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LEGAL NOTICE NO. 140

THE WATER ACT, 2016

(Cap. 372*)*

IN EXERCISE of the powers conferred by section 23 of the Water Act, the Water Resources Authority makes the following Order —

THE KABATINI AQUIFER GROUNDWATER CONSERVATION AREA ORDER, 2026

Citation.

1. This Order may be cited as the Kabatini Aquifer Groundwater Conservation Area Order, 2026.

Interpretation.

2. In this Order, except where the context otherwise requires –

Cap. 372

"Act" means the Water Act, 2016;

"association" means a water resources users association registered by the Authority in accordance with the Act;

"Authority" means the Water Resources Authority established under section 11 of the Act;

"basin area" means the area designated by the Authority as a Basin Area under section 24 of the Act;

"Groundwater Conservation Area" means the area declared to be a Groundwater Conservation Area under paragraph 4;

"Kabatini Aquifer Groundwater Conservation Plan" means the management and conservation plan developed by the Authority in respect of the Kabatini Aquifer Groundwater Conservation Area and set out in the Second Schedule;

Subleg.

"riparian reserve" means land in respect of which management obligations are imposed on users or owners by the Authority due to its proximity to the Groundwater Conservation Area;

"soil and water conservation plan" means a soil and water Conservation Plan as defined in the Water Resources Regulations, 2021; and

"sub-basin area" means the area designated by the Authority as a Basin Area under section 24(2) of the Act.

Application of the Order.

3. This Order and the Kabatini Aquifer Groundwater Conservation Plan shall apply to the National Government, national government entities, county governments, county government entities and any other person being a user of water resources and the riparian reserve of the Kabatini Aquifer Groundwater Conservation Area.

Declaration of protected area.

4. (1) The Kabatini Aquifer Groundwater Conservation Area is declared to be a protected area for purposes of the Act.

(2) The area in subparagraph (1) shall be as per the extent and description set out in the First Schedule and is demarcated for protection and conservation within the Kabatini Aquifer Groundwater Conservation Plan.

Kabatini Aquifer Groundwater Conservation Plan.

5. (1) The Kabatini Aquifer Groundwater Conservation Plan shall, without prejudice to the provisions of the Regulations made under the Act, be the basis for protection, conservation and use of the water resources within the Groundwater Conservation Area.

(2) The Authority shall place signboards and beacons in or near the Groundwater Conservation Area or in appropriate public places frequented by land and water users and at the Authority's offices; displaying up-to-date information about the condition of the water resources of the Groundwater Conservation Area.

(3) The public notices shall contain information regarding the action required of water and land users to conserve and protect the water resources of the Groundwater Conservation Area.

Offence.

6. Any person who contravenes this Order or fails to comply with the provisions of the Kabatini Aquifer Groundwater Conservation Plan commits an offence and is liable upon conviction to a fine of twenty thousand shillings or imprisonment for a term not exceeding six months or to both such fine and imprisonment.

FIRST SCHEDULE

THE KABATINI AQUIFER GROUNDWATER CONSERVATION AREA

(r. 2, 4)

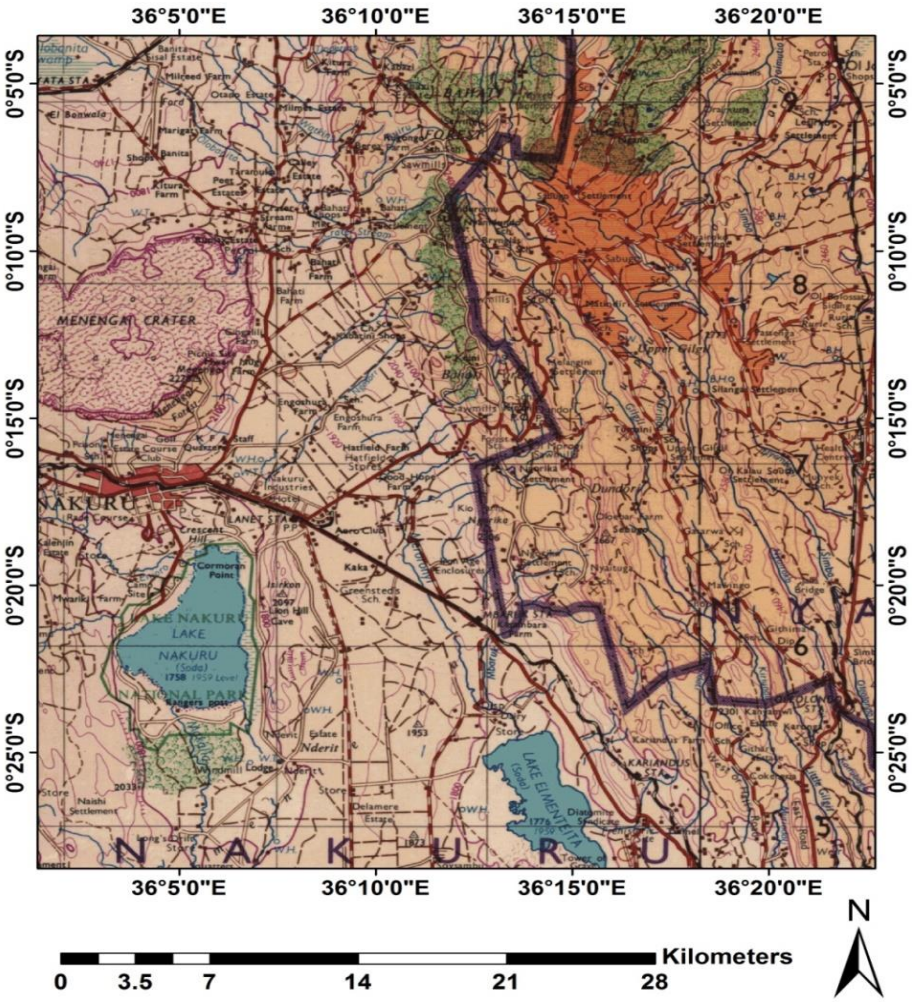


Figure 1: Location of Kabatini Aquifer Groundwater Conservation Area.

NOTE:

(i) Kabatini aquifer is located in Nakuru County, Nakuru District, Bahati Division between longitude 0360 04' E and 0360 10' E and latitudes 00 10' and 0020' S.

(ii) The aquifer is located in the Lake Nakuru sub-catchment which is a closed drainage system of 1,800 km^2. The aquifer borders Menengai crater to the north and north east, Bahati highlands to the northwest and Lake Nakuru to the south.

(iii) It is located at an altitude of between 1800 m and 2400 m above sea level.

SECOND SCHEDULE (r.2, 4, 5, 6)

KABATINI AQUIFER GROUNDWATER CONSERVATION PLAN

PURSUANT TO regulation 108 of the Water (Resources) Regulations, 2025, the Water Resources Authority has developed the Kabatini Aquifer Groundwater Conservation Plan.

PART I: PRELIMINARY

1.1 This Plan may be cited as the Kabatini Aquifer Groundwater Conservation Plan. Citation.

1.2 The following acronyms shall have the meanings as assigned below: Acronyms.

AAP	Area Action Plan
CRVWWDA	Central Rift Valley Water Works Development Agency
GCA	Groundwater Conservation Area
GW	Groundwater
KEWI	Kenya Water Institute
KPS	Kenya Police Service
KWS	Kenya Wildlife Service
MoLPWHUD	Ministry of Lands, Public Works, Housing and Urban Development
NAWASSCO	Nakuru Water & Sewerage Services Company Limited
SoK	Survey of Kenya
SW	Surface Water
WRA	Water Resources Authority
WRR 2025	Water (Resources) Regulations, 2025
WRUA	Water Resource Users' Association

1.3 This Plan shall apply in respect to the management and use of the Kabatini Aquifer Groundwater Conservation Area. Application of the Plan.

1.4 The overall goals of the management Plan are to ensure sustainable management and use of water resources within the Groundwater Conservation Area while promoting equitable sharing of water resources. Goals.

1.5 A catchment area is defined as the land from which water naturally flows into a water course. The status and conditions of a catchment determines the reliability, quantity and quality of its water yields. A catchment area acts like a water storage facility where during the rains, the vegetation cover allows the water ample time to percolate deep down and move as a sub-surface flow to recharge the rivers, springs and ground water storage in both shallow and Introduction and Background information.

deep aquifers. This sub-surface flow is slow resulting in rivers from a well-maintained catchment having higher base flows even during the dry season as well as good water yield from boreholes in the vicinity. In poorly maintained and degraded catchment, the rainfall results in the rapid surface run-off which is channeled into the river courses, resulting in flashfloods and high volumes of suspended solids. Since there is little storage in such a catchment, the rivers originating from such catchment will not be able to sustain their base flows during the dry season.

Catchment areas are thus a vital component in water resource management and they should be formally delineated, declared as protected areas by being gazetted as such, protected from encroachment and pollution and managed sustainably to maintain their ecological integrity.

Background information on Kabatini Aquifer.

1.6 Kabatini aquifer is located in the Rift Valley within Nakuru County, in Bahati Division between altitude 1800 m and 2400 m a s l. It is in the Lake Nakuru Sub-catchment - a closed drainage system measuring 1,800 km^2.

There are only a few permanent surface water bodies within Kabatini Aquifer. Kabatini aquifer falls within a medium altitude agro-climatic zone with rainfall of between 600 mm and 800 mm per year, coupled with high evaporation rates (1700 mm) mean that most surface drainages are ephemeral features which flow only during short periods of excessive rainfall especially during the long rains (Marwan et al, 2007).

The main surface water bodies in the area are the Ngosur River and Lake Nakuru. The rainfall regimes are bimodal with the long rains occurring in March to July and the short rains in September to November. Temperatures vary with topography and falls within minimum temperature range of 11 ºC to 14 ºC and the maximum temperature 23 ºC to 29 ºC.

Location and size of the Groundwater Conservation Area. *(L. N. 235 of 2021)*

1.7 The aquifer is located in Rift valley province, Nakuru District, Bahati Division between longitude 0360 04' E and 0360 10' E and latitudes 00 10' and 0020' S. It is located in the Lake Nakuru sub-catchment which is a closed drainage system of 1,800 km^2. The aquifer borders Menengai crater to the north and north east, Bahati highlands to the northwest and Lake Nakuru to the south. It is located at an altitude of between 1800 m and 2400 m above sea level.

Watershed area.

1.8 Kabatini aquifer falls within Ngosur River sub catchment which is under the jurisdiction of Ngosur-Dawani Water Resources Users Association. Figue 3 shows the sub catchment area of Ngosur-Dawani WRUA. The aquifer area also extents to a small part of Menengai-Crater WRUA to the North West and a small part of Mbaruk-Mereroni WRUA to the South East.

1.9 WRA has taken into account of the considerations provided under the Fifth Schedule of the Water (Resources) Regulations, 2025. Criteria Adopted in Identifying Kabatini Aquifer for Protection.

PART II: PROCEDURES TO BE APPLIED FOR THE MANAGEMENT OF THE KABATINI AQUIFER GROUNDWATER CONSERVATION AREA

2.1 Kabatini area is located in a gently sloping area on the Bahati uplands and to the West lies the steep sloped Menengai crater which stands at a height of about 2100m. The Kabatini area forms the North Eastern boundary of Lake Nakuru basin. Physiography.

The Nakuru basin is a closed drainage basin which has its boundaries as the Bahati highlands to the East, Mau escarpment to the West, Eburru crater to the South and the Menengai crater to the North. Lake Nakuru is the lowest part of the basin and it lies in the South West part Kabatini aquifer.

2.2 Kabatini aquifer falls within a medium altitude agro-climatic zone with rainfall of between 600 mm and 800 mm per year. The rainfall regimes are bimodal with the long rains occurring in March to July and the short rains in September to November. Temperatures vary with topography and falls within minimum temperature range of 11 ºC to 14 ºC and the maximum temperature 23 ºC to 29 ºC. Climate.

2.3 Human Settlement: The area has been experiencing remarkable land use/cover change due to multiple causes such as high population increase, demand for agricultural settlement and industrial land. Land Uses and their potential impact on the groundwater conservation area.

Land-use /cover within and around the Kabatini aquifer is dominated by an increasing urban/ impervious areas (built up and bare ground) blend with rain-fed herbaceous crop (natural and agricultural), pockets of dense forest, open trees and woodlands. The Nakuru-Menengai area predominantly comprises intensive cultivation. Land slope condition and the surface drainage affect recharge of the aquifer since most of the water drains as surface runoff.

The land was initially an agricultural area within the central part of the aquifer, with forest area within the upper zones of Bahati and Menengai Crater. The agricultural land has currently been sub-divided into small settlement plots (40 x 60 ft each) that have mainly been developed, thus hindering effective recharge of the aquifer.

2.4 Exotic species of plants: There are currently pockets of natural vegetation within the aquifer area. However, many exotic trees have been introduced, including Gravellier, Cyprus and Eucalyptus trees that have altered the natural recharge characteristics of the aquifer area.

Vulnerability of the water resource.

2.5 The area has been experiencing remarkable land cover change due to multiple causes such as high population increase, demand for agricultural settlement and industrial land, that has led to increase in built-up surface area and reduction in percolation, hence aquifer recharge significantly reduced.

The groundwater quality within the aquifer has been negatively affected by the rapidly increasing use of pit latrines, and no sewerage system within the aquifer area. The vulnerability to groundwater quality in the sub-catchment has changed due to water pollution and over abstraction.

The water resource quality objectives.

2.6 Section 20 of the Act requires the Authority to prescribe the criteria for classifying water resources for the purposes of determining water resources quality objectives for each class of water resource.

The Resource Quality Objectives represent the desired status of the resource, covering all aspects of quantity, quality, timing and aquatic biota. The RQO's are different for different classes of water resource. The objectives generally relate to the extent to which the water body is allowed to be adversely impacted by water use with respect to its natural state. Conceptually the RQO's provide a "target" condition of the resources. Management decisions should be made such that the condition of the resource is progressively trending towards the RQO. The status of the resource is a measure of how far the condition of the resource is from the RQO.

Kabatini Aquifer is a strategic aquifer used to supply significant amounts of water to Nakuru City and their minimal alternative sources of water.

The class of the water resource.

2.7 The present aquifer classification system in Kenya is partly demand-oriented and partly geo-political and entails five classes:

2.7.1 STRATEGIC aquifers: aquifers used to supply significant amounts/proportions of water to an area where there are no alternatives, or where alternatives would take time and money to develop

2.7.2 MAJOR aquifers: high-yielding aquifers with good quality water

2.7.3 MINOR aquifers: moderate-yielding aquifers with variable water quality

2.7.4 POOR aquifers: low-yielding aquifers with poor to reasonable quality water

2.7.5 SPECIAL aquifers: aquifers or parts of aquifers designated 'special aquifers' by the WRA

2.8 Each is further defined in terms of its status, i.e.:

2.8.1 Satisfactory: no immediate stress, pressure or threat

2.8.2 Alert: stress, pressure or threat identified or anticipated

2.8.3 Alarm: water levels declining, water quality declining (stress, pressure or threat identified)

2.9 The aquifer is classified as *"Alert",* meaning the resource is stressed, under pressure or threat identified or anticipated. This means that the trend is towards scarcity, over abstraction and is declining in water quality.

PART III: MEASURES FOR PROTECTION, CONSERVATION AND REHABILITATION OF THE GROUNDWATER CONSERVATION AREA

In order to ensure the protection and conservation of Kabatini Aquifer is achieved and sustained, several measures and strategies will be applied. These include the following:

Proscribed Activities.

3.1 According to the applicable legal framework, protected areas can be used in a sustainable manner. The activities to be undertaken within the Protected Area are those with zero impact on its ecological status and integrity. Unless specifically approved in writing by the Authority following an application in the prescribed form, the following activities shall not be undertaken within the Protected Area:

(a) Tillage or cultivation

(b) Clearing of indigenous trees or vegetation

(c) Building of permanent structures (especially boreholes and houses)

(d) Disposal of any form of waste

(e) Excavation of soil or development of quarries

(f) Planting of exotic species that may have adverse effect to the water resource

Groundwater conservation plan.

3.2 The objective of the conservation plan is to maximize the yield of Kabatini Aquifer by promoting beneficial land and water management practices in order to guarantee a healthy ecosystem. In order to guarantee a healthy ecosystem and maximize the yield of Kabatini Aquifer, the following activities will be implemented:

(a) Sensitization on catchment management.

(b) Demarcation of the aquifer

(c) Regulating activities that may lead to pollution and destruction of the eco system (Charcoal burning, grazing, cultivation).

(d) Controlling abstraction limits and observing of safe yields.

Conservation activities are particularized under the Conservation Plan contained under Table 1 in the Annex to this Plan.

Activity	*Sub-activity*	*Timeframe*	*Cost*	*Responsibility*
Demarcate the Kabatini aquifer	Undertake cadastral survey of the area and place beacons along the boundary	45 days	3,000,000	WRA, SoK , NAWASSCO, KWS, WRUA, NEMA
	Develop the AAP for the demarcated aquifer area	60 days	2,000,000	MoLPWHUD, WRA
	Place signs and notices to warn the public that this is a protected area.	Continuous	200,000	WRA, WRUA
Sub-Total			5,200,000	
Gazette the Kabatini aquifer as a protected water catchment area	Assess the status of the aquifer	30 days	2,000,000	WRA
	Create awareness on the status of the aquifer	Continuous	1,000,000	WRA, WRUA
	Develop guidelines and conservation plan through stakeholders' engagement	60 days	1,500,000	WRUA, WRA, KFS, NAWASSCO, KWS, WRUA
	Presentation of documents for gazettement and notice on National Daily newspapers	90 days	1,000,000	WRA
Control water abstraction	Enforcement of abstraction conditions as provided for in the Water Act 2016 and W R Regulations 2021.	Continuous	3,000,000	WRA, KPS, WRUA
	Monitoring of compliance to safe yields	Continuous	1,500,000	WRA, WRUA.
Enforce Kabatini aquifer managementt guidelines	Create awareness to stakeholders on the management guidelines and conservation plan	10 days	500,000	WRA
	Enforce Kabatini protected area guidelines, management plan and relevant regulations	Continuous	2,000,000	WRA, KPS
Sub-Total			13,000,000	

Rehabilitation Plan.

3.4 The objective of the rehabilitation plan is to bring back the condition of the groundwater conservation area to where it was before degradation and safeguard the ideal performance level of the aquifer. This will be achieved through:

(a) Removal of exotic (water unfriendly) and invasive tree species;

(b) Re-vegetation of the aquifer sub catchment with water friendly/indigenous trees

(c) Development of alternative livelihoods to discourage farming within the aquifer;

(d) Water storage enhancement through installation of rain water harvesting tanks to ease pressure on use of groundwater.

(e) Restricting activities that may lead to pollution and destruction of the eco-system (Charcoal burning, grazing etc.)

Rehabilitation activities are particularized under the Rehabilitation Plan contained under Table 2 in the Annex to this Plan.

Activity	*Sub-activity*	*Timeframe*	*Cost*	*Responsibility*
Removal of exotic (water unfriendly) & invasive tree species	Identify and remove water unfriendly and invasive tree species from the aquifer sub catchment	1 Year	1,000,000	WRA, KFS, NGAO, WRUA
Re-vegetation of the catchment area	Establish indigenous Plant Propagation (50,000 No.)	Continuous	3,000,000	WRUA, WRA, KFS, NAWASSCO, KWS, WRUA
	Planting and growing of propagated seedlings (Watering and tending)	Continuous	2,000,000	KFS, WRUA
	Exotic species control	Continuous	500,000	WRA, WRUA
Alternative livelihood activities	Promote bee keeping, poultry farming and dairy farming.	Continuous	10,000,000	WRA, KWS, WRUA, Agriculture and livestock, NAWASSCO
Rain water storage enhancement.	Installation of 20No. $10m^3$ Rain water harvesting tanks in public institutions/public land	Continuous	4,000,000	WRA, NAWASSCO, WRUA

Restricting activities that may lead to pollution and destruction of the aquifer	Public awareness	quarterly	1,500,000	WRA, KFS, NAWASSCO, KWS, NGAO, NEMA, WRUA.
	Controls/restrictions on quarrying, grazing, effluent discharge, solid waste disposal, charcoal burning, radioactive waste disposal.	Continuous	600,000	WRA, KFS, NAWASSCO, KWS, NGAO, NEMA, WRUA.
	Enforcement	quarterly	1,000,000	WRA, NGAO
	Sub Total		22,000,000	

Catchment and Water Resources Monitoring Plan.

3.5 The objective of the monitoring plan is to collect water resources data and maintain a comprehensive database on the groundwater conservation area that provides information on ground water levels and quality of the aquifer.

Planned catchment monitoring actions include:

(a) Capacity Building

(b) Groundwater monitoring

(c) Rainfall monitoring

(d) Water quality monitoring

(e) Establish a water resources database for water quality and ground water levels

The particulars of the Catchment Monitoring Plan are contained under Table 3 in the Annex to this Plan.

Action	*Sub Activities*	*Time frame*	*Costs*	*Responsible*
Capacity Building	Training on data collection and water resources monitoring	14 days	1,000,000	WRA, WRUA
Ground water monitoring	Identify boreholes for ground water monitoring	7 days	50,000	WRA, WRUA
	Measure GW levels	Continuous	500,000	WRA
Rainfall monitoring	Identify/establish rainfall stations	7 days	100,000	WRA, WRUA
	Record precipitation	Continuous	500,000	WRA
Water quality	Collecting samples and	Continuous	200,000	WRA

Action	*Sub Activities*	*Time frame*	*Costs*	*Responsible*
monitoring	taking to the lab.			
	Conducting analyses on biological and physico-chemical parameters	Continuous	500,000	WRA
Establish a water resources database for water quality and groundwater levels	Procure relevant hardware and software for database development	2023	5,000,000	WRA
	Data management and dissemination	Continuous	3,000,000	WRA
	Sub Total		10,850,000	

Establishment and operationalization of management structure.

3.6 The objective of the management structure is to ensure that the groundwater conservation area is managed in a sustainable manner with the involvement of all stakeholders under the leadership and coordination of WRA. This will be achieved through:

(a) Setting up the management structure with defined Terms of Reference (ToRs) and mandates;

(b) Development of resources mobilization strategies to raise funds for operations, maintenance and conservation of the protected areas;

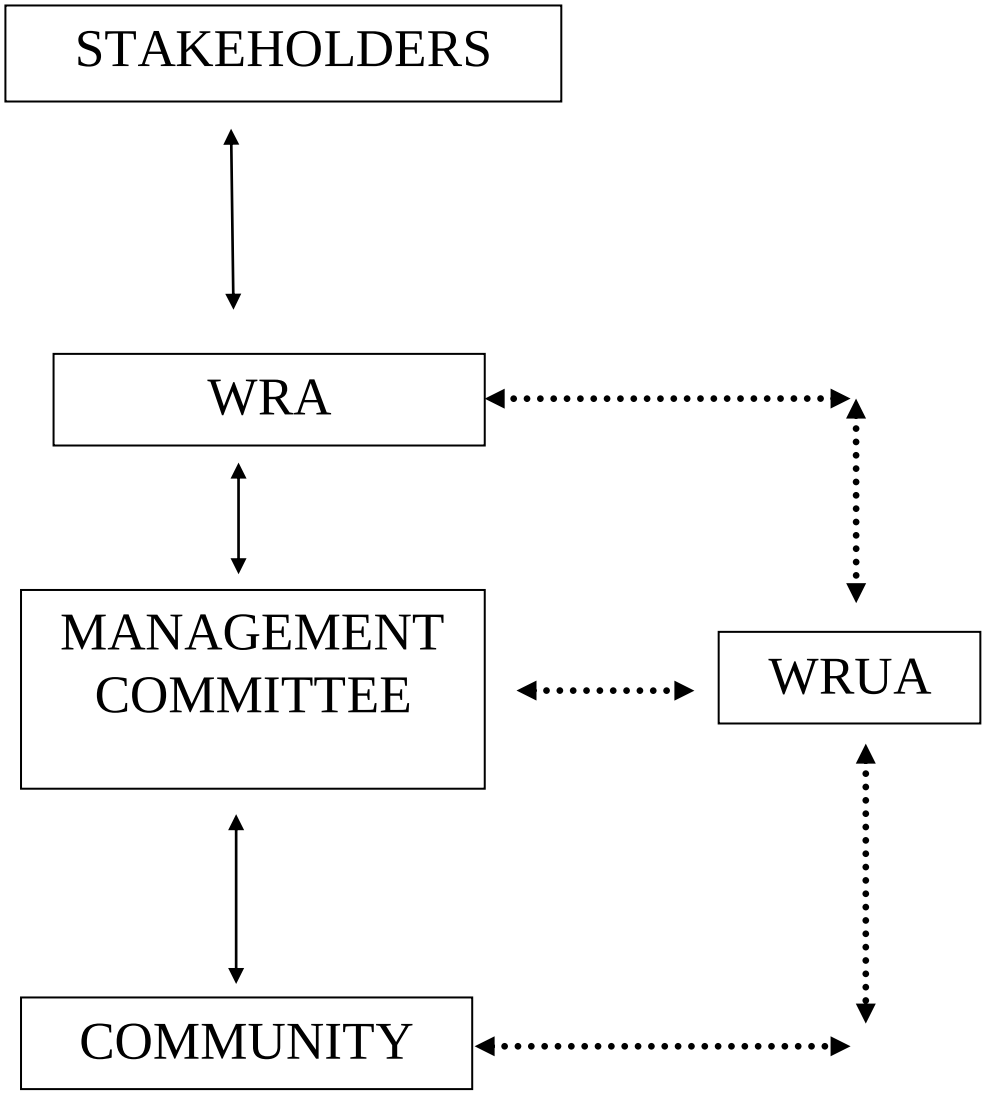
Operationalization of the management structure shall be as set out under Table 4 in the Annex to this Plan.

The following are the proposed linkages between various stakeholders (Figure 6). The arrows indicate the direction of flow of information. The dotted lines indicate WRUA can also communicate directly to communities and vice versa.

Activity	*Sub-activity*	*Timeframe*	*Cost (KSh.)*	*Responsibility*
Setting up a management structure	Appoint 1No. Member from each of the following stakeholders: 1. NAWASSCO 2. Kenya Forest Service 3. Kenya Wildlife Service 4. National Government Administration in Nakuru 5. National Environmental Management Authority 6. Ministry of Agriculture 7. WRUA;	3 months	Nil	WRA
	Terms of References (ToR) will include but not limited to:	Continuous	Nil	WRA, WRUA

Activity	*Sub-activity*	*Timeframe*	*Cost (KSh.)*	*Responsibility*
	▪ To manage the aquifer prudently on behalf of other stakeholders ▪ To submit quarterly reports to WRA on all planned and implemented activities; ▪ To develop by-laws and submit a copy to WRA for approval before implementation			
	Mandate and responsibilities: ▪ Promote the conservation and protection of the aquifer ▪ Promote equitable distribution of the resources within the catchment ▪ Promote socio-economic and environmental sustainability of the catchment	Continuous	Nil	WRA ,WRUA
	▪ Mapping of stakeholders and potential donors; ▪ Development and marketing of resources mobilization plans	1 day Continuous	Nil 500,000	WRA
Sub Total			500,000	

The following are the proposed linkages between various stakeholders (Figure 6). The arrows indicate the direction of flow of information. The dotted lines indicate WRUA can also communicate directly to communities and vice versa.



3.8 The matrix contained under Table 7 in the Annex to this Plan shall be adopted for Monitoring and Evaluation to capture details of the progress of implementation of the planned activities. Monitoring and Evaluation Matrix.

Activities	*Implementation Schedule*		*Status (% completion)*	*Planned Cost Ksh.*	*Total expenditure to date*	*Source of funds*	*Output*	*Comments*
	Start date	*End date*						

Made on the 20th July, 2026.

JAMES MBURU,
Ag. Chief Executive Officer,
Water Resources Authority.

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