

Regulatory Impact

Statement

February 2019



MINISTRY OF WATER AND SANITATION
KENYA WATER SECURITY AND CLIMATE RESILIENCE
PROJECT (KWSCR)
SUPPORT TO WATER SECTOR REFORMS

PROPOSED WATER RESOURCES REGULATIONS, 2019

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Regulatory Impact Statement

February 2019

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PROPOSED

WATER RESOURCES REGULATIONS 2019

Regulatory Impact Statement

Prepared by the Ministry of Water and Sanitation (MWS)

2019

This Regulatory Impact Statement (RIS) has been prepared in compliance with the Statutory Instruments Act, 2013 (Acts *No.* 23) requirement for Regulatory Impact Statement on the proposed Water Resources Regulations 2019.

The purpose of the RIS is to enable the Cabinet Secretary, Members of Parliament, and the Kenyan Community to be informed of the environmental, social and economic implications of the implementation of the proposed Water Resources Regulations 2019.

Public comments from stakeholders and submissions were invited on the proposed regulations.

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ABBREVIATIONS

| | |
|--------------|---|
| BWRC | Basin Water Resources Committee |
| CS | Cabinet Secretary for water |
| EIA | Environmental Impact Assessment |
| EMCA | Environmental Management and Coordination Act |
| KWSCR | Kenya Water Security and Climate Resilience Project |
| MWS | Ministry of Water and Sanitation |
| NEMA | National Environmental Management Authority |
| RIS | Regulatory Impact Statement |
| WRA | Water Resources Authority |
| WRUA | Water Resource User Association |
| WSI | Water Service Institution |



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EXECUTIVE SUMMARY

This Regulatory Impact Statement (RIS) examines the impact of reforming the regulation of the management and use of water resources and recommends that the current suite of subsidiary legislation under the Water Act 2002 be repealed and replaced with these new regulations.

The regulation of water by both the county and national government helps to ensure that water remains available in the long term and that the country's water resources and the environment is protected. This endeavor will help maximize the long term value of water to the broader community and ensures its sustainable management and use. This RIS examines the costs and benefits of implementing a suite of regulatory reform measures in Kenya aimed at the regulation of the management and use of water resources.

This RIS advises that this would lead to better investments in water use, higher value use of ground and surface water, greater flexibility to deal with climate and rainfall variability and population growth and contribute to the improved protection of the condition of water resources in Kenya.

The Water (Resource Management) Rules 2007 as amended by the Water Resource Management (Amendment) Rules 2012 (the current regulations) prescribe for the following –

- approvals, authorizations and permits;
- conditions of authorization, permits and approved water uses;
- regulations specifying the use and protection of surface water;
- regulations governing groundwater development, protected areas and groundwater conservation areas;
- regulations governing dam construction;
- water quality and the management of effluent;
- water use charges;
- conservation of riparian and catchment areas;
- catchment and management strategies;

The current regulations do not comprehensively address issues related to the regulation of the management and use of water resources. The proposed Water Resources Regulations 2019 (the proposed regulations) seeks to replace the current regulation with substantive amendments taking into account the new institutional mandates of the Water Resources Authority (WRA), the Basin Water Resources Committees (BWRC) and Water Resource User Associations (WRUAs) as established under the Water Act 2016. The proposed regulations are underpinned by multiple rounds of consultations, which have shown support from various stakeholders within the water sector.

1. INTRODUCTION

The proposed Water Resources Regulations 2019 should deliver on the improved management and use of Kenya's water resources.

The Water Act 2016 establishes the Water Resources Authority (WRA) to be responsible for regulating the management and use of water resources; receiving and issuing water permit application; the determination and collection of water permit and water use fees; the formulation and enforcement of standards, procedures and regulations for the management and use of water resources and flood mitigation; providing information and advising the Cabinet Secretary (CS) for policy formulation on national water resource management, water storage and flood control strategies and coordination activities with regional, national and international bodies for the better regulation of the management and use of water resources. Other key WSIs such as the Basin Water Resource Committees (BWRCs) and the Water Resource User Associations (WRUAs) play a crucial role in water resources management and use.

Section 142 of the Water Act 2016 empowers the CS to make regulations with respect to any matter required, or which is necessary or expedient to be prescribed for carrying out, or giving effect to the Act. As a result, MWS did not consider it appropriate to identify other options to achieve its objective under the Water Act 2016. Instead, this RIS sets out the substantive changes from the Water Act 2002 to the Water Act 2016 and the proposed legislation, namely the Water Resources Regulations 2019, giving the mandates under new Water Act 2016 effect. The RIS identifies the proposed legislation's impacts, the gaps in the Water Act 2016 it seeks to fill, and the costs and/or benefits for stakeholders and Kenyans.

MWS considers that the proposed regulations will meet the water sector reform objectives and aligns with the Water Act, 2016. The legislation is not finalized and changes based on stakeholder comments in response to the Public Consultations will help to ensure that the final Water Resources Regulations 2019 presented to Parliament delivers the best outcomes.

The regulations should deliver legislation that is outcomes-based and combines the requirements of the Constitution of Kenya 2010, the Water Act 2016, the National Water Master Plan 2030, the National Water Resources s Strategies, as well as the existing and proposed water sector policy.

2. OBJECTIVES OF THE PROPOSED WATER RESOURCES REGULATIONS 2019

2.1 Compliance with the Legal and Institutional Framework

The Constitution of Kenya 2010 defines public land to include all rivers, lakes and other water bodies as defined by an Act of Parliament; the territorial sea, the exclusive economic zone and the sea bed; the continental shelf and all land between the high and low water marks (Article 62).

The Constitution establishes two levels of government: the national government and the county government. The national government is required to regulate the use of any land or any interest in or right over any land (Article 66(1)).

The Fourth Schedule of the Constitution of Kenya 2010 distributes functions between the national government and county government. Whereas the county governments are tasked with the implementation of specific national government policies on natural resources and environmental conservation including soil and water conservation, the national government is responsible for the use of international waters and water resources, and the protection of the environment and natural resources with a view to establishing durable and sustainable system of development including in particular water protection, securing sufficient residual water, hydraulic engineering and the safety of dams.

Article 69 of the Constitution obligates the national government to ensure the sustainable exploitation, utilization, management and conservation of the environment and natural resources and ensure the equitable sharing of the accruing benefits. In addition, the national government is required to encourage public participation in environmental management and protection and to utilize the environment and natural resources for the benefit of the people of Kenya.

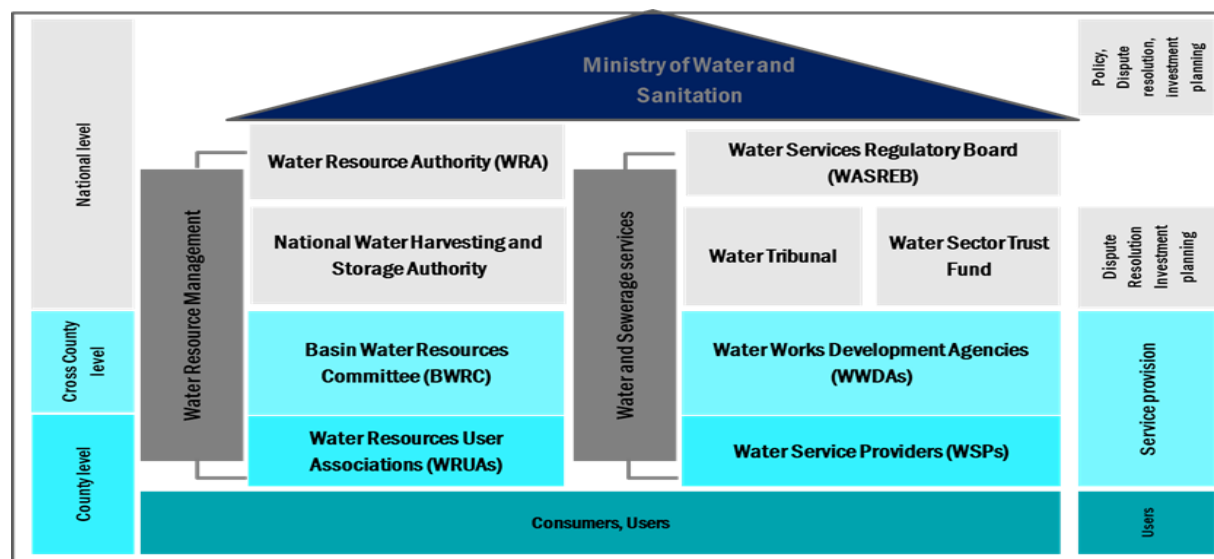
The principles enshrined in the Water Act 2016 include (1) the need to maintain the gains of the reform process and (2) the alignment of the legal and the institutional framework to the Constitution of Kenya 2010.

The right to clean and safe water in adequate quantities and to reasonable standards of sanitation is a constitutional requirement enshrined in Article 43(1) of the Constitution 2010. Since the State and every state organ is obliged to fulfill these rights (Article 21), both the national and county government have a shared mandate to ensure universal access to water resources.

The Water Act 2016 (the Parent Act) was enacted to align the water sector to the Constitution of Kenya 2010 and to ensure that relevant institutions have mandates to respond to challenges of

the water sector. Figure 1 below depicts the new institutional framework formulated in the Water Act 2016.

Figure 1: New Institutional Framework Formulated in the Water Act 2016



The development of the Water Resources Regulations 2019 is an imperative element in giving effect to the mandates of the WRA, the BWRC and the WRUAs and are necessary for the commencement of the reforms introduced by the Water Act 2016. These regulations are in compliance with the overall objectives of the constitution to ensure universal access to water Resources s.

2.2 Objectives of the proposed Regulations

The Water Resources Regulations 2019 makes key elements of the Water Act 2016 operational – including but not limited to the following areas –

- a. defining various procedural matters in relation to the approval, authorization and issuance of permits;
- b. regulations governing the surface water;
- c. specifying groundwater development, protected areas and groundwater conservation areas;
- d. specifying modalities on water quality monitoring and effluent discharge;
- e. specifying for the inspection of works;
- f. defining the conditions of authorization, permits and approved water uses;
- g. specifying water use charges;
- h. providing process of identifying riparian land and the conservation of catchment areas;
- i. specifying the role of the Basin Water Resources Committees (BWRCs);

- j. defining the reserve quantity;
- k. dealing with details and modalities that are left out or left open in the Water Act 2016 generally.

These objectives are consistent with the stated purposes of the Water Act (2016) which is to ensure that every citizen has access to clean and safe water in adequate quantities as stipulated in Article 43 of the Constitution (Section 63).

2.3 Institutional Arrangements under the Water Act (2016)

The Water Act (2016) establishes key water sector institutions (WSIs) to align with the requirements of the Constitution of Kenya 2010 in the area of water resource use and management. Table 1 provides an overview of their mandates and functions.

Table 1 : Mandates and Functions of WSIs and other bodies in water resource use and management

| INSTITUTION (WSIs) | MANDATES UNDER WATER ACT (2016) |
|---|---|
| Water Resources Authority (WRA) | <ul style="list-style-type: none"> • Developing principles for water resource allocation • Determining applications for permits for water use through abstraction, diversion, impoundment, discharges etc. • Monitoring water use; • Enforcement of rules on water use; and • Setting and collecting water use charges |
| Basin Water Resources Committee (BWRC) | <ul style="list-style-type: none"> • Management of water resources within a respective basin area; • Play an advisory role to WRA; and • Facilitate the establishment and operations of WRUAs. |



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| Water Resource User Associations (WRUA) | <ul style="list-style-type: none">• Collaborative management of water resources and resolution of conflicts concerning the use of water resources. |
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The proposed Water Resources Regulations 2019 are necessary to operationalize and give effect to the requirements under the Water Act 2016 and govern the various institutional arrangements under the Act. The proposed regulations should deliver improved regulation of the management and use of water resources in the water sector. Table 2 highlights the detailed issues addressed by the proposed regulations.



Table 2: Detailed table of issues addressed by the proposed legislation

| No. | Topic/Key Principle | The Parent Act | Proposed Legislation: Water Resources Regulations 2019 | Comments/Explanation |
|-----|---|--|--|---|
| 1 | Applicable Legislation | The Water Act, 2016 | Water Resources Regulations 2019 | Legislation is based on the Water Act 2016 and gives it effect. |
| 2 | Application of Water Resources Regulations | | <ul style="list-style-type: none">• The regulations apply to;<ul style="list-style-type: none">a. The regulation, management, use and development of Kenya’s water resourcesb. All Kenyan water resources be they perennial or seasonal and the territorial sea | ALL: Scope aligns with the Water Act 2016 and the Constitution of Kenya 2010; the National Water Master Plan 2030, the National Water Resources Strategies, as well as the existing and proposed water sector policy |
| 3. | Approval, Authorisation and Permits | The Act does not specify the modalities. | <ul style="list-style-type: none">• The rules provide for the permitting process, the verification of existing permits and the assignment of Water Resource User Identification Numbers.• WRA will maintain a register of approved water uses, water uses and permits. | |

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| | | | <ul style="list-style-type: none">• Applicants are required to obtain the necessary approvals where the intention is to use the works owned by another.• Water Use is categorized and the regulations prescribes procedures for the applications based on the stated categories.• Documentary requirements include maps, technical reports (site assessment report) and evidence of consultations with WRUAs.• Additional requirements for Category C and D applications includes public notification.• Applications may be objected to and WRA will determine the application and state how it has addressed the objection.• WRA may hold a site meeting regarding any objections to Category C and D applications. WRA has the discretion to reject applications.• WRA may authorize the construction of works however authorization to commence abstraction is subject to conditions governing the authorization being met. Applicants may apply for an extension of the authorization.• Authorisation permits will be maintained in a register, and upon the completion of works, the | |
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| | | | <p>applicant will submit to WRA a Completion Certificate.</p> <ul style="list-style-type: none">• All permits are subject to permit fees and have validity period of 5 years but may be renewed or extended for a similar or shorter period. Failure to pay the requisite fees is a basis for revocation.• A permit holder may apply to WRA to transfer or vary a permit. WRA may also exercise its discretion to vary or cancel a permit subject to the issuance of a 30 day notice to show cause to the permit holder.• WRA will notify the public on authorizations, permits and cancellations.• All applications are subject to compliance with the Water Act 2016 and other applicable laws. | |
| 4. | Surface Water | <p>The Act mandates WRA to regulate the management and use of water resources.</p> <p>There are gaps in relation to the specific water resources to be managed and the</p> | <ul style="list-style-type: none">• The rules specify the definition of flood flow as any flow that exceeds the Q_{80} flow value and “normal flow” is defined as any flow that is less than the Q_{80} flow value.• WRA may declare a natural watercourse subject to public notification.• Boundaries are to remain intact if, owing to any natural events or authorized or unauthorized works being constructed on a water body, a body of water which constitutes the boundary of two or more | |

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| | | modalities for achieving this goal. | <p>properties ceases to flow between or to separate such properties or has changed into a new course.</p> <ul style="list-style-type: none">• The rules specify the designation of wetlands subject to public notification. Land owners in such areas require approval from WRA for any proposed or ongoing activities that would affect the wetland.• Where drainage and reclamation of swamps requires use of any water conserved by the drainage or reclamation, the application must submit an application for a permit for diversion, abstraction, storage or use with a Hydrological Assessment Report and EIA Report and License. Water users in these areas are guaranteed reasonable access unless otherwise agreed or on payment of compensation.• WRA will allocate water for irrigation giving priority to subsistence irrigation, be guided by crop water requirements and water use efficiency, limit the applicant to abstraction impoundment or diversion only for irrigation and require the applicant to make provision for not less than 3 month's storage of flood flow.• WRA may declare by public notification for each catchment area or a part of it an upper limit for the allocation of water in aggregate or for any single permit where allocation is shared among different households. | |
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| | | | <ul style="list-style-type: none">• Permit application for hydropower development may be subject to special conditions where the permit to develop specifies an amount less than the full hydropower potential of the site.• WRA may cancel authorization where the permit holder is unable or unwilling to enlarge the works to meet its full potential and authorize the works be performed by another person provided that the new operator will pay compensation to the permit holder whose permit has been cancelled.• WRA will maintain a surface water database which will be accessible to the public upon payment of the prescribed fees.• Upon consultation with the government fisheries department, WRA may require a permit applicant or order a permit holder to provide at his or her cost a fish pass, fish ladder or other structure to allow the free migration and movement of fish.• WRA may authorize the construction of temporary works for improving the conditions of fish life and fish ladders or other means of ingress and egress. | |
| 5. | Groundwater | | <ul style="list-style-type: none">• WRA may approve application under Category A for a well if the method of abstraction does not include motorized pumping. Applications in relation boreholes or wells with motorized pumps require a hydrogeological assessment report. | |

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| | | | <ul style="list-style-type: none">• Applicants will seek WRA approval for any widening deepening or replacement of a well or borehole. Owners who experience ‘down hole problems’ may continue to drill a replacement borehole without reference to WRA on a site not more than 15 metres from the previously approved site. The owner must file an application with WRA to move to the new site if the replacement borehole is more than 15 metres away from the approved site.• WRA will determine in the allocation plan for a given aquifer the spacing of boreholes or wells to be equipped with motorized plant. The allocation plan will be a public document on WRA’s website.• Boreholes equipped with motorized plant are subject to test pumping. All such boreholes will be constructed under the supervision of a qualified water resource professional.• Upon completion of borehole construction, the applicant must submit a borehole completion record.• Approvals to abstract groundwater under Category A will be issued by WRAs regional office. If WRA determines that verification is necessary it will undertake the verification process within 28days and upon payment of verification fees. The data in the Borehole Completion Record will form the basis of approval by WRA where applicable. | |
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| | | | <ul style="list-style-type: none">• Permits for abstraction in relation to Categories B, C or D will be issued by WRA upon analysis of the data in the Borehole or Well Completion Record.• Borehole owners will ensure that a wellhead protection area is reserved where land use activities not associated with the water supply from the borehole and its management are prohibited.• Applicants will seek WRA approval for construction of works for the purposes of conducting the artificial groundwater recharge of an existing aquifer. Contravention of this requirement is an offence.• WRA will monitor data collected from permit holders or operator relation to abstraction, water levels, water quality or any other specified information which is submitted within a reasonable time or on a regular basis as specified by WRA.• WRA will maintain a groundwater database which will be a public document on its website and available during office hours on the payment the prescribed fees. | |
| 6. | Water Quality Monitoring And Effluent Discharge | The modalities of operation are left open ended in the Act. | <ul style="list-style-type: none">• It is an offence to discharge or pollute any water resource unless such discharge is authorized by WRA and treated to permissible standards. Discharge of effluent –<ol style="list-style-type: none">a. is subject to a valid discharge permit issued by WRA; | |

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| | | | <ul style="list-style-type: none">b. must meet the water quality requirements in the discharge permit;c. comply with an approved Effluent Discharge Control Plan; andd. must be conducted with a calibrated flow measuring device approved by WRA. <ul style="list-style-type: none">• Discharge will comply with the permit conditions and limited to the quantity and quality requirements specified therein. WRA will determine the water quality requirements for each application for an effluent discharge permit taking into account various criteria.• Permit holders will maintain and submit on a quarterly basis effluent discharge records in terms of quantity and quality in line with the Effluent Discharge Control Plan. WRA will inspect such records.• WRA will categorize effluent discharge permits on the basis of Categories A, B, C and D. WRA will issue permits upon inspection and approval of the effluent discharge works and will append the conditions including limits to and monitoring frequency for volume and quality of effluent discharge.• It is an offence to cause spillage of any substance in to a water resource or to fail to report the spillage to WRA. WRA may undertake such appropriate measures to notify the public at the expense of the | |
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| | | | <p>offender. In case of accidental spillage the person in charge will inform WRA of the accident.</p> <ul style="list-style-type: none">• WRA may monitor water quality in any premises and sample sources of water pollution. Obstruction of these monitoring activities is an offence.• WRA will maintain a water quality database containing effluent discharge data.• WRA with good cause will order the employment of adequate measure for the safe disposal of solid waste or other waste including agricultural chemicals causing risk to water resource quality. | |
| 7. | Works | | <ul style="list-style-type: none">• WRA will inspect works prior to, during and post construction.• WRA will issue a permit for temporary water works authorizing abstraction, diversion, impoundment etc. where it is necessary for a construction activity. A temporary water works permit will be limited to the extent as may be necessary for the construction and at such times and in a manner as to limit interference with the works of other operators and possible damage to property. Holders of such a permit will be liable for any interference or damage.• Temporary works will be removed within 3 months or such period as determined by WRA. WRA may issue an order for removal, rehabilitation or | |



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| | | | <p>rendering safe of the works if not done so within the prescribed period. Failure to comply is an offence.</p> <ul style="list-style-type: none">• WRA upon cancellation of an authorized permit may order the disposal of all or any portion of the works covered by the permit. Failure to comply is an offence. | |
| 8. | Conditions Of Authorisation, Permits And Approved Water Uses | The means of implementation are not enumerated in the Act. | <ul style="list-style-type: none">• The rules provide for the application of easements subject to compliance with the Environmental Management and Coordination Act.• WRA will appoint a Water Resource Inspector to inspect works subject to the schedule of inspection placed by WRA. Any person who undertakes an activity to damage or hinders the proper functioning of the monitoring network will be liable to costs of repair. Failure to meet the costs constitutes an offence.• Class B, C or D water users will inspect or cause inspection of controlling or measuring devices.• WRA will direct a limitation of flow or quantity of water to be abstracted or diverted from a water resource.• WRA will require the development of adequate storage facilities and the installation of an airline in boreholes unless exempted. Failure to install an airline constitutes an offence. | |

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| | | | <ul style="list-style-type: none">• Applicants will apply to WRA for permission to enter land for survey or investigative purposes of water resource management or development. WRA may authorize a Water Resource Inspector to carry out inspections• WRA will maintain a database for water resource data and a register of water bodies. | |
| 9. | Water Use Charges | . | <ul style="list-style-type: none">• Permit holders are subject to water use charges and will maintain a calibrated measuring device for the assessment of water used.• WRA may vary water use charges subject to approval by the CS and public notification in the <i>gazette</i>.• WRA will charge arrears if the permit holder has not paid water use charges from the date of entry into force of the proposed regulations.• Abstraction or diversion within a groundwater conservation area or protected area <i>gazetted</i> under the act is subject to an additional 5% water use charge. If the abstracted water exceed permitted amounts by over 5% the excess is subject to a penalty at a rate of one shilling per cubic metre.• The rules incentivize the creation and use of flood water storage facilities. Discounts will be at a maximum of 10% in the case of storage that equals | |



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| | | | <p>or exceeds 90 times the daily water demand and will be calculated on a pro rata basis.</p> <ul style="list-style-type: none">• WRA will appoint Revenue Collection Agents who will receive payments. Payments may also be made directly to WRA. Late payments will attract interest at 2% per month.• Failure to pay is a breach and constitutes a basis for revocation or suspension or variation following 14 days' notice if the permit holder fails to pay in full for any one payment period for a period 120 days after it's due. Applicants for new permits or the lifting the suspension must pay the outstanding amount and any associated costs in full. | |
| 10. | Conservation of Riparian and Catchment Areas | | <ul style="list-style-type: none">• The rules prescribe for the determination and demarcation of Riparian Land.• Certain activities are proscribed on riparian land. Riparian land owners may apply to WRA for permission to undertake a proscribed activity. It is an offence to fail to gain WRA's approval.• WRA may Order –<ol style="list-style-type: none">a. the development and implementation of a Water Conservation Plan by the Riparian land owner at their own cost.b. the preparation of soil and water conservation plan.• WRA will maintain a register of qualified WRUAs. | |



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| | | | <ul style="list-style-type: none">• The rules provide for the qualifications to qualify for registration. WRA will publish its intention to enter the WRUA in its register. Provided there are no objections or objections are satisfactorily addressed WRA will issue the WRUA with a certificate of registration and enter is mane in the register.• WRA, the county government and WRUA will enter into a tripartite Mou which identifies the modalities for administrative, technical or financial support to WRUAs.• WRA may suspend WRUAs from its register subject to 30 days’ notice and reasons under the regulations. WRUA must show good cause why it should not be suspended. During this period the WRUA will be suspended. A suspended WRUA cannot engage in any MoU activities. WRA may lift the suspension if corrective measures are undertaken. WRA will remove the WRUA from the register if it fails to undertake such measures and the WRUA will cease to engage in MoU activities.• Suspended WRUAs that violate conditions of suspensions or undertakes activities after removal from the register is guilty of an offence | |
| 11. | Basin Water Resources | The Act has left a number of issues open regarding basin water | <ul style="list-style-type: none">• BWRCs are responsible for the management of water resources within their respective basin areas.• BWRCs will formulate basin area water resource management strategies and facilitate the | |



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| | | resource committees. | development of sub-basin water resource management strategies by WRUAs. | |
| 12. | Protected Areas and Groundwater conservation areas | | <ul style="list-style-type: none">• The rules provide for the process of identifying areas to be protected or designated as groundwater conservation areas. WRA in collaboration with WSIs and stakeholders will describe the boundaries for <i>gazettement</i>.• WRA will in collaboration with WSIs and stakeholders establish applicable management rules or plans for these areas. Failure to comply with the management rules constitutes a punishable offence.• WRA will undertake public consultations with respect to the establishment of designated conservation areas and the applicable management rules or plans. | |
| 13 | The Reserve | The Act is silent on the amount Reserve quantity and composition of the Reserve Quantity. | <ul style="list-style-type: none">• The Reserve comprises of one element related to the quantity of the resource and the respective probability associated with that quantity and a second element related to the quality of the resource.• WRA will establish the Reserve Quantity as follows-<ol style="list-style-type: none">a. Streams and rivers – not less than flow than the flow value that is exceeded 95% of the time as measured by a naturalised flow duration curve at any point along the water course; | |

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| | | | <ul style="list-style-type: none">b. Lakes and naturally occurring stagnant waters – not less than the water volume that is exceeded 95% of the time as measured by a naturalised volume duration curve or, failing bathymetric data, a naturalised level duration curve;c. Aquifers – 40% of the mean annual aquifer recharge in the case of aquifers whose recharge rate has been determined by WRAd. Aquifers whose recharge rate has not been determined by WRA - for each point of abstraction will be 40% of the tested yield expressed in cubic metres per day as determined by test pumping analysis. <ul style="list-style-type: none">• Where records are unavailable or there is ambiguity WRA will be guided by –<ul style="list-style-type: none">a. Ecological vulnerability;b. Population vulnerability;c. local observations with respect to the naturalized flows or water levels of minimum values observed during periods of prolonged droughts;d. In all instances where water flow is known to be normally perennial, then the Reserve Quantity shall be sufficient to ensure perennial flow;e. Consultations with the WRUAs if such exist.• WRA will publish Reserve information.• Complaints as to the violation of the Reserve or complaints regarding threat to the ecology as a result | |
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| | | | <p>of the violation may be made to WRA within the relevant catchment or to the CEO.</p> <ul style="list-style-type: none">• WRA will take action regarding registered complaints within 48 hours. Within 30 days after each report of a violation WRA will issue a report detailing the nature of the reserve violation and the corrective measures to be undertaken.• WRA will display the current condition and action required by water users where the Reserve Quantity and/or Reserve Quality is threatened. | |
| 14 | Miscellaneous Provisions | A number of salient issues are left open ended in the Act. | <ul style="list-style-type: none">• The rules make provision for the categories of Qualified Water Resource Professionals and their regulation and licensing. WRA will maintain a register of Qualified Water Resource Professionals.• WRA will require attendance for professional interview following applications to be a qualified water resource professional. WRA will issue successful applicants with a license.• Qualified Water Resource Professionals must comply with established Codes of Practice introduced by the CS.• WRA will hold inquiries where complaints are made against a Qualified Water Resource Professionals and take disciplinary action where necessary. The Qualified Water Resource Professionals is entitled to due process. | |

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| | | | <ul style="list-style-type: none">• Qualified Water Resource Professionals must approve all plans, designs and drawings.• It is an offence to misrepresent as a Qualified Water Resource Professional.• The rules prescribe for the categories of Qualified Contractors, the criteria for Qualified Contractors and the procedure for applications.• WRA will verify details of applications for a Qualified Contractor by visiting the premises and reviewing the state of the equipment and the experience and qualifications of the applicant and their staff.• Qualified Contractors are required to pay annual license fee, and failure to renew a licence is a breach of condition which may result in suspension. Reinstatement of the licence is subject to payment of all outstanding fees. Failure to renew licence for a consecutive period of 3 years will result in revocation.• Qualified Contractors will verify that all necessary and valid authorizations have been obtained by the client in regard to the proposed works prior to commencement of the works. WRA will sanction the Qualified Contractor for failure to verify including deregistration. | |
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| | | | <ul style="list-style-type: none">• Qualified Contractors will comply with Codes of Practice released by WRA and developed in consultation with relevant professional bodies.• Complaints against Qualified Contractors may be made to WRA and WRA may take necessary disciplinary actions. The Qualified Contractor is entitled to due process and may appeal to the Water Tribunal if dissatisfied with WRA’s determination.• WRA will maintain a register of Qualified Contractors. Misrepresentation as a Qualified Contractor constitutes an offence.• WRA will recognize any water quality laboratory registered by NEMA, is accredited or <i>gazetted</i>.• WRA may issue Orders including a cease and desist order or order for the carrying out of corrective measure to improve compliance. Failure to comply with the order within the stated period constitutes and offence.• Failure to comply with a WRA Order is grounds for suspension, cancellation or variation of a permit.• In the event of an objection to an Order, WRA will within 7 days notify the person served with the Order of changes to the conditions of the Order, if any.• In the event that an Order is not complied with within the specified timeframe WRA will take any | |
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| | | | <p>appropriate measures to prevent the activity including the confiscation of equipment, plant or works, and that any costs incurred by WRA in effecting these measures is a cost recoverable from the recipient of the Order.</p> <ul style="list-style-type: none">• In the event that WRA determines that an activity may cause deterioration of the resource quality, it will take immediate corrective measures as an emergency without reference to the person who caused it, and any costs incurred by WRA in effecting these measures may be recovered.• Complaints may be made to the appropriate WRA office. WRA will reply to the complainant and copy all parties within 21 days of receiving the complaint stating the actions take and the position of WRA or any recommendations.• A dissatisfied complainant may forward the matter to the CEO of WRA. The CEO will reply and copy all relevant parties within 21 days stating the final decision of WRA including whether the CEO upholds or annuls the decision of the WRA office. The complainant may appeal the final decision in the Water Tribunal.• Penalties under the regulations is a fine not exceeding Kshs 100,000/- or a term of imprisonment not exceeding 12 months or both. | |
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3 IMPACT OF NEW REQUIREMENTS

The main impact of the proposed Water Resources Regulations 2019 is the sustainable and equitable allocation of water resources amongst various competing interests. The proposed regulations will have an impact on the control of environmental pollution and contribute further to the improvement of water quality in Kenya's water bodies. The facilitation of access to all information on water resources, as provided for by the proposed Water Resources Regulations 2019, will be critical for water allocation, water resources investment decision-making including modeling to enact scenarios in order to understand the impact of climate change on Kenya's water resources. Overall, the regulations will have an impact on the effective regulation and management of water resources for sustainable development.

Following comments on the proposed Water Resources Regulations 2019 from stakeholders, MWS will review the changes in terms of their advantages and disadvantages to Kenya. The cost-benefit analysis is a key step in evaluating the potential impacts on business, consumers and the economy. A broader impact assessment will examine effects on individuals, the community as a whole and the environment where these are relevant. Key areas have been identified to assist stakeholders understand the changes and assess likely impacts.

3.1 COST-BENEFIT ANALYSIS

This section presents an analysis of the costs and benefits associated with the proposed National Water Resources Regulations 2019. This includes a characterization of the potential benefits and a qualitative assessment of benefits (monetized where possible). The section will also identify the costs associated with the implementation of the proposed Regulations.

3.1.1 Benefits

The Water Resources Regulations 2019 will have a large impact on the regulation of the management and use of water resources. This will result in a number of broad benefits that will accrue to both the environment and the Kenyan society as a whole.

Table 3 below characterizes the broad potential benefits that will result from the implementation of the Water Resources Regulations 2019.

Table 3: Characterization of Potential Benefits

| USE BENEFITS | |
|--|---|
| Water Permitting Regime | <ul style="list-style-type: none"> • Permit holders are subject to clear and consistent permit conditions; • Reduction of legal disputes on scope of permit and breach of permit conditions • Simplified permitting regime reduces the regulatory burden • Sustainable use of water resources; |
| Surface Water, Groundwater Development and Conservation | <ul style="list-style-type: none"> • increased water available to local streams, wetlands, and species in the habitat; • enhanced and stabilized groundwater aquifers; |
| Dam Construction | <ul style="list-style-type: none"> • Improved irrigation schemes • Debris control • Water storage • Recreational facilities • Reservoir fisheries, recession agriculture, floodplain grazing, flood protection and hydroelectricity production |
| Licensing regime for Qualified Water Resource Professionals and Qualified Dam Contractors | <ul style="list-style-type: none"> • Licensees are subject to clear and consistent licence conditions • Reduction of legal disputes on scope of license and breach of licence conditions. • Simplified licensing structure reduces the regulatory burden • Increase quality of professional services • Ensures overall dam safety |
| Data Collection and Information Gathering | <ul style="list-style-type: none"> • Relevant and timely information for water allocation, water resources investment decision-making and disaster management |
| Conservation of Riparian and Catchment Areas | <ul style="list-style-type: none"> • High quality habitat for both aquatic and riparian species • Sediment deposits in the floodplain lead to stabilizing riparian land and maintaining downstream reservoir capacity longer • Debris and nutrient use and filtering in the floodplain to improve water quality and dissolved oxygen levels in the aquatic system • Fewer invasions of exotic riparian species; |

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| | <ul style="list-style-type: none"> • Overall increase in biodiversity; • ‘Stabilized’ river banks, which reduce erosion and protect ownership boundaries; • Increased economic value through wildlife, livestock, timber, and recreational enterprises; • Improved land aesthetics and real estate values etc. |
| Water Quality Monitoring and Effluent Discharge | <ul style="list-style-type: none"> • Reduction of wastewater • Control of pollution and contamination of water resources • Improved water quality of water resources |
| NON-USE BENEFITS | |
| Existence values | <ul style="list-style-type: none"> • Biological productivity of natural resources e.g. fishfarming etc. • reduced water conflicts between communities; |
| Bequest values | <ul style="list-style-type: none"> • Intra- and Intergenerational equity |

The introduction of the proposed Water Resources Regulations 2019 will provide clarity on the obligations of WRA, Permit Holders, WRUAs, BWRCs, Qualified Water Resources Professionals, Qualified Contractors, industry and other stakeholders.

All Qualified Water Resources Professionals and Qualified Contractors will have to be licensed in order to provide a water sector related service (dam construction etc.). The proposed regulations will also ensure the sustainable development of water resources in particular groundwater, surface water and the further provide for the protection of catchment areas and riparian reserves.

The following sections provide information on possible areas costs associated with the proposed legislation.

3.1.2 Potential Costs

The proposed regulations may result in an increase in compliance costs for public authorities and Kenyan society at large. These changes may occur in ‘set-up’ costs or in ‘ongoing’ costs associated with the changes.

There may be some small costs associated with setting up further public stakeholder and/or consultative meetings to advise on the proposed Water Resources Regulations 2019 and review them.

Table 5: Summary of Potential Costs

| Entity | Associated Costs |
|-----------------------------------|--|
| <p>National Government</p> | <ul style="list-style-type: none"> • MWS and WRA will incur costs through administration, capacity-building, education, development of implementation guides and monitoring of the proposed Water Resources Regulations 2019. • The implementation of the proposed regulations will require stakeholders to familiarize themselves with the provisions of the regulation. Associated costs will also further include designing of implementation systems and developing and implementing staff-training and adapting to new internal process. Establishment costs could therefore also include amendment of work processes and the provision of updated training to employees and key staff. • The proposed regulations may require the procurement of goods and services and/or the recruitment of additional staff. The development and publication of guidance material for regulated parties such as dam owners and operators will also be required. • WRA is mandated to gather and collect information relevant information. Additional compliance costs related to the implementation of the proposed regulations in data collection include the preparation of official notices, transmitting and publishing data, confirming receipt of data/information or obtaining missing data/information, finalizing information, carrying out content-related checks, calculations and evaluations, implementing monitoring and supervisory measures and classifying risks. • It is also acknowledged that costs with streamlining inspections, evaluations and monitoring procedures by WRA will be incurred. • WRA will incur costs associated with enforcement such as the issuance of advisory circulars, Orders and other penalties for non-compliance. |

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| County Government | <ul style="list-style-type: none"> • The counties will be the primary mode through which specific national government policies on natural resources and environmental conservation, including soil and water conservation will be implemented. • Establishment costs such as new processes and updating systems that will be required when the legislation is implemented. These costs will fall to the national government in the transition and implementation of the legislation. |
| BWRCs | <ul style="list-style-type: none"> • Establishment costs including administrative including administration, capacity-building, education of water users |
| WRUAs | <ul style="list-style-type: none"> • Establishment costs including administration, capacity-building, education of water users |
| Qualified Water Resources Professionals and Qualified Contractors | <ul style="list-style-type: none"> • Compliance costs to Qualified Water Resources Professionals and Qualified Contractors includes the payment of the requisite application fees and annual licensing and/or renewal fees. • WSPs will incur costs in order to satisfy compliance with reporting and record keeping requirements as provided for in the regulations. |
| Permit Holders | <ul style="list-style-type: none"> • Permit Holders will incur costs related to fees for application for raw water abstraction permits, annual license fees, renewal fees etc. • Permit Holders may also be liable to pay penalties for specific offences |

Fees and Water Use Charges

The First Schedule of the proposed Water Resources Regulations 2019 sets a range of fees for assessment and issuance of water use permits. Other costs include fees for data, investigation, laboratory analysis and related services.

Part B of the First Schedule of the proposed Water Resources Regulations 2019 categorizes water use charges for Permit Categories B, C and D. Rates are determined based on the type of water use including water used for domestic, public and livestock purposes; hydropower generation; irrigation; fish farming; commerce or industry or effluent discharge. All water use under Category A does not attract any water use charges.

Penalties for Specified Offences

The Water Resources Regulations 2019 provides for strict penalties for specified offence. The Third Schedule of the proposed regulations will have an impact on Permit Holders and other individuals licensed under the regulations as well as Kenyan society as a whole.

3.2 ENVIRONMENTAL, SOCIAL AND ECONOMIC IMPACTS

Water resources drive both economic and social development while performing a basic function in the maintenance of the integrity of the environment. Water is a vital resource and it should not be considered in isolation.

The proposed Water Resource Regulations 2019 will have a key impact in addressing issues concerning water allocation in view of a number of factors placing a burden on the water supply which include but are not limited to demographics and the impacts of climate change.

3.2.1 Social Impacts

Dam construction, approvals and authorizations, and licensing of qualified professionals and contractors

The Water Resources Regulations 2019 will have an impact on the overall safety of dams. Inspections of sites prior to approvals and authorizations for the construction of works by WRA will ensure that permit applicants meet the standard requirements. In addition, the licensing regime under the proposed regulations will increase the quality of professional services. This will have an impact on the safety of water resources infrastructure which will benefit Kenyan society by minimizing incidences of accidents that lead to loss of human life and damage to and loss of property

There are some negative impacts associated with the water use infrastructure on society. The implementation of the proposed regulations may require the resettlement of large numbers of

people and can also dramatically alter ecosystem services on which the local communities, especially poor and marginalized members, depend.

Water Quality and Service Standards and Conditions of the License

Deterioration of water quality may limit effective availability of water for particular uses such as agriculture and industry, household use etc. As a tool for regulating the sector, the water permit as provided for in the proposed Water Resources Regulations 2019 will set conditions and targets of performance of permit holders in order to ensure water quality, safe food production and food security.

The proposed regulations will also have an effect on community health through the monitoring of water quality. Effective health care demands access to clean water. Reduced incidences of illnesses due to contaminated water resources will be reduced by the proposed regulations which will reduce the high cost for health care, increase quality of life for Kenyans that do not have access to potable water, increase the productivity of the workforce and increase the use of water for recreational purposes.

Collaboration and Consultations with WRUAs

The proposed Water Resources Regulations 2019 will have an impact on Kenyan society as whole by operationalizing the principle of public participation in water resources management. Transparency and openness, and water management procedures taking into account the views of stakeholders including the public, will ensure that public interests are not ignored. This will contribute to equitable access to the water.

3.2.2 Environmental Impacts

Water Quality Monitoring and Effluent Discharge

Pollution of water resources poses a major threat to water users as well as the maintenance of a sound ecosystem.. The proposed Water Resources Regulations 2019 will have an impact on the control and discharge of effluent. This will have significant environmental impacts particularly in water quality.

Protected areas and groundwater conservation areas

The proposed Water Resources Regulations 2019 will have an impact on the sustainability of water and water ecosystems. This will result in a number of benefits including the increased biodiversity and water capacity.

Surface water and dam construction

The impacts of dams extend well beyond inundation. Dams acts as sediment and nutrient traps, impediments to aquatic species migration and lead to the evaporation of ponds. Dams may also alter the water body's natural temperature, modify hydrographs, change flow velocities, induce supersaturation of outflows with gases that adversely affect native aquatic species, and, through a combination of several of the above effects, they change the geomorphology (and the thus the aquatic habitat) of the river downstream from a dam. Further, dams can interact with non-native species to further change the natural environment.

Data Collection and Information Gathering

The proposed Water Resources Regulations 2019 will have an impact on the environment through the collection of relevant data. Information forms the basis of sound decision-making policy and planning. The establishment of databases for surface and groundwater quality and quantity as well as water abstraction and wastewater discharges will improve coordination amongst different agencies and inform sector policy and strategy for the effective protection of the environment.

Water Use Charges

The proposed Water Resources Regulations 2019 prescribes rates for water used for domestic, public and livestock purposes; hydropower generation; irrigation; fish farming; commerce or industry or effluent discharge. These fees will have an impact on the improved water use efficiency and reduction in the pollution of water resources.

Climate Change Mitigation

Climate change will has and will continue to have a substantial impact on the Kenya's water resources, directly affecting Kenyan's activities, well-being and the natural environment. The changes will have a significant impact on the availability of water and through the intensification of extreme flood and drought events. The proposed Water Resources Regulations 2019 will play

a crucial role in climate change mitigation by prescribing for the effective conservation of water resources in catchment areas, protected areas and groundwater, wetlands and riparian land.

3.2.3 Economic Impacts

Green Economy, Dams and Hydropower

A Green Economy is an economy that results in improved human well-being and reduced inequalities over the long term, while not exposing future generations to significant environmental risks and ecological scarcities. The sustainable management and development of water resources plays a pivotal role in the foundation of a green economy and contributes to inclusive growth. The proposed Water Resources Regulations 2019 will have an impact on the green economy including more ‘green’ jobs and greater prosperity.

Investments in water infrastructure will attract more development investments. The proposed Water Resources Regulations 2019 supports sustainable use of water resources and provides a myriad of benefits. Sustainable water use in particular tends to be the most important economic benefit and an increase in productive efficiency.

Water Use Charges and Penalties for Specified Offences

The proposed Water Resources Regulations provides strong economic incentives for water conservation and protection and the promotion of water savings. The proposed regulations will achieve sustainable financing and management by WRA and MWS through the application of principles such as Polluter Pays, Beneficiary Pays, Equity and Coherence between policies and strategies effecting Kenya’s water sector. In addition, the fees, charges and penalties under the proposed regulations will lead to the effective use of scarce finance and also raise government revenues to supplement budgets.

Commodity impacts and recreation and aesthetic benefits

Kenyans derive commodity benefits from water by using it for drinking, cooking and sanitation. Commercial agriculture obtains commodity in food production. The proposed Water Resources Regulations will have an impact on the economy by improving productivity of agricultural establishments by improving allocative efficiency of the commodity uses of water.

The improved and adequate supply of quality of water increases the recreational and aesthetic benefits of water resources. The proposed regulations will have and have an impact on the



tourism industry and lead to a boost in the tourism sector and other inter-related and/or connected businesses.

4. CONSULTATIONS

The proposed Water Resources Regulations 2019 have been subjected to a series of consultations processes wherein stakeholders have been allowed the opportunity to identify and correct faulty assumptions and reasoning and to provide information and suggestions that have enriched the drafting process. The following section provides a summary of the consultations that have been held and are supported with annexures of workshop reports.

4.1 CONSULTATIONS

4.1.1 Stakeholder Exploratory Consultation held on 20th November 2018

A stakeholder exploratory and consultative meeting was held on 20th November 2018, which brought together staff from the MWS and from Water Sector Institutions (WSIs) namely the Water Services Regulatory Board (WASREB), Water Regulatory Authority (WRA), the Water Sector Trust Fund (WSTF), the National Water Harvesting and Storage Authority (NWHSA) and Water Services Boards (WSBs) prior to the development of the Water Services Regulations 2019.

The aim of the consultative meeting was to gain preliminary insights into what were viewed by this group of stakeholders as prevailing issues or concerns to be addressed by this legislative reform process. Issues raised at this stakeholder consultation were factored in the drafting and development of the proposed Water Resources Regulations 2019. The details of the consultations were provided in [Annex 1](#).

The meeting proposed the following as the key issues for inclusion in the proposed rules:

- Classification of water resource quality objectives
- Regulations governing establishment, administration and operations of WRUAs to clarify among others, engagement modalities with the county government financing them and mechanisms for providing technical support to WRUAs;
- Delegation of WRA Regulatory functions to BWRC;
- Conservation of groundwater;
- Regulations governing issuance of permits for water rights and works;
- Regulations governing the abstraction of ground water and works including licensing of borehole contractors;
- Regulations governing construction, extension or improvement of dams and licensing of person carrying out business as dam contractors

The feedback received at the consultation forum provided insights as to the content expectations of the stakeholders; hence providing guidance on what should constitute the broad chapters/parts of the proposed Water Resources Regulations 2019.

4.1.2 Stakeholder Consultation Technical Requirements for Developing Draft Rules held on 31st January – 1st February 2019

A second consultation which focused on the technical requirements for developing the draft rules was held in Nairobi on 31st January – 1st February 2019. The aim of the consultation was to present a draft of the proposed Water Resources Regulations 2019 to participants, obtain their feedback, and to address any issues or concerns raised by the stakeholders. The meeting participants included staff from the MWS and representative of technical and legal departments of Water Sector Institutions (WSIs) namely the Water Services Regulatory Board (WASREB), Water Regulatory Authority (WRA), the Water Sector Trust Fund (WSTF), the National Water Harvesting and Storage Authority (NWHSA) and Water Services Boards (WSBs). The details of the second consultations were provided in [Annex 2](#). The workshop participants proposed the following for inclusion in the draft rules: -

- Regulations on the management of sand harvesting and other extractive activities;
- Provision for a two-tier dispute resolution mechanism i.e. including the Water Tribunal
- Exact timelines and frequency for the submission of readings assessing the quantity of water used by the permit holder;
- Regulations on surface water conservation;
- Requirement for public consultations prior to any variation on water use charges;
- Registration of water sector professionals should be performed by the MWS and not WRA and that these professionals should be members of an accredited professional body.
- Codes of Practice to be developed by WRA;
- Provisions requiring contractors to be registered by the National Construction Authority (NCA);
- Provisions indicating that Category I contractors are qualified to undertake construction of Dams of Class A, B and C;
- Provisions making distribution of fresh water through mobile water tanks illegal;
- Inclusion of regulation on declaration of wetlands and inter-basin water transfers.

Issues raised at this stakeholder consultation were factored in revising the regulations, which are presented as the current draft of the Water Resources Regulations 2019.

4.1.3 Further Planned Consultations

Further consultations on the proposed draft rules are planned to be held in March 2019 where the wider public and water sector stakeholders will be invited to provide their feedback including on this RIA. The feedback received from these consultations will inform further revision of the draft proposed rules.

5. CONCLUSION

The proposed Water Resources Regulations 2019 will provide an operational procedure for the effective regulation of the management and use of water resources. The proposed regulations will have numerous benefits including ensuring habitat diversity, increased fisheries productivity and improved livelihoods, while mitigating adverse effects to human health. The Water Resources Regulations seek to promote the sustainable exploitation, utilization, management and conservation of the environment and natural resources and ensure the equitable sharing of the accruing benefits (Article 69 of the Constitution of Kenya 2010).

It is a policy objective for the MWS to promote and facilitate the protection and realization of the above-mentioned rights hence it considers that a regulatory approach, as opposed to a non-regulatory approach, is best placed to achieve this policy objective. The streamlining of dam safety standards, the protection of riparian land, groundwater and catchment areas and the water capacity-building efforts among other measures will in the long-run result in net positive environmental, social and economic impacts for the Kenyan society as a whole.

6. APPENDICES

- 6.1 Stakeholder Exploratory Consultation Held On 20th November 2018 Workshop Report
- 6.2 Stakeholder Consultation Technical Requirements For Developing Draft Rules Held On 31st January – 1st February 2019 Workshop Report