

WATER AND SANITATION NEWS

PHWC e-Newsletter

Issue 04 September 2016

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**FROM
THE MANAGING DIRECTOR'S DESK**

Welcome to the September Edition of the Water and Sanitation News; a giant advancement stride for Port Harcourt Water Corporation. A lot was achieved this past month with the successful completion of three study tours involving Rivers state policy makers and operations staff of PHWC to Swaziland and Malawi. The lessons learnt from these study tours no doubt will have a huge effect on the operations and management of PHWC especially in our match towards sustainability and autonomy.

We have also reached an advanced stage in the planning of our Strategic Plan Development Workshop to enable us come out with a concrete and quantifiable action plan that will determine the direction of the Corporation in the short and long term. The Rivers State Water Services Regulatory Commission (RSWSRC) has given PHWC a Water Operators' License with full mandate to produce, treat and distribute clean, safe and affordable water to the people of Port Harcourt and Obio/Akpor Local Government Areas of Rivers State.

The advocacy visits to the Gate keepers of all the communities that will be affected directly by the National Urban Water Sector Reform and Port Harcourt Water Supply and Sanitation Project has commenced with successful visits to Rumuola, Rumueme, Rumuadaolu and Rumuokwuta Communities. PHWC has secured the endorsements of the traditional rulers, youths, women, opinion and religious leaders of these communities to support PHWC and the Project. We have successfully begun the process of engaging the Supervisory Consultant and Design Review Consultant for the Project. As the funding partners of the Project required, a Pro-Poor Unit within PHWC will soon be established to ensure that the under

privileged segment of the society are well taken care of in our operations. We want to assure the people of Port Harcourt and Obio/Akpor Local Government Areas of Rivers State that we shall deliver on our mandate of producing and supplying clean, safe and affordable water to them. Beyond the Port Harcourt Water Supply and Sanitation Project (PHWSSP), PHWC has very strong plans to connect and meter over Forty Thousand households as an immediate strategy to convince our prospective customers that we mean business. Modalities for achieving this and other lofty plans we have, will be fine tuned at the Strategic Planning Workshop holding soon.

We urge all the stakeholders to support and cooperate with us in this very important task of providing water to the growing population of Port Harcourt and Obio/Akpor.



KENNETH ANGA

Managing Director PHWC



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SANIABONANI FROM SWAZILAND - Fiberesima Dennisada (Editor)


Delegates observing SWSC operations

Port Harcourt Water Corporation embarked on a two-week study tour to Swaziland Water Services Corporation (SWSC), Ezulwini, Swaziland. The tour was carried out in two batches and the main objective was to under study the visited utilities and adopt best practices, direction, commitment, processes and systems as well as procedures required to help PHWC achieve full commercialization and operational efficiency as a fully corporatized business structure that is accountable and responsive to the public while providing improved water and sanitation services to her customers in an efficient and sustainable manner.

The first batch of the tour which lasted from 19th – 25th August, 2016 was tagged the reform batch and had a focus on Reforms, Corporate Governance, Sector Coordination (Relationships between policy holders and operators) and Human Resources Management. Participants included a delegation of Government officials, Rumuola traditional Community leaders, Top Management of PHWC, Project implementation unit and PMC facilitator. The team was received by the SWSC Managing Director, Engr. Peter Bhembe who made a presentation touching topics like water sector reforms, tariffs procedures, SWSC operations,

Service Level Guarantees (SLGs), and the various Management systems put in place by SWSC.

The second batch which was the operational team lasted from the 26th – 29th August, 2016. The team comprised of PHWC operational staff covering Communication, IT, HSE, Water Operations, Laboratory Services, Accounts, Administration, Waste Water Operations and Monitoring & Evaluation Departments. Each member of the team had individual interactions with their SWSC counterparts and was opportuned to learn from a practical explanation of their departments' functions. They were also equipped with technical advice as well as documents that would improve their capacity to perform effectively in their designated departments.

Apart from the Swaziland Water Services Corporation office where most of the activities took place, some other facilities visited by the teams include: SWSC Water Treatment Laboratory; Matsapha Water Treatment Plant; Ezulwini Sewerage treatment Plant located on the banks of Mbabane River; Sikhumbo water Kiosk, Royal Swaziland Sugar Corporation (RSSC), Simunye; Mantenga cultural village; and the Ludzidzini Royal Residence, Lobamba. The study was made complete by the cultural exchange that took place through interaction between the team and all the Swazi people that crossed our path. We learned their way of life, we ate their food and we learned to greet saying 'Saniabonani' and responding 'Yebo. Perhaps the peak of our Swazi Cultural experience was attending the annual Reed Dance at the Ludzidzini Royal Residence where we witnessed thousands of Swazi young women walking in solidarity and celebrating their chastity.



SANIABONANI FROM SWAZILAND -Contd



Rivers State delegates learning cultural dance at the Cultural Village, Matenga Swaziland

A visit to the Mantenga cultural village gave us a clear picture of the Swazi family structure and domestic cultural practices. A few of us were lucky enough to get hands-on lessons on how to perform the Swaziland Cultural dance. The highlight of the study tour was the team building exercises facilitated by SWSC which was designed to foster team spirit and better understanding of team members. Teams were taught how to relate with and manage the different kinds of people among us, especially those in managerial/ leadership roles to which this information was most valuable.

The most significant observation gotten from this trip to Swaziland is the important role the people have played in the development of the corporation and the obvious recognition given to this fact. The staff of the corporation had a zeal for their jobs which was completely admirable, perhaps this is a general Swazi disposition as this mentality of commitment and contentment was seen everywhere we went. Looking back, I believe the trip achieved its aim of giving participants the opportunity to observe and emulate best practices as the entire team (both Government officials and PHWC staff) came back fired up and determined to give their absolute best to make PHWC and the project a success.



IMPORTANCE OF CUSTOMER SERVICE IN A UTILITY: A CASE FOR SOUTHERN REGION WATER BOARD ZOMBA MALAWI - Enefaka Okoye (Customer Service Officer)

Once upon a time, utilities were all about closing the sale, It didn't matter how you got to that point. These days, the need to cater for the new customer has taken a different dimension, this is because they determine the advancement and the success of any utility.

The notion of 'customer' is only beginning to be recognized as important especially for those who are working in the water and the Sanitation sector in developing countries. According to the White House office on Consumer Affairs, the average business loses 10 -15% of its customers through bad service each year, businesses do not hear from 96% of their dissatisfied customers; for every complaint received another 26 have problems and 6 have serious problems. Customers with bad experiences are twice as likely to tell others about it than those with a positive story to recount. No matter the size of a utility, excellent customer service needs to be at the heart of the utility's business model if success is the goal. It is important that good customer service is provided to all customers including potential, new and existing customers.

The Southern Region Water board, Zomba, and the Lilongwe water board in Malawi are typical examples of utilities that pride themselves in having excellent customer service. Household consumers in the urban areas have been known to obtain water from numerous sources which leads to competition to provide and supply clean, portable and affordable water. Before the establishment of the water works act of 1995 by the government of Malawi, the water board was not a recognized utility in the country. Hence, the challenges with the full commercialization of the water board. Today, as a result of increased customer base by additional 35,000 customers, the Southern Region Water Board projects an estimated profit margin of US\$ 89,947,350 over a period of 18 months.

It is important to note that when there is customer satisfaction it leads to customer loyalty which ultimately leads to higher profits.

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PORT HARCOURT WATER CORPORATION STAFF UNDER STUDY SOUTHERN REGION WATER BOARD, LILONGWE MALAWI—Daniel Ochoma/Enefaka Okoye



MD PHWC Mr. Anga making a presentation during the study Tour in Southern Region Water Board, Zomba.

The Port Harcourt Water Corporation delegates arrived Malawi for a six day study tour on 30 August. The study tour is one of the many efforts put in place by the management of PHWC to ensure that the capacity of the staff and in depth knowledge on the commercialization of a water utility is developed. The team which comprised of two members of the Port Harcourt Water Supply and Sanitation Project (PHWSSP) Management Consultant (PMC):Engineers Martin Ede & Hosanna Dajan, 20 members of PHWC staff, PHWC Managing Director Mr. Kenneth Anga, and the Rivers State Commissioner for Water Resources and Rural Development (MWRRD) Chief Ibibia Walter were received by the Southern Region Water Board Management at Sun Bird Hotels and Towers in Lilongwe.

A courtesy call to the Malawi Minister of Agriculture, Irrigation and Water Development Hon. George Chponda in Lilongwe opened the chain of activities mapped for the study visit. The delegates arrived Southern region Water Board office in Zomba on 1st September and were received by the Board chairman Mr. John Kapito. Responding to the welcome speech of Mr. Kapito, Chief Ibibia Walter, Commissioner for Water Resources and Rural Development described PHWC as a Utility company under going a re-birth after so many years of inactivityand seeking to learn from an institution that has under gone successful reforms

A presentation by the MD PHWC, Mr. Kenneth Anga emphasized the need for the study tour adding that it became imperative seeing that PHWC is undergoing serious reforms. He explained that this is also an opportunity to learn for the departments represented which included: Commercial; Water Operations; Human Resources; Monitoring & Evaluation; Water Quality; Accounts; Procurement; Community Relations through one on one interaction with their SRWB counterpart.

Engr. Robert Hanjahanja, the Chief Executive Officer of SRWB, gave a presentation on the water supply system. In his presentation, he outlined the achievements of the SRWB in the last three years. He outlined the various projects that were externally funded by the World Bank as well as internally funded projects, their respective progress reports and the challenges they are faced with. .

The Head, Billing, Revenue Collection and Customer Service of Southern Region Water Board Zomba, Ms. Rita Makwangwala gave the progress report of her department. She spoke on the procedures for new meter connection, meter reading and Billing, procedures for revenue collection and customer complaints handling procedures, etc. she added that the Board recorded a sharp decline in the financial highlights in the year, but they are not deterred but are filled with determination to ensure that the target of metering 35,000 additional customers in the next 18 months is met”.

Highlights of the tour included the various field trips to the Mulunguzi Dam, Zomba Main Water Treatment Plant, Mangochi site office and Treatment Plant and the intake point at the Shire River. “It was a beauty to behold especially from a country that is defined by its topography of highlands and dams”. The people of Zomba are indeed hospitable as well as amiable. They speak English, although they have their native language known as the ‘Chewa’ Language spoken in the Southern region of the country.



Rivers State Commissioner for Water Resources and Rural Development with MD PHWC in the Chairman BoD Southern Region Water Board Mr. John Kapito Office in Zomba.

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PHWC STAFF UNDER STUDY SOUTHERN REGION WATER BOARD, LILONGWE MALAWI-Contd.

The PHWC team was opportune to experience the Malawi culture and was treated to the local dish of Malawi, 'Nsima', a meal made from maize flour and water that is properly garnished with green leafy vegetables served with different protein such as meat, fried fish, etc.

The team departed Zomba, for Lilongwe, the capital city of Malawi to understudy their water system and was received by the CEO of Lilongwe Water Board, Engr. Alfonso Chikuni. He gave a presentation on the Financial Performance Turnaround of Lilongwe Water Board. In his presentation, he explained that the Water Board had to improve the operating systems, supervise work culture and ethics, increase customer loyalty programmes, change management focus, just to mention a few. Today, the board records a sales volume of 21 Million cubic from 24 million cubic drought effect. Of course, the PHWC team was challenged.

The Lilongwe Water Board team pledged to be committed, focused and driven to actualize the dream of PHWC and to ensure that the corporation is a fully commercialized water utility. Malawi is a landlocked Southeastern African country with topography of highlands split by the Great Rift Valley and enormous Lake Malawi. It has a population of about 16.36 million people from its 2013 census records. Malawi is famously known for the hospitable nature of its citizens who are majorly farmers. The current president of Malawi is Peter Mutharika.



A group photograph of Port Harcourt Water Corporation delegate to SRWB Zomba Malawi

REHABILITATED PHWC EAGLE ISLAND PLANT SET TO RESUME OPERATIONS

-Augustine Opurum. (Water Quality Officer)



Port Harcourt Water Corporation (PHWC) has rehabilitated and upgraded its facilities and infrastructure at the Eagle Island Pump Station of Port Harcourt. However, the pumping station is yet to resume full operations after the renovations.

The dilapidated facilities such as the Pressure Filter and Storage Tanks, the Administrative Building and other facilities at the plant all received a face lift. "This is to ensure that we produce and supply clean, safe and affordable drinking water to our numerous customers at the Eagle Island" the MD PHWC Mr. Kenneth Anga said. "It is also to ensure that water produced at the Pump Station in Eagle Island meets the Nigerian Standard for Drinking Water Quality (NSDWQ)" he added. "After the rehabilitation and repair works on the Plant, the Eagle Island community will subsequently have uninterrupted access to potable water supply from the Corporation" he stressed

The renovation effort of PHWC stands on her core values of being customer focused. We are working towards ensuring that all our customers receive optimal service delivery.

The Management of Port Harcourt Water Corporation is therefore calling on all the residents of Eagle Island to take advantage of this opportunity and to ensure that they are connected and metered. Further details on how to go about this can be gotten through the customer care line on **08170021888** or send an email to: customerservice@portharcourtwater.com



WHY WATER UTILITIES RESIST NON-REVENUE WATER (NRW)

If the cost benefits of addressing apparent and real losses in a water system are so immense and irrefutable, why don't utilities flock to examine NRW? In this article written by Mary Ann Dickinson, Head of the Alliance for Water Efficiency, she explains the vexing nature of the challenge of Non-Revenue Water in the US. She listed ten reasons why water utilities resist Non-Revenue Water to include the following"

1. North Americans have a historical tradition of ignoring water loss. The assumption has always been that our modern utilities are 'system tight' and have no need for further detailed analysis. In fact, most utilities have largely fabricated numbers in the past on their unaccounted-for water percentages, and they have a history of sticking to those numbers.
2. Distribution system managers are now embarrassed to admit that their prior numbers were actually wrong. This is a political as well as a human resources (HR) problem. Admitting the true state of the water utility system is a negative message to a water utility board, as well as an HR performance problem for distribution system managers. No one wants to now come clean-for fear of reprisals .
3. Employee performance appraisals don't encourage improved accuracy in water-loss reporting. There are no incentives for distribution system managers to work hard on NRW. Upper utility managers need to encourage and even reward this brave behavior. Adopting water loss policies within the utility would help this tremendously.
4. General Managers and Board Members assume that NRW solutions are too costly and unaffordable, and therefore better evaluation of NRW is pointless. Water sales revenues are down in most utilities because of declines in per capita consumption, and there is no easy discretionary money anymore. There is a fear on the part of many finance directors that implementing non-revenue water solutions will be extremely costly (new meters, new pipes etc) and thus unaffordable. So why go and look for NRW and let Pandora out of the box?
5. There is fear of letting rate payers know the truth. As many utilities are facing drought and asking their consumers to reduce their water use, t h e y are reluctant to now admit that their leakage might be excessive. It is a utility messaging problem toits own customers. If leakage was really so serious, the beleaguered consumer might

6. legitimately ask: 'Why didn't the utility do this first? Lack of dedicated utility funding for NRW is a perceived barrier to progress. The irony is that NRW reduction actions don't have to be funded out of stressed operating budgets where funds may be already tight; they can be funded out of capital improvement programmes (Capex) or performance based loans. The payback is excellent: money saved by recovering and selling lost water more than pays for the cost of its recovery.
7. There is little perceived connection of NRW management to overall sustainability/climate change resiliency goals that the utility may have. Nothing makes a utility system more resilient than controlling its wanton leakage. Being in control of all of its assets enables a better response when water shortages occur due to climate change and other factors. Being sustainable means managing water resources responsibly, and controlling NRW should be part of that needed response but so far is not.
8. There is a scanty government regulation of water loss in most US states. Where state policies do exist, they are based on the antiquated 'unaccounted for water' percentages, which are not often accurate (see point 1) and can mask the true impact of leakage in different-sized water systems. Managing NRW should be a matter of government and regulatory concern. Bond rating agencies are now starting to look at NRW as a way to measure utility system efficiency, but so far government policies and guidance are mostly nonexistent.
9. A true business case analysis of NRW is not a prevalent practice nor even perceived as a necessary undertaking. Thus, the benefits of reducing leakage in a utility system are not even examined. Clear payback on NRW reduction investment is not analyzed, which is an antiquated way of managing a business, let alone a precious natural resource .
10. The value of water is taken for granted, both by the utility system managers and the consumers that they serve. The 'value' of water is not what the utility might have paid back in 1910 when they acquired the water supply, it is the marginal cost of acquiring new water, so recovering water from

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WHY WATER UTILITIES RESIST NON-REVENUE WATER (NRW) - Contd from P.6



leaks then becomes the cheapest source of new supply. And when a customer is willing to pay 10,000 times more for water in a bottle versus from the tap, we clearly in drinking water that they now enjoy for very little money. Until we change this fundamental perception problem at both the utility and customer levels, NRW management will not reach the priority that it should.

OVERVIEW OF RIVERS STATE WATER DEVELOPMENT LAW NO. 7 OF 2012-Legor Senowo
(Legal Advisor Rivers State Water Services Regulatory Commission)

INTRODUCTION :The provision of water, regulation of water supply services and waste water management in Rivers State from independence in 1960 to May, 2012, have been the exclusive responsibility of various Ministries, Departments and Agencies of Government (MDAs). Private Sector participation has been restricted to direct contracting of any aspect of the water services that any MDA, in charge of water considers necessary, in order to carry out its responsibility. The period between 1959, under the Urban Water Supply Regulations, made pursuant to the Water Works Ordinance, Chapter, 227, Laws of Nigeria, 1948 (later known as the Water Works Law, Chapter 131, Laws of Eastern Nigeria, 1963) and 1984 under the Rivers State Utilities Board Edict, No. 5 of 1984, witnessed a certain measure of commercialization of water supply services. The same cannot be said about the period between 1985 and 2012, which period witnessed poor funding and absence of a clear policy direction in the Water Sector. In 2012, however, the Commissioner for Water Resources and Rural Development,

Hon. Patricia Simon-Hart presented a new Water Policy to the Rivers State Executive Council (Exco). Following the approval of the new water policy by Exco, the Government of Rt. Hon. Chibuike Rotimi Amaechi, Governor of Rivers State signed into law the Rivers State Water sector Development Law, No. 7 of 2012. By the end of May this year, the Law would have been three (3) years old. This Law has made radical reforms in the water sector in the State by establishing three (3) water services providers with clearly defined functions. It also defines the role of Government and for the first time in the history of Rivers State, establishing an independent regulatory Commission for water and sewerage services in the State. Another very important aspect of the reform is the Commercialization of Water Services and involvement of Private Water Service Providers (WSP) in the Sector.

PROFILE OF WATER AUTHORITY FROM 1960

TO DATE : Urban Water Supply Regulations, 1959 - made pursuant to the Water Works Ordinance, Chapter 227, Laws of Nigeria, 1948. Ministry of Works was the Water Authority. Water Works Law, Chapter 131, Laws of Eastern Nigeria, 1963 following Nigerian Independence and the adoption of Regional Government. Ministry of Works remained the Water Authority. 1967 - Rivers State was created out of former Eastern Nigeria. The Laws of Eastern Nigeria remained in force. Rivers State Utilities Board Edict No.5 of 1984 - conferred Board with functions in relation to electricity, water and gas. Water Authority under this Law shifted to Ministry of Works and Transport. Rivers State Water Board Edict 1991 (later named the Rivers State Water Board Law cap 138, LRSN, 1999. Established a body corporate with powers to make regulations subject to the approval of the Commissioner. The Water Authority for the first time in the history of water services in Rivers State was given to the Ministry responsible for water. Under the Rivers State Water Sector Development Law No. 7 of 2012. Water Authority is split thus: **Ministry of Water - Policy, Water Service Providers (Institutions created under the Law) - Provision of water services and waste water management and Rivers State Water Services Regulatory Commission - Independent Regulator, Private Water Service providers (WSP)-** though PPP arrangements .

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www.portharcourtwater.com**UNDER PRESSURE: THE FAILURE OF UTILITIES TO TACKLE WATER LOSS****By James Workman**

CULLED FROM THE SOURCE: OFFICIAL NEWSLETTER OF IWA



Shortly after arriving in the Philippines in his role as project manager with water consultants Miya, Roland Liemberger took an unnecessary risk that could have threatened his professional reputation. He stood before water professionals and bluntly stated their failures. Liemberger's role at Miya was to help utility clients improve water loss management. Each day, he witnessed how Asian cities were hemorrhaging a third to a half of all treated water, which meant 60 million cubic meters, or enough to supply 230 million people. Public Filipino water utilities could provide only half the population with a reliable and safe supply. This left the poorer half in slums to suffer nonexistent or intermittent service, forced to pay vendors exorbitant fees for water of dubious quality, and at risk of contracting waterborne diseases as off-hour pressure shifts sucked pollution and sewage into leaky pipes. Liemberger found this to be inefficient, inequitable and infuriating. Yet as he addressed the assembled utility managers, giving another slide presentation on the clear steps and high benefits of recovering lost water, he found something else: "Nobody saw any need to change anything." And something snapped. He stopped describing lost water in the abstract, passive tense, and pointed fin-

tense and pointed fingers at those in the room. "I told them that they are the problem and that I'm getting tired of having to do technical presentations and train their staff and then nothing at all happens," says Liemberger. Tempers rose. But Liemberger continued to rail against their shameful lack of political will. Discomfort simmered to resentment, then boiled to rage, until, as Liemberger recalls: "I had to escape the room." Managers may ignore it but there is no escape from accounting for water loss. It is a wicked problem, and it confounds all utilities. Each year the planet's cities lose US\$14 billion worth of non-revenue water (NRW). [See: Counting what's invisible, below.] And that's not mainly in developing nations; half of the world's losses are from utilities in the US and Europe. The route back to health through interventions, while possible, is uncomfortable. And progress is slow, or nonexistent. "Nothing's changed," says Arjun Thapan, of WaterLinks. "Local governments in developing Asia remain apathetic to the water loss issue."

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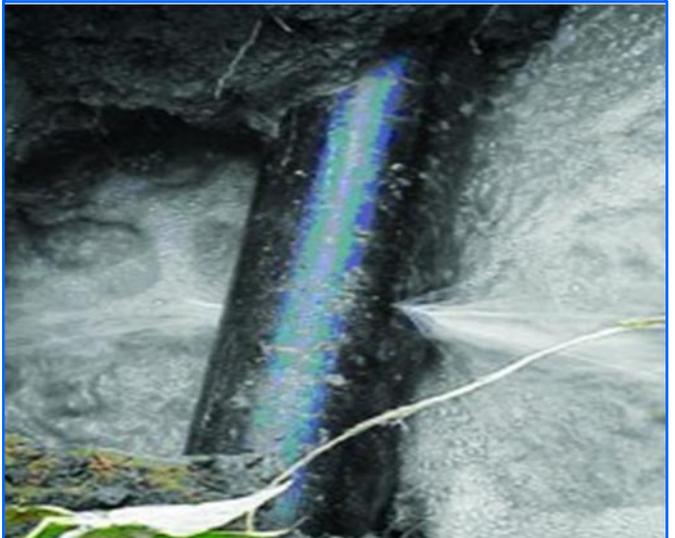
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UNDER PRESSURE: THE FAILURE OF UTILITIES TO TACKLE WATER LOSS. Contd.

		Billed authorised consumption	Billed metered use	Revenue water
	Authorised consumption	Unbilled authorised consumption	Billed un-metered use	
			Unbilled metered use	
			Unbilled un-metered	
System input volume		Apparent losses	Unauthorised use	
			Metering inaccuracies	
			Leaks on transmission and/or distribution	Non-revenue water
Water losses		Real losses	Leaks on service connections up to customer meter	
			Storage tank leaks & overflows	

Yet signs suggest incremental change may at least be underway. A handful of urban exceptions—in Brazil; the Bahamas; Palembang, Indonesia; Siem Reap, Cambodia; and Da Nang, Vietnam—have shown how to succeed in managing non-revenue water. If utilities previously relied on a lack of funds, knowledge, or rationale to fix non-revenue water, says Andrew Chastain-Howley, of Black & Veatch, “we are seeing an uptick in interest in the subject”. Tracking down non-revenue water involves a complex process that continues to evolve. But non-revenue water represents a mix of not only leaks in the distribution system but also leaks of data and information from challenges with meter reading and billing, as well as theft from illegal connections. And it’s not just water that vanishes; with every drop leaked or lost, you also see disappear the expensive chemicals, energy, carbon footprint and labor that went into treating the water in the first place. To prepare for an outside audit, or conduct one internally, the American Water Works Association and the International Water Association help break down all water into three categories: Unbilled Authorized Consumption: water consumption that public policy exempts from paying rates. Think water used for fire-fighting, drinking fountains or water used to flush mains. Apparent or ‘Commercial’ Losses: water theft, data errors and metering inaccuracies. Think slow, inaccurate or misread meters, and unreported, unauthorized usage from hydrants and mains. Real or Physical Losses: leaks in the system, everywhere from

storage tanks to transmission and distribution mains, to pre-meter leaks in service connections. The goal of an audit and proactive steps that follow “is not to get to zero water loss,” explains Steve Cavanaugh, Chair of the Outreach Subcommittee of the American Water Works Association Committee on Water Loss Control. “Rather, it is to get to the economic level of water loss considering the current circumstances.” That level is not static. “Environmental, political, regulatory, public relations and other drivers are constantly evolving so the utility develops business practices that are sustaining,” adds Cavanaugh. Interest appears contagious. On 4 December, Washington DC hosted a high level NRW workshop, jointly organized by the World Bank and the Inter-American Development Bank, sharing lessons from Vietnam to Jamaica. The following week Atlanta, Georgia, hosted North America’s first ever conference on non-revenue water, which attracted 500 attendees from 37 states and 15 countries. Next month India is linking non-revenue water to intermittent provision [See article on page 38: *The value of 24/7 water*], as more than 95 percent of all cities in South Asia have only a few hours’ daily supply. “Water utilities are under game-changing pressures today from internal and external forces,” says Steve Cavanaugh. “Most managers don’t know what they don’t know, but across the industry, people are starting to wake up and decide how to get their hands around this issue. We are finally reaching a tipping point.”



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OVERVIEW OF RIVERS STATE WATER DEVELOPMENT LAW NO. 7 OF 2012-Contd from P.7

GENERAL OVERVIEW : The law is divided into 8 parts with a total of 175 sections and five (5) schedules as follows: **Part I** - General objectives and principles (Sections 1 and 2)

- Provision of right of access to basic sanitation and water supply for human health and wellbeing - section 1(a)
- Encouragement of private sector participation in water supply and sanitation - 1(l)
- Commercialization and freedom from political interference - section 2(2)
- Equal gender representation in all water and sanitation decisions - section 2(2) (i)
- Development of sector plans - section 2(2) (k & l)
- Independence of the Regulator.
- Cost recovery and affordability - section 2(2)(t)

Part II-Establishment, composition, functions, powers, etc of the Port Harcourt Water Corporation - sections 3 – 48 : 8-member Governing Board (two are Government Representatives) mainly professionals to ensure freedom from political interference.

- The Corporation is expected to be self-sustaining.
- The Board of the Corporation has nine(9) functions - section 8
- The Corporation has twenty (20) functions - section 11
- The Corporation has wide powers under section 12(1)(a - q): A total of 17 powers and an omnibus power under section 12 (2).
- Robust sources of funding:
- Sources under section 19
- Special Reserve Fund - section 22
- Loans and Grants - section 23
- Gifts - section 26
- Capital Market, issuance of Bonds and other instruments - section 29

Note that -

- Proposal for water and sewage management tariffs, collection of rates and charges payable by customers are subject to the approval of the Commission (see sections 11(12), 12(1)(c), 33 and 37.
- The responsibility of the Corporation to consumers for continuous supply of water under section 32.
- The establishment of customer care center under section 42
- Limitation of the suits, pre-action notice and restriction on execution against the Corporation - sections 42, and 44.
- Restriction of abstraction by Fire Authorities - section 48

Part III - Rivers State small Towns water supply and Sanitation Agency: Establishment, composition, functions, powers, etc of the small Towns Water and Sanitation Agency (Sections 49-74).

- RSSTOWA, like the PHWC, is also independent.
- It also has a Corporate Board constituting 9 non-government representatives and only 3 Government Representatives (section 51)
- 4 year tenure for Board members, eligible for another 4years.
- Board given 7 specific duties - section 54
- 14 functions and wide powers - sections 58 - 59
- Robust funding provisions similar to PHWC- section 65
- Responsibility to consumers for continuous supply of water - section 67
- Payment for standpipes - section 72
- Description of Small Towns (Semi - Urban): 5,000 - 20,000 population (Schedule II)

The Board is to attend to the water supply needs of the sub-urban areas and small towns that are ever expanding all over the State.

Part IV - Establishment, Composition, Functions, Powers, etc of the Rural Water Supply and Sanitation Agency (sections 75-100).

- Part time Board made up of mainly ex-officio members - section 76
- Just three (3) functions of the Board - section 78
- Twenty (20) functions and seven (7) powers of the Agency - sections 80 and 81
- Establishment of five (5) departments and their responsibilities- section 83
- Establishment in each LGA of Rural Water Supply, Sanitation and Hygiene Department (WASH Department) - section 84
- Establishment in each LGA a Water Supply, Sanitation and Hygiene Committee (WASHCOM) - section 85
- Funds for Capital Projects
- It is an important body that would involve community and private participation in provision of water in the rural areas.

Part V-Role of Government - Sections 101 - 115

- State Government to Co-ordinate - section 101
- Responsibility of MWRRD - section 102
- Establishment of Water Consumer Associations (WCAs) in Small Towns -section 103
- Establishment of State Water and Sanitation Information System - section 104
- Preparation of Water Sector Development Plan - section 106
- Matters related to Water Sector Development Plan - section 107 - 112
- Role of Ministries of Environment and Health - section 113 -114
- Prevention of Water Pollution, responsibility of every person - section 115

Part VI - Establishment of the Rivers State Water services Regulatory Commission - sections 116 - 163

- An independent Regulator
- Sections 116 - 136 relates to establishment of the Commission and related matters
- Sections 137 - 163 are provisions for special regulatory functions of the Commission

Part VII - Offences and Penalties - Sections 164 - 172

Offences include:

- Illegal construction of water works - section 164
- Water diversion and pollution - section 165
- Wastage of treated water - section 166
- Fraudulent measurement - section 167
- Nuisance - section 168
- Obstruction of Staff - section 169
- Impersonation - section 170
- Conspiracy - section 171
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Part VIII-Miscellaneous and Transitional Provisions - Sections 173 - 175.

- Repeals and Savings
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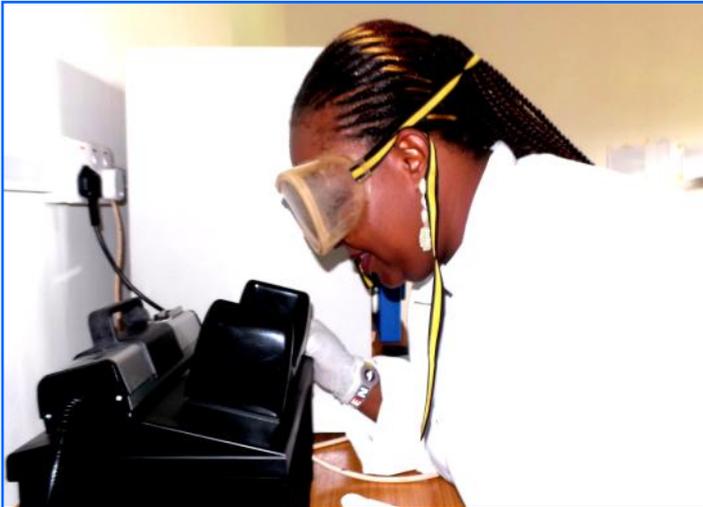
WATER AND SANITATION NEWS

PHWC e-Newsletter

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www.portharcourtwater.com

THE IMPORTANCE OF WATER QUALITY TESTING AND ANALYSIS –Daisy Anderson (Staff Writer)



90% of the diseases in Port Harcourt are water borne as most areas are affected by water pollution and microbial water –bound contaminants like cholera, diarrhea; The increased demand on water suppliers have often led to water that is unfit for human consumption. Recent publicity about water pollution problems especially as they affect the water we use in the homes for drinking, cooking, washing and many other purposes have reached a climax. This has raised a lot of concern about the quality of our drinking water that comes from our private boreholes or private water sources. It should be noted that there is no such thing in nature as “pure water”. This is because nearly all water contains contaminants, even in the absence of pollution causing activities. Many dissolved minerals, organic compounds and microbes find their way into drinking water as water comes into contact with air and soil.

In water quality testing and analysis, pH is a measure of the acidity of water. Any water with pH levels under 6.5 is considered acidic and not safe for consumption, but water with a pH between 7.5 and 8.0 is considered safe and healthy for drinking and other uses. It must be noted that 7.0 is the neutral level and benchmark for measuring the safety of any drinking water. A deviation from that benchmark either up or down is considered no more safe and healthy. Water analysis is the first step in determining the quality of the water we use in our homes or in commercial enterprise. Water supplied to cities, towns and villages should be tested on a regular basis. Private water supplies are never tested by any official body and it is the responsibility of a homeowner to look after and protect their own water supply. Well and surface water is vulnerable to pollution and should be checked for bacteria and nitrates on an a regular basis. Chemical issues such as brown discoloration, corrosion and lime scale are caused by the natural rock formations in the well. Most chemical issues with water can be corrected by appropriate treatment.

There are over 50 World Health Organization (WHO) water quality tests that can be carried out on water. While some

Water samples are checked for all parameters, it is more economical to test for parameters that are of particular interest when an issue arises. For home water supplies, a set of parameters is picked which examines the typical problems found in that location. Some of these include bacteria tests like total and fecal coli forms and chemical tests like dissolved solid, iron, manganese, nitrates, alkalinity and water hardness. When necessary, additional tests, for example metals such as copper, lead and arsenic are added. When having water examination carried out it is always crucial to explain the reason for testing to the laboratory. The laboratory will recommend the appropriate set of tests for the issue you want to examine since some problems are intermittent, it is also important to submit a sample when the problem is present in the water. A good example of this is where water gets discolored after heavy rain. If testing this type of water, it is obviously best to take the sample for testing, when the discoloration is present in the supply. Water should be tested immediately if it suddenly develops any unusual color, taste or odor.

Port Harcourt Water Corporation (PHWC) has been empowered by the Rivers Water Development Law No. 7 of 2012 and by the Rivers State Water Services Regulatory Commission (RSWSRC) as the only organization in Port Harcourt and Obio Akpor Local government Areas of Rivers State to conduct water quality test and analysis and issue certificate. Port Harcourt Water Corporation (PHWC) has also established a high standard Water Quality Testing and Analysis Laboratory which has been opened to the public for water quality standard testing, analysis and certification. Port Harcourt Water Corporation standard of certification for safe and clean water is based on the Nigerian Standard for Drinking Water Quality (NSDWQ), regulated by the Standards Organization of Nigeria (SON CAP 412). It also conforms to World Health Organization (WHO) Guideline for drinking water quality 3rd edition 2004.



Port Harcourt Water Corporation Water Quality Test and Analysis Laboratory Technicians at work.

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THE EMERGENCE OF RIVERS STATE WATER SECTOR DEVELOPMENT LAW NO. 7 OF 2012: AN OVERVIEW – Gilbert Emmanuel Esq. (Legal Adviser PHWC)


Chapter II of the Constitution of the Federal Republic of Nigeria, 1999(as amended) gives a vivid insight of the Fundamental Objectives and Directive Principles of State Policy. It outlines the principles and objectives that should act as a barometer to guide the Government’s actions and policies in promoting amongst others the social, economic and environmental objectives as they relate to the general well being of the citizenry. The social, economic and environmental objectives entrenched in our constitution are some of the fallouts from the International Covenant on Economic, Social and Cultural Rights (ICESCR) adopted by the United Nations on the 16th of December, 1966 with effect from 3rd January, 1976.

Nigeria as a State party to this international treaty ratified the treaty on the 29th July, 1993. The ICESCR recognizes the right to water under Article 11. It is interesting to note that the Rivers State Government reviewed its laws and policy on water governance and came up with its first comprehensive Water Policy in 2010 and made public in 2012. In reviewing its policies and laws on water and sanitation delivery, the State Government took into consideration, amongst others, the UN Convention on Economic, Social and Cultural Rights which recognizes right to water as a basic human right. The Rivers State Water Sector Development Law, No.7, 2012 was enacted by the Rivers State House of Assembly in 2012. The law was in the Rivers official gazette as No.5, Volume 51 of 3rd March, 2015. Under Section 2 of the Law (General Principles for Water and Sanitation Services in the State), it is provided as follows in subsection 2(a-c): Water resources within the state are a common good belonging to all residents of the state; Within the context of an Integrated Water Resources Man

agement (IWRM) approach to managing water resources, the government recognizes Water as a social good, an economic good, as well as an environmental good; Everyone has a right to access to basic portable water and basic sanitation which right takes precedence over supply for other uses; Another salient point to note here is that the Rivers State Government has divested itself from direct ownership of all water and sanitation infrastructure assets and has recognized ownership to lie on the citizens. This is an indication for grassroots participation in the water sector. The Government now only holds these Public water and sanitation infrastructure and assets in trusts for the Public. See Section 2(2) (f). The law created and corporatized three Water and Sanitation Agencies and an independent Regulator. Port Harcourt Water Corporation as one of the Statutory Public Utilities has been vested with the control and management of all public water and sanitation infrastructure and assets in Port Harcourt and Obio/Akpor Local Government Areas of the State. The other Agencies are the Rivers State Small Town Water Supply and Sanitation Agency (RSSTOWA) and the Rural Water Supply and Sanitation

Conclusion: The Public and water consumers should avail themselves of their right to safe, affordable and basic water Supply and Sanitation as provided for by the Water Sector Law. Equity they say does not aid the indolent. The time is ripe for water consumers to access their right to safe, affordable clean water and not the unsafe water provided through private bore holes which are not tested nor treated and more often than not polluted by oil exploration activities, inadequate and unsafe private sewage systems and the infusion of toxic chemicals, gas and waste water into private boreholes through fracking carried out during Gas exploration. Port Harcourt Water Corporation has a state of the art laboratory to test water quality. The Regulatory Commission, through the power vested on it by the WSD Law has delegated the power to test water quality to the Corporation.



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World Bank Event on Water Quality Testing: Everything You Always Wanted to Know: October 5, 2016 Washington, D.C. & Online

Water quality is a universal concern, from lead pollution in Washington, D.C. and Flint, Michigan to fecal contamination in poor developing countries. Water quality affects development across sectors - from public health to nutrition, from agriculture to social resilience, from environment to natural resources and poverty. Yet the wide array of possible contaminants, testing methods and treatment options can be bewildering to researchers and project managers alike. Dr. Mark Sobsey from the University of North Carolina will present on the importance of microbial water quality analysis in support of the Sustainable Development Goals, highlight key

water quality parameters from a health perspective, outline innovative testing methods in low-resource contexts and discuss emerging and alternative treatment methods.

The presentation will be followed by a short overview of recent applications of water quality testing in World Bank projects and research in Liberia, Nigeria and the Democratic Republic of Congo. The event will conclude with a question & answer session to ask everything you've always wanted to know about Water Quality Testing. For more inquiries visit: <http://www.worldbank.org/en/events/2016/10/05/water-quality-testing-everything-you-always-wanted-to-know>

