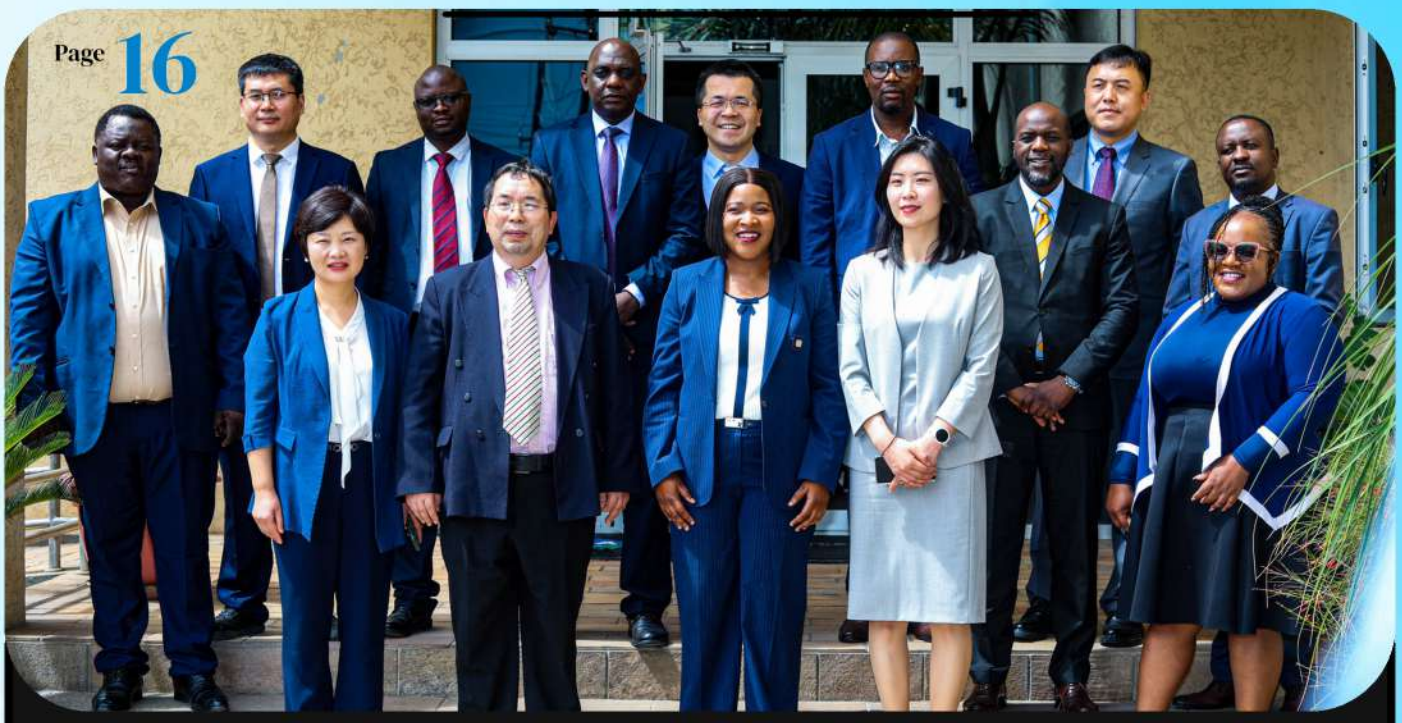
Issue 3 | July to December 2025

WARMA

Water Resources Management Authority

WATER CONVERSATIONS

The Water Resources Management Authority Newsletter



Page 16

WARMA and China's IWHR Strengthen Cooperation to Advance Water Management in Zambia

From groundwater to water safety and regulation, this edition highlights how WARMA is working to protect and manage Zambia's water resources.

www.warma.org.zm +260211-251934 info@warma.org.zm

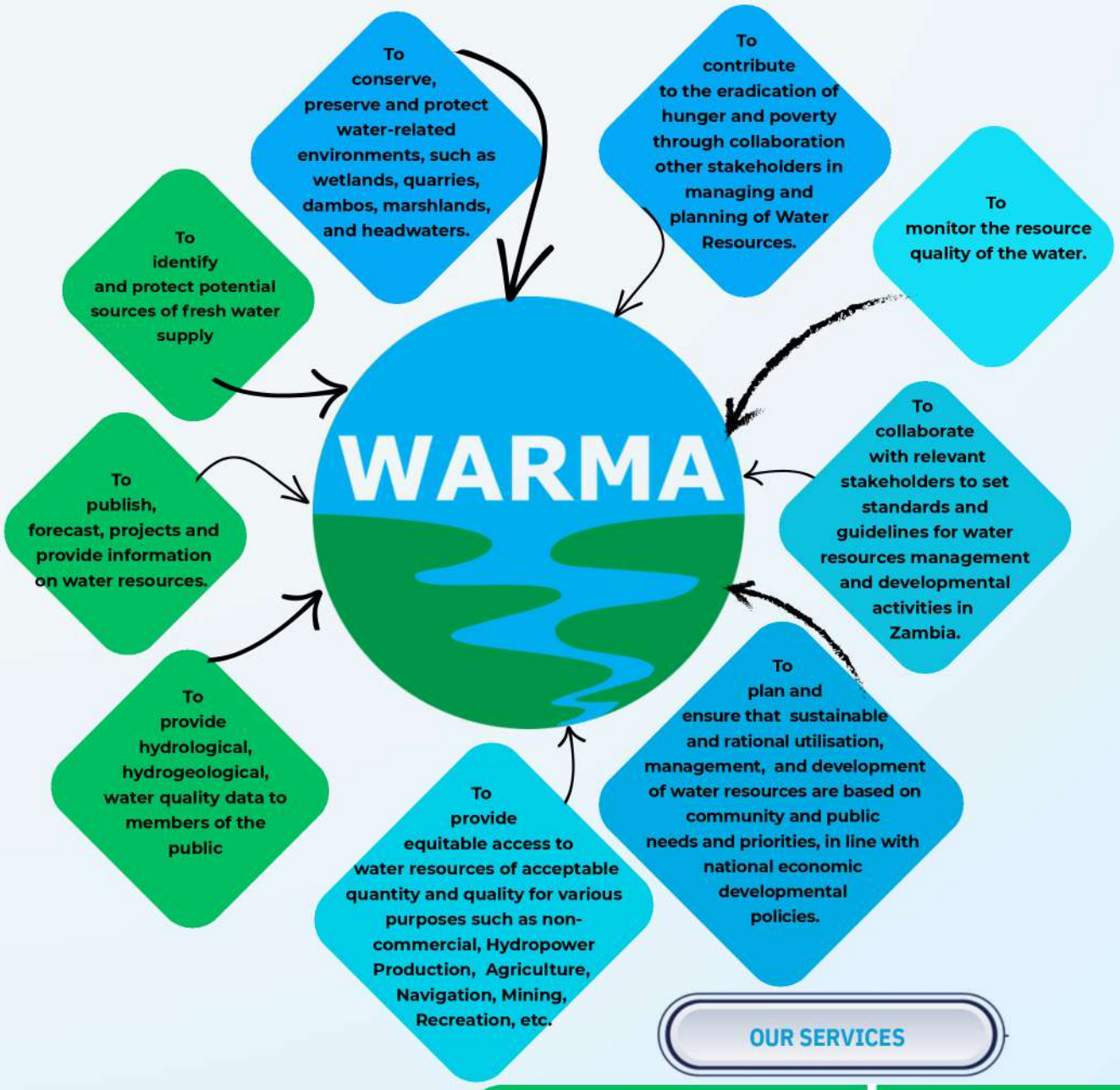
Water Resources Management Authority

ZAMBIA's WATER! OUR FUTURE!

WHO ARE WE

The Water Resources Management Authority (WARMA) is a statutory body under the Ministry of Water Development and Sanitation, established by the Water Resources Management Act No. 21 of 2011 and operational since 2014. It is responsible for regulating, managing, and conserving Zambia's water resources. WARMA promotes sustainable and equitable water use, considers gender and climate change in its work, and prioritizes domestic and environmental water needs. Its functions include maintaining a water information system, setting standards, and advising the government on water policy.

OUR MANDATE



OUR SERVICES

- Borehole Registration.
- Water Permitting for commercial purposes.
- Licensing of drilling companies.
- Registration of drillers and constructors.
- Provision of hydrological, hydrogeological and water quality data and information.
- Flood and Drought forecasting for Early Warning.

Editor's Note

Smart Kalaluka
Senior Public Relations and Communications Officer

Groundwater is one of Zambia's most important water sources, yet it often goes unnoticed. Hidden beneath the ground, it quietly supports households, schools, businesses, and public services across the country.

This edition of Water Conversations shines a light on this vital resource. With growing demand and the impacts of climate change, boreholes are no longer a luxury. They have become essential, filling gaps where piped water cannot reach.

In this newsletter, you will read stories about the challenges of managing groundwater, the risks of contamination, and the steps being taken to protect it. You will see how the Water Resources Management Authority works on the ground, ensuring boreholes are properly drilled by qualified professionals.

This issue also highlights the role of households, communities, and contractors in keeping groundwater safe and sustainable. Every decision matters, from where a borehole is drilled to how it is used and cared for.

Whether you are a water user, a driller, a community leader, or simply someone curious about where your water comes from, this edition offers practical insights and real-life examples of how groundwater is managed in Zambia.

We hope these stories inspire you to take part in protecting this unseen but critical resource. Groundwater may be invisible, but its impact is felt in every home, farm, and business across the country.

In this Issue

Message from the Director General

Mrs. Misozi Ngulube-Lumpa
Acting Director General

Zambia is increasingly relying on groundwater as a key source of water for households, institutions, and economic activities. What was once a supplementary source has become central to daily life, especially in areas where piped supply is limited and demand continues to grow.

At the Water Resources Management Authority (WARMA), we are focused on ensuring that this vital resource is used responsibly. Groundwater is no longer a secondary option. It is a strategic national asset that supports domestic use, agriculture, and economic activity. Its importance is most visible during periods of drought, when surface water sources decline and alternative supply becomes critical.

While groundwater is abundant, it is not limitless. The growing number of boreholes across the country is putting increasing pressure on aquifers. Over extraction can lead to declining water levels, reduced reliability of boreholes, and long term challenges for sustainability.

Equally important is water quality. Once groundwater is contaminated, it is difficult and costly to restore. Activities such as poor sanitation, unregulated waste disposal, and improper borehole siting introduce risks that affect both communities and the environment. Urban development also limits natural aquifer recharge, further highlighting the need for informed and responsible groundwater management.

WARMA's work extends beyond regulation. We are actively promoting professional drilling standards, conducting inspections, and building awareness among households and drilling companies. Our goal is to ensure that every borehole is safe, sustainable, and serves the community effectively.

This edition of Water Conversations focuses on these realities. It highlights the steps we are taking to protect groundwater, showcases challenges and solutions on the ground, and emphasizes the role that everyone, households, institutions, drillers and communities, must play in safeguarding this resource.

Water security is not guaranteed. It is built through deliberate action, adherence to standards, and collective responsibility. I encourage you to read the stories in this issue, learn from the experiences shared, and take part in protecting the groundwater that supports life, livelihoods, and the nation's growth.

Protection of Key Strategic Water Resources in Zambia: Spotlight on Southern Province's Upper Kalomo, Lusitu, Nkanga-Kabweshi, and Matezhi Rivers

Zambia's rivers are more than just waterways. They are the backbone of our communities, agriculture, a source of energy, and a haven for wildlife.

The Upper Kalomo, Lusitu, Nkanga-Kabweshi, and Matezhi rivers are particularly critical in Southern Province, supporting livelihoods, maintaining ecosystems, and ensuring the long-term resilience of communities.

Yet these vital waters face increasing pressures. Riverbank cultivation, unregulated irrigation, urban expansion, and other human activities are threatening water quality, ecosystem stability, and floodplain integrity.

Recognizing this urgency, the Water Resources Management Authority (WARMA) has taken decisive steps to safeguard these rivers through mapping, zoning, and the proposed declaration of Water Resources Protection Areas (WRPAs).

Upper Kalomo River Catchment: Sustaining Communities from the Source

The Upper Kalomo River rises in a well-preserved landscape characterized by natural vegetation and a rich array of trees and shrubs. This headwater region is crucial for groundwater recharge and supports biodiversity, providing a foundation for both ecological and human systems downstream.

As the river flows toward its middle reaches, the landscape transforms into agricultural land dominated by small-scale vegetable gardens, particularly around B'Williams Weir.

While these activities sustain local livelihoods, they also create environmental challenges. Encroachment into the 50-meter riparian buffer contributes to soil erosion, siltation, and declining water quality, threatening both the river's ecological function and the communities that rely on it.

To address these risks, WARMA has delineated Water Resources Protection Zones (WRPZs) along the Upper Kalomo. A 50-meter core buffer is strictly protected, allowing only essential water-related activities, monitoring, and research.

Beyond this, an extended 50–100 meter zone supports regulated activities such as conservational farming, horticulture, and controlled livestock grazing. These measures aim to restore vegetation, reduce erosion, and safeguard the river's long-term health.

This story continues on the next page

Lusitu River Catchment: Balancing Agriculture and Ecology

The Lusitu River flows through a mix of commercial farms and customary lands. In its upper reaches, estates like Dallas Ranch and Mubuyu Farm maintain natural vegetation that supports continuous water flow.

Further downstream, communities face environmental pressures from riverbank gardening, scoop hole excavation, and reduced vegetation cover, which accelerate erosion, sedimentation, and flood risks.

The river is essential for irrigation, domestic water supply, and wetland ecosystems that host diverse wildlife.

WARMA's protection strategy includes 50-meter core buffer zones on both banks and extended buffer zones up to 100 meters where sustainable farming, horticulture, eco-parks, and livestock grazing are regulated.

These measures aim to protect water quality, prevent sedimentation, and ensure that the Lusitu River continues to sustain both people and ecosystems.

Nkanga-Kabweshi River Catchment: Preserving Urban and Wetland Interfaces

The Nkanga River begins near Kozo Lodge in Choma, flowing through seasonal wetlands that recharge groundwater and provide vital surface water.

However, urban encroachment, nearby sanitation infrastructure, and unregulated riverbank cultivation are major threats.

Pit latrines and soakaways close to the river, combined with gardens in flood-prone areas, increase the risk of pollution, erosion, and sedimentation.

Nkanga-Kabweshi supports Choma and surrounding communities, offering water for domestic use, agriculture, and livestock. Its wetlands are critical breeding grounds for fish and waterfowl, contributing to regional hydrology.

WARMA has established 50-meter core buffers as no-impact zones, and 50–100 meter extended buffers where controlled farming, eco-tourism, and conservation activities are permitted. These measures aim to protect wetlands, maintain river flow, and ensure sustainable livelihoods.

Continues on the next page .....

Matezhi River Catchment: Securing Water from Commercial Farms to Customary Lands

The Matezhi River originates in commercial farms and conservation areas such as Mabula Game Farm, Milangu Ranch, and Heartlands Farm, where intact vegetation ensures baseflow and ecological stability. Downstream, however, customary lands experience heavy cultivation, vegetable gardens, and banana plantations encroaching on riverbanks, leading to soil erosion, sediment transport, and increased flood risks.

Despite these pressures, examples of good stewardship exist. Steven Chabu Farm has introduced conservation-oriented practices, including vegetative buffers along the riverbank that reduce erosion, maintain soil moisture, and enhance local water retention. WARMA has applied 50-meter core buffer zones and 50–100 meter extended zones to safeguard ecological function, regulate sustainable land use, and promote habitat restoration.

Implementing Protection Measures: Safeguarding Zambia's Lifelines

WARMA's commitment goes beyond delineation. The Authority will submit the catchment maps to the Office of the Surveyor General for alignment with national geospatial systems and prepare a Statutory Instrument to legally declare these critical water bodies as WRPAs. Community engagement through workshops, meetings, and information campaigns will ensure residents understand the rationale, legal requirements, and their role in river protection.

WARMA will also collaborate with local authorities, conservation agencies, and traditional leaders to monitor compliance and enforce regulations.

Through these coordinated actions, WARMA is securing Zambia's water future. By protecting the Upper Kalomo, Lusitu, Nkanga-Kabweshi, and Matezhi rivers, the Authority ensures that these critical waters continue to support life, livelihoods, and ecosystems for generations to come.

Enhancing National Water Security, WARMA Reviews Dam Safety Guidelines

Dams are vital national assets that support agriculture, energy generation, water supply, and climate resilience. In Zambia, they underpin socio-economic stability and national development.

The severe drought experienced during the 2023 -2024 season highlighted the country's vulnerability to water shortages, reduced hydropower generation, and stressed agricultural production. This made it clear that ensuring dam integrity and proper water storage is critical not only for sustaining communities but also for securing Zambia's economy and national water security.

Drafting Dam Safety Guidelines

In the month of October, 2025, the Water Resources Management Authority convened a technical workshop at Legacy Resort in Lusaka to review the Draft Dam Safety Inspection Guidelines.

The development of these guidelines is anchored in Sections 120 to 124 of the Water Resources Management Act No. 21 of 2011, which empower WARMA to regulate, monitor, and enforce national dam safety standards. The guidelines also complement the emerging Water Resources Management (Water Harvesting and Storage) Regulations of 2024.

You can continue reading this article on the next page .....

More on ----
Enhancing National Water Security, WARMA Reviews Dam Safety Guidelines

WARMA Acting Director General Mrs. Misozi Ngulube-Lumpa emphasized that this initiative is both urgent and strategic. She explained that the absence of clear inspection standards leaves Zambia exposed to dam-related risks that can endanger lives, property, and the environment. She referenced the 2023 to 2024 drought as a real-life example of how critical water storage infrastructure is for national resilience.

> *"Dams are critical national assets supporting agriculture, energy generation, water supply, and climate resilience. Their safety and proper management are equally vital to protecting lives, property, and the environment while ensuring that communities and industries have access to water during periods of extreme climate variability," she said.*

Strategic Objectives and Practical Impact

The Dam Safety Inspection Guidelines aim to provide a clear framework for the design, construction, operation, and decommissioning of all dams. They are designed to be practical, enforceable, and responsive to Zambia's current and future water management challenges.

Key objectives include:

- Establish clear and consistent standards for dam operations
- Integrate proactive measures such as hazard classification and Emergency Preparedness and Response Plans to prevent failures
- Align Zambia's framework with international best practices from the World Bank, African Development Bank, and the International Commission on Large Dams

Continues on the next page .....

These guidelines will strengthen WARMA's ability to enforce safety standards, hold dam owners accountable, enhance technical capacity, and support data-driven decision-making through systematic inspections, risk profiling, and hazard assessments.

National Water Security and Climate Resilience

The 2023 to 2024 drought affected large parts of Zambia, leading to reduced water levels in reservoirs, lower hydropower output, and challenges in irrigation for farmers.

These events made it clear that the integrity of dams is directly linked to national water security. Well-maintained dams ensure reliable water supply for households, agriculture, industry, and energy generation. They also reduce vulnerability to climate shocks and protect communities from the devastating consequences of dam failures or inadequate water storage.

Mrs. Ngulube-Lumpa emphasized that dam safety is inseparable from national resilience. Protecting these assets enables Zambia to manage water resources effectively, maintain socio-economic stability during periods of water stress, and safeguard livelihoods and ecosystems.

Collaboration for Effective Implementation

The workshop brought together WARMA's Senior Management and technical teams, technical experts from the Engineering Institution of Zambia, the Ministry of Water Development and Sanitation, the University of Zambia, and other stakeholders. Participants critically reviewed the guidelines to ensure they are practical, technically sound, and implementable.

These efforts also complement the National Rainwater Harvesting Strategy, developed with support from the European Union through the Green Nexus Programme. This strategy seeks to enhance water security, boost agricultural productivity, and strengthen resilience to climate shocks. By linking dam safety with broader water management initiatives, WARMA ensures a coordinated approach to sustainable water use across the country.

Read more on the next page .....

From page 6...

Safeguarding Zambia's Water Future

The review and finalization of the Dam Safety Inspection Guidelines represent a decisive step in safeguarding Zambia's water resources. They go beyond regulatory compliance to provide practical tools for ensuring that dams continue to serve their critical roles in agriculture, energy, and water supply.

Mrs. Ngulube-Lumpa highlighted that the guidelines are not merely technical documents but instruments of national resilience. By enforcing safety standards, guiding dam operators, and adhering to global best practices, WARMA is helping Zambia prevent disasters, sustain water supply, and maintain socio-economic stability even during extreme climate events.

The 2023 to 2024 drought served as a stark reminder of why proactive dam management is essential. Through these guidelines, WARMA demonstrates that careful planning, technical oversight, and collaboration with communities and authorities can protect lives, livelihoods, and Zambia's water future.

WARMA reviews Inspectorate Handbook and Penalties Guidelines to strengthen enforcement

The Water Resources Management Authority (WARMA) has embarked on a critical review of its Inspectorate Handbook and Penalties Guidelines to enhance compliance, enforcement, and the sustainable management of Zambia's water resources. The review comes at a time when challenges such as pollution, illegal water abstraction, and poor wastewater management continue to threaten water security and public health.

The Inspectorate Handbook provides practical guidance for WARMA inspectors and other authorized officers. It includes step-by-step procedures for inspecting boreholes, water points, and abstraction systems, handling complaints and conflicts, monitoring encroachments and pollution, and reporting non-compliance. Complementing this, the Penalties Guidelines offer a transparent and consistent framework for issuing penalties, ensuring fairness, accountability, and responsible water use.

Acting Director General Mrs. Misozi Ngulube-Lumpa emphasized that this review is not a routine exercise, but a strategic effort to refine these tools into practical instruments that inspectors can apply in the field.

"These documents are guiding tools, not shelf references," she noted, encouraging inspectors to apply the procedures diligently to strengthen compliance, safeguard water resources, and promote sustainable management of Zambia's water bodies.

By updating inspection procedures, reporting templates, checklists, and enforcement processes, the review will equip WARMA inspectors with modern tools and best practices. This will improve the efficiency, transparency, and credibility of enforcement operations, ensuring that violations are addressed consistently and fairly.

Continues on the next page .....

From page 8...

As Zambia faces growing pressures on water resources from urbanization, agriculture, industrial growth, and climate variability, a robust and practical regulatory framework is more important than ever. The review of the Inspectorate Handbook and Penalties Guidelines reinforces WARMA's commitment to building capacity, promoting responsible water use, and protecting the country's water resources for present and future generations.

Key Enhancements in the Inspectorate Handbook and Penalties Guidelines

As part of the ongoing review, WARMA is focusing on strengthening the following aspects:

Inspection Procedures

Updating step-by-step guidance for boreholes, water points, abstraction systems, and effluent discharge monitoring.

Penalties Framework

Strengthening guidance for fair, transparent, and proportionate sanctions to promote compliance.

Complaint Handling

Improving templates and procedures for managing conflicts and stakeholder complaints fairly and efficiently.

Rapid Reference Guide

Updating quick-reference tools for identifying offences and corresponding penalties.

Pollution and Encroachment Monitoring

Enhancing forms and processes for detecting illegal activities and environmental infractions.

Training and Orientation

Integrating practical guidance for onboarding new inspectors to ensure consistent application of procedures.

Reporting Standards

Standardizing templates and data collection methods for consistency and accountability.

Field Tools and Templates

Providing modernized checklists, sampling sheets, and documentation tools to enhance efficiency in inspections.

Enforcement Processes

Clarifying procedures for issuing caution notices, penalties, and follow-up actions.

Conflict Resolution Practices

Promoting alternative dispute resolution approaches for amicable settlement of water-related disputes.

These enhancements aim to make inspections more strategic, evidence-based, and consistent, while ensuring that enforcement is fair, transparent, and supportive of sustainable water management across Zambia.

Ensuring Safe and Reliable Domestic Boreholes: Lessons from Southern Province

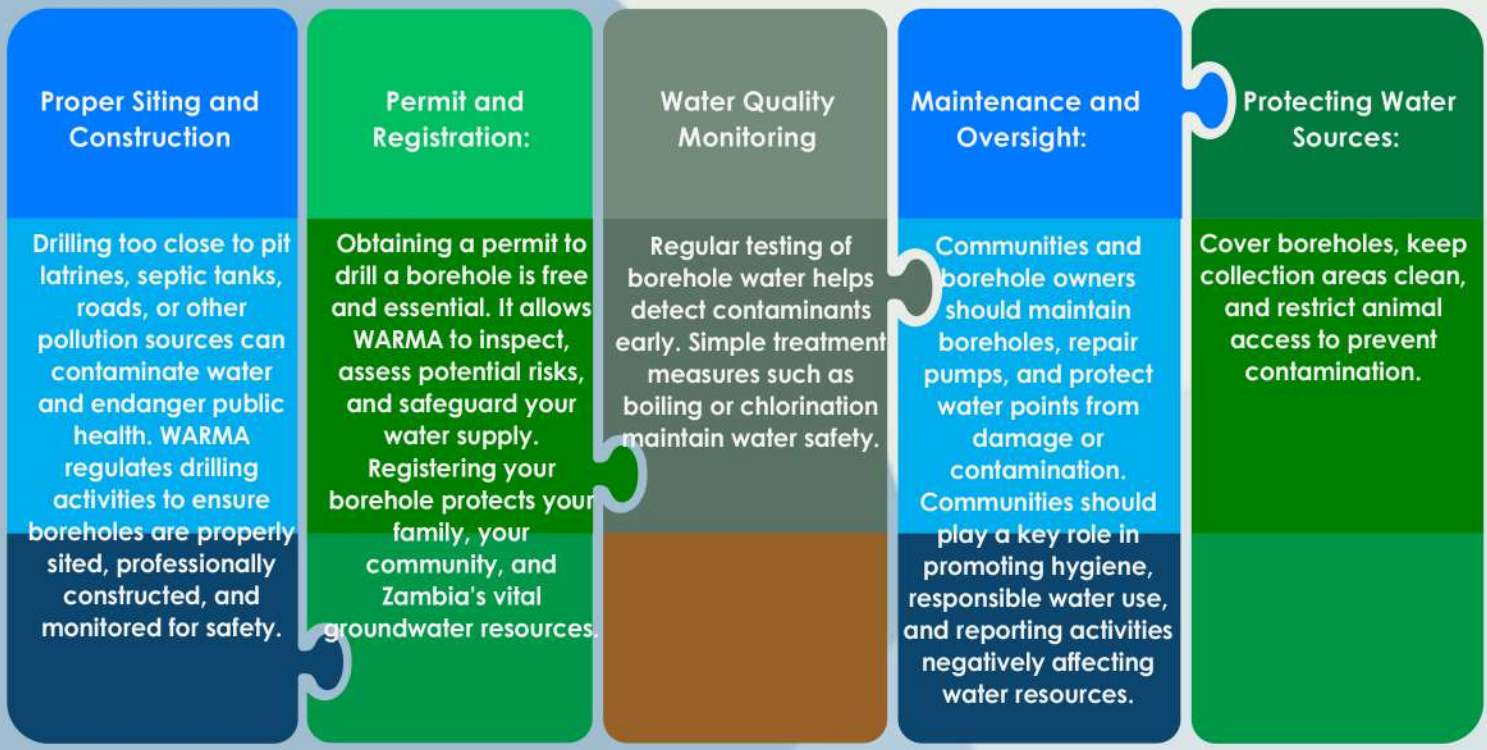
Access to clean and reliable water is essential for the health and well-being of Zambian communities. Boreholes have become a crucial source of water, not only in rural areas but also in urban neighborhoods not fully serviced by municipal water systems, such as large parts of Chalala in Lusaka. These boreholes serve households, schools, and local businesses, making their reliability vital for daily life.

However, challenges such as improper siting, overuse, and contamination can compromise borehole functionality and water quality.

The Water Resources Management Authority (WARMA) works closely with communities to address these challenges, ensuring boreholes serve their intended purpose safely and sustainably. Through inspections, technical guidance, and community engagement, WARMA helps communities and residents identify and resolve potential risks before they escalate.

Supporting Communities: Safe and Sustainable Boreholes

To ensure boreholes remain safe, reliable, and compliant with regulations, WARMA emphasizes the following:



Find out more on this on the next page

Protect Your Borehole. Protect Your Health.

WARMA reminds the public that minimum distance requirements for boreholes are provided under the Water Resources Management Act No. 21 of 2011 and the Water Resources Management (Groundwater and Boreholes) Regulations, 2018. These requirements are based on aquifer type, pumping rates, and pollution risk, and are essential for protecting drinking water sources and public health.

Minimum Distance Between Boreholes:

- **Most boreholes – at least 50 metres apart**
- **Limestone and cavity aquifers – up to 100 metres**
- **Unconsolidated sediments (e.g., Kalahari sands) – up to 200 metres**

Minimum Distance from Pollution Sources:

- **Pit latrines and septic tanks – 30 metres**
- **Animal pens and farm sheds – 50 metres**
- **Fuel, fertiliser, and pesticide storage – 100 metres**
- **Waste disposal sites and cemeteries – 500 metres**

Why this matters:

Boreholes drilled too close to pollution sources can become contaminated, allowing pollutants to migrate through the ground into groundwater. This increases the risk of waterborne diseases, threatens household health, and undermines long-term water security.

..... continues on the next page

Before drilling a borehole:

Always consult WARMA, follow approved minimum distances, and obtain the necessary permits. Safe spacing today protects Zambia's water tomorrow.

Insights from Southern Province

Recently, WARMA assessed 43 boreholes in unplanned settlements across Livingstone, Zimba, Kalomo, and Choma Districts.

The exercise included water quality testing, inspection of borehole structures, and evaluation of surrounding areas to identify contamination risks. Some boreholes showed elevated bacterial levels, highlighting the need for careful management and simple treatment measures.

These findings are not a cause for alarm but an opportunity for communities to take practical steps to safeguard their water.

By following WARMA's guidance, boreholes can continue to provide clean and sustainable water, strengthening health, resilience, and long-term water security across Zambia.

WARMA Strengthens Wetland Monitoring through Regional WeMAST Initiative

Wetlands are among the most critical yet vulnerable ecosystems in Southern Africa, supporting water supply, biodiversity, and climate resilience across national boundaries. Strengthening how these ecosystems are monitored and managed was the focus of a regional workshop held in Gaborone, Botswana, from 15th to 17th September 2025, in which the Water Resources Management Authority (WARMA) participated.

The workshop was organised by the Southern African Science Service Centre for Climate Change and Adaptive Land Management (SASSCAL) and brought together government institutions, water authorities, researchers, and regional bodies from across the Southern African Development Community. The engagement provided a platform to enhance technical capacity in wetland monitoring and strengthen collaboration in managing shared water resources.

Strengthening Regional Collaboration

WARMA's participation builds on its partnership with SASSCAL following the signing of a Memorandum of Understanding in March 2025.

This collaboration is aimed at promoting research, innovation, data sharing, and institutional capacity development in water resources management.

Wetlands play a central role in sustaining both surface and groundwater systems. They support groundwater recharge, regulate river flows, and help maintain ecological balance. However, these ecosystems are increasingly under pressure from climate change, human activities, and competing land uses, making effective monitoring and protection more critical than ever.

Find out more on this on the next page

Advancing Monitoring Through Technology

A key highlight of the workshop was the launch of the WeMAST 2.0 Geoportal, an advanced platform designed to improve wetland monitoring across major transboundary river basins such as the Zambezi River Basin, Okavango Basin, Limpopo Basin, and Cuvelai Basin.

The Geoportal provides access to high-resolution satellite imagery, real-time environmental and hydrological data, and interactive mapping tools. These features enable institutions like WARMA to monitor wetland changes more accurately and support informed decision-making.

Participants also underwent training in Earth Observation tools, including spatial analysis using GIS applications and mobile-based systems for field data collection.

These tools help bridge the gap between data analysis and on-the-ground verification, improving the reliability and efficiency of wetland monitoring.

Linking Data to Field Practice

The workshop combined technical training with practical application through a field visit to Bokaa Dam in Botswana. This allowed participants to validate data from the Geoportal and apply monitoring tools in a real wetland environment.

For WARMA, this approach highlighted the importance of integrating modern monitoring tools into routine field operations, particularly in the management of wetlands and river catchments across Zambia.

Sustaining Knowledge Through Collaboration

An important outcome of the workshop was the establishment of a regional Community of Practice, which will facilitate continuous knowledge sharing, peer learning, and collaboration among institutions involved in water resources management.

Through this platform, WARMA will strengthen its engagement with regional partners, share experiences, and adopt best practices in wetland monitoring and transboundary water governance.

..... continues on the next page

From page 14...

Strengthening Capacity for Water Resources Management

The knowledge and tools acquired during the workshop have direct relevance to WARMA's mandate. The use of Earth Observation data will enhance the Authority's ability to monitor wetlands, support evidence-based decision-making, and improve planning and regulation of water resources.

Following the workshop, there is a clear opportunity for WARMA to integrate the WeMAST Geoportal into its technical operations, particularly during site visits and monitoring activities. Continued engagement with regional partners will further strengthen institutional capacity and support innovation in water resources management.

WARMA's participation in the WeMAST initiative reflects a practical step towards improving how wetlands are monitored and managed. As pressures on water resources increase, strengthening the use of data and technology will be critical in protecting these ecosystems and ensuring sustainable water availability across Zambia and the wider region.

The workshop combined technical training with practical application through a field visit to Bokaa Dam in Botswana. This allowed participants to validate data from the Geoportal and apply monitoring tools in a real wetland environment.

For WARMA, this approach highlighted the importance of integrating modern monitoring tools into routine field operations, particularly in the management of wetlands and river catchments across Zambia.

Through the WeMAST Geoportal and regional collaboration, WARMA is strengthening Zambia's wetland monitoring, enabling evidence-based decisions that protect our vital water resources for generations to come."

Ms. Chisanga Kapacha
Research Officer, WARMA

WARMA and China's IWHR Strengthen Cooperation to Advance Water Management in Zambia

WARMA and IWHR representatives pose for a group picture at WARMA House, in Lusaka.

Driving Science, Innovation, and Capacity for Sustainable Water Governance

Strengthening water resources management requires deliberate investment in science, innovation, and strategic partnerships.

The Water Resources Management Authority (WARMA) is advancing this direction through collaborations at local, regional, and international levels. Its partnership with the China Institute of Water Resources and Hydropower Research (IWHR) reflects this approach, focusing on strengthening hydrological monitoring, research, and technical capacity.

The engagement builds on initial discussions held during the 18th World Water Congress in Beijing in 2023 and represents a continued effort to translate dialogue into practical cooperation. It marks a step towards formalising long-term collaboration between the two institutions.

Find out more on this on the next page

Held from 8th to 9th December 2025, the bilateral exchange focused on establishing a structured framework to support Zambia's priorities in water security, climate resilience, and data-driven decision-making. Central to the discussions was the development of a Memorandum of Understanding (MoU) to guide collaboration in key technical areas.

Strengthening Collaboration Through Shared Expertise

During engagements held at WARMA Headquarters, Acting Director General Mrs. Misozi Ngulube-Lumpa emphasised the importance of partnerships in addressing emerging water challenges. She highlighted the need to strengthen capacity in hydrological modelling, climate adaptation, dam safety, and water governance.

The IWHR delegation, led by Dr. Peng Wenqi, reaffirmed its commitment to supporting Zambia through research, technical expertise, and innovation. The discussions resulted in a shared roadmap outlining priority areas for cooperation and implementation.

Field Engagements in the Kafue Catchment

To complement the technical discussions, the delegation undertook site visits across the Kafue Catchment to gain practical insight into Zambia's water systems.

At Mount Makulu, the team reviewed groundwater monitoring systems and discussed the need to strengthen aquifer management. At the Kasaka Gauging Station, discussions focused on river flow monitoring and the importance of real-time data systems to enhance flood forecasting.

The visit to Iolanda Water Treatment Plant highlighted the relationship between catchment conditions and water quality, while the Kafue Gorge Lower Hydropower Facility demonstrated the link between water availability and energy production, including challenges related to sedimentation and climate variability.

These engagements provided a platform for technical exchange and demonstrated how water resources management supports agriculture, energy, industry, and domestic supply.

Relevance to WARMA's Mandate

The collaboration supports WARMA's efforts to strengthen its role in regulating, monitoring, and managing water resources.

..... continues on the next page

Through this partnership, the Authority is expected to enhance hydrological monitoring systems using modern tools such as remote sensing, geographic information systems, and data analytics. It also supports capacity building through training and knowledge sharing, while improving data availability for decision-making.

This positions WARMA to better manage water allocation, protect catchments, and respond to climate-related pressures.

Both institutions have outlined next steps, including finalising the Memorandum of Understanding and developing an implementation plan to guide joint activities.

This collaboration reflects a shared commitment to ensuring that water resources are managed in a way that supports national development while safeguarding the environment.

Through partnerships such as this, WARMA continues to strengthen its approach to water management, ensuring that Zambia's water resources are managed efficiently, supported by science, and sustained for future generations.

WARMA Hosts 2025 Drillers Forum to Strengthen Groundwater Protection and Professional Standards

In a continued effort to strengthen groundwater governance and uphold professional standards in the drilling sector, the Water Resources Management Authority (WARMA) hosted the 2025 Drillers Stakeholder Engagement Forum on 28th November 2025 at the Government Complex in Lusaka.

The forum brought together licensed drilling companies, engineers, constructors, and sector partners to address operational challenges, strengthen compliance, and safeguard Zambia's groundwater resources.

The forum was officially opened by the Permanent Secretary in the Ministry of Water Development and Sanitation, Eng. Romas Kamanga, who emphasized the importance of groundwater as a national asset that supports households, agriculture, and industry.

He called on all stakeholders to uphold professionalism, accountability, and strict adherence to national standards, noting that unsafe drilling practices, contamination, and unregulated abstraction pose serious risks to water security and public confidence.

Progress and Persistent Challenges

WARMA Acting Director General, Mrs. Misozi Ngulube-Lumpa, acknowledged the progress made in the sector since the introduction of Statutory Instrument No. 20 of 2018, which regulates groundwater and borehole development. She noted that many boreholes are now being constructed in line with approved standards, contributing to safer and more reliable water supply for communities.

However, she pointed out that a number of challenges continue to affect service delivery and public trust. These include delays in the submission of Borehole Completion Reports, non-functional or poorly monitored GPS units on drilling rigs, and unclear or inconsistent quotations issued to clients.

In some cases, drilling is undertaken without proper siting reports or with inadequate casing, resulting in dry or unsafe boreholes. She emphasized that these challenges are largely linked to lapses in compliance and professional practice, and called on drilling companies to take full responsibility for their operations and adhere strictly to established standards.

This story continues on the next page

Drillers Share Field Experiences

The forum provided an important platform for drilling companies to share practical experiences from the field.

The participants highlighted operational realities, particularly in remote districts where access to technical support and connectivity remains limited. Participants also discussed the impact of geological variations on drilling outcomes, the need for clearer cost structures, and the importance of accurate and timely reporting.

These discussions enabled WARMA to better understand field conditions while reinforcing key regulatory requirements.

The Authority reiterated that Borehole Completion Reports must be submitted within stipulated timelines, GPS units must remain active and properly monitored, and all drilling activities must be guided by approved siting reports to minimize the risk of dry or poorly constructed boreholes.

Key Takeaways

The forum resulted in several practical resolutions aimed at improving compliance and service delivery across the sector.

1. Drilling companies are required to submit Borehole Completion Reports within 30 days of completing a borehole, with non-compliance attracting enforcement measures, including denial of permits. All drilling rigs must have functional GPS units, as disabling or failing to maintain them constitutes an offence.

2. Participants also agreed on the need for clear and itemized quotations based on approved siting reports to avoid disputes with clients. WARMA committed to providing continued technical guidance on groundwater conditions, including how to manage dry boreholes and interpret variations in water quality.

3. The importance of public awareness was also emphasized, particularly in helping communities understand natural causes of issues such as brown or iron-rich water and the need to engage licensed drilling companies.

Find out more on this on the next page

Action Matrix Highlights

To ensure that the resolutions from the forum translate into measurable improvements, WARMA developed a detailed action matrix to guide implementation.

Key actions include strengthened enforcement of Borehole Completion Report submissions, verification of geological data, and regular inspection of drilling activities. The Authority will also enhance monitoring of GPS compliance, ensuring that all drilling rigs are properly tracked.

In addition, WARMA will roll out targeted training programmes for both its inspectors and drilling companies, focusing on hydrogeology, groundwater management, and drilling standards. The Authority will also develop clear guidance on cost recovery for dry boreholes and continue public outreach programmes to improve understanding of groundwater issues.

These measures will be implemented throughout 2026, with regular monitoring and reporting to ensure accountability and sustained sector improvement.

Sector Achievements

Since the introduction of the 2018 Regulations, WARMA has processed over 89,000 Notices to Drill and registered more than 49,000 boreholes across the country. The Authority continues to license over 150 drilling companies annually, reflecting steady growth and formalization within the sector.

These milestones demonstrate progress in strengthening groundwater governance, while also highlighting the importance of sustained compliance and oversight.

Strengthening Compliance and Accountability

The 2025 Drillers Stakeholder Engagement Forum reaffirmed the importance of practical engagement between the regulator and industry players. It highlighted that improving the performance of the drilling sector requires consistent adherence to standards, effective regulatory enforcement, and open communication between all stakeholders.

The outcomes of the forum provide a clear path forward. By addressing compliance gaps, strengthening technical capacity, and promoting transparency in drilling practices, WARMA is reinforcing its mandate to protect groundwater resources and ensure that communities across Zambia have access to safe, reliable, and sustainable water sources.

WARMA Trains Stakeholders on Borehole Drilling Standards and Groundwater Protection in Luapula

The Water Resources Management Authority (WARMA), in partnership with the United Nations Children's Fund (UNICEF) through the WASHE Programme, successfully concluded a three-day capacity-building workshop in Mansa, Luapula Province, from Wednesday 5th to Friday 7th November 2025.

The workshop focused on the professionalization of drilling standards, borehole drilling, supervision, contracting, and groundwater protection.

The training brought together a wide range of stakeholders, including representatives from traditional leadership, local authorities, drilling companies, government departments, civil society organizations, and the media. Participants came from districts across Luapula Province, including Mansa, Chiengi, Nchelenge, Mwense, Kawambwa, Samfya, Mwansabombwe, Chembe, and Milenge.

Upholding Professional Standards for Sustainable Water Management

WARMA Acting Director General, Mrs. Misozi Ngulube-Lumpa, officially opened the workshop, welcoming participants and emphasizing the importance of coordinated action, shared commitment, and mutual accountability in sustainable water resource management.

She highlighted that boreholes are a critical source of water for households, schools, and local businesses but are often compromised by improper siting, overuse, and contamination.

"***Delivering safe water requires excellence, professionalism, and a steadfast commitment to protecting the sources upon which communities depend,*" Mrs. Ngulube-Lumpa said.**

She underscored that the workshop would focus on professional drilling standards, responsible procurement and contracting, and groundwater protection. The training also aimed to strengthen data collection, information management, and community sensitization to support evidence-based decisions on borehole siting and sustainable water allocation.

This story continues on the next page

From page 22...

Luapula Province Permanent Secretary, Mrs. Prudence Chinama Kangwa, also addressed participants, highlighting that professional drilling standards, proper contracting, and groundwater protection are essential for improving agricultural productivity, public health, rural livelihoods, and education, particularly for women and girls.

She commended WARMA and UNICEF for promoting high standards in groundwater management in line with the government's agenda on climate resilience and sustainable service delivery.

Strengthening Skills in Borehole Drilling and Groundwater Protection

Over the three days, participants were trained on a variety of topics related to sustainable borehole drilling and groundwater protection, including:

- **Principles of cost-effective boreholes and supervision**
- **Procurement planning, tender evaluation, and contract management using the Zambian Government Electronic Tendering System (eGP)**
- **Costing and pricing of borehole drilling projects**
- **Groundwater occurrence, aquifer types, water quality monitoring, and recharge mechanisms**
- **Borehole construction, safety, development, and pump testing**

Participants engaged in interactive sessions, discussions, and practical exercises to reinforce key lessons. Emphasis was placed on professional standards, transparent procurement, ethical conduct, and raising awareness about groundwater protection.

Key Takeaways for Sustainable Practices

Some of the major outcomes from the workshop included:

- Boreholes should be fully cased, with site clerks independent of drilling companies
- WARMA-licensed geophysical surveyors should be used for borehole siting
- Water quality testing should be conducted on-site, with abnormalities addressed promptly
- Local authorities should hire licensed drilling companies rather than general building contractors
- PVC casings are recommended for borehole construction to avoid water contamination
- Dry boreholes should be buried within 24 hours using rocks, as per the law

Find out more on this on the next page

Participants also received guidance on resolving challenges such as involvement of middlemen, standard depth disputes, and contractor compliance with regulations.

Promoting Community Engagement and Data-Driven Management

Eng. Mwiza Muzumara, WARMA's Chambeshi Catchment Manager, emphasized that regular water quality monitoring, coupled with active community engagement and education, is critical for safeguarding groundwater resources. Continuous monitoring allows for early detection of contamination, ensures compliance with professional drilling standards, and supports data-driven decision-making for sustainable water allocation.

Eng. Muzumara further highlighted that empowering communities to protect recharge areas, report irregularities, and maintain borehole infrastructure fosters ownership and strengthens resilience, ensuring that safe and reliable water remains available for current and future generations.

Equipping Stakeholders for Long-Term Impact

The workshop concluded with Eng. Chisanga Siwale, Acting Director of Water Resources Management and Information, presenting certificates of participation and encouraging attendees to apply the knowledge gained to strengthen supervision, contracting, and groundwater protection in their respective areas.

The three-day workshop strengthened the capacity of key stakeholders in Luapula Province, equipping them with the skills and knowledge needed to uphold professional drilling standards, promote responsible procurement, and safeguard groundwater resources for the benefit of communities across the region.

WARMA Responds to Rising Waters of Lake Tanganyika

Protecting lives, infrastructure, and water resources in Zambia's northern communities

Flooding Threatens Lives and Infrastructure

Chipwa Village, located at the confluence of the Kalambo River and Lake Tanganyika on Zambia's northern border with Tanzania, was among the communities hardest hit by rising waters in 2025. Homes, schools, and essential infrastructure were submerged, displacing families and threatening public safety. Similarly, Myamba village, accessible only by boat, faced serious risks. With the rainy season approaching, it became clear that urgent action was needed to protect lives and property.

Strengthening Collaboration Through Shared Expertise

The Water Resources Management Authority (WARMA) intensified its presence in affected areas, combining continuous monitoring with direct community engagement. Monitoring stations tracked lake and river inflows in real time, while teams visited remote villages to hold sessions informing residents about the risks of flooding and practical steps to stay safe. Residents were advised to relocate to higher ground, avoid lakeshore settlements, and take early measures to safeguard homes and belongings before conditions worsened.

Traditional leaders, including His Royal Highness Senior Chief Tafuna of the Lungu people, pledged support to identify alternative land for displaced families. These engagements created a platform for dialogue between WARMA, community leaders, and residents, ensuring communities were informed, empowered, and able to take proactive action.

Roadshows Make Awareness Interactive

In Mpulungu District, WARMA conducted a roadshow combining music, drama, and interactive sessions to communicate key messages on flood preparedness, water safety, and sustainable water use. Residents engaged directly with WARMA officials, asked questions, and learned practical measures to reduce risk. The roadshow reinforced the Authority's commitment to hands-on, proactive public awareness and risk mitigation.

This story continues on the next page

Collaboration with Local Authorities

WARMA coordinated closely with the Mpulungu District Administration, government departments, and parastatals to address the impacts of rising waters. District Commissioner Gehard Sikazwe noted that businesses, including lodges and other facilities, had been affected. He praised WARMA for sensitizing local communities and pledged full support for mitigation measures, including the establishment of buffer zones, enforcement of regulations, and promotion of sustainable solutions to reduce flood risks.

Northern Province-Wide Awareness Campaigns

To reach a wider audience across Northern Province, WARMA complemented its on-the-ground activities with strategic radio programmes on Radio Mano in Kasama and Walamo Radio in Mpulungu. These broadcasts ensured residents, including those in remote areas, received timely information, could ask questions, and report challenges directly to WARMA representatives.

The Authority also held high-level engagements with provincial leadership, including Heads of Government Departments and the Provincial Permanent Secretary, to discuss the impacts of the rising waters and coordinate interventions.

Acting Director General Mrs. Misozi Ngulube-Lumpa highlighted that the response to the rising waters of Lake Tanganyika exemplifies WARMA's mandate to safeguard Zambia's water resources and protect communities. She emphasized that proactive monitoring, direct community engagement, and collaboration with traditional leaders and government authorities are central to the Authority's approach.

"By ensuring timely information, coordinated interventions, and practical support for affected families, WARMA demonstrates leadership in integrated water resources management and reinforces the importance of early action to protect lives, infrastructure, and livelihoods across Northern Province."

Mrs. Lumpa

..... continues on the next page

From page 26...

The concerted efforts by WARMA, from real-time monitoring to community engagements and interactive roadshows, ensured that residents in Chipwa, Myamba, Mpulungu and surrounding areas were not caught off guard by rising waters.

Families heeded advice to relocate to higher ground, measures are being taken that in future critical infrastructure should not be constructed closer to the lakeshores, and local leaders coordinated alternative land for displaced residents.

The radio programmes in Kasama and Mpulungu reinforced these messages, reaching even the most remote households and enabling residents to take timely action.

Through these measures, WARMA has shown that clear communication, decisive leadership, and close collaboration with communities and authorities can prevent loss of life and reduce the destructive impact of flooding.

The response in Northern Province stands as a tangible demonstration of how proactive engagement and strong governance make a real difference for Zambia's most vulnerable lakeshore communities.

WARMA EXHIBITS AT THE 2025 MUCHINGA INVESTMENT EXPO

The Water Resources Management Authority (WARMA) showcased its mandate and work at the Muchinga Investment Forum and Exposition 2025, held from 15th to 19th September in Chinsali, Muchinga Province.

The event, themed "Promoting Investment for a Greener and Healthy Environment through Sustainable Development," brought together government institutions, investors, and various stakeholders to explore opportunities for sustainable growth.

The five-day expo, graced by His Excellency the Republican President, Mr. Hakainde Hichilema, provided WARMA with a valuable platform to engage potential investors, raise public awareness, and promote responsible water management practices that align with Zambia's broader development agenda.

Promoting Responsible Water Use

At the expo, WARMA emphasized the importance of obtaining water permits and adhering to water use regulations. By guiding investors on compliance and responsible water utilization, the Authority ensures that economic growth does not compromise the sustainability of Zambia's vital water ecosystems.

WARMA Chambeshi Catchment Manager, Mr. Mwiza Muzumara, highlighted the significance of the Authority's presence at the expo:

> **"Being part of the Muchinga Expo allows WARMA to engage directly with both the public and investors. It is an opportunity to explain our mandate and demonstrate the importance of managing water resources responsibly."**

.... continues on the next page

From page 28...

Water as a Pillar of National Development

WARMA Inspector, Regulations and Compliance, Linda Kalunga emphasized that water is central to every sector of the economy:

> **"Every investment, whether in mining, industry, agriculture, or municipal development, depends on water. WARMA provides the lifeline for these sectors by ensuring water is used sustainably and equitably."**

Through interactive exhibits, information sharing, and stakeholder engagement, WARMA educated participants on the process of obtaining water permits and the requirements necessary to protect water bodies from pollution and overuse.

Aligning with the Expo's Theme

WARMA's participation reinforced the expo's focus on green investments and environmental stewardship. The Authority used the platform to highlight how investors can align their projects with sustainable practices while supporting Zambia's development goals.

> **"We urge both local and international investors to prioritize responsible and sustainable practices that safeguard Zambia's vital water resources and the environment,"**
>
> **Mr. Muzumara added.**

The expo also offered a chance for WARMA to demonstrate how it monitors, regulates, and guides investment activities to ensure compliance with water permit requirements, while fostering accountability among investors.

By doing so, the Authority is helping investors understand how their projects can positively contribute to national development and environmental protection.

Engage with WARMA

Participants at the expo had the opportunity to visit the WARMA stand, interact with officials, and learn how they can play a role in protecting Zambia's water resources for current and future generations.

WARMA's active participation at the Muchinga Expo 2025 underscores the Authority's commitment to sustainable development, responsible investment, and the safeguarding of Zambia's water ecosystems.

WARMA ENFORCES WATER RESERVE PROTECTIONAT CHIPEPO HARBOR

A joint team from the Water Resources Management Authority (WARMA), Gwembe Town Council, and representatives from His Royal Highness Chief Chipepo's Palace recently conducted a compliance monitoring and enforcement exercise at Chipepo Harbor in Gwembe District, Southern Province.

The operation followed reports that Xing Huo Limited had constructed permanent structures on land forming part of the Lake Kariba reservoir, raising concerns over non-compliance with the Water Resources Management Act No. 21 of 2011 and associated buffer zone regulations.

Objectives of the Exercise

The inspection sought to:

- Verify the location of the structures relative to the legally protected 50-meter water reserve and buffer zone.
- Assess whether all requisite permits and approvals had been obtained from relevant authorities.
- Evaluate potential environmental and hydrological impacts on Lake Kariba, including risks to water quality, shoreline stability, and natural flow regimes.
- Identify contraventions requiring enforcement or remedial action.

This story continues on the next page

Key Findings

The team confirmed that Xing Huo Limited had constructed several permanent structures within the legally protected 50-meter buffer zone, including a warehouse, storeroom, elevated steel water tank stand, sanitation facilities with a septic system, and a borehole drilled without a permit.

Environmental and Hydrological Impacts

The presence of these structures poses significant environmental and hydrological risks:

Water contamination:

Septic facilities close to the shoreline increase the risk of nutrient loading and microbial pollution.

Shoreline instability:

Vegetation removal and construction activities heighten susceptibility to erosion, particularly during the rainy season.

Altered water flow:

Structures can obstruct natural drainage, increasing localized flooding risks.

Public safety risks:

Elevated water levels and wave action may threaten structural stability and endanger lake users.

Enforcement Measures

To safeguard the lake and surrounding communities, WARMA directed Xing Huo Limited to:

1. **Immediately cease all construction within the buffer zone.**
2. **Submit a corrective action plan for the relocation or removal of all permanent structures within the protected area.**
3. **Engage Gwembe Town Council and traditional authorities to regularize land-use approvals for areas outside the buffer zone.**
4. **Comply with potential enforcement actions, including penalties or compliance orders, should corrective measures not be implemented.**
5. **Participate in ongoing monitoring and follow-up inspections to ensure sustained protection of the water reserve.**

Stakeholder Engagement

During the inspection, the WARMA team conducted site meetings with local authorities, traditional leaders, and the company's representatives to emphasize the importance of adhering to water resource management regulations. Photographs and site documentation were collected to support enforcement actions and guide future compliance monitoring.

This exercise underscores WARMA's commitment to protecting Zambia's water resources, ensuring sustainable use, and preventing activities that threaten the ecological integrity of vital water bodies such as Lake Kariba.

Luena River a Source of Growth and Hope in Western Province

Communities thrive as WARMA guides sustainable water management

In the heart of Western Province, the Luena River winds through Luampa, Nkeyema, Kaoma, Limulunga, and Lukulu districts, shaping the lives of communities along its banks. For generations, the river has provided drinking water, irrigated crops, and supported livestock, sustaining families and local economies.

For 54-year-old farmer Mary Nasilele, the Luena River is indispensable.

> **"WITHOUT LUENA, WE WOULD HAVE NOTHING,"**
>
> **SHE SAYS**

Yet like many residents, Mary faces the challenge of benefiting from the river while protecting its fragile ecosystem.

A recent technical assessment by the Water Resources Management Authority (WARMA) provides crucial insights into water availability and usage in the Luena Sub-Catchment. Using the internationally recognized Water Evaluation and Planning (WEAP) model, the study highlights how the river's water can be managed sustainably for agriculture, domestic use, and future development projects.

Find out more on this on the next page

From page 32...

Key findings from the WARMA study

The Luena River system contributes an estimated 1.9 billion cubic meters of water annually to the Zambezi Basin, making it a vital resource in the region. Agriculture dominates the local economy, with water supporting high-value crops such as maize, rice, and vegetables, as well as livestock.

The study also identifies the potential for a large-scale dam to provide reliable water for Kaoma town, enhance commercial irrigation, and strengthen food security. Understanding the river's water balance is crucial to ensuring development is sustainable while safeguarding the environment.

Challenges to sustainable water management

The catchment's semi-arid climate, with average annual rainfall of 757 millimeters, combined with a growing population of over 264,000, puts increasing pressure on water resources. Forests cover more than half of the catchment, offering vital ecological services such as soil protection and groundwater recharge. However, cropland already occupies about 2,000 square kilometers, with demand rising. Climate change further compounds these pressures.

WARMA's approach and solutions

By applying the WEAP model, WARMA can simulate scenarios including climate variations, population growth, and development projects. These insights guide policy, inform water allocation decisions, and help protect the ecological integrity of the Luena Catchment. WARMA emphasizes balancing human needs with environmental protection, ensuring development does not compromise the river's sustainability.

Hope and action for the future

For communities like Mary's, the findings bring hope. With careful management and targeted investments, the Luena River can continue supporting agriculture, enhance livelihoods, and strengthen climate resilience while preserving its ecosystems.

WARMA plans to work closely with local communities, other government institutions, and development partners to implement sustainable water management practices. These include promoting efficient irrigation, protecting forests, reducing pressure on riverbanks, and exploring new infrastructure projects to secure water for domestic and commercial use.

Through these actions, the Luena River can remain a reliable and sustainable resource, ensuring that Western Province communities thrive today and for generations to come.

The Water Beneath our Feet

Understanding, Protecting, and Managing the Groundwater that sustains our communities

Across Zambia, mornings begin with a simple routine. A tap opens, a pump runs, water flows, and life moves on. For most people, that is where the story ends. Water is there. That is enough.

But have you ever asked where that water comes from?

For millions, it is not from a river or a lake. It is groundwater, stored in aquifers beneath our feet. These underground reservoirs have taken years, sometimes decades, to form. They are invisible, precious, and fragile. Once contaminated or overdrawn, restoring them is difficult, costly, and in some cases impossible.

Groundwater has quietly become the backbone of water supply across the country. It supports homes, schools, hospitals, businesses, and public services. Boreholes and pumps have become critical sources where piped water is scarce or intermittent.

Yet this growing dependence comes with risk. Too many boreholes are drilled without proper guidance. Some are located too close to pit latrines, septic tanks, waste disposal sites, or fuel storage areas. Others are drilled by unqualified contractors, without professional oversight or water quality testing. What appears clean may hide invisible threats to health and safety.

This is where the Water Resources Management Authority (WARMA) plays a critical role. WARMA ensures that groundwater is protected and used responsibly. Through regulation, guidance, inspections, and enforcement, the Authority safeguards both water quality and the long-term sustainability of Zambia's underground resources.

Protect Groundwater from the start

The responsibility begins at the point of decision. Every borehole starts with a choice:

1 Obtain a permit to drill from WARMA

It is free, yet essential. This allows the Authority to assess risks, guide proper siting, and ensure compliance with national standards.

2 Engage licensed drilling companies and trained geophysical surveyors

Expertise matters. Poor drilling can result in dry boreholes, unsafe water, or structural failure.

3 Ensure proper siting

Boreholes must be located at safe distances from contamination sources, and the surrounding environment must be protected. Safe distances alone are not enough; understanding how to sit a borehole correctly is key to avoiding long-term contamination.

4 Maintain the borehole

Test water quality regularly, keep infrastructure clean, and protect recharge areas.

WARMA cannot protect groundwater alone. Households, developers, contractors, drilling companies, and communities all have a role. Following guidance and maintaining boreholes are actions that safeguard both health and the resource itself.

Because once groundwater is contaminated or depleted, the damage is not easily reversed. Recovery takes time, and Zambia's growing demand for water leaves little margin for error.
The choice is clear. Protect the source before the water flows.

Because the truth is simple: the water we cannot see may be the most important water we have. And protecting it begins with the decisions each of us makes every day.

PHOTO GALLERY

2025 REGISTERED DRILLING COMPANIES

Only licensed drilling companies are permitted to conduct any drilling activities. Check the official WARMA list to ensure compliance, protect our water resources, and avoid being swindled out of your hard-earned money.

NO	DRILLERS NAME	CLASS	CONTACT NUMBER	TOWN	PROVINCE
1	Baba Drilling and Exploration Company Ltd	A	979510534	Lusaka	Lusaka
2	Jalapriya Drilling and Exploration Limited	B	971013244	Lusaka	Lusaka
3	Mukuba Boreholes Limited	B	772632333	Kitwe	Copperbelt
4	EKY Drilling & Exploration Limited	B	950292929	Kitwe	Copperbelt
5	Greenland Water Drilling Zambia Limited	B	776959999	Lusaka	Lusaka
6	Shiva Sai Boreholes Zambia Limited	B	976915333	Lusaka	Lusaka
7	Renuka Yellama Drilling and Construction Ltd	B	776728888	Lusaka	Lusaka
8	SAI Drilling & Explorations Limited	B	973240011	Lusaka	Lusaka
9	Sai Tirumala Drilling & Exploration (Z) Limited	B	975871377	Lusaka	Lusaka
10	Zamtech Borehole Drilling	B	777728899	Lusaka	Lusaka
11	Jagan Drilling Zambia Company Limited	B	772661234	Lusaka	Lusaka
12	Nova Drilling Company Limited	B	971717158	Lusaka	Lusaka
13	Shiva Ganesh Boreholes Limited	B	971131111	Lusaka	Lusaka
14	Simplex Drilling and Construction Limited	B	977556789	Lusaka	Lusaka
15	Srujala Tech Limited	B	977223255	Lusaka	Lusaka
16	Himalaya Drill Tech Limited	B	976444555	Lusaka	Lusaka
17	EF Drilling and Exploration Limited	C	777829718	Lusaka	Lusaka
18	Lusitu Drilling & Exploration Limited	C	974041247	Lusaka	Lusaka
19	Luckydrops Boreholes Zambia Limited	B	978126999	Lusaka	Lusaka
20	STS Drilling & Exploration Limited	B	971630052	Lusaka	Lusaka
21	Victoria Drilling & Exploration Limited	B	971630052	Lusaka	Lusaka

Only licensed drilling companies are permitted to conduct any drilling activities. Check the official WARMA list to ensure compliance, protect our water resources, and avoid being swindled out of your hard-earned money.

22	Aquatech Drilling	B	977871691	Lusaka	Lusaka
23	MLR Drilling & Exploration Limited	B	972139999	Lusaka	Lusaka
24	Litch Boreholes & Construction Limited	B	971433333	Lusaka	Lusaka
25	Finecop Zambia Limited	B	979641181	Lusaka	Lusaka
26	Premium Drilling and Construction Limited	B	976111222	Lusaka	Lusaka
27	Zamking Drilling Limited	B	776333333	Lusaka	Lusaka
28	Simbi Water Wells Limited	D	977826144	Mongu	Western
29	Malsam Construction & Supplies Company Ltd	D	979665009	Monze	Southern
30	Nada Well drillers Limited	D	979468882	Mongu	Western
31	Sioma Drilling Company Limited	D	973222549	Sioma	Western
32	Stechi hydro wells & General Dealers Ltd	D	962767281	Mongu	Western
33	RR Drilltech Limited	B	979869999	Lusaka	Lusaka
34	Hydrotech drilling & Exploration Limited	B	971978552	Lusaka	Lusaka
35	Mugodi Drillers	C	979272508	Lusaka	Lusaka
36	Lion Drilling Company Limited	B	954416999	Lusaka	Lusaka
37	United Drilling and Exploration Company ltd	B	973321222	Lusaka	Lusaka
38	Laxmi Srinivasia Drilling and Exploration Ltd	B	974538008	Lusaka	Lusaka
39	VSV Drilling and Exploration Company Limited	B	974787362	Lusaka	Lusaka
40	Cashmo Contractors and General Dealers Ltd	C	975230397	Mazabuka	Southern
41	Muchingo Water Wells and Construction Ltd	D	771183732	Mongu	Western
42	JC Drilling and Exploration Limited	B	973555666	Lusaka	Lusaka
43	Sri Tirumala Drilling and Exploration Limited	B	777777209	Lusaka	Lusaka
44	Gnkan Engineering and Construction Limited	D	979046200	Lusaka	Lusaka

2025 REGISTERED DRILLING COMPANIES

Only licensed drilling companies are permitted to conduct any drilling activities. Check the official WARMA list to ensure compliance, protect our water resources, and avoid being swindled out of your hard-earned money.

NO	DRILLERS NAME	CLASS	CONTACT NUM	TOWN	PROVINCE
45	Tigala Nagi Reddy Drilling and Constructior	B	975889999	Lusaka	Lusaka
46	Kamu Creditor Limited	D	977474122	Kalabo	Western
47	Mboomuyunda Three Business Ventures Lt	D	977977375	Mongu	Western
48	Heptagon Engineering Limited	D	978826988	Lusaka	Lusaka
49	Smuz Business Ventures	D	973565850	Limulunga	Western
50	Taru General Dealers	D	976191153	Mongu	Western
51	Barocon General Dealers	D	976187526	Limulunga	Western
52	Vacuum Drilling & Construction Limited	B	972667788	Lusaka	Lusaka
53	Prime Drill Tech (Z) Limited	B	973577277	Lusaka	Lusaka
54	Golden Drill Tech Limited	B	777956666	Lusaka	Lusaka
55	Atlas Drilling & Construction Limited	B	972111222	Lusaka	Lusaka
56	Sana Drilling Limited	B	771111116	Lusaka	Lusaka
57	Star Waterwell Drilling & Exploration Litd	B	977209999	Lusaka	Lusaka
58	Global Samaritans	B	965893365	Livingstone	Southern
59	Blue Desert	D	966502304	Lusaka	Lusaka
60	Gallant Drilling and Exploration	B	977803964	Lusaka	Lusaka
61	Gift Aquasolutions	C	977859323	Lusaka	Lusaka
62	Inafrica Drilling and Exploration Limited	A	966907474	Kitwe	Copperbelt
63	Rainbow Drilling and Exploration Limited	B	977496133	Lusaka	Lusaka
64	Sahara Drilling and Exploration Limited	B	779555999	Lusaka	Lusaka

Only licensed drilling companies are permitted to conduct any drilling activities. Check the official WARMA list to ensure compliance, protect our water resources, and avoid being swindled out of your hard-earned money.

NO	DRILLERS NAME	CLASS	CONTACT NUI	TOWN	PROVINCE
65	Sathya	B	776111666	Lusaka	Lusaka
66	Seven Hills Drilling and Exploration Limited	B	977951885	Lusaka	Lusaka
67	SRR water Wells	B	976112255	Lusaka	Lusaka
68	Sunshine Boreholes (Z) Limited	B	974567788	Lusaka	Lusaka
69	Apa Njeke Hardware Limited	D	955746311	Mongu	Western
70	Asbuilt Construction and General Dealers	D	965318634	Sioma	Western
71	CTR Drilling	B	776283637	Kasama	Northern
72	Datta Drilling Limited	B	977850153	Kasama	Northern
73	Nakasinde General Dealers	D	977241160	Mongu	Western
74	sustainable Water Solutions	D	977996984	Monze	Southern
75	Vignesh Drilling and Exploration Limited	B	973153888	Lusaka	Lusaka
76	Mafisa Community Transformation Trust Ltd	C	977773171	Lusaka	Lusaka
77	Munasiwange General Dealers	D	954639071	Sikongo	Western
78	SMR Construction	B	977521122	Choma	Southern
79	Bakwetu Engineering and General Dealers Ltd	D	760724475	Lwampa	Western
80	Sinda Construction and Ligistics Limited	D	970517174	Luanshya	Copperbelt
81	Zambezi Drilling and Exploration Limited	A	975818229	Lusaka	Lusaka
82	Sun Water Well Drilling Limited	B	972334455	Lusaka	Lusaka
83	Soni Boreholes Limited	B	978335577	Lusaka	Lusaka
84	China Gansu Engineering Corparation Zambia I	A	977355632	Lusaka	Lusaka
85	Laxmi Nrusimha Boreholes	B	776929999	Lusaka	Lusaka
86	KR Drilling and Exploration Limited	B	972939999	Lusaka	Lusaka
87	Davisbet Enterprise Limited	D	978320684	Mazabuka	Southern

WARMA

Water Resources Management Authority

Contact us

Kafue Catchment
Lusaka Office
Block 30, Annex, Mulungushi House P. O. Box 51059
Tel: +260 211-251 934
Lusaka

HEAD OFFICE
WARMA House Plot No. LN 385-7 & LN 385-8 Alick Nkhata Road, Longacres Lusaka, Zambia
P.O Box 51059
Tell : +260 211 251 934 Email: info@warma.org.zm w

Zambezi Catchment
Livingstone Office
Plot No 28 John Hunt Way
Cell: +260 954 643271/ 0972742695 Livingstone, Zambia

Kafue Catchment
Ndola Office
Plot No 8291, Chimbotela Close Cell: +260 965 920 269 Town Centre, Ndola., Zambia

Chambeshi Catchment
Kasama Office
Plot No 1486 Mukulumpe Rd, Central Town Cell: +260 977405352/ +260 212 277 030
Kasama, Zambia

Luangwa Catchment
Chipata
Department of Water Resources Development
Along Umodzi Highway
Adjacent to Old National Brewery Opposite Living Water Poster
Cell: +260 976-600868
Chipata, Zambia

Mansa Office
Department of Water Resources Development
Along Catherdral Road
P.O Box 710032
Cell: +260 978- 258008
Mansa, Zambia

Kafue Catchment
Solwezi Office
Department of Water Resources Development
Along Independence Avenue
Solwezi
Cell: +260976932999

Luangwa Catchment
Kabwe Office
Plot No 2005/6
Dambo Road
Cell: +260 974 878 698
Kabwe, Zambia

You can also find us on all social media platforms