

WATER NEWS UPDATE

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Issue 04/24



Tuesday, April 30, 2024



In this issue

- NCWSC intensifies crackdown on illegal connections ..pg 1
- Water Committee Reviews 2024/2025 Budget..pg2
- Know Your Water Source : Ruiru Dam..pg 3
- One Foundation Director visits Mukuru Kwa Ruben..pg 3
- NWSC bags ICT award ..pg4
- Profile: Martin Kareithi, the only Licensed Remote Pilot..pg5
- Situational Awareness at Work ...pg6
- Picture Spread..7-9

NCWSC INTENSIFIES CRACKDOWN ON ILLEGAL WATER CONNECTIONS

The Company in collaboration with National Police Service's Critical Infrastructure Protection Unit (CIPU) recently conducted a major crackdown on illegal water connections in Kyang'ombe area along the Southern bypass.

The operation aimed to address the escalating cases of illegal water connections to the main water supply lines.

The ongoing joint efforts of NCWSC and law enforcement agencies also seeks to safeguard the integrity of the water supply system and maintain fair access to water resources and prevent exploitation by unauthorized entities.

Another operation was also conducted at Huruma area with the support of the Administration Police Unit. The swoop saw 8 suspects arrested and booked at Huruma Police station and later taken to court.

The government has put water resources under the Critical Infrastructure Protection Unit for round-the-clock guard to curb the rising cases of vandalism and theft of the country's water supply and sanitation infrastructure.

The Unit will ensure that all critical water facilities are safeguarded against criminal activities in counties under the state water works development agencies.



Suspects arrested in connection with water theft are booked at Huruma Police Station

Water Committee Reviews 2024/2025 Budget



Managing Director, Eng. Nahason Muguna, engaging the participants during the budget review workshop with Nairobi County Assembly Sectoral Committee on Water and Sanitation,

Nairobi City County Executive, County Assembly Sectoral Committee on Water and Sanitation, and Nairobi City Water and Sewerage Company held discussions on the company's 2024/2025 budget.

The meeting provided insights on the company's income and expenditure, current achievements, opportunities, challenges, and plans as well as other matters that contribute towards the execution and delivery of water and sewerage services.

"It is important that we recognize the enormous responsibility that rests on each one of us. The achievement of Sustainable Development Goal No. 6. on water and sanitation, Kenya's vision 2030, and Nairobi County Government's manifesto call for concerted efforts by all sector players." Stated County Executive Committee Member- Green Nairobi, Mr Ibrahim Auma.

Mr. Auma expressed his satisfaction with the Company's water and sewerage programs that have been rolled out to enhance service delivery to the City residents. He also commended the Board for its leadership in making the budget process all-inclusive by ensuring adequate internal stakeholder participation.



County Executive Committee Member- Green Nairobi, Mr Ibrahim Auma (far left) follow proceedings during the retreat

"The process enriches the budgets when valuable deliberations and inputs are taken into account. This way we can understand why a project is proposed for budget allocation. I assure you of the County support with the leadership of H.E Governor Sakaja as we continue to take steps towards greater possibilities of making this city a place to live with dignity." Remarked Mr. Auma.

The Managing Director, Eng. Nahason Muguna, appreciated the leadership and support provided by Nairobi County saying it has empowered the Company to embrace Governor Sakaja's clarion call for a City of Order, Dignity, Hope, and Opportunities for all as envisioned in the County manifesto as well as Water and Sanitation goals outlined in the 2023-2028 County Integrated Development Plan(CIDP).

"Deliberate concerted efforts have been employed to upscale operational efficiency in the provision of water and sewerage services." Said Eng. Muguna.



A section of participants follow proceedings during the retreat

He also highlighted some of the strategies the company plans to employ to meet the revenue targets set such as a robust debt recovery framework, sustained efforts towards reduction of Non-Revenue Water, targeted staff development initiatives, growing the customer experience, and entrenching sound financial discipline.

"Currently we anticipate a growth in revenue of 10.86 billion for the FY 2023/2024 and we project revenue of 17.12 billion drawn from collections, customer deposits, and other sources of income which translates to a projected increase of 58%." Eng. Muguna told the meeting.

Agness Cheggeh
Corporate Affairs and Liaison Department

Know Your Water Source : Ruiru Dam

Ruiru dam is located near Githunguri town, Githunguri Sub-County, Kiambu County. It covers about 100 acres and is about 18 meters deep at the dam wall.

Ruiru and Kimaiti rivers are the main sources of water to the reservoir. Other rivers are: Kaminditi, Kanyiriri, Kibathithi I, Kibathithi II, Ngeteti, and Waingere. These rivers flow mainly through cultivated and/or grazing land within the reservoir's watershed.

The dam is one of the strategic sources of water to the City of Nairobi. It supplies the City of Nairobi with about 21,700 m³/day which is approximately 5% of the city's water supply.

The core objective of the Ruiru Dam is to collect, store and transmit raw water to Kabete where it is treated to portable standards for distribution to customers.



Ruiru Dam

The feasibility study of the dam construction started in 1926, and the first pipeline (DN 225mm) was completed in 1938. Around 1950 all pipelines (DN225; 300; & 400) were completed and commissioned as a water source to the city alongside three other sources (Thika dam, Sasumua, and Kikuyu springs).

The management of this reservoir has transitioned from the colonial government during its construction stage, through the subsequent councils to the current County Government of Nairobi.

The catchment area and the reservoir (Dam) are critical components of the water supply system. The catchment region covers an area of approximately 6680 Ha which extends all the way to the Kikuyu escarpment and the headwaters are at the present day Uplands forest.

Benedicto Khisa
Ruiru Dam Coordinator

One Foundation Director tours Projects In Mukuru Kwa Ruben

The One Foundation Director Mr. Duncan Goose, recently paid a visit to Mukuru kwa Ruben where NCWSC through the partnership of WSUP has implemented the simplified sewer systems (SSS) and the pre-paid water dispensers.

The projects are geared towards the last mile connectivity of water and sewer to the informal settlements to complement the Company's pro-poor initiatives which contribute towards improving the lives of informal settlement residents.



One Foundation founding Member Mr. Duncan Goose tours Mukuru Kwa Ruben

During the visit, Eng. Kagiri Gicheha the Informal Settlements Regional Manager noted that the simplified sewer systems have provided a safer environment for the inhabitants while the pre-paid water dispensers has brought water closer to the residents thus enabling them to save on their time and resources in finding for their household needs.



Ag. Informal Settlement Manager, Eng. Kagiri Gicheha briefs Mr. Duncan Goose on the Pre-paid Water Dispenser and Simplified Sewer System projects

One Foundation is among the donors of Water & Sanitation for the Urban Poor (WSUP) to achieve their mandate of improving the lives of individuals especially the urban poor by providing access to clean water and safely managed sanitation.

The Company was recently honored with the Public Sector CIO100 Award for its innovative use of technology to revolutionize operations, enhance efficiency and improve customer satisfaction.

The CIO100 Awards program organized by the African digital transformation driver, dx5, celebrates organizations and individuals utilizing IT in innovative ways to deliver business value, whether by creating a competitive advantage, optimizing business processes, enabling growth, improving customer relationships, or digitally transforming the business.

The awards recognized winners in different categories, from which the Company emerged top in Africa, scooping the Public Sector Award.

NCWSC has leveraged on technology to implement various automation measures that have enabled it to:

- Promote transparency and accountability within the organization by empowering customers to track the progress of their water and sewerage services applications.
- Empower the customers to print and view water consumption statement online.
- Reduce the duration of the contacting process by decreasing it from 30 days to a more efficient 14 days, thereby enhancing operational efficiency.
- Empower customers by allowing them to submit their own meter readings, incase our meter readers are unable to access their premises for one reason or another thus eliminating the need for estimating the bills and further enhancing their engagement with the Company's services. This has reduced the number of customers being estimated, reduced customer complaints, non-revenue water and improved the Company revenue collections.
- Boost Company revenue and accountability by enabling customers to purchase water bowzers conveniently through a unified platform, the USSD code *888#.
- Facilitate customer access to the Company's services with a simple click of a button. This has been achieved through the automation of the customer contracting process for water and Sewerage Service applications, the streamlining of the process for ordering water bowser services and lastly enabling them to perform self-meter readings.



"It is a fete we should all be proud of because it has been a team effort," said the Information, communication, technology director, Martin Nang'ole when reached out for comments on the award.



Joyce Kinyua
Corporate Affairs and Liaison Department



Martin Kareithi, MISK (centre) moderating one of the breakout sessions in this year's Artificial Intelligence (AI) Conference in Nairobi on application of Survey-grade UAVs (drones) in surveying & mapping

Martin I. Kareithi, MISK, is a registered Surveyor with the Institution of Surveyors of Kenya and is finalizing his Master of Science Degree in Geospatial Information System (GIS) and Remote Sensing from Jomo Kenyatta University of Agriculture and Technology (JKUAT).

He also holds a Bachelor of Science Degree in Surveying from the University of Nairobi with over 15 years' experience in the field of surveying and mapping having worked on numerous projects both in Kenya and abroad as a Lead Surveyor and Project Manager especially in utility oriented fields.

The certified trainer in AutoCAD Civil 3D joined the organization in December 2012 as a GIS Officer following the creation of Non-Revenue Water Department. So, what does his job entail?

"I am in charge of designing and customization of online ArcGIS platform and tools for use by different sections within the Department in data collection and analysis leading to identification of locations with water illegalities and other losses by use of Survey 123 and Field Map Apps e.g. field mapping and identification of illegal water consumers and leaks." He states.

He is also tasked with updating the company's GIS database e.g. mapping of water networks and taking inventory and condition survey exercises of various company assets e.g. transmission off-take water meters as well as undertaking spatial data analysis.

The registered Surveyor by the Land Surveyors Board says the acquisition of Web enabled GIS System by the Company has enabled his Department to deploy the platform in day-to-day operation in a host of areas including; mapping & reading of off-take water meters along transmission corridors; customer identification survey; field revisits to implement previously identified illegalities; borehole mapping and leak mapping, among others.

The Kenya Uncrewed Aircraft Systems Association (KUASA) Member is passionate about Geospatial disruptive technologies specifically on use of UAVs (drones) in surveying and GIS Mapping and customization of Artificial Intelligence in the surveying profession. He also has his sights set on Infrastructure Asset Management and Non-Revenue Water Management.

On the ever evolving technology, he adds that tech is gradually taking over in changing the way things were done before.

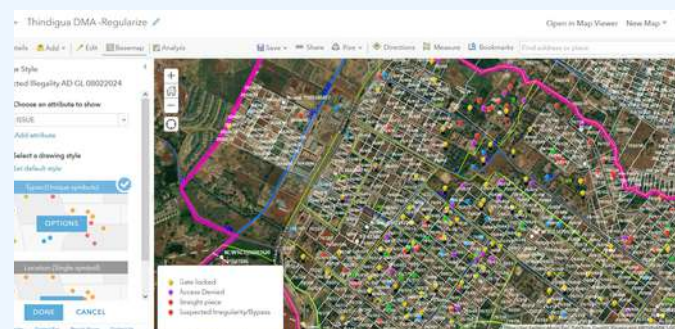
"Tech has revolutionised how things are done. Thanks to technology, boring or difficult chores can become enjoyable. Furthermore, duties have become even simpler in recent years thanks to automation and artificial intelligence, which has made life easier." He says.

Regarding the future of GIS technology in addressing water and other infrastructural challenges, Kareithi is upbeat.

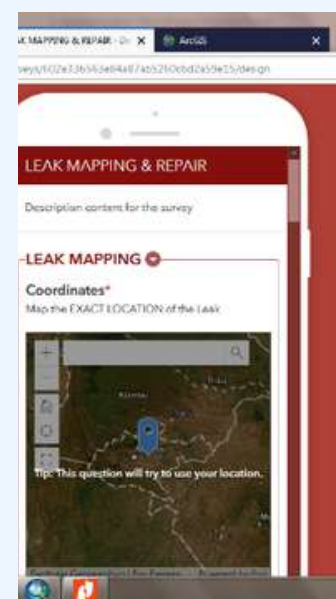
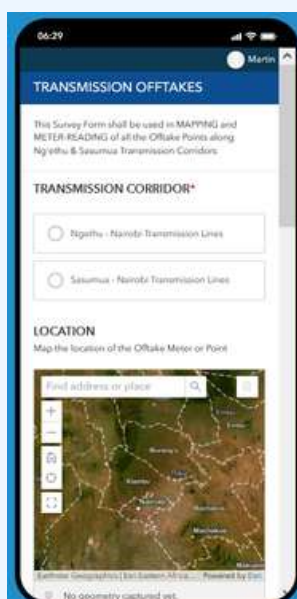
"I look forward to steering the use of the GIS Mapping and tools in addressing the ever evolving challenges in both the water and other infrastructure utilities.." He says

He adds: "The tech space is dynamic and continuously evolving. It is imperative that we embrace the emerging trends with a critical eye, an open mind and a yearning to harness the potential of tech especially in tackling the elephant in the room- Non-Revenue Water. I've learnt to quickly adapt to the ever-changing market dynamics by upskilling and keeping abreast with the emerging trends"

Kareithi is also the only Remote Drone Pilot in the Company licensed by Kenya Civil Aviation Authority (KCAA).



Use of GIS to identify some illegal water connections at Thindigua District Metering Area (DMA)



Samples of designed forms used as tools in data collection

Situational Awareness in Ensuring Safety at Work

Situational awareness is a worker's ability to capture cues and clues from what is happening around them, then being able to put them together to mean something and predicting future events, especially potential risks/threats.

It is on-the-job skill that is critical for hazard identification, effective decision making and accident prevention. It simply means paying attention and being aware of what's going on around you. Situational awareness helps in ensuring safety in a constantly changing high risk environment such as NCWSC worksites.

There are many factors that will reduce situational awareness of workers. This can be organizational (e.g. poor design of processes, long working hours of workers, organizational safety culture etc.) or individual (e.g. lack of knowledge on how to work safely and lack of experience in executing the task/assignment etc.). Others include; mental or physical fatigue, complacency, poor/lack of proper communication as well as thoughtlessness.

Situational awareness should be happening all the time, throughout the work day. However, there are times when you should increase awareness of your surroundings and actions. Some instances calling for heightened awareness are when: starting a new/non-routine task; new staff, attendees or casual workers have been deployed to your team, having visitors at the work site and site exposes members of the public especially children to risk of fall and entrapment/death and beginning a new project even if you have performed the task before



Training of Fire Marshals at Kabete Treatment Works

Situational awareness should be happening all the time, throughout the work day. However, there are times when you should increase awareness of your surroundings and actions. Some instances calling for heightened awareness are when: starting a new/non-routine task; new staff, attendees or casual workers have been deployed to your team, having visitors at the work site and site exposes members of the public especially children to risk of fall and entrapment/death and beginning a new project even if you have performed the task before

Another scenario calling for situational awareness is if high hazard operations are taking place e.g. working at a site with high voltage electrical cables (above ground/underground), demolition of structures, lifting of heavy materials, entry into confined spaces and during excavation works.



TEAM NYATI/ IN PICTURES



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