



WATER RESOURCES AUTHORITY

COMMISSIONING OF THE TELEMETRIC WATER MONITORING STATION

Ministry of Water & Sanitation Cabinet Secretary Mr. Simon Chelugui on 12th July, 2018 commissioned the installation of a Telemetric Water Monitoring system. This project was part of the RRI deliverables that the Ministry through Water Resources Authority had set to operationalize within the 100 days.

RRI was launched on 24th May 2018. The Project undertaken by the Authority is set to benefit Over 15 million people through the use of the data sets in decision making, planning and for development. It is also meant to assist about 1.6 Million households to prepare adequately for both floods and drought. Improvement in data collection is one of the Vision 2030 flagship projects.

Water Resources data is essential for effective planning and decision making hence why it is a crucial enabler of the Government Big Four Agenda. Quality data is essential for:

- ◆ Basin planning -(water allocation – determining the available water resources e.g. for irrigation schemes),
- ◆ Regulation and enforcement purposes
- ◆ Construction of water supplies, dams, bridges, culverts, river crossings, road drains, planning new settlements etc.
- ◆ Construction of hydroelectric power generation,
- ◆ Analysis of climate change trends
- ◆ Data products that inform policy formulation.

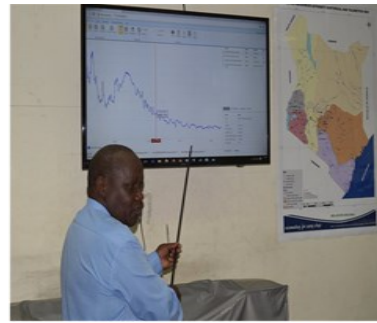
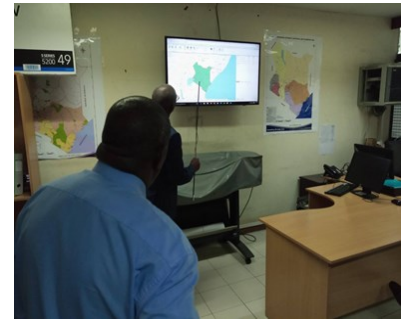


Inside this issue

Telemetric Water Monitoring	1
PURES (Pupils Reward Scheme).....	2
Water Conservation Initiative	3
Mara Day Celebrations	4
Drilling of dedicated ground water monitoring wells in the country	4
Restoring Mt. Kenya Rivers.....	5
Sagana River System.....	5
KEWI graduation.....	6

The expected impacts of the installation and operationalization of the Telemetric Water Monitoring System:

- ◆ Equitable allocation of water resources,
 - ◆ Water use efficiency
 - ◆ Better planning for development
- ◆ from the reliable data
 - ◆ Reliable data for decision making,
 - ◆ Reduced negative effects from flood and drought through alerts
 - ◆ Improved water resources knowledge base



PURES (Pupils Reward Scheme)

PURES is a mentorship program which was launched by His Excellency Hon Uhuru Kenyatta C.G.H President of the Republic of Kenya and Commander in Chief of the Defence Forces and her Excellency the First Lady, Margaret Kenyatta. The PURES program was initiated by the president to motivate pupils to work hard in their studies and instill in them a sense of discipline, direction and patriotism. The project enables students a chance to experience what it takes to be in government leadership and to offers services and also to make informed choices when it comes to choosing a career.



Ag. Water Secretary MoW&S Eng. S. Alima, Director of PURES program, WRA CEO - Mr. Mohamed Shurie.



CAS MW&S Mr. Winnie Guchu with the participants during the PURES

COMMISSIONING OF WATER CONSERVATION INITIATIVE

One of the key functions of WRA is to “Improve the Protection of Water Resources within the country”. It is based on this core function that the Authority identifies and conserves the groundwater resources which are under threat; among them being the Kikuyu Springs Aquifer, a significant public water source in the northwest Nairobi area and hence vital for the capital city’s water supply.

Land use changes, encroachment of the Ondiri Swamp and escalating groundwater abstraction are a source of concern about the long-term sustainability of the Kikuyu Springs as a public water supply source. Its main recharge rock is the Limuru trachyte, but groundwater infiltrates way down into the Karura and Kabete trachytes which form the second of the two main aquifers. A clear recharge path is developed between Bathi Springs in the north, through Kikuyu Springs to Kerarapon Springs south of the aquifer.

In bid to promote ground water conservation of the recharge areas, the Authority has among other initiatives initiated a 15,000 tree planting initiative along Bathi River, its tributaries and in institutions around the area. WRA also commission roof water harvesting tanks at Kabarage and Kamahia schools as well as take part in the planting of trees in the schools on 18th June 2018.

In tandem with WRM Rules 2007 and Sections 17 and 44 of the Water Act 2002, the Kikuyu Springs recharge areas is in the process of being gazetted as a Groundwater Protection Zone and Groundwater Conservation Area.



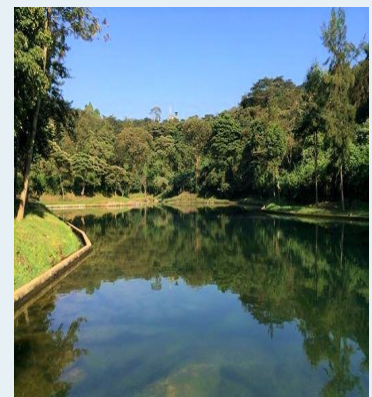
Lari area MP Mr. J. Mburu addressing the board, teachers, pupils of Kamahia primary & WRA Staff during the commission of roof harvest tank.



Lari MP Mr. J. Mburu & WRA DTCM for Ground Water Mr. Agatha Njuguna during a tree planting session at Kamahia school.

QUOTE

“Water is one of the most important basic resources. It is indispensable not only to human life but also for agricultural and industrial development. Water must be treated differently from other natural resources such as minerals, which can be reserved in their natural form and saved until required,



So that if only a little is used in our generation, more will be available in the next. The flowing water of a river cannot be preserved in this way. Any water unused today is lost in useful purpose forever. Each year by which development is delayed diminishes the potential value of life giving water to mankind. Also uncontrolled flowing water is a major cause of human suffering and misery. Regulated and put to use, the same water is the basis of life and civilization”.

~ Mzee Jomo Kenyatta - First President of the Republic Of Kenya ~

Kenya was once again proud to host the 7th edition of Mara Day, this time round being hosted by Narok County in rotation with Bomet County; Mara River Basin Day Celebration was held at Kilgoris Modelling Primary School, both of which are within the Mara River catchment boundaries. The one day international event, bringing together the two sister riparian states to a celebration of progress being made to sustainably manage the water resources of the Mara River Basin.

The Mara is an important basin offering a wide range of ecosystem services comprising of human habitat of about one million inhabitants, several thousands of livestock, wide population of wildlife and aquatic fauna and flora in both the Maasai Mara and Serengeti sanctuaries.

The Mara Basin forms part of the greater Mau Complex which is currently under rehabilitation from human encroachment with a view of conserving it for sustainable management and development of the natural resources. Indeed all the water towers in the country will be protected, conserved and preserved for the current and future gener-

MARA DAY CELEBRATIONS 2018



MoW&S CS Simon Chelugi, PS Joseph Irungu & WRA CEO Mr. Mohamed Shurie leading the delegation at the WRA stand during Mara day celebrations 2018

DRILLING OF DEDICATED GROUNDWATER MONITORING WELLS IN THE COUNTRY

For a long time Kenya has not had dedicated groundwater monitoring wells, monitoring of groundwater has been done through privately owned production wells the results of which have not been truly representative of the actual groundwater situation especially in the stressed aquifers. The only monitoring wells in existence Base titanium drilling in Kwale County.

WRA is in the process of drilling dedicated groundwater monitoring wells in three of the most stressed aquifers namely Tiwi Aquifer in Kwale County, Shella Sand Dunes in Lamu County and the Nairobi Aquifer Suite in Nairobi and Kiambu Counties.



Base titanium drilling in Kwale county and dedicated Monitoring well installed in one of the Nairobi Aquifer sites at Uhuru Park

WRA RESTORING RIVERS IN Mt. KENYA & ABERDARE RANGES

Mt. Kenya is the highest mountain in Kenya with a height of 5199m above sea level. It is the main water catchment area for two large rivers in Kenya, Tana River, the largest river in Kenya and the Ewaso Ng'iro North River. The Tana and Ewaso Ng'iro Drainage basins are named after these rivers respectively. Many of Mount Kenya Rivers flow into the Sagana River which is a tributary of the Tana River which it joins at the Masinga Reservoir. There are other Rivers which drain directly into Tana River especially rivers to the South and East, such as the Mutonga and Nithi Rivers. Mt. Kenya is located within the Nyeri, Kirinyaga, Embu, Meru and Laikipia Counties.

On the other hand the Aberdares Mountain Ranges is a 160km long mountain range with an average height of 3500m above sea. Its highest peak is 3999m above sea level. The Aberdare is the source of many rivers which drain into the Tana River. It is the water catchment for Sasumua and Ndakaini dams which are the major water sources for Nairobi City County.

Currently the Rivers affected by low flows are the ones on the Lee-ward side of Mt. Kenya, mainly the Sagana River system. Rivers flowing from the mountain's wind ward side and flow towards Kirinyaga, Embu and Meru Counties are flowing at normal flow level. The same is the case with Rivers flowing from the Aberdares



SAGANA RIVER SYSTEM

The Sagana River drainage system originates from the Mt. Kenya Forest ecosystem and it is formed by three major rivers namely Sagana, Thegu and Nairobi Rivers. This drainage system is under management unit 4AA located on the leeward side of Mt. Kenya. There exists a Regular Gauging Station coded 4AA01 situated at the Sagana State Lodge for water resources monitoring along this drainage system. The Upper Sagana drainage is composed mainly of three major rivers namely Sagana, Thegu and Nairobi Rivers while Rivers Little Gathagana, Nguniu, Gakuraa, Hombe, Muthira and Ragati that originate from Mt. Kenya also drain into Sagana River as it flows downstream to form the Tana - Sagana River. Sagana River traverses the counties of Nyeri, Kirinyaga and Murang'a on its lower sides before draining into Masinga dam in the Eastern part of the country.



Ministry of Water & Sanitation CS Simon Chelugui leading WRA staff and community leaders in demolishing illegal water intake along Sagana River

Kenya Water Institute (KEWI) Graduation

Water Resources Authority (WRA) was pleased to grace this year's 2018 graduation ceremony of Kenya Water Institute. This gesture was motivated by one of our core values "involvement". WRA being a state parastatal is dedicated in uplifting education standard in its area of operations. WRA had an opportunity to exhibit during the graduation ceremony of the only institute in the country which offers water related causes and donated the awards to the best students in various academic fields.

WRA recognizes the continued need to invest in education, specifically in water related fields as well as the role that education plays in transforming lives in areas such as water conservation. The WRA agenda is a multi-phase initiative that empowers the citizens of Kenya to make a difference in accessing clean water.



MoW&S CS Mr. Simon Chelugui visiting the WRA stand during KEWI graduation ceremony. The CS awarding the best student Ms Celestine Odede with WRA trophy.



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