

WATER RESOURCES MANAGEMENT AUTHORITY

Presentation on Groundwater regulation development – the Zambian
case

By

**Eng. Levy Museteka (B.F.SC. & T, PG Dip. IWRM, MSc. HEG,
MEIZ)**

Venue: Chrismar Hotel, Livingstone

DATE: 12th July, 2017



WARMA - *Water Resources Management Authority*



WATER RESOURCES MANAGEMENT AUTHORITY
Promoting Productivity and Community Through Water Resources

Contents

1. Introduction
2. WARMA Overview
3. Background on National Water Sector Reforms
4. Strategic Approach
5. Regulatory Framework Development (SI = Statutory Instruments)
6. Chronology of groundwater regulation development
7. Challenges
8. Groundwater regulation in prospective
9. End



WARMA - *Water Resources Management Authority*



1. INTRODUCTION

The Water Resources Management Act No. 21 of 2011 (the “WRM Act”) established the Water Resources Management Authority (“WARMA”) and defines its powers and functions.

The WRM Act repealed and replaced the Water Act of 1949 which also meant that WARMA would replace the then Water Board.

WARMA’s core objective is to manage, develop, conserve, protect and preserve water resources both surface and groundwater.



WARMA - *Water Resources Management Authority*



WATER RESOURCES MANAGEMENT AUTHORITY
Managing, Protecting and Conserving Zambia's Water Resources

2. WARMA Overview

Key Developments:

- Water Resources Management Authority (WARMA) was born out of the Water Resources Management Act No. 21 of 2011
- WARMA Board was appointed April, 2013 and Management in 2014
- Staff recruitment in progress

WARMA's Role:

- Allocation of water permits for surface and groundwater resources.
- Protection and conservation of all surface and groundwater resources.
- Catchment management by IWRM principles.
- Presiding over all water conflicts.
- Climate Change Adaptation Support.
- Registering and Licensing of all Drilling Companies in Zambia.



WARMA - *Water Resources Management Authority*



3. Background on Water Sector Reforms

- 1949 Water Act governed Zambia's Water Sector between 1949 and 2011
- The act only recognized Surface water as a Public good and not groundwater
- Reason to believe water was in abundance in Zambia?
- 1994 water sector reforms with the development of Sector principles
- Major highlight was separation of Water Supply from Water resources management
- Meantime water rights for raw water use continued to be granted by the Water Board
- Zambia formulated Integrated Water Resources Management and Water Efficiency (IWRM/WE) plans (2007 – 2030)
- This paved a way for the formulation of the 2010 National Water Policy
- The policy reflected IWRM principles and reclassified groundwater as Public Water
- Circa 2011, the journey for groundwater regulation began



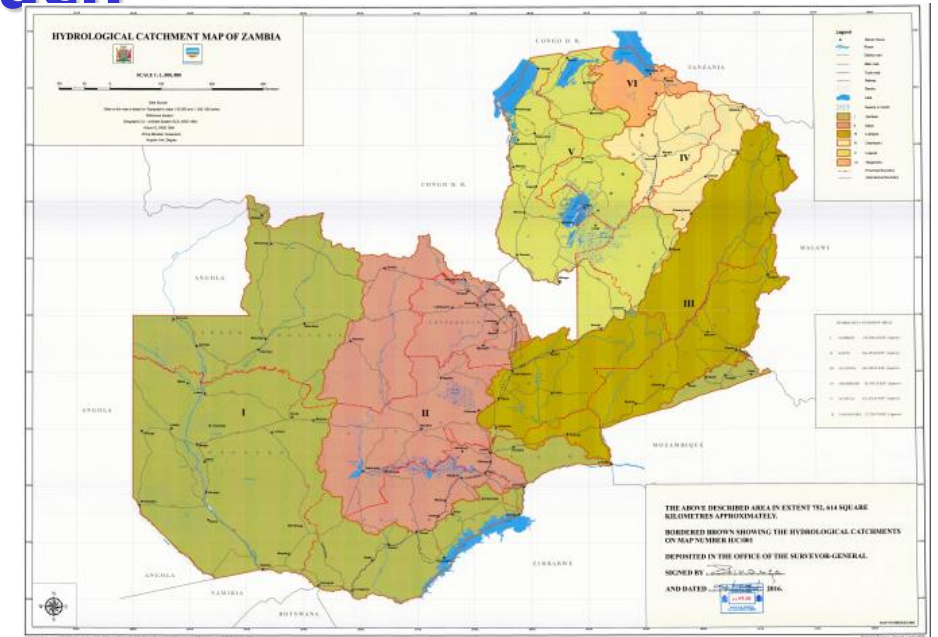
WARMA - Water Resources Management Authority



4. Strategic Approach

Required steps for the implementation:

1. Regulatory Framework Development (SI = Statutory Instruments)
2. Physical and Legal Delineation of Catchments
3. Development of permitting system for surface and groundwater
4. Pricing strategy for surface and groundwater use
5. Human Resource Development Strategy



WARMA - *Water Resources Management Authority*



HYDROLOGICAL CATCHMENT MAP OF ZAMBIA



SCALE 1:500,000



1998 Edition
Department of Water Resources, Lusaka
Hydrological Catchment
Map No. H/C/01
Map Scale 1:500,000
Map Date 2016



HYDROLOGICAL CATCHMENT	
I	1,000,000 - 2,000,000 ha
II	2,000,000 - 3,000,000 ha
III	3,000,000 - 4,000,000 ha
IV	4,000,000 - 5,000,000 ha
V	5,000,000 - 6,000,000 ha
VI	6,000,000 - 7,000,000 ha

THE ABOVE DESCRIBED AREA IN EXTENT 752,614 SQUARE KILOMETRES APPROXIMATELY.
BORDERED BROWN SHOWING THE HYDROLOGICAL CATCHMENTS ON MAP NUMBER H/C/01
DEPOSITED IN THE OFFICE OF THE SURVEYOR-GENERAL
SIGNED BY 
AND DATED  2016.



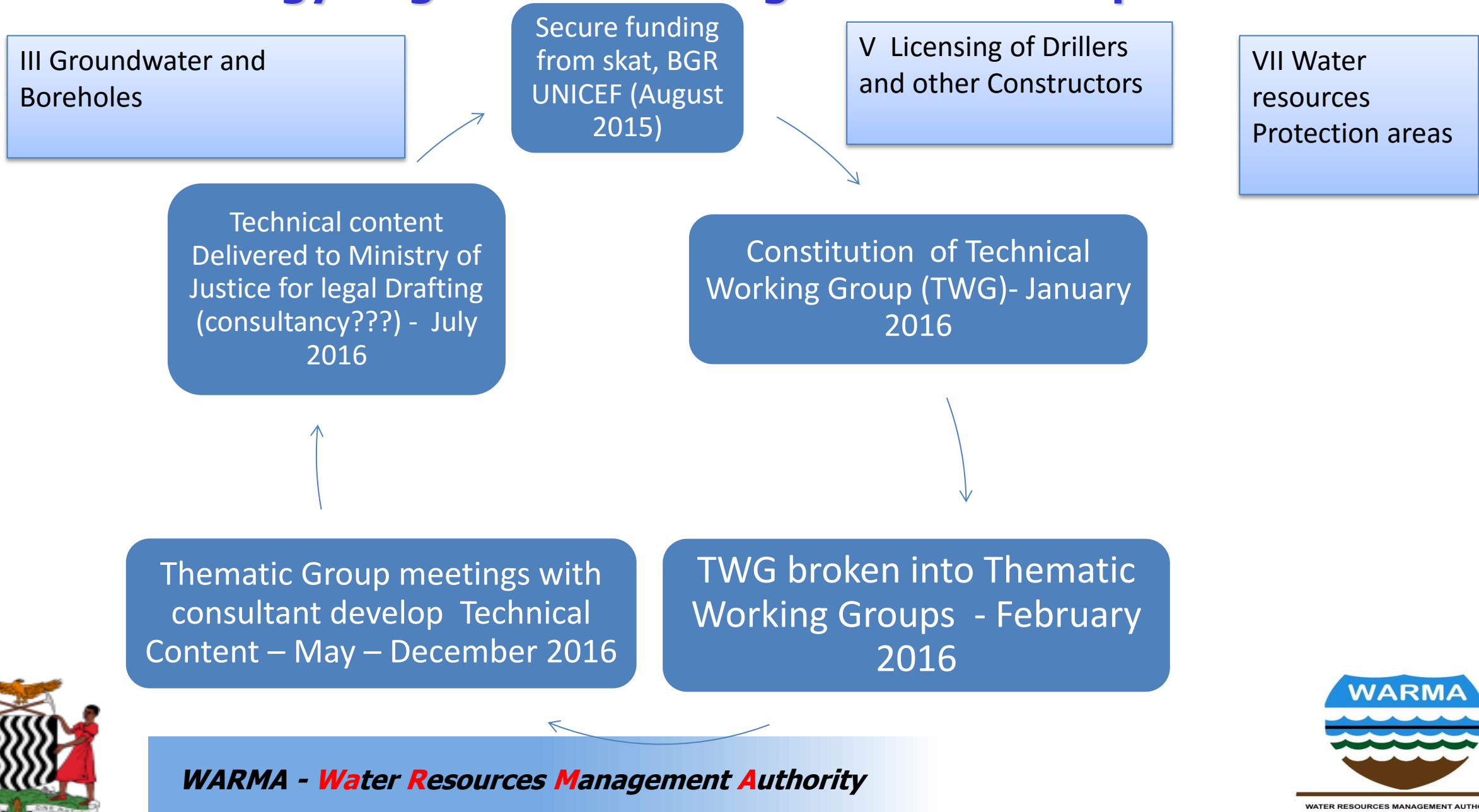
5. Regulatory Framework Development (SI = Statutory Instruments)

- Review of the WRM Act No. 21 of 2011 displayed 64 instances requiring Subsidiary legislation in order to achieve full implementation of the new Water Act (Jhala, 2011)
- 64 Statutory instruments would be impracticable, These were clustered into Eight Thematic categories namely;
 - I. General provisions
 - II. Catchments and Sub catchments
 - III. Groundwater and Boreholes
 - IV. Dams and other Water Works
 - V. Licensing of drillers and constructors of water works
 - VI. Permits for water use and allocation
 - VII. Water resource protection area
 - VIII. National monitoring and information system

WARMA - *Water Resources Management Authority*



6. Chronology of groundwater regulation development



WARMA - *Water Resources Management Authority*



7. Challenges

- After enactment of the Principle Act for water resources management, there were no funds dedicated to enacting subsidiary legislation leading to 'firefighting' in resource mobilization. This consumed much of the time in the lead up to implementation. Forest Act was another case in point.
- 'Donor cloud-out' syndrome – This is a situation where donors pledge and along the way, they change targets or deliverables and thus creating a funding gap.
- 'Scramble' for regulatory space with other agencies (Environmental Management, Council of Construction, Engineering Institution of Zambia, Business Review Regulatory Agency, Mine Safety Department, Radiation Protection Authority)



WARMA - *Water Resources Management Authority*

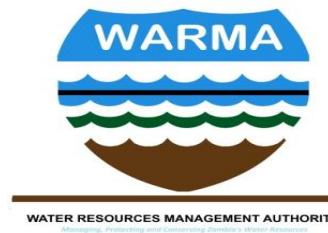


8. Groundwater regulation in prospective

- Drilling will be controlled through authorization to drill
- Increased hydrogeological information collected through groundwater completion reports
- Licensing all persons in the trade and business of water
- Declaration of water resources protection areas



WARMA - *Water Resources Management Authority*

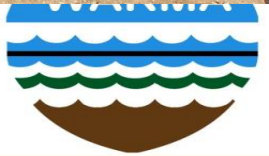


Thank you

- UNICEF
- Skat
- BGR



WARMA - *Water Resources Management Authority*



WATER RESOURCES MANAGEMENT AUTHORITY
Managing, Protecting and Conserving Kenya's Water Resources