
1st February 2016**

Website: www.finance.gov.bw



Taking You Through The Basics: Communication:

Understanding the Media

What is the Media All About?

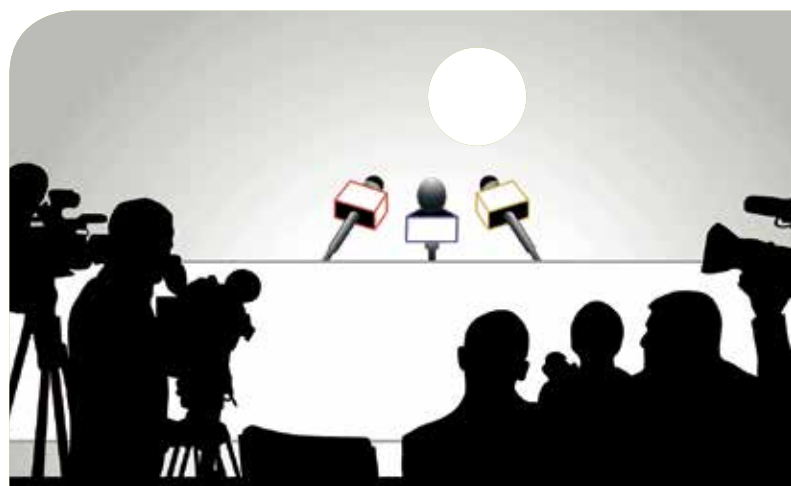
From a long time back in history the media always had an impact on people's lives. For the 21st century the role of media is more pronounced. It plays a vital role in people's everyday lives. The media affects the societies in which we exist in as it has the ability to bring about great change in the mind set of people by key messages it sends.

But what is the media?

The media is a communication channel through which news, entertainment, education and promotional messages are disseminated. The media, which can be print, electronic and broadcast, includes a variety of medium such as newspapers, magazines, radio, television, billboards, telephone, fax and the internet. All these influence the emotions (especially of young people) depending on the subject matter such as health, politics economy etc. The way in which the media relays the news, opinion and idea prompts more exploration on the ways in which we understand the world.

Compiled by LoratoPhuthe

**Source: Handbook of Public Relations
Sixth Edition by Skinner Von Essen Mersham**





Happy Valentine's Day WUC Family

Love is an emotion passionately celebrated in many ways. Annually and internationally, February the 14th is dubbed Valentine's Day. Red dress code, coupled with flowers, cards inscribed with messages of love...just to mention a few, becomes the order of the day.

It is in respect of those who value Valentine's Day the Sedibeng Team wishes you a **HAPPY VALENTINES DAY.**

MMEWR Hosts the 2016 Open Day in Bobonong

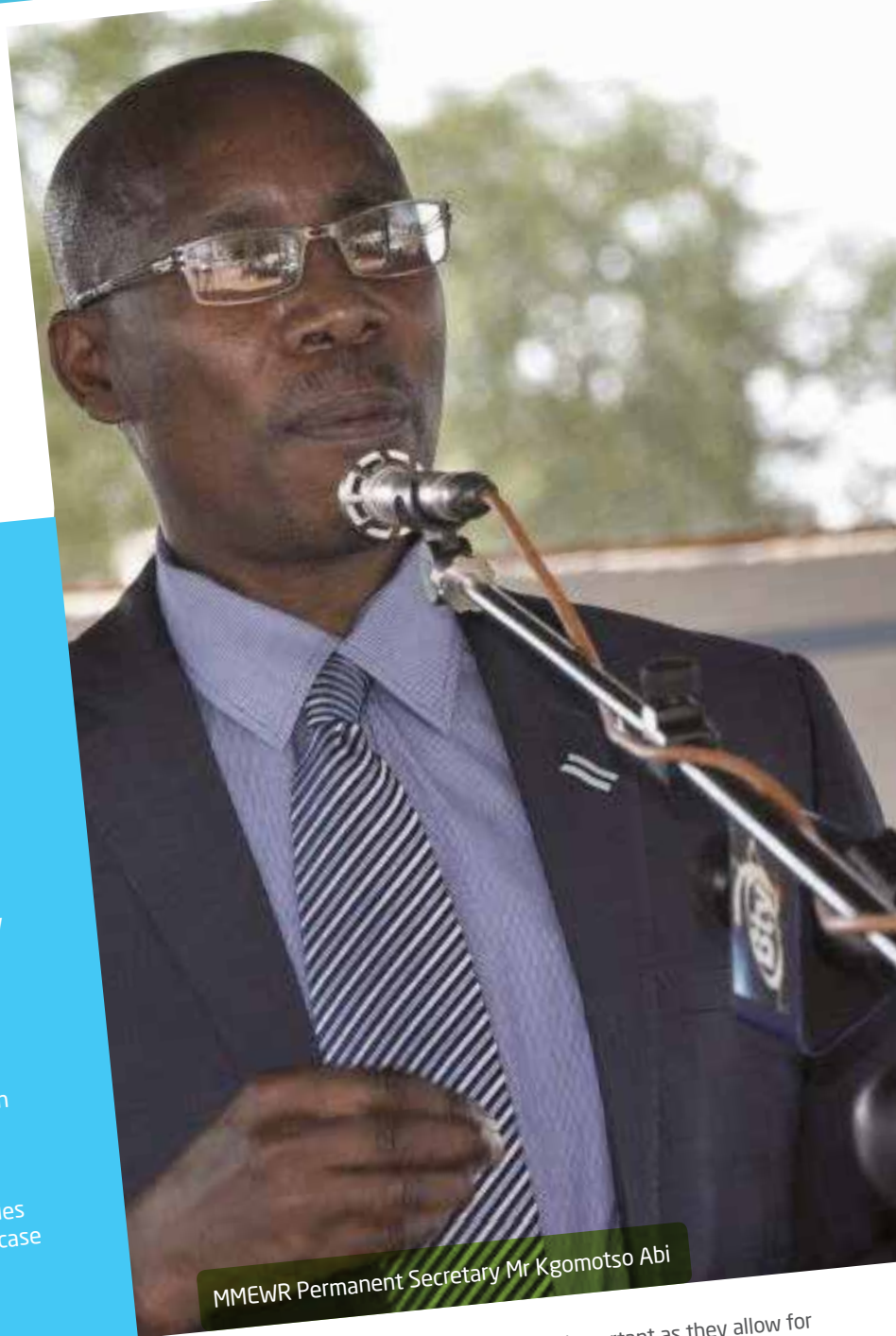
- WUC exhibited at the MMEWR open day
- Customers are the reason for Departments and Parastatals existence

Article by Lorato Phuthe

A good relationship between the Government, Parastatals and the community is key particularly if an organisation provides an essential service like water.

In maintaining reputable and healthy relations the Ministry of Minerals, Energy and Water Resources (MMEWR) recently held an Annual Open Day in Bobonong Village.

The MMEWR 2016 Open Day brought all its Departments and Parastatals, the Water Utilities Corporation inclusive, under one roof to showcase their products and services rendered.



MMEWR Permanent Secretary Mr Kgomo Abi

In his remarks when giving the key note address, the Permanent Secretary to the Ministry of Minerals Energy and Water Resources Mr Kgomo Abi stated that the existence of all Government Ministries and Parastatals is dependent on members of the public and without them as customers such Organisations would not exist.

Abi further said that his Ministry and all parastatals are spread nationwide to serve the public in implementing Government initiatives which are meant to better the lives of Batswana.

"Activities such as Open Days are very important as they allow for direct interaction with customers where products are displayed for them to get a feel of what really makes such products", said Abi. Customers get to appreciate and enquire more knowledge on products and services exhibited, which gives them a better understanding of the different government bodies and parastatals' mandate.

During the Open Day 22 less privileged families were connected to the potable network grid as the Ministry's Corporate Social Responsibility.



Buildup to open day, second from left, Mr Masire during the Bobonong kgotla meeting



File photo

Furthermore a donation of pencil packs was done on three (3) schools as a goodwill gesture.

Among those who graced the Open day were the Water Utilities Corporation Acting Chief Executive Officer Mr Mmetla Masire, the Technical Services Director Mr Thapelo Leinaeng and the Human Resource and Resource Director Mr Macheng Macheng.



CELEBRATING TALENT

The poetic Juice with Kelebetseng Ralepape

In this poetic piece Ms Kelebetseng Ralepape turns the poetic mirror to herself and unleashes an intrinsic and God given talent. Ms Ralepe recited a number of poems to this publication which included AIDS and Metsi. To the Corporation she is known of her poetic talent which dates back in years.

KELEBETSENG MAKATU RALEPAPE

Dumelang ke a dumedisa
Batswana betsho
Ngwana wa mosetsana o tsetswe
ko gora Ralepape
kana ke raya Kelebetseng Makatu
mo kgotleng ya Bokaa ko
Shoshong Ko tlhogo di a opa ko
lejwelepuswa ko kgomo e jewang
le mashi a yone

Ke Mooka wa ga sekemota
Marotobolo- a-Ralepape-a -
Nkatholang le Mmabojosi
Wa ga dijo di latolelwa moeng a
ntse a di lebile ka matlho
Ka ba rutililwe ke Ralepape go
timana.

Ke togola kwa ga Ngwaketse kwa
ga Maila a Bobela a pheshana ya
moswagadi ya ga sethong ga se
huparelwe

Ke mmina kolobe, kolobe
mathinthinyane a mmanakana di
ganong. Ke e khukhwa e e maoto a
ditshipi khutshwane ya masaete
Mabelega masiela le dikhutsana
Ke tshwana le pula ya sephai,
Mmankopukopu wa pula

Ke seota dirojana, seota mosadi yo
o seng monna. Ya re go tlogelwa
tsating se ikgolegele meriting
Go kokota mo lomating la WUC
ngwanyana a ikepela, Maungo a
tiro tsa gagwe a nna jaaka a tlhare
sa moporota.

Tiro bokgeleke ya dirwa ka
matsetseleko, bonokopila le
boheho, e kare moloi masigo a
tloga a asa

Ke ema ke sare ke heditse
Nneelang lesapo ke latswe, moro
ke tle ke imone

Le fa ele yone BAND Ya Bosupa
ga e nthone ketle ke kokomoge
se' Marutlwe-a-Mareletsane-a-
Mmalobadi

Le leina nka lefetola, ka choma ka
ipitsa "Middle Management"

Mooka weeeeeeeeeeee, mma
mpitsa ke kgaotse!

Word from the word spiritual nourishment

Spiritual nourishment by Mmoloki Ntesang

Proverbs 19:21: Many are the plans in a person's heart, but it is the LORD's purpose that prevails.





Wedding Bells

Newly wedded:

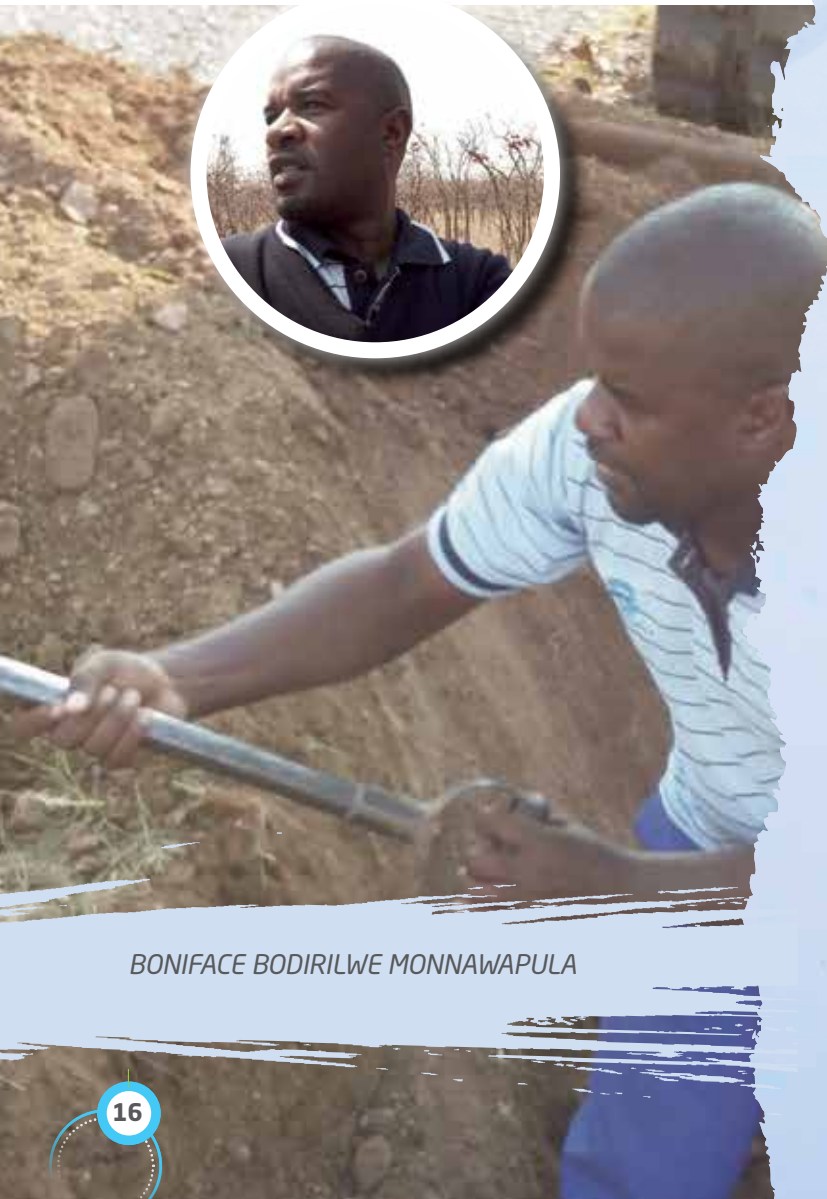
Proverbs 31:10- A wife of noble character who can find? She is worth far more than rubies.

Ms Dithulaganyo Gaboaloge (Billing Supervisor for Maun/Gantsi) and Mr Tankiso Maruping recently tied a knot in a holy matrimony to become man and wife. Congratulations, happy Valentine's Day and many more blessings Mr and Mrs Maruping.



In the face of WUC

"Perfection is achieved, not when there is nothing more to add, but when there is nothing left to take away", Antoine de Saint-Exupéry Sedibeng briefly features Mr Monnawapula, a man who shares sentiments with Beverly Sills on dedication, determination, and hard-work that, "There are no shortcuts to any place worth going."



BONIFACE BODIRILWE MONNAWAPULA

Boniface Bodirilwe
Monnawapula

Name: BONIFACE BODIRILWE MONNAWAPULA
Position: Waterworks Foreman - Francistown

Briefly Introduce yourself

I am a friendly, result driven and a person who promotes a culture of togetherness. I joined the Water Utilities Corporation (WUC) in 2009 as a Distribution Foreman during the Water Sector Reforms. I was later transferred to Gaborone Waterworks and redeployed to the Customer Service Section in 2012. Later the same year I joined the Francistown WUC team where currently am the Waterworks Foreman in Distribution.

Give us an overview of your job profile

- I undertake daily work planning procedures which entails operation and maintenance, customer connections and inspections to ensure conformity to standards. I also ensure customer satisfaction and manage performance of my subordinates.

Where do you see yourself in the next 5 years, professionally and personally?

It is my dream to own and run a profitable mixed production farm which will ease dependency on salary. I have a conviction in my spirit to feed Batswana and that shall come to pass.

What are the three things you cannot live without?

God's wisdom, family and Shelter.

Tell us one place you would like to visit in the world and why?

I will be a happy man see myself walking in Israel. My life is anchored in the Lord Jesus Christ and the Christian Faith. Having read numerous Biblical text and other literature about the journey of Jesus Christ, I as well want to visit the places he visited to see some monumental remnants of such historical sites.

What really makes you happy?

To see people living in harmony and love one another. The love that will ensure that the needy members of the community and the widows are being taken care of in fulfilling Godly love according John 13:35, "By this shall all men know that ye are my disciples, if ye have love one to another."

Your favorite quote?

"The more difficulty one has to encounter, within and without, the more significant and the higher in inspiration his life will be" Horace Bushnell

Know Your WUC

Control and Instrumentation (C&I)



Water Utilities Corporation is a multidiscipline organisation where collective roles makes it possible to attain its mandate of providing sustainable Quality water and wastewater management services. Out of the many sections in the Corporation Sedibeng Newsletter looks at the Control and Instrumentation (C&I) Section to outline its significance to keep the water flowing.

What is Control and Instrumentation (C&I)

It is the science of measurement and control of process variables within a production or manufacturing area. Even in hospitals (ICU, X-ray)

Control and Instrumentation Structure

The section fall under ID Department.

- Projects and Maintenance support Engineers
- C&I Technicians (under 16 management centers responsible for maintenance).making sure systems continue working (maintain- cause to continue)

Key Responsibilities of C&I

For Projects

Designing and developing new control systems for:

- Telemetry projects

- Communication infrastructure -(Radios, satel lite, fibre)
- Chlorination system setup.
- Prepaid metering installation (standpipes, domestic smart meters) & Bulk transmission line meter
- Re-engineering & improvements of existing systems)

For Maintenance- Cause to continue

Repairs and calibrates the following:

- Telemetry systems
- Chlorination,
- Voice radio system (All as build).
- Verification

For Support

- Providing technical support and advice to other section on technology requiring C&I expertise.

TELEMETRY and Why Telemetry

As mentioned above one key service function that the C&I critically looks at is the Telemetry What is TELEMETRY

Telemetry is a technology that allows **remote measurement and reporting of information**. The word is derived from Greek roots **tele = remote, and metron = measure**. Tele-control

SCADA stands for (supervisory control and data acquisition systems:

SCADA usually refers to centralized computer systems which monitor and control industrials, infrastructure based process, or complex systems spread out over large areas/ entire sites HMI-Human Machine Interface

Telemetry and SCADA functions

- **Remote monitoring:** monitoring operation round-the-clock (24/7) supervision of the operation
- **Remote alarming:** automatic alarms transmitted on an operating fault or malfunction
- **Telecontrol:** remote action on for controlled Pumps (start/stop, open/close valve)



From page 17

- **Telemetry and SCADA:** recorded of historical data (e.g levels) for management of the process.

Why Telemetry? Water management

Telemetry is vital and crucial for water management applications:

It allows real time data availability on water system, hence quick reactions to occurrences in the field/remote sites

- Measures variables/data
- Water level
- Flows
- Temperature
- Pump trips,
- Power failure
- Intruders (on site) etc.
- Historical trending of information (reference purposes)

Benefits of Telemetry

Telemetry is the most prominent cost saving tool in operation
How?

- It reduces the number of vehicles needed to operate a water scheme.
- **Reduces human errors-** By automating human errors are eliminated or minimized.
- Reporting becomes easy as reports can be automatically generated or trends can be used as reference.
- Its substantially decreases the wage bill by reducing the number of people required to man a water treatment process and distribution scheme.
- It allows prompt response (24/7 monitoring) to failure or faults in the field. Hence reduced down time (no water crisis). Alarms are automatically and immediately send

Other related Technologies Introduced by WUC in which the C&I has an input

Automatic Meter Reading (AMR)

- Beneficiary -Customer services
The AMR has been introduced as a pilot project at Sowa Town and at Phakalane in Gaborone. This technology enables meter readers to read meters by walking past the residential plots (walk-by) or driving past residential compounds (drive-by) using a hand held meter reader.

Vehicle tracking

- Beneficiary -Fleet management
The system has a monitoring device for the purpose of proper and efficient vehicle/fleet management. It monitors a number factors such as speed (over speeding) rough driving, prolonged car idle, the routes with specific locations the vehicle undertook, fuel consumption etc. Vehicle tracking system leads to proper vehicle usage and reduce car misuse incidents.

Satellite Communication (VSAT)

- Beneficiary -IS (IT)
Computer networking for all area to the main WUC network. (E-mail & billing system), SCADA Networking, and IP phone (video conferencing-future)
Domestic Prepaid smart meters
- The operation of a prepaid meter is controlled through a valve which responds to electronic signals sent to it by the meter sensor. The sensor collects data related to all activities which affect the operation of the meter. These activities include availability of credit, tampering with the meter etc. If as an example, a customer uses a device other than the meter token to try and activate release of water, a signal will be sent to the valve instructing it to close in order to inhibit any transaction which might be made thereafter and supply of water, compelling the customer to report.

Compiled by Rebonye Koloji (C&I Engineer-North) and Mosikari Kgosi (C&I Superintendent- North)



We keep it flowing, *for you*

DISCONTINUATION OF PIT LATRINES AND SEPTIC TANKS EMPTYING SERVICES IN SHAA AREAS IN THE CITY OF FRANCISTOWN



With effect from the **1st of April 2016** the Water Utilities Corporation will no longer offer septic tanks and pit latrines emptying services in all **SHAA** areas in the **City Francistown**.

All plots should connect to the sewage network by the **31st of March 2016**. The standard connection is **P1500.00** within a distance that does not exceed 50 meters.

Connection fees payment can be done in four installments



Health and Safety with Leene Gakefiwe

Guidance on permit to work systems



Introduction and Background

Water Utilities Corporation as a sole provider of water to both urban and rural areas in Botswana manages large water bodies where they extract, process, pump and store considerable quantities of raw and potable water, as well as hazardous substances including flammable and toxic materials. The Corporation also operates huge plant, equipment and pressurized pipelines which therefore mean that the potential for serious incidents is clear. To prevent such incidents it is vital that there should be effective management of hazards, including Safe Person systems, Safe Equipment and Plant Systems, and the protection of the Environment.

After WUC experienced some incidents that caused significant costs, the Corporation decided to implement the Permit to Work and Lock-Out Systems so as to be able to manage and control significant hazards and risks. WUC commenced the application of the Permit to Work and Lock-Out Systems well before 2003 and around 2007 after a Project Team was set up to do the system review and the following achievements were accomplished:

- A survey of the workplaces and tasks to identify critical or high risk tasks that required permit to work and identify the form of isolations to be deployed was carried out.
- Infrastructure was also inspected to ascertain compliance to PTW requirements and it was found that older infrastructure was found not to be compliant with PTW requirements such as provision for locking out.
- Modifications were done on the non-compliant infrastructure and newer infrastructure needed little or no modifications at all.
- Training requirements were identified and training such as Electrical Switching- Medium voltage and High voltage was undertaken.
- A policy was developed and approved and PTW was implemented albeit not consistently.

After WUC Mandate was increased to cover the whole country due to the Water Sector Reforms, an effort was done to revive the PTW initiative and a committee was set up for that purpose with the following accomplished:

- **Electrical Safety Regulations and Isolation Procedures were produced** - covered General Electrical Safety Rules, Isolation of small power and Lighting Distribution Boards, Medium Voltage Isolation and Switching Procedure, High Voltage Permit to work Procedure, High Voltage Isolation Form Procedure, Electrical Motor Control Centre Procedures, MCC Logbook Completion Procedure, Overhead Lines Procedures and Mechanical Equipment Isolation Procedures
- **Safety Regulations and Procedures in Entering and Working in Confined spaces were also developed** - covering Definitions associated with confined space, Identifying confined spaces, Identifying confined space hazards, Confined space access procedures and Responsibilities as well as training requirements for various role players.
- **Permit to Work Book or Form-** a permit to work form or book was developed for used during applications, issuing, declaration and completion
- A policy and procedure statement was reviewed but did not go through approval, therefore the policy in place now was approved in 2003.

Of late there has been failure to implement the Permit to Work and Lock-Out Systems which have resulted in the Corporation encountering seriously fatal and nearly fatal incidents hence the need to ensure that the this initiative is revived and implemented.

This guide therefore serves as a reminder to WUC staff on what a Permit to Work System is, when is a permit system required, what are its benefits, what does it entail, roles and responsibilities and the training and competences required to ensure its full implementation and compliance.

2. What is a permit to work system

A Permit to Work System is a formal written system used to control certain types of work which are identified as potentially hazardous. It is a means of communication between site management, plant supervisors and operators and those who carry out the job. A permit to work system is not simply permission to carry out a hazardous job, it is an essential part of a system which determines how a job can be carried out safely, and helps to communicate the safe execution of the job to the job doer. It should not be regarded as an easy way to eliminate hazard or reduce risk. The issue of a permit does not in itself make the job safer - that can only be achieved by those preparing for the job, those supervising the job and those carrying it out.

From page 21

The essential features of a Permit to Work system are:

- Clear identification of who may authorize particular jobs (and any limits to their authority) and who may be responsible for specifying the necessary precautions.
- Training and instruction in the issue, use and closure of permits
- Monitoring and auditing to ensure that the system works as intended
- Clear identification of then types of work considered to be hazardous;
- Clear and standardised identification of tasks, risk assessments, permitted task duration and supplemental or simultaneous activity and control measures.

3. Objectives and functions of implementing a permit to work system

A Permit to Work System aims to ensure that proper planning and consideration is given to the risks of a particular job. The permit is a written document which authorizes certain people to carry out specific work, at a certain time and place, and which sets out the main precautions needed to complete the job safely.

The objectives and functions of the system can be summarized as follows:

- Ensuring proper authorization of designated work. This may be work of certain types, or work of any type within certain designated areas other than normal operations.
- Making clear to people doing the job the exact identity, nature and extent of the job and the hazards involved, and any limitations on the extent of then work and the time during which the job may be carried out.
- Specifying the precautions to be taken including safe isolation from potential risks such as hazardous substances and energy sources
- Ensuring that the person in charge of a unit, plant or installation is aware of all work being done there.
- Providing a system of continuous control and also a record showing that the nature of the work and the precautions needed have been checked by an appropriate person.
- Providing for a suitable display of permits
- Providing a procedure for times when work has to be suspended, i.e. stopped for a period before it is complete.
- Providing for the procedures or arrangements for work activities that may interact with or affect any of these activities
- Providing a formal hand over procedure for use when a permit is issued for a period longer than one shift or when permit signatories change
- Providing a formal hand-back procedure to ensure that any part of the plant affected by the work is in a safe condition and ready for reinstatement



4. When are permit-to-work systems required?

Permit-to-work systems should be considered whenever it is intended to carry out work which may adversely affect the safety of personnel, plant or the environment. However permit to work systems should not be applied tom all activities, as experience has shown that their overall effectiveness may be weakened.

Permit-to-work systems are normally considered most appropriate to:

- Non-production work (e.g. maintenance, repair, inspection, testing, alteration, construction, dismantling, adaptation, modification, cleaning etc.);
- non-routine operations;
- Jobs where two or more individuals or groups need to coordinate activities to complete the job safely;
- Jobs where there is a transfer of work and responsibilities from one group to another.



Guidance on Permit to Work Systems to continue on the next publication.

Compiled by Leene Gakefiwe- Senior Occupational Health and Safety Officer (N)

REFERENCES:

1. International Association of Oil and Gas Producers Report on Guidelines on permit to work systems- report No.6. 29/189 January 1993
2. Health and Safety Executive Publication HSG250 on "Guidance on Permit-to-Work systems" of 2005.
3. Occupational Health and Safety Act of South Africa,(OHSACT) Act no 83, of 1993
4. The United Kingdom Health and Safety at Work Act 1974

ENGINEERING CORNER: Projects Brief

The Boteti Northern Cluster Rural Villages water supply rehabilitation project.

PROJECT DETAILS AND PROGRESS

1. PARTIES TO THE CONTRACT

Employer: Ministry of Minerals, Energy & Water Resources
Contractor: Red East Construction (pty) LTD

2. PROJECT OBJECTIVE

To provide adequate portable water to Boteti Northern Cluster Villages

3. CONTRACTUAL DATES AND AMOUNT

Item No	Event	Date / Deadline
1	Commencement Date	27 January 2014/2
2		
3	Project Completion Date : Section 1	26 January 2016
6	Accepted Contract Amount (Pula)	P154, 759,137.18

4. WORK SECTIONS

The project locations will cover the areas of:

- Khumaga
- Moremaoto
- Motlopi
- Phuduhudu
- Makalamabedi
- Chanoga

- Motopi treatment plant
- a) Reverse Osmosis Plant (for Motopi, Moremaoto)
- b) Conventional treatment plant (Khumaga, Makalamabedi)
- Moremaoto (refurbishment works)
- Treatment plant
- Makalamabedi (refurbishment works)
- treatment plant

- Chanoga
- BOOSTER STATION**
- Phuduhudu
- Motlopi

BUILDINGS

- Reverse Osmosis Plant
- Conventional
- Booster Station

5. MAJOR WORKS

- BH collector pipelines raw water
- Phuduhudu, Motlopi transmission pipeline 42km
- Motopi- Moremaoto treated water transmission 16.2km
- Moremaoto- Khumaga transmission pipeline 44km
- Motopi - Makalamabedi treated water transmission pipeline 33km
- Makalamabedi- Chanoga transmission pipeline 40km

RESERVOIR/TANK

- Raw water tank in PHuduhudu- 3000m³
- Raw water tank in Motlopi-200m³
- Raw water tank in Makalamabedi- 400m³
- Raw water tank in Moremaoto- 900m³
- Treatment water tank in Motlopi- 3000m³

DISTRIBUTION TANKS

- Motlopi- 400m³ GS
- Moremaoto- 200m³ GS /400m³ GS to Khumaga
- Khumaga
- Makalamabedi- 400m³

EVAPORATION PLANT

- Moremaoto (refurbishment) 165x52
- Motopi- 255 x 185
- Phuduhudu- 70x50
- Makalamabedi 100 x 70

6. PROGRESS

The physical progress at 96% vs 100%, Phuduhudu and Motlopi treatment plants construction have been completed. Rehabilitation of existing Moremaoto and Makalamabedi plants completed. All transmission of reticulation pipes completed.

TREATMENT PLANTS

Phuduhudu treatment plant (for Phuduhudu only)



Sports Zone VI SADC Water Utilities Games





The Zone VI SADC Water Utilities Games are scheduled for the 25th and the 26th of March 2016 in the Kingdom Mountain of Lesotho. As a norm, the Water Utilities Corporation is expected to exert dominance over other teams and get the Gold medals as an overall performance. WUC scoped first position in the last Zone VI SADC games held in South Africa.

Countries that are expected to take part in the Zone VI SADC Water Utilities Games are Botswana, Lesotho (the host), Swaziland and South Africa (Bloem Waters and Lepelle Northern Water)

The teams will battle it out in the following sport codes;
Football
Netball
Volleyball
Darts
Snooker



Health and total wellness

It's time to learn about heart tips

THE BENEFITS OF EATING FRUITS IN AN EMPTY STOMACH

Doctor Stephen Mak is one of the naturopathy Doctors who treats terminally ill cancer patients by an un-orthodox way and history tells that many of his patients have recovered from his own strategy. Before the said treatment, he used solar energy to clear the illness of his patients. However, he believes on natural body healing.

According to Dr Mak, alternative health is one of the strategies he use to heal cancer. He states that the success rate in curing cancer using his strategy is about 80%. Through this strategy Dr Mak highlights that cancer patients should not die since the cure for cancer is already found in the way we eat fruits.

EATING FRUITS

We all think eating fruits means just buying fruits, cutting them and just popping them into our mouths. Nonetheless, it is not as easy as we think. It is important to know how and when to eat fruits.

WHAT IS THE CORRECT WAY OF EATING FRUITS?

Fruits should not be eaten after meals. Thus they should be eaten in an empty stomach. When fruits are eaten in an empty stomach, they play a major role to detoxify the system by supplying it with a great deal of energy for weight loss and other life activities.

HOW FRUITS ARE THE MOST IMPORTANT FOOD?

Let's say you eat 2 slices of bread and then a slice of fruit. The slice of fruit is ready to go straight through the stomach into the intestines, but it is prevented from doing so due to the bread taken before the fruit. In the meantime the whole meal of bread and fruit rots and ferments and turns to acid. The minute the fruit comes into contact with the food in the stomach and digestive juices, the entire mass of food begins to spoil. So

please eat your fruits in an empty stomach or before meals for health benefits.

Many are times when people complain that every time they eat watermelon they burp (to allow air from the stomach to come out through the mouth in a noisy way), when they eat durian their stomach bloats up, when they eat a banana they feel like running to the toilet etc. The fruit also mixes with the putrefying (rotting) of other food and produces gas and hence one will bloat. All these reactions will not arise if one eat fruits in an empty stomach. In addition, the greying hair, balding, nervous outburst and dark circles under the eyes will not happen if you take fruits in an empty stomach

If you have mastered the correct way of eating fruits, you have the SECRET of beauty, longevity, health, energy, happiness and normal weight.

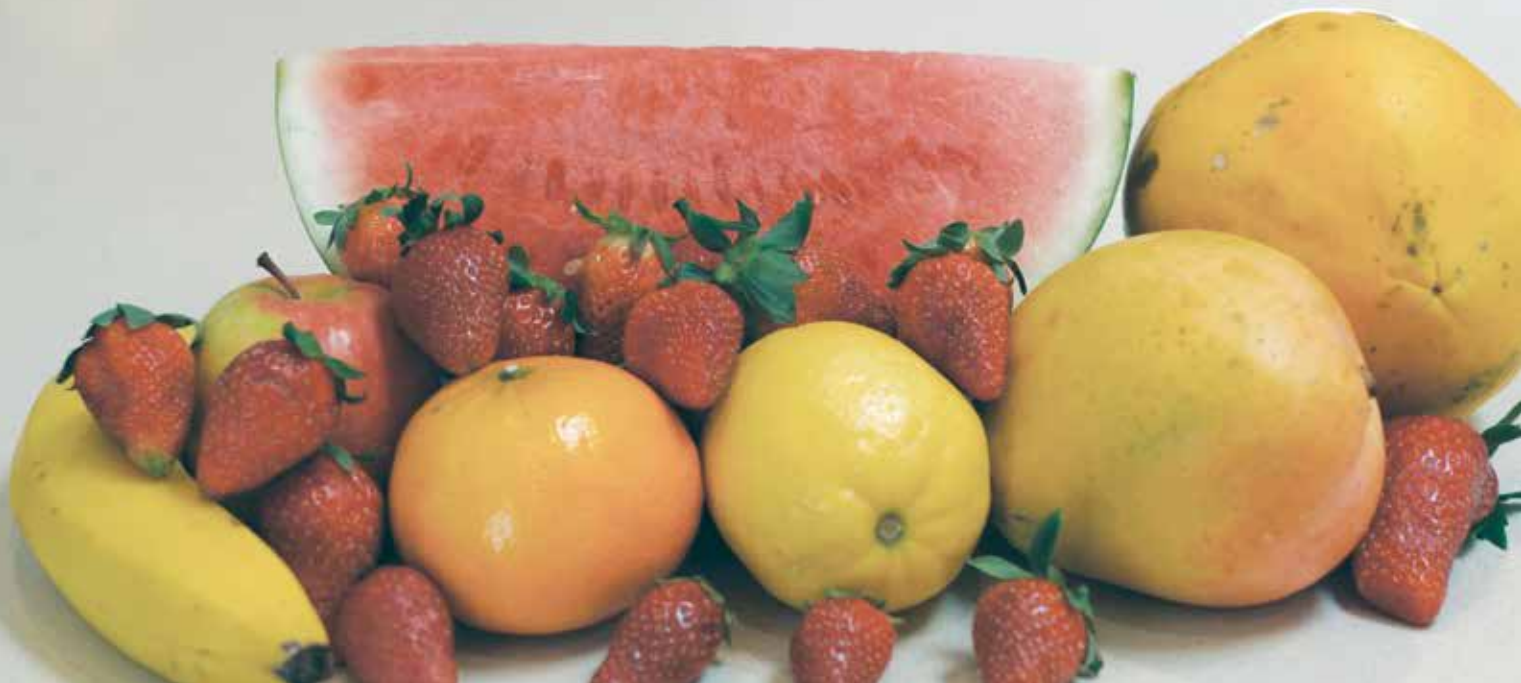
Please note that when you need to drink fruit juice you must drink only fresh fruit juice not from the can, packs or bottles. Moreover, do not eat cooked fruits because you don't get the nutrients since the vitamins would have been destroyed by the heat. What would be left will be just the taste with no vitamins.

"EATING A WHOLE FRUIT IS BETTER THAN DRINKING THE JUICE"

DETOXIFYING THE BODY

You can go on 3 day fruit fast to cleanse or detoxify your body. Just eat fruits and drink fresh fruit juice throughout out the 3 days. You will be surprised when your friends tell you how radiant you look.

JUST TRY IT!!!!



FRUITS AND THEIR BENEFITS

KIWI

- Tiny but mighty
- This is a good source of potassium, magnesium, vitamin E and Fiber
- Its vitamin C is twice that of an orange



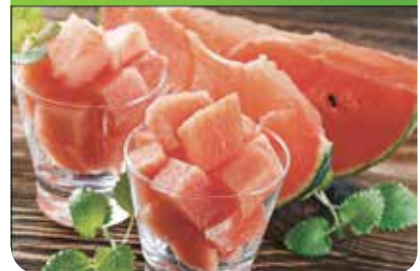
STRAWBERRY

- The protective fruit
- Strawberries have the highest total antioxidant power among major fruits and protect the body from cancer causing, blood vessels-clogging and free radicals



WATERMELON

- The coolest thirst quencher
- It is composed of 92% water
- It is also packed with a giant dose of glutathione which helps boost our immune system
- It is also a key source of lycopene the cancer fighting oxidant
- Other nutrients found in the watermelon are vitamin C and potassium.



APPLE

- An apple a day keeps the Dr away
- Although an apple has a low vitamin c content, it has antioxidants and flavonoids which enhances the activity of vitamin c thereby helping to lower the risks of colon cancer, heart attack and stroke



ORANGE

- The sweetest medicine
- Taking 2-4 oranges a day may help keep colds away
- It lowers cholesterol
- It prevents and dissolves kidney stones as well as lessens the risk of colon cancer



GUAVA & PAPAYA

- The top awards for vitamin C
- They are the clear winners for their high vitamin C content
- Guava is also rich in fiber which helps prevent constipation
- Papaya is rich in carotene, this is good for your eyes



**STAY
TUNED.**

Compiled by
Boitshoko Seretse
Principal Employee
Health & Wellness
Officer

References:
<https://www.goredforwomen.org/home/live-healthy/prevent-heart-disease/>



We keep it flowing, for you

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