



*Ensuring Access to Quality Water Services for All*

## **TARIFF GUIDELINES**



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**Water Services Regulatory Board – Tariff Guidelines**

## 1. Introduction

Under the Water Act, 2002 the Government of Kenya adopted a new approach for the provision of water services and established a new institutional structure for the sector. As part of this structure, the Government created a Water Services Regulatory Board (WASREB) to regulate Water and Sanitation Services. Among the key functions of the WASREB is to develop guidelines for the fixing of tariffs for the provision of water services. The objective is to establish tariffs that balance commercial, social and ecological interests by ensuring access to all while allowing Water Service Boards (WSBs) and Water Service Providers (WSPs) to recover justified costs.

The Regulatory Board will apply these Guidelines when setting the Customer Tariffs charged by Water WSPs (WSPs) in their Service Areas. The WSBs and the WSPs must follow these Guidelines when submitting Tariff Adjustment Proposals for consideration by the Regulatory Board.

Compliance with these Guidelines is a condition of the License for Provision of Water Services granted to the WSBs by the Regulatory Board. The Guidelines have been developed to be consistent with the Licenses and the model Service Provision Agreements developed by the Regulatory Board. The Regulatory Board recognizes that WSPs differ by category and size, and has developed different requirements accordingly.

## 2. Purpose of the Tariff Guidelines

The purpose of these Guidelines is to set out the approach for setting tariffs for water and sanitation services in Kenya.

These Guidelines:

- a) explain the Regulatory Board's approach to setting tariffs for water services
- b) set out the methodology the Regulatory Board will use in reviewing, approving tariffs and making tariff adjustments over time, and
- c) set out the requirements and procedures that the WSBs and WSPs must follow for tariff adjustment

## 3. Tariff Policy

The Government has established the basic tariff policy that will guide the Regulatory Board in setting water tariffs in the short to medium term.

### 3.1 Tariff Objectives

The five objectives below will guide tariff setting for water supply and sanitation:

- (1) Financial sustainability — Under the National Water Supply and Sanitation Strategy, the Government envisions that the sector should be self-financing. An integral part of this strategy is ensuring that WSPs operate on a commercially sustainable basis. In other words, each WSP should recover the full cost of providing services to their customers in the medium to long-term.

“Full cost recovery” means that the total cost of providing service (including operating costs, capital costs, and administrative/regulatory costs) are met. Without cost recovering tariffs, systems will deteriorate and service delivery decline.





Due to the scarcity of external financing, it is necessary to finance increasing parts of new investments through self-financing (surplus cash-flow) and ensure cross-subsidization with the aim to deliver affordable services to the poor. A big number of water and sewerage systems in Kenya do not even cover their operation and maintenance costs. For these Providers there will be a transition phase of "fast-tracking" to achieve cost recovery of operation and maintenance costs in the short-run. The WSB and WSP must demonstrate how long-term sustainability can be achieved. This may include the provision of subsidies in the short to medium term, and the adoption of a cost reduction policy.

- (2) Access to safe water as a Human Right: The human right to water entitles everyone to access to sufficient, safe, acceptable, physically accessible and affordable water and sanitation. Access to safe water is an explicit objective of the guideline. WSBs and WSPs should apply tariffs at Water Kiosks for a minimum consumption of 20 liters which should be affordable. Tariffs also need to be set in a way that is equitable and does not unfairly impose costs on certain classes of customers. Including cross subsidization in the tariff structure allows to provide affordable services to the poor while covering costs of the entire system. WSBs and WSPs must extend their services progressively to areas that are still served by informal providers either by linking up with informal providers and ensure fulfillment of minimum requirements, or by extending their own systems in order to guarantee the same advantages to the poor that the presently connected consumers have.
- (3) Efficiency — The Water Act requires that WSBs ensure that water services are provided efficiently and that service levels are improved over time. Tariffs will be linked to the achievement of key performance indicators and service levels such as water quality, security of supply, reductions of Unaccounted for Water (UfW), Collection efficiency etc. Improving the low average of national efficiency is the fastest and most cost-effective way to increase revenues for the WSPs and to improve services.
- (4) Conservation — In many parts of Kenya, water is a scarce resource. Tariffs should reflect the true cost of water and send the correct signals to consumer about the volume of water they can consume (progressive tariffs). When tariffs are below costs, consumers over-utilize water resources rather than conserving water. By reflecting the economic value of raw water and costs of abstraction, treatment and distribution, tariffs can encourage conservation. Flat rates do not provide incentives for conservation. In order to achieve conservation and reduce UFW, all water consume should be metered.
- (5) Simplicity — It is important for customers to understand the tariff structure and be able to check their monthly payments based on consumption levels. A tariff structure that is hard to understand can

increase customer resistance and possibly affect customers' willingness to pay water bills. A simple tariff also reduces the administrative burden on the utility, and reduces the chance of billing errors.

#### Interaction of Objectives:

The described objectives might be perceived as conflictive in their simultaneous achievement. The appropriate use of this guideline should allow the achievement of divergent objectives at the same time. The tariff structure can be designed e.g. to balance financial sustainability with affordability by including cross subsidies between consumer groups and allowing for a lifeline tariff for the poor.

### 3.2 Chosen Approach for Tariff Regulation

The particular circumstances of Water and Sanitation services in Kenya influenced the Tariff approach adopted by the Regulator:

- (1) Most of the WSPs have started recently their operation under the new regulatory frame-work. The establishment of commercially oriented WSPs and clustering of systems to create economies of scale is still ongoing.
- (2) Most of the WSPs are still not able to cover their recurrent costs due to low tariff levels and poor performance.
- (3) The high poverty level and low average income in urban areas has a serious impact on the ability to pay for Water and Sanitation Services.
- (4) Information about the value of assets of WSPs is very poor. It is hard to determine reliable capital costs.
- (5) Most of the investments are currently financed by external grants and loans.
- (6) Most of the settlements of the urban poor are underserved or services are provided by informal providers not placed under regulation

In the view of these characteristics, WASREB has chosen an approach which aims at ensuring that the WSPs cover their recurrent costs and allow for improved sustainable access to safe water for the poor. The immediate objective of tariff negotiations is to reach coverage of Operations and Maintenance costs while at the same time performance improvements are achieved. Tariff adjustments will not be made without consideration of the ability to pay, especially of the poor population. As a second step, the objective will be to move to the achievement of full cost recovery in order to ensure long-term sustainability. Once most WSPs reach full cost recovery, an advanced regulatory approach will be adopted.

WASREB distinguishes between three types of WSPs:

**Type 1** Full coverage of Operations and Maintenance costs is still not achieved.

In this category the economic viability of the provider is a priority concern of WASREB. As long as Providers operate with a deficit, important performance improvements will not be possible. Debts will be accumulated and the companies will remain on government subsidies. WASREB wants to achieve tariff adjustments leading to a level, where 100% of O&M costs can be covered. At the same time targets will be set to achieve a continuous convergence of the minimum service level defined by the Regulator. The Tariff for WSPs Type include as well the Regulatory Levy and Administrative Cost for the respective WSP.

**Type 2:** Full coverage of Operations and Maintenance cost achieved, but repayment of debts is pending.

If a WSP has reached this category, it means that it has achieved coverage of O&M costs, but is still not able to repay its debts. WASREB wants to achieve a Tariff level, where a WSP is able to realize the discharge of financial

debts, taking into account the ability to pay of consumers and the performance and cost structure of the Provider. The increase of tariffs in this category is strongly tied to the achievement of acceptable performance levels.



Type 3: O&M costs are covered between 100% and 150% and repayment of debts is achieved or ongoing.

If a WSP reached this category, it means that it has achieved coverage of O&M costs and that repayment of debts is achieved or ongoing. The next aim is then to reach full cost recovery. It is the objective of WASREB to enable Provider to cover their full costs, taking into account the ability to pay of consumers and the performance and cost structure of the Provider. The ability to pay for this providers should be studied more detailed and is setting the top of possible tariff increases. Tariffs should be set to allow a maximum number of people to have access to safe drinking water. The increase of tariffs in this category is strongly tied to the achievement of acceptable performance levels. WASREB will follow a strategy to implement full cost coverage within 10 years.

## 4. Tariff Submission and Approval Process

### 4.1 Types of Tariff Adjustments

WASREB considers three different types of Tariff adjustments:

#### 4.1.1 Regular Tariff Adjustments (RTA)

A Regular Tariff Adjustment involves a comprehensive review of the Business Plan, Capital Works Plan, and specific forms required by the Regulatory Board. A RTA may be undertaken no more frequently than a set period of year (a duration called the "Tariff Period"). The Tariff Period will typically be set at three to five years to coincide with the Business Planning cycle, but the specific length may be negotiated with the Regulatory Board. In the transition period to full cost recovery, the Regulatory Board will set shorter tariff periods between one and two years. A regular tariff period should not be less than one year. Either the WSP and WSB or the Regulatory Board may initiate the process required for a RTA. Forms required for submission of a RTA Proposal can be found in the Annex.

#### 4.1.2 Extraordinary Tariff Adjustment (ETA)—

An Extraordinary Tariff Adjustment allows for tariff adjustments due to specific categories of changes, which can significantly affect the cost of serving customers. An ETA may be granted no more frequently than once every 12 months and may not be requested less than 12 months before or 12 months after a RTA. Either the WSP in collaboration with the WSB or the Regulatory Board may initiate the process required for an ETA. WSPs/WSBs may use the same forms to submit an ETA Proposal as for a RTA Proposal. The process for submitting an Extraordinary Tariff Adjustment is shorter than the Regular Tariff Adjustment. The WSB/WSP must prove that an ETA is justified due to extraordinary circumstances.

#### 4.1.3 Automatic Tariff Adjustment (ATA)—

WASREB and WSBs/ WSPs may agree, as part of the SPA, to an Automatic Tariff Adjustment. Such adjustments allow the tariff to change every twelve months, or as otherwise provided for, during the Tariff Period, in line with changes in the underlying costs of service. Automatic Adjustments require no review by the Regulatory Board if agreed upon during the RTA.

## 4.2 Tariff Preparation - Roles of WSP and WSB

The process for preparing the tariff submission may be initiated by either the WSP or the WSB. The party requesting the tariff adjustment (either the WSB or WSP) should notify the other party that it intends to request a tariff adjustment.

The WSB is responsible for submitting the prepared "Tariff Adjustment Proposal" to the Regulatory Board. It has to ensure that the required minimum quality of the Proposal as established in this guideline is complied to. Because tariffs are set for each WSP according to the specific justified cost, performance level and the specific investment from the WSB, a Tariff Adjustment Proposal is required for each WSP. The WSPs shall develop the Tariff Adjustment Proposal in collaboration with the WSB (the WSB shall provide all the relevant WSB data to the WSP for inclusion in the Tariff Adjustment Proposal). When the WSB is satisfied that the Tariff Adjustment Proposal has been prepared in accordance with these Tariff Guidelines, the WSB shall submit the Tariff Adjustment Proposal to the Regulatory Board for analysis and approval. The submitted Tariff Adjustment Proposal should be countersigned by the WSP.

The Regulatory Board may also request that the WSB prepares a Tariff Adjustment Proposal. In this case, the Regulatory Board will make its request to the WSB in writing, stating the reasons for its request and the expected date of the Tariff Proposal Submission.

If the WSB and WSP do not agree on the Tariff Adjustment Proposal, the WSB must clearly document where there is disagreement between the WSB and the WSP when submitting the proposal, and provide a copy to the WSP. If one of the parties does not agree to the Tariff Adjustment Proposal or fails to respond to the request of the other within three (3) months, the party requesting the Tariff Adjustment may refer the matter to the Regulatory Board for assistance or initiate a Dispute Resolution Process.

All tariff adjustments require approval by the Regulatory Board. The WSB is required to submit separate Tariff Adjustment Proposals for each WSP, and each must be co-signed by the applicable WSP. In the case the WSB is operating infrastructure directly, the procedures applied will be the same as for WSPs.

## 4.3 Submission and approval of Tariff Adjustment Proposals

The WSB may submit a Regular Tariff Adjustment Proposal for each Tariff Period during the Tariff Submission Period. The timing for the submission of Proposals is as follows:

The overall process for adjusting tariffs has 6 steps:





Step	Timeframe
Submission of the Regular Tariff Adjustment Proposal to the WASREB.	January to February Deadline: last business day in February
First screening of the proposal by the Inspectorate. Check of fulfilment of formal requirements. Determination of adjustments to be made or additional documents to be submitted by the WSP/WSB	March
3. Analysis of the proposal by inspectorate according to the procedures described in this guideline	March to May
4. Presentation of the proposal by the WSP and WSB before the WASREB Management. Feedback on proposal by WASREB (if required).	Flexible agreement
5. Presentation of the analysis to the proposal to the Board members of WASREB by the WASREB Management.	June
6. Communication of the decision of the WASREB-Board. The WSB can: <ul style="list-style-type: none"> <li>accept the decision and advertise new tariffs with 1 month notice to customers</li> </ul>	June

- not accept the decision and appeal to the Water Appeals Board
- not accept the decision and ask the WASREB for a decision re-view by bringing in additional information and/or explanations

The Regulatory Board will only receive Regular Tariff Adjustment Proposals between January and February each year. A WSB/WSP that fails to submit within this period, have to wait with their proposal submission until the following application period.

Approved Tariff adjustments may include modifications and conditionalities set by the WASREB. The Regulatory Board will provide the revised figures in writing, and provide a justification for the revisions. If the WSB does not accept the decision of the Regulatory Board, it can request that the Regulatory Board review the decision. This request must be made to the Regulatory Board within fifteen (15) working days, and be accompanied by a justification for why the case should be reconsidered

The WSB must inform the WSP within ten (10) days of all decisions from the Regulatory Board. The WSP must give one (1) month notice to the Customers before implementing the Tariff Adjustment.

To launch the Dispute Resolution Process, the party intending to declare a dispute must notify the other party in writing of its intent to do so at least fourteen (14) days before starting the Dispute Resolution Process.

The broad composition of the Directors of the Regulatory Board from both the private and public sector allows a balanced decision on the final tariff approval.

#### 4.4 Notice of Tariff Correction

f the Regulatory Board identifies an error in the computation of the approved Tariff Adjustment, it shall send a Notice of Correction to the WSP, with a copy to the WSB. The notice will indicate the error and require the WSP to correct the error in the next billing cycle, or where the error has resulted in over charging customers, to deduct the over charge from the customers' next water bill.

## 5. Information to Submit to the WASREB

### 5.1 Calculating the O&M Expenditure of WSPs and WSBs

The Regulatory Board requires the WSB/WSP to document costs of service provision of past years and to propose, and provide justification for, estimates of how much it will cost to deliver, in an efficient and cost-effective manner, the volume and quality of water services required by customers. The WSP and the WSB should project their O&M costs separately for the current and for the entire period for which the tariff adjustment shall apply. Based on the projected O&M costs further analysis will be done to determine the average tariff.

#### 5.1.1 O&M Expenditure of the WSP

Operation and Maintenance Expenditure (O&M Expenditure) refers to the day-to-day costs of running a utility. WSPs must document historic costs and estimate future O&M as part of the Tariff Adjustment Proposal they submit to the Regulatory Board. In general, the Regulatory Board will allow WSPs to recover all O&M Expenditure that is reasonable and necessary to provide efficient service to customers during the Tariff Period. Reasonable and necessary O&M Expenditure may include, but is not limited to, the categories shown in Annex 3a.

#### 5.1.2 Administrative Expenditure of the WSB

Administrative expenditures refer to the cost of the WSB for fulfilling its function as the asset holder of a WSP. Typical costs incur for the supervision and monitoring of the SPA and for the preparation of new investments. Reasonable and necessary costs may include, but is not limited to, the categories shown in Annex 5b. All costs that cannot be directly assigned to the specific WSP can be distributed among the WSPs in the WSB area, using a proportional weighting based on the turnover of the WSPs or other indicators such as connections etc. The distribution of this costs must be clearly documented.

All schemes operated directly by the Board underlie the same rules as any WSP. That means that these guidelines apply for the schemes operated by the WSB in the same way as they do for other WSPs. The WASREB will allow the direct operation of schemes through the WSBs only during a transitional phase. The WSB should engage specialized operators to guarantee performance improvements. The WSBs are obliged in the SPA to account separately for any scheme that is directly operated.

### 5.2 Repayment of Debts (for WSP Type II)

If a WSP has achieved 100% coverage of O&M costs, it should present information on its debts (if existing) and present a debt amortization plan. Debts could exist directly for the WSP or on the level of the WSB – directly assigned to the WSP. Debts are in this case already existing debts. New debts will be covered under investments (5.3). The repayments of debts are strongly affecting the liquidity of the companies.

Depending on the height of the financial repayment burden a WSP/ WSB might be able to cover the repayment of debts and at the same time starting to calculate



investments and/ or depreciation and therefore qualify as a WSP Type III. The categorisation into type II allows the Regulator to possibly fast-track WSPs in this category as described in 6.3.

### 5.3 Investments and Depreciation (for WSP Type III)

Only WSBs/WSPs that cover already 100% of their O&M cost and that are repaying loans have to fill in information on Investments and Depreciation (detailed information should be supplied through the investment plan). For the calculation of Investments and Depreciation, the plan of WASREB towards full cost recovery should be considered. WSP/WSB may apply for a higher tariff increase, if accompanied with the necessary information and the affordability of tariffs by consumers can be proved.

### 5.4 Production of Water

The WSPs shall provide clear and realistic figures of water production. It is important that the estimated quantities are based on the latest available actual figures. Any major deviations (increases or decreases) in one consumption category have to be explained plausibly.

### 5.5 Tariff Structure

The Tariff Structure describes how different costs of water and sanitation services are charged to the different customers. It specifies how much (in KES) each category of customers (Customer Class) pays for these services. The tariff structure should be used to design a “pro-poor” policy that allows for the provision of a lifeline tariff for poor households. This can be done by a “social block tariff”, charging a lower percentage of the average tariff (e.g. 50-70%) for the consumption of up to 6m<sup>3</sup>. The WSBs must propose a method for pricing the WSP’s services that will meet the tariff objectives. As part of this pricing method, the WSB must propose:

- (1) An average tariff and a tariff Structure that determines how expenditures making up the total O&M costs will be recovered, for example,
  - Through variable charges, per m<sup>3</sup> of water service provided
  - Through “block” structures, with variable charges that change once a customer’s usage exceeds a certain volume
  - Through a fixed charge for a water service connection and some given quantity of water service, or
  - Through some combination of fixed and variable charges
- (2) Customer Classes that reflect the different costs imposed on the system by customers’ different usage patterns, different utilization rates, different equipment requirements, or different administrative requirement

- (3) A Tariff Structure that shows (in Ksh) how much each customer class will pay for each unit of water consumed, for each connection type, and for each month of service.

When the Regulatory Board approves an SPA, the tariffs in place when the WSB and the WSP sign the SPA will typically remain in effect (referred to as the “Initial Tariffs”) until new tariffs have been approved by the Regulatory Board. The Regulatory Boards intends to establish uniform consumption blocks for all WSPs in the future.

## 5.6 Two Part Tariffs: Fixed and Variable Charges

WSBs and WSPs are limited in the extent to which they propose tariffs that reflect actual costs imposed by different customers. Where metering exists (Metered Customers), the Regulatory Board will require “two part” rates in which;

- a) One part is a charge covering fixed costs. This will be recovered from customers through a monthly service charge
- b) The other part is a charge associated with volumetric (usage) costs.

A two-part tariff helps ensure that utility does not significantly over- or under-recover fixed costs if its sales volumes or customer connections end up being different to those forecasted.

Government policy is for all customers to be metered. Where WSBs and WSPs have not yet achieved this objective, they must propose a fixed monthly charge for customers without meters (Un-metered Customers) and a plan to move to 100% metering.

## 5.7 Rising Block Tariffs for Metered Residential Customers

The Regulatory Board strongly encourages WSBs and WSPs to propose a rising block tariff for metered residential customers, where higher tariffs apply for customers that consume beyond a threshold volume or each month (for example 6 m<sup>3</sup>/month). With a rising block tariff, the price per unit of water consumed must be lowest for the first block of consumption and higher in the second block. In order to avoid unfair charges, the WSP must separate existing shared connections, and include this activity in its Capital Works Plan. Shared connections should be replaced by individual connections or individual metering. The Regulatory Board will consider block structures other than rising block, provided the WSP and WSB provide affordability studies or other information which supports an alternative structure and can prove that consumers pay according to volume consumed

The Regulatory Board requires WSBs/WSPs to propose tariff structures, including consumption blocks.

## 5.8 Sanitation Service Tariffs

If the WSP is directly involved in providing sewerage services, it must calculate these costs separately from the water supply services and also the total required revenue for the provision of sewerage services. Where the WSP provides both water supply and sewerage services, it will allocate administrative and overhead costs between the two services in an equitable manner, ensuring that the sum does not exceed the total administrative costs.

As part of the tariff structure, the WSB/WSP will propose a pricing structure that may have:

- ) a fixed sewerage charge for all households with sewerage connections

- i) a volumetric sewerage charge. Because sewerage metering is not practical for residential customers, the volumetric charge can be based on a percentage of the water usage volume, for example 20-50 percent of the total water usage, or
- ii) a combination of both a fixed charge and volumetric charge.





WSPs that offer or facilitate the development of on-site sanitation services will be eligible for a special sanitation surcharge reflecting real costs that can be added to the tariff. As part of its Business Plan, the WSP must propose the type of services to be provided and estimate the costs. The WSP may also propose a sanitation surcharge to cover these costs as part of its Tariff Adjustment Proposal. As part of the Business Plan, the WSP must propose performance targets related to on-site sanitation, and demonstrate achievement of these targets.

### 5.9 Tariffs at Water Kiosks and Standpipes

For the poor, a household connection is a rather costly way of getting access to water. There is a connection fee due when it is installed, maintenance costs for the meter are due as well as costs for monthly billing for consumption as a standing charge. From the high rates of outstanding debts of customers in low income areas it can be concluded that there is a high number of households which cannot afford to pay a monthly bill regularly. Once important sums over several months have been accumulated it is out of reach for them to pay their bill. For them a water kiosk system has to be provided, where the water price per cubic metre should not be higher than the social block of the tariff. This price should already include the margin of the kiosk operator if possible but should not be significantly higher than the social tariff for household connections plus the standing charge divided by the cubic metres of the first block. The provider has the obligation to control the tariffs at the kiosks to ensure that the poor can afford to pay the price and that they benefit from the social lifeline tariff. The implementation of new Kiosks should consider that the margin of the Kiosk operator should be sufficient to set incentives for a sustainable operation. Therefore a minimum number of consumers need to be reached (e.g. 300-500 per tap). Other income generating activities of the kiosk operator should be promoted to enhance operational incentives, but not be conflictive with the core-business of water selling.

### 5.10 Tariffs for Commercial and Administrative Consumers

The water tariffs applied to commerce, industry and administration should be at full cost recovery. Blocks need not necessarily be introduced. Since an institution does not have a need for a basic consumption, like individuals, a single tariff block is sufficient unless there is a need to give an incentive for water conservation. In such a case there is special consideration necessary concerning the quantity of the blocks.

The total amount of a bill that high consumption customers should pay has a limit. If it becomes excessively costly for them to drill their own boreholes instead of getting water from the provider, then the prices have to be negotiated to find an adequate tariff.

### 5.11 Discounts and Rebates

Granting small discounts on bills that are paid within three days of delivery (i.e. ahead of the due date) is a normal practice and results in benefits (interests, earnings or savings) to the WSP. But exaggerated discounts or rebates for those who pay late is against the principle of fairness to all customers. From time to time, significant rebates on long outstanding water bills are announced by the providers through press releases. Often such rebates are proposed to overcome short-term liquidity problems. This practice contradicts the cost recovery principle and discriminates against

customers who pay their bill regularly and on time. While it can be understood that providers like to return to a normal situation of up-to-date billing registers, it has to be recognized that massive rebates do not solve this problem. Those who pay regularly are not favoured but discriminated against. Fairness to all customers requires other types of action that are targeted, first, to eliminate inefficiencies in the billing and collection system and second, to offer alternative (less expensive) services to those who cannot afford to pay for house connections.

To avoid any misuse of rebates or discounts WASREB requires the WSPs to apply for a rebate system in advance i.e. with the application of a tariff adjustment proposal. This also applies to lotteries or other benefits in kind. The costs of such activities always have to be covered by expected benefits (interest, earnings or the like) from such actions, otherwise the principle of cost recovery is threatened.

## 5.12 Connection Fee

A connection fee is charged for every customer that gets a new single household connection. The fee should be designed to cover the expenditures related to the installation of the new connection. However the fixed expenditure could be too high as a one-off payment to potential new customers, who haven't the necessary liquidity. In order to facilitate access for this kind of customers, facilities like payment by installments should be offered by the WSPs.

## 5.13 Public Consultation

Before submitting the Tariff Adjustment Proposal to WASREB, each WSP should undertake a public consultation. Main stakeholders and the public should be informed about the planned tariff adjustment and allowed to give feedback to the WSP. The WSP should document the process and submit a record of the proceedings to WASREB.

## 5.14 Documents Required for the Tariff Adjustment Proposal

In order to facilitate the preparation of a tariff adjustment proposal, standard formats have been developed. With the aim to enable a fast reply to a Tariff Adjustment Proposal, all WSBs/WSPs must adhere to the standard formats.

WASREB expects the WSBs to hand in both, a hard and a soft copy of the Tariff Adjustment Proposal. The standard formats will be provided in electronic version. The WSB must submit the following documents for a Tariff Adjustment Proposal of any WSP:



1. Tariff Adjustment Proposal:

- Annex 1: Justification for Tariff Adjustment Proposal
- Annex 2: General Data
- Annex 3a: Analysis of WSP Expenditure
- Annex 3b: Analysis of WSB Expenditure
- Annex 4: Debt Amortization Plan for WSP/WSB
- Annex 5a: Performance Analysis WSP
- Annex 5b: Performance Analysis WSB
- Annex 6: Calculation of average Tariff
- Annex 7: Revenue Projections / Tariff Structure
- Annex 8: Tariff Schedule
- Annex 9: General Performance Assessment
- Annex 10: Tariff Proposal Submission Checklist
- Annex 11: Tariff Study: All WSPs with a minimum monthly turnover of 10 Mio KSh. and any other WSPs identified by the Regulatory Board, must prepare a tariff study as part of the Regular Tariff Adjustment Proposal. The WSP may contract a third party to prepare the study on their behalf. The minimum requirements of the study are described in the Annex.

2. Business Plan (Current version) and Summary of Implementation Status for the WSP, including Capital Investment Plan (as required in Business Planning Guidelines)

3. Financial Statements (Audited Statements required for SPA-Category-I) for the WSP and the WSB

4. Record of Public Consultation proceedings (invitees, attendants list, any written submissions and minutes of meeting)

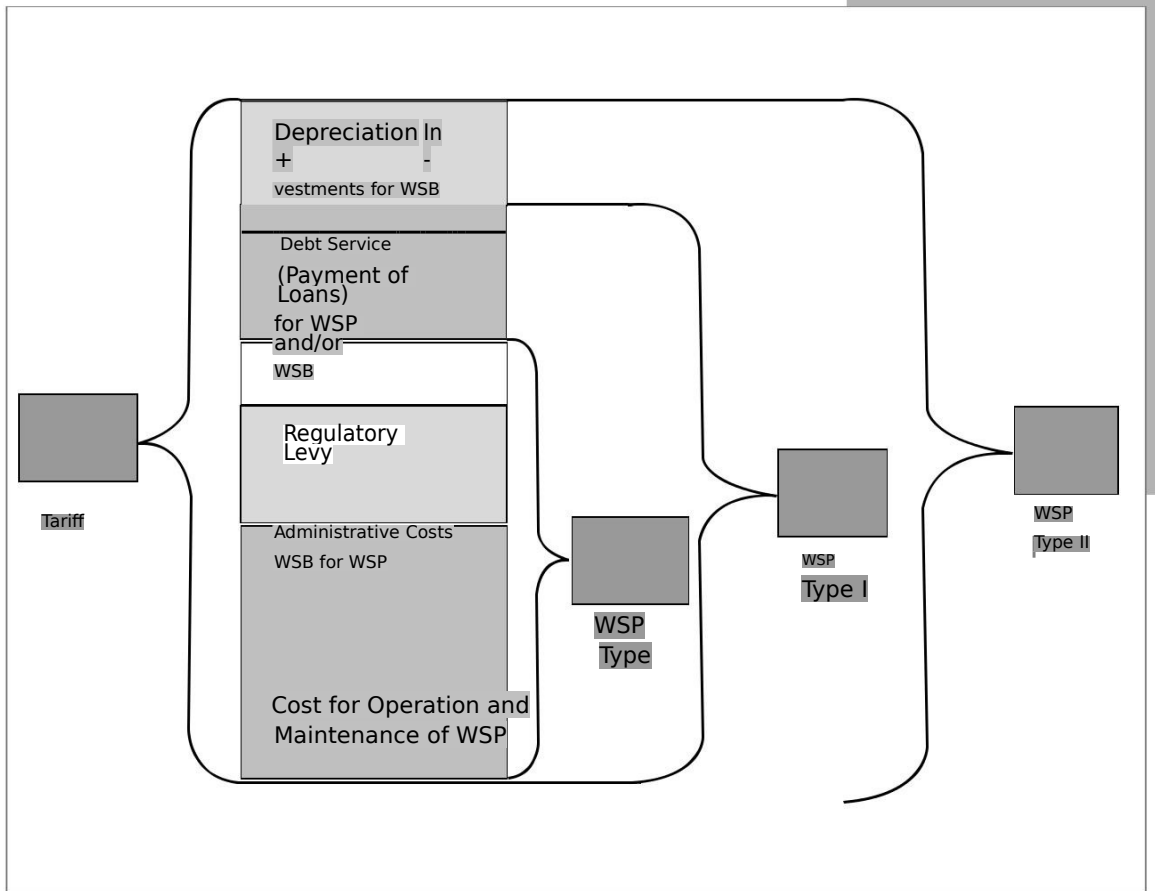
Annex 11 must only be provided by WSPs that have a minimum monthly turnover of 10 Mio. KSh. and any other WSPs identified by the Regulatory Board. The tariff study contains an Affordability Analysis which should prove that households do not spend more than 3-5% of their monthly income for water and sanitation services of the WSP.



## 6 Process of Tariff Analysis

### 6.1 Tariff Composition:

Generally, the tariff approved by the Regulatory Board consists of the following costs<sup>2</sup>. As well are displayed the classification of WSPs in the three different categories and the costs associated with each category:



Costs Composition of Tariff

The costs for Depreciation + Investment are usually for WSB, but maybe shared in some cases with WSPs.

The Regulator will assess and approve costs according to each cost category. The approved tariffs allow the WSP and WSB to generate the necessary revenues to cover the projected justified costs occurring in each category. WSBs and WSPs are not allowed to shift expenditures between the different cost categories without previous approval of the WASREB.



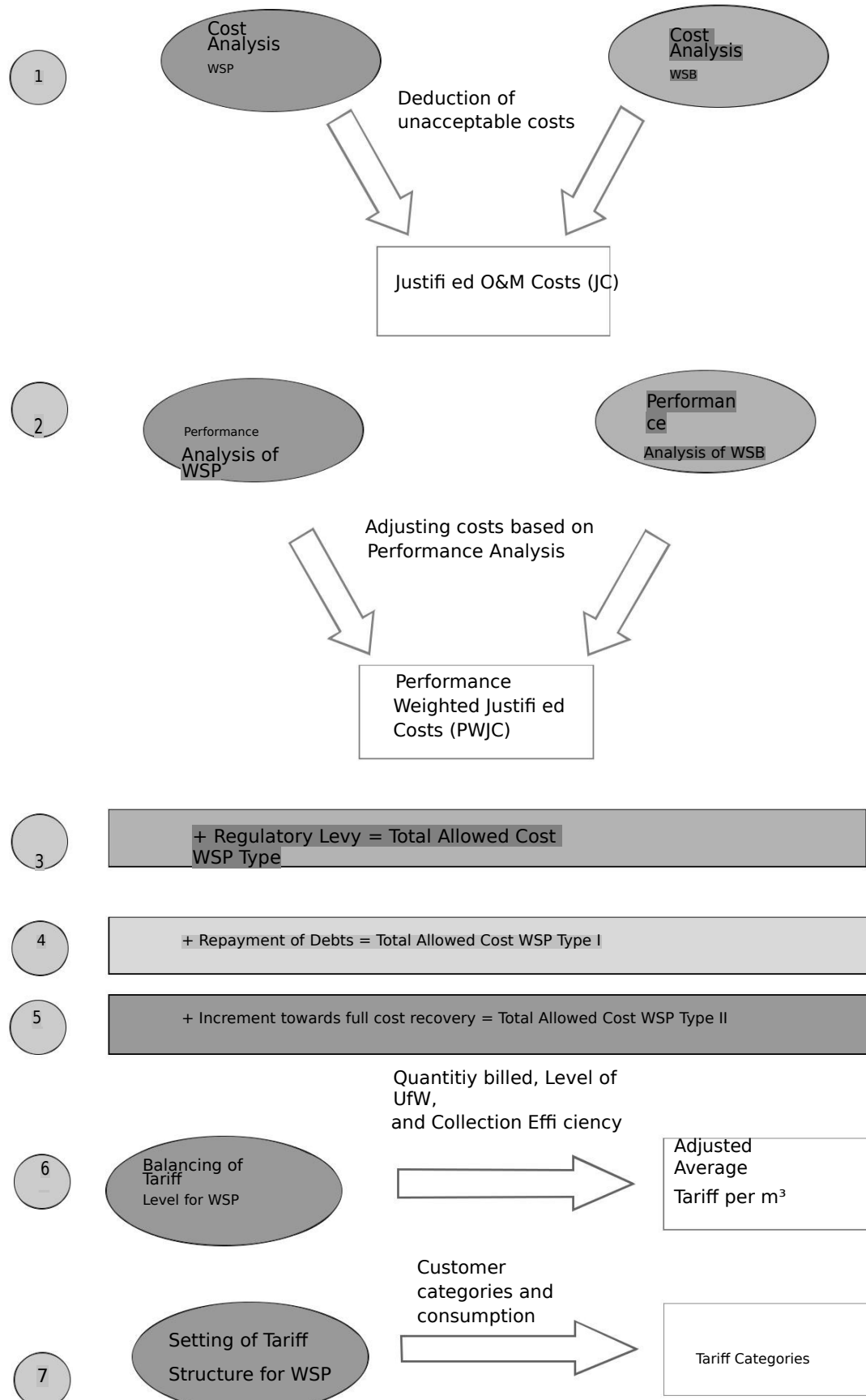


## 6.2 Steps of Tariff Analysis

The Regulatory Board will follow a standardized process for Regular Tariff Adjustments.

The process has five steps:

### PROCESS OF TARIFF ANALYSIS





## 6.3 Cost Analysis of WSB and WSP

The Regulatory Board will decide the extent to which O&M Expenditure of WSPs and the administrative costs of WSBs are “reasonable and necessary” for the provision of efficient services. Therefore it will realize a separate cost analysis for the WSP and WSB. This will be done to ensure that consumers are only paying for justified costs and are protected against excessive tariffs. The current level as well as potential increases will be analysed in detail, in particular as personnel and general administration costs. The Regulatory Board will not only analyze the WSPs/WSBs costs, but also compare the cost of WSPs with other similar WSPs and the cost of WSBs with other WSBs. If the explanations given by the WSP/WSB are not satisfactory to convince WASREB that the current level of increases is justified, they may propose deductions from the projected costs. The reasons for deductions shall be clearly explained.

In certain cases, the Regulatory Board may “fast-track” the process of the tariff application, consistent with the process described in these Guidelines. “Fast tracking” means the Regulatory Board will streamline the approval process and exercise less scrutiny on specific expenditure items. WSPs that will be eligible for fast-tracking may include those that are not yet recovering O&M costs and repaying their debts, small rural schemes, and WSPs that are meeting or exceeding performance targets. Fast tracking will be at the discretion of the Regulatory Board.

### 6.3.1 Justified Costs for WSP and WSB

The analysis of the projected O&M costs of the WSP might lead to deductions. The justified costs are calculated as follows:

The analysis of the projected Administrative costs of the WSB might lead to deductions. The

WSP Cost Analysis

	Projected O&M Costs WSP
-	Deductions for unacceptable costs
=	Justified O&M Costs WSP

Administrative costs are assigned to the WSP as described in Annex 3b. The Justified Costs are calculated as follows:

WSB Cost Analysis

	Projected Administrative Costs WSB for WSP
-	Deductions for unacceptable costs
=	Justified Administrative Costs WSB for WSP



## 6.4 Performance Analysis

The performance analysis will concentrate on certain indicators to determine whether there are deviations from the agreed performance.

### 6.4.1 Assessment of Performance of WSPs and WSBs

The Regulatory Board will verify the WSPs and WSBs progress against Minimum Service Levels, agreed performance indicators in the SPA, targets agreed in the last Tariff Approval and other agreements

The following indicators as minimum requirements will be taken into account in the performance analysis of WSPs:

- 1) Metering Ratio
- 2) Water Quality
- 3) Service Hours
- 4) Extraordinary efforts and initiatives to improve efficiency, service or access
- 5) Unaccounted for Water (UfW)
- 6) Collection Efficiency

The following indicators as minimum requirements will be taken into account in the performance analysis of WSBs:

- 7) Extraordinary efforts and initiatives to improve efficiency, service or access
- 8) WSB operational expenditures as percentage of investments
- 9) WSB operational expenditures as percentage of turnover of the sector in the WSB area<sup>3</sup>

The criteria (1) - (4) and (7) - (9) are considered in the calculation of the Performance Weighted Justified Costs (PWJC), while criteria (5) and (6) are treated separately.

For indicators (1)-(3) and (5)-(6), the WSPs have committed themselves to different benchmarks achieving the Minimum Service Level Agreement in the SPA. The targets for (8) and (9) might be individually negotiated or will be assessed through benchmarking with other WSBs. (4) and (7) are qualitative indicators where WSPs and WSBs are given the opportunity to be rewarded for special initiatives that demonstrate their commitment to good performance. Especially efforts to facilitate and improve access to poor customers will be recognized. The performance of the WSP and WSB will be measured against these benchmarks during the tariff negotiations in the following year(s).

### 6.4.2 Determination of Performance Weighted Justified Costs (PWJC)

The failure of a WSP and WSB to achieve agreed benchmarks and set standards (indicators (1)-(3) and (7)-(8)) have a negative impact while a positive impact can be evoked by specific efforts of the WSP/WSB (indicator (4)). The positive or negative impact is measured by attributing scores.



## Assessment of WSBs

The following table shows how the score for the performance assessment is calculated:

	Deductions WSB	Max.
(7)	No. of rural networks and Point sources that comply with drinking water quality standards	- 2
(8)	WSB operational expenditures as percentage of turnover of the sector in the WSB area	- 3
	Max Deductions	- 5
	BONUS	
(4)	Any programs documenting specific efforts for WSP	+ 5
	Max Bonus	+5

Total Score	Performance weighting of Justified Administrative Costs WSB
-5	-5%
-4	-4%
-3	-3%
-2	-2%
-1	-1%
0	0%
1	1%
2	2%
3	3%
4	4%
5	5%

The total score is then transformed into monetary terms as a percentage of the Justified Administrative Costs. The maximum reward/penalization amounts to +/- 5% of the Justified Administrative Costs for WSBs. The reward/penalization of the WSB here is independent of the type (I, II or III) and performance of WSP.

$$\text{WSB} = \text{Justified Administrative Costs WSB for WSP}$$

$$+/- \text{ Weighting Performance (max. 5\%)}$$

$$= \text{Performance Weighted Justified Administrative Costs WSB for WSP}$$

The Performance Weighted Justified Administrative Costs are the costs that WASREB allows the WSB to cover for Administrative Expenditures out of the revenues of the WSP.

## Assessment of WSPs:

The score for the WSP assessment is shown in the following table:

The total score is then transformed into monetary terms as a percentage of the Justified Costs.

	Deductions WSP	Max
(1)	Metering Ratio	- 3
(2)	Water Quality	- 5
(3)	Average Service hours/day	- 7
	Max Deductions	-15

BONUS

(4)	Any programs documenting specific efforts	+15
	Max Bonus	+15
	Total Max Deductions	-15





The maximum reward/penalization amounts to +/- 5% of the Justified Costs for Type I and II WSPs and +/- 10% of the Justified Costs for Type III WSPs respectively, according to the following table:

Total Score	Performance weighting of Justified Costs Type I+II	Performance weighting of Justified Costs Type II
15	5,00%	10,00%
14	4,67%	9,33%
13	4,33%	8,67%
12	4,00%	8,00%
11	3,67%	7,33%
10	3,33%	6,67%
9	3,00%	6,00%
8	2,67%	5,33%
7	2,33%	4,67%
6	2,00%	4,00%
5	1,67%	3,33%
4	1,33%	2,67%
3	1,00%	2,00%
2	0,67%	1,33%
1	0,33%	0,67%
0	0,00%	0,00%

Total Score	Performance weighting of Justified Costs Type I+II	Performance weighting of Justified Costs Type II
0	0,00%	0,00%
-1	-0,33%	-0,67%
-2	-0,67%	-1,33%
-3	-1,00%	-2,00%
-4	-1,33%	-2,67%
-5	-1,67%	-3,33%
-6	-2,00%	-4,00%
-7	-2,33%	-4,67%
-8	-2,67%	-5,33%
-9	-3,00%	-6,00%
-10	-3,33%	-6,67%
-11	-3,67%	-7,33%
-12	-4,00%	-8,00%
-13	-4,33%	-8,67%
-14	-4,67%	-9,33%
-15	-5,00%	-10,00%

WSP-Type

	Justified O&M Costs WSP
+/-	Weighting Performance (max 10%)
=	Performance Weighted Justified O&M Costs WSP

The Performance Weighted Costs will be calculated as follows:

The Performance Weighted Justified Costs (PWJC) contain the penalties/rewards for performance as well as adjustments for unjustified costs. The Performance Weighted Justified O&M Costs are the costs that WASREB allows the WSP to cover for O&M costs.



## 6.5 Total Allowed Costs for WSP Type I

The total allowed costs for WSP include as well the Regulatory Levy and are calculated as follows:

Total Allowed Cost for WSP-Type

	Performance Weighted Justified Administrative Costs WSB for WSP
+	Performance Weighted Justified O&M Costs WSP
+	Regulatory Levy
=	Total Allowed Cost I (TAC )

## 6.6 Repayment of Debts – TAC for WSP Type II

Depending on the amount of debts, repayment costs will be added to the Total Allowed Cost. The Regulatory Board will verify, if the level of repayment is appropriate and the burden on the tariffs affordable to the consumers. The level of repayment should on the other hand allow a quick repayment of debts in order to improve the liquidity situation of the WSP/WSB in the long run. The following table applies for WSPs Type II:

Repayment of Debts

	Projected repayment rate of WSP/WSB
+/-	Possible adjustments
=	Adjusted repayment rate of debts

Following the assessment of costs as described in 6.3.1, the overall justified costs for WSP type I are therefore calculated:

Debt adjusted Performance Weighted Justified Costs

	Total Allowed Cost I (TAC I)
+	Adjusted repayment rate of debts
=	Total Allowed Cost II (TAC II)

## 6.7 Increase of Tariff towards full cost recovery – TAC for WSP Type III

It is the aim of WASREB to allow tariffs to be set to reach full cost recovery after the WSPs have achieved 100% O&M cost coverage and are able to repay debts. The preconditions are that the ability to pay, as well as, that the O&M costs are within reasonable limits and performance is acceptable

Following the assessment of costs, performance and debts, the Total Allowed Costs justified costs for WSP type III are described in the following table:

	Total Allowed Cost I (TAC I)
	Adjusted repayment rate of debts
	Increment towards full cost (as % of TAC I)
	Total Allowed Cost III (TAC III)

For the purpose of simplicity, it is assumed that full cost recovery is reached when the revenue covers about 150% of O&M cost. Full cost recovery means, that additionally to the coverage of O&M costs and the payment of debts, depreciation (Capital Works Maintenance) and new investments (New Capital Works) are realized. The use of this simplified method postpones the necessary discussions about determination of full costs (valuation of assets, methods of depreciation, appropriate investment levels etc.) to a later stage when

- a) WSPs will have made progress themselves in full cost calculations and
- b) the cost recovery and performance levels have improved.

In order to fulfill the above specified aim of reaching 150% O&M cost coverage for all WSPs, the following schedule will be applied in order to determine the increment towards full cost:

	Increment towards full cost on TAC I in %
Year 1*	10%
Year 2*	20%
Year 3*	30%
Year 4*	40%
Year 5*	50%

\*(after fully covering O&M costs)

The increments towards full cost will be calculated on TAC I. The increments towards full cost recovery will only apply if performance of the provider is acceptable and the assessment of the ability to pay, which has to accompany each tariff proposal, raises no serious objections.

Although using this simplified approach, the WSB (and WSP, if shared) must project the New Capital Works and Capital Works Maintenance Expenditure. WSP and WSB might ask for a higher increment towards full cost recovery than planned by WASREB, if depreciation and investment costs justify a higher increase. The preconditions are that the ability to pay, as well as, that the O&M costs are within reasonable limits and performance is acceptable.



## 6.8 Balancing the Adequate Tariff Level

In the calculations for the average tariff, both efficiency criteria, “collection efficiency” and “unaccounted for water” are taken into account. By applying the agreed benchmarks for each criterion in the calculations as outlined below, the WSP and WSB are automatically penalized if they fail to achieve the set benchmarks.

### 6.8.1 Unaccounted for Water (UfW)

The following calculations show how the average tariff (excl. collection efficiency) is derived:

Projected Quantity Produced
Unaccounted for Water (UfW)
Projected Quantity Billed

	Total Allowed Costs I, II or III
/	Projected Quantity Billed (in m <sup>3</sup> )
	Projected Average Cost (per m <sup>3</sup> )

Projected Average Cost (per m<sup>3</sup>)

Projected Average Tariff (per m<sup>3</sup>)

For these calculations, the individually agreed benchmark for UfW is used. If the actual UfW still exceeds the benchmark, it reduces the actual quantity billed, thereby increasing the “Projected Average Cost (per m<sup>3</sup>)”. The average tariff would then be too low to cover the “Projected Average Costs”. Hence, each WSP has a clear incentive to meet the agreed benchmark.

This mechanism assumes that the demand for water is not yet satisfied. This implies that an increased amount of water available for distribution will actually increase the amount of water consumed. The assumption is believed to be realistic in the current set-up, at least for the next few years due to the low pressure in most networks and the considerable urban population still unserved in most towns.

### Satisfied Demand for Water

In cases where the assumption of a non-satisfied water demand is not true, UfW above the benchmark would be compensated by a higher quantity produced, while the quantity billed would be assumed to be constant. A higher quantity produced entails increased actual production costs compared to the projections. Again the average tariff would then be too low to cover the “Actual Average Cost”, thereby setting again an incentive for the WSPs to achieve the benchmark.



### 6.8.2 WSPs with Metering Ratio Below 100%

Each WSP shall improve the metering ratio as quickly as possible at least according to the agreed benchmarks. Despite this, it is recognized that most of the WSPs currently have a metering below 100%. The above described mechanisms, however, functions only for metered connections. In order not to give an advantage to WSPs with low metering ratios, the below described formulas apply to WSPs with metering ratios below 100% to account for cases when these WSPs fail to meet the agreed benchmark for UfW.

Actual UfW (in %)  
Benchmark for UfW (in %)  
Deviation in UfW (in %)

(100% - Metering Ratio)  
Deviation in UfW  
UfW Factor

(Average Tariff (per m3) (excl. col. ef.)  
(Average Tariff (per m3) (excl. col. ef.) \* (UfW Factor / 2)  
Adjusted Projected Average Tariff (per m3) (excl. col. ef.)

“Actual UfW” is defined as “Total Quantity of Water Produced” minus “Total Quantity billed”. In order to get at least a clear figure for the quantity produced, each WSPs is requested to install bulk and district meters as soon as possible. This will be reflected in the individual benchmark for metering ratio.

### 6.8.3 Collection Efficiency

While the equation

Projected Average Cost (per m<sup>3</sup>)

Projected Average Tariff (per m<sup>3</sup>)

is generally binding, it implies a collection efficiency of 100%. However, it is recognized that most WSPs will not be able to collect 100% of the billed amount. Incentives shall be set to continuously increase the collection efficiency.



Therefore, the following benchmarks will be set in consideration of the current levels of each individual WSP:

Year 1*	85% or the gap between collection efficiency in the previous year and 85% has to be reduced by half (e.g. 75% in 2008; benchmark for 2009 = 80%)
Year 2-4*	85%
Year 5*	90%

\* after endorsement of these guidelines.

Newly established WSPs are expected to reach a collection efficiency of 85% within two years after the commencement of operations

#### 6.8.4 Determining the Average Tariff

The following steps are followed to take into account the benchmark collection efficiency:

Projected Average Cost (per m <sup>3</sup> )	Projected Average Tariff (per m <sup>3</sup> ) (excl. collection efficiency)
--	--

$$\frac{\text{Projected Average Tariff (per m}^3\text{) (excl. collection efficiency)}}{\text{Benchmark Collection Efficiency / 100}} \times \text{Projected Average Tariff (per m}^3\text{)}$$

Example: If the Projected Average Tariff (excl. collection efficiency) is = 100 KSh and the Benchmark for Collection Efficiency is 85% the Average Tariff will be  $100 / (85/100) = 100 / 0.85 = 117.65$  KES

#### 6.9 Transfer of Revenues from the WSP to WSB

There are three different cost categories, which possibly allow for a revenue transfer from the WSP to the WSB.

9. Administrative cost of the WSB
10. Costs for repayment of debts
11. Costs for depreciation and new investments

The WSP might share parts of 2) and 3). To protect consumers from being overcharged and to ensure that only justified costs are covered, it is important that any shift of revenues between the approved costs per category is not allowed for WSP and WSB without the explicit approbation of WASREB. The use of revenues for the three cost categories should be clearly documented by the WSB. Any kind of transfer of resources from the WSP to the WSB is exclusively based on the approved costs as explained above. Any other transfer mechanism of resource transfer from the WSP to the WSB expires with the first Tariff Approval based on this guideline.



If a WSB is not able to spend at least 85% of the foreseen investment in a year, it should immediately notify the WASREB. The WASREB reserves the right to have the consumer compensated for unspent funds.

## 7. Tariff Implementation and Monitoring

Upon approval of the Tariff Adjustment by the Regulatory Board, the WSB shall notify WSP and direct the WSP to implement the tariff adjustment.

### 7.1 Tariff Implementation

The WSP shall give Customers one month notice prior to a tariff increase. The WSP shall notify customers by placing announcements in the newspaper and including a notice with the Customer's water bill.

In addition, the WSP shall ensure that the documentation of the current tariff is available to all Customers during business hours. The WSP shall post copies of the Tariffs in various locations to which the public has access to including, but not limited to pay stations, public affairs offices of the WSP, water kiosks, and other public facilities where public notices are posted.

### 7.2 Tariff Monitoring

The WSP shall notify the WSB when the new tariff goes into effect, and the WSB shall in turn notify

the Regulatory Board. The WSB shall monitor the correct implementation of Tariffs as described

in this guideline and shall notify the WASREB of any deviation. If the Regulatory Board finds that

the WSP adopts a tariff that is in excess of the Tariff Adjustment Approval, it shall issue a Notice

of Correction to the WSP, and send a copy to the WSB.

In case the WSP has overcharged customers, it shall correct the tariff in the next billing cycle and

issue a refund for the amount overcharged to each customer affected by the incorrect application

of the approved Tariff Adjustment. The WSP must also publish an apology to consumers in news-

papers, and post copies on public notice boards and kiosks.

The Regulatory Board reserves the right to bring the WSB and WSP to court for charging excess tariff, and may revoke the SPA.



## ANNEXES

### Annex 1: Justification for Tariff Adjustment

The WSP/WSB should briefly describe the reason for a Tariff Adjustment and its impact.

The justification should address

- Name of WSP and WSB
- Licence and SPA approval period
- Period for the proposed Tariff Application
- Population in the service area
- Proposed Tariff Adjustment (Increase/Decrease)
- Impact on customers
- Benefits of the Tariff Adjustment
- Strategy of WSP/WSB to use Tariff Adjustment
- Category of WSP (SPA)
- Type of WSP (Tariff Guideline)
- Coverage of O&M costs, Regulatory Levy, Debts and Depreciation/ Investments

		Name WSP of		Category WSP	
		Previous Year		Year 2	
		1	2	Forecast	Forecast
		1	2	3	4
		Increase %		Increase %	
		to 2013		to 2014	
		%		%	
<b>Production and Purchase</b>					
Total production				m3	
Purchase for Resale					
<b>2 Sales</b>				m3	
<b>3. Unaccounted-for-Water (UFW)</b>					
Total				m3	
UFW as a percentage of total production and purchase				%	
Number of Customers				No.	
Residential					
Un-metered					
Commercial					
Industrial					
Standpipes/Kiosks					
Number of Connections				No.	
Residential					
Commercial					
Industrial					
Standpipes/Kiosks					
Billing/Collection				in Mio. Ksh	
Total Billing					
Total Collection					
Collection efficiency					
Billing of other services					
Charges for blocking of sewer on private premises					
Water deposits (if applicable)					
Others					
Cost coverage				in %	
Regulatory Levy and Administrative Cost WSP for WSP					
9. Personnel				No.	
Total number of staff					
10. Payment of regulatory levy				in Mio. Ksh	
Total amount due					
Total amount paid					



# Annex 3a: Analysis of WSP Expenditure

Annex 3A: Analysis of WSP Expenditure												
	Name of WS-B					WSP Category						
	Previous Year		% of total	Current Year		Proposed tariff period Year 1 (forecast)		Year 2 (forecast)		Increase 2) to 1) in %	Increase 3) to 2) in %	Increase 4 to 3) in %
	in Mio Ksh	Ksh		in Mio Ksh	Ksh	in Mio Ksh	Ksh	in Mio Ksh	Ksh			
<b>1. Operations &amp; maintenance (OM)</b>												
<b>Personal expenditures</b>												
Basic salaries												
Allowances												
Wages												
Statutory contribution and deduction (eg NSSF, PAYE and others)												
Travelling and leave												
Others												
Total personal expenditures												
Total expenditures for daily paid workers (casual Workers)												
<b>Total training expenditures (including all related costs)</b>												
<b>Administration expenditures - general</b>												
Land rent & rates												
Communication (mail, email, telephone)												
Insurance												
Bank charges and interests of overdrafts												
Stationery, computers and consumables												
PR (Public relations, advertisements, announcements)												
Travelling on duty												
Professional fees												
Others												
Total general administration expenditures												
<b>Board expenditures</b>												
<b>Board and committee allowances</b>												
Board allowances												
Board honoraries												
Directors fees												
Other board expenditures												
Total board expenditures												
<b>Other operational expenditures</b>												
Electricity												
Chemicals												
Fuel & lubricants												
Water abstraction fees												
Fuel for vehicles												
Others												
Total other operational expenditures												
<b>Total operational expenditures</b>												
<b>Maintenance expenditures</b>												
<b>Maintenance of vehicles</b>												
Other maintenance expenditures												
Total maintenance expenditures												
<b>Total O+ M expenditures</b>												
<b>2. Operations &amp; maintenance (OM)</b>												
Repayment rate												
Total outstanding debts												
<b>3. Regulatory Levy</b>												
Total outstanding debts												
<b>4. Explanations for increased personal cost:</b>												

Unjustified costs	<i>to be filled by WASREB</i>					
	Explanation	Proposed Year Forecast	Justified O&M In year	Proposed deduction Year 2 Forecast	Justified O&M In year 2	
		<b>TOTAL</b>				



Total justified costs | Proposed Year 1 | Proposed Year 2

Annex 3b: Analysis of WSB Expenditure

Name of WSP	Name of WSB								WSP Category	Proposed tariff period	Year 1 (forecast)	Year 2 (forecast)	Increase 2) to 1) in %	Increase 3) to 2) in %	Increase 4) to 3) in %	
	Previous Year	Current Year				Current Year										
		1		2		1		2								
		in Mio Ksh	% of total	in Mio Ksh	% of total	in Mio Ksh	% of total	in Mio Ksh								% of total
<b>1. Administrative costs WSB</b>																
Personal expenditures																
Basic salaries																
Allowances																
Wages																
Statutory contribution and deduction (eg NSSF, PAYE and others)																
Others																
<b>Total personal expenditures (WSB office staff only)</b>																
Administration expenditures - general																
Office rent & rates																
Communication (mail ,email, telephone)																
Insurance																
Bank charges and interests of overdrafts																
Stationary, computers and consumables																
PR (Public relations, advertisements, announcements)																
Travelling on duty																
Professional fees																
Others																
<b>Total administration expenditures (WSB office only)</b>																
Board expenditures																
Board and committee meetings																
Board allowances																
Board honoraries																
Directors fees																
Other board expenditures																
<b>Total administration expenditures- Board expenditures</b>																
<b>Total administrative cost WSB</b>																
<b>2. Repayment of debts</b>																
Repayment rate																
Total outstanding debts																
<b>3. Increment towards full cost recovery</b>																
Investments																
Debt service requirements																
Principal																
Interest																
Expenditure not financed by debt																
Total																
Depreciation																
Depreciation																
Total																
<b>Total Investments and Depreciation</b>																
Increment towards full cost recovery (as explained in guidelines) increment in %																

4. Explanations for increased personal cost:

to be filled by SREB

Unjustified costs	Explanation	Proposed deductions Year 1	Proposed deductions Year 2	Justified O&M In year	Proposed deductions Year 2	Justified O&M
		Forecast	Forecast		Forecast	
		<b>TOTAL</b>				

Comments on repayment of debts

Comments on depreciation/ investments- increment towards full cost recovery

Total justified costs

Proposed Year 1 | Proposed Year 2

Annex 4: Debt Amortization Plan for WSP/WSB

Name of WSP \_\_\_\_\_  
 Name of WSB \_\_\_\_\_  
 WSP Category \_\_\_\_\_

Amount of debts by creditor for WSB	
Creditor	Amount in Ksh
a	
b	
c	

Amount of debts by creditor for WSP	
Creditor	Amount in Ksh
a	
b	
c	

\_\_\_\_\_

**Total amount of debts in Ksh**

	Year 1	Year 2	Year 3	Year X
Proposed repayment rate				
Repayment rate demanded by creditor (s)				

**Total outstanding debts** \_\_\_\_\_

*to be filled by WASREB* \_\_\_\_\_

Comments on repayment rate

## WSP Annex 5a: Performance Analysis

Name of WSP _____			<i>To be filled by WASREB</i>	
Name of WSB _____				
WSP Category _____				
		Achieved	Deviation from Benchmark	
1	Metrering Ratio	Benchmark	k	
<i>Explanation</i>				
s				
_____				
_____				
_____				
2	Water quality	Carried out	Deviation	
Adherence to Water Quality Guidelines				
30%		Prescribed	n in %	
No. of tests				
_____				
_____				
_____				
_____				
_____				
_____				
Percentage of tests according				
_____				
3	Average Service hours/day	Hours	Deviation	
Average Service hours/day				
Average Service hours/day		Achieved	Benchmark n in %	
List different service areas				
_____				
_____				
_____				
_____				

4 Any programs documenting specific efforts of the WSP

Total Score

# Annex 5b: Performance Analysis WSB

	Name of WSP	Name of WS B	WSP Category	
	<i>to be filled by WASREB</i>			
No				
1	Water Quality			
	Adherence to water quality guidelines <small>30%</small>	Carried out	Prescribed	Deviation in %
	No. of tests			
	Water quality according to W standards <small>70%</small>	Rate achieved	Benchmark	Deviation in %
	Percentage of tests according to standards		Benchmark	Deviation from benchmark
	Achieved value			
2	WSB Administrative expenditures as percentage of turn-over of sector in WSB area			
	Any programs documenting special efforts of the WSB			
				Performance score (30%)
				Performance score (70%)
				Performance
				Performance score
				Total score

Annex 6: Calculation of average Tariff

Name of WSP		Name of WSB			WSP Category			
1) WSP Type I	Performance weighted justified costs I	Total quality of water billed	Average costs per m3	Current Year	Proposed Tariff Period Year 1	Benchmark collection efficiency in %		
	in Ksh						in m3	in Ksh
	Proposed Tariff Period Year 2						Proposed Tariff Period Year 2	
	Proposed Tariff Period Total						Proposed Tariff Period Total	
	Current Year						Proposed Tariff Period Total	Benchmark collection efficiency in %
2) WSP Type II	Performance weighted justified costs II	Total quality of water billed	Average costs per m3	Current Year	Proposed Tariff Period Year 1	Benchmark collection efficiency in %		
	in Ksh						in m3	in Ksh
	Proposed Tariff Period Year 2						Proposed Tariff Period Year 2	
	Proposed Tariff Period Total						Proposed Tariff Period Total	
	Current Year						Proposed Tariff Period Total	Benchmark collection efficiency in %



tarriff per  
m3  
in Ksh

Requi  
red

Required

t  
a  
r  
r  
i  
f  
f

tarriff per  
m3  
in Ksh

p  
e  
r  
m  
3  
i  
n

K  
s  
h

Requi  
red

## Annex 7: Revenue Projections / Tariff Structure

Name of WSP												
Name of WS-B												
WSP Category												
Type of customer	Tariff	Quantity billed per	Annual Revenues	Annual Revenues % of total Revenues	Tariff	Quantity billed per	Annual Revenues	Annual Revenues % of total Revenues	Tariff	Quantity billed per	Annual Revenues	Annual Revenues % of total Revenues
		<i>for previous tariff</i>	<i>period* in Ksh</i>			<i>for current tariff</i>	<i>period* in Ksh</i>			<i>for following tariff</i>	<i>period* in Ksh</i>	
Residential household connections												
1st block												
2nd block												
3rd block												
X block												
Unmetred												
Commercial												
Industrial												
Standpipes/Kiosks												
Totals of sums												
Average Tariff*												

\*WSPs that apply the first time for a tariff adjustment should enter information about the last year and about the current year for the current Tariff Period \*\* total revenues divided by total billed quantity



# Annex 9: General Performance Assessment

Water Services Regulatory Board

Name of WSP		Name of WS		B		WSP Category		Year	
								Year 1	Year 2
		Previous Year		Current Year		Year 1	Year 2	Year 1	Year 2
		Actual	Target	Deviation	Actual	Target	Deviation	Forecast	Forecast
				in %			in %	Ta	Ta
<b>1. Minimum Service Levels</b>									
SI-1	Coverage								
SI-2	Water Supply								
SI-3	Sanitation								
SI-4	Drinking Water								
SI-5	Quality								
SI-6	Service Hours (Water quantity)								
SI-7									
SI-8	Response time to complaints								
SI-9	Response time to connection time								
SI-10	Waiting time for bill payment								
SI-11	Interuptions of Water Supply								
SI-12	Blockage of Sewerage								
SI-13	20-36 hours								
SI-14	36-48 hours								
SI-15	48 hours								
SI-16	Pressure in the Water Supply								
SI-17	Network Unjustified Disconnections								
SI-18	Sewer Flooding								
SI-19	Quality of Discharged Effluent								
SI-20	Support to Public Institutions								
<b>2 Other Performance Indicators</b>									
SI-21	1 Unaccounted for Water								
SI-22	2 Water affordability (in relation to average income of poor HH)								
SI-23	3 Metering Ratio								
SI-24	4 Collection Efficiency								
SI-25	5 Staffing Ratio (staff/1000 connections)								
SI-26	6 Disconnection Ratio								
SI-27	7 Outstanding Supplier Loans								
SI-28	8 Billing of customers								

Tariff Guidelines

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Average water production            m  
per capita                                    3  
Average water consumption per capita    m<sup>3</sup>  
Unit Operation

3 cost  
(total cost of operation/ water produced)

4 Liquidity  
(Current assets/ current liabilities)

5 Investment Ratio  
(Total Investments/ total collections)

## Annex 10: Tariff Proposal Submission Checklist

Item	<i>to be filled by WASREB</i>				If no, comments on action required
	Item submitted?		Information Complete?		
	Yes	No	Yes	No	
1) Justification of the Tariff Adjustment Proposal Annexes					
2) Annex 1: Justification for Tariff Adjustment Proposal					
3) Annex 2: General data					
4) Annex 3a: Analysis of WSP Expenditure					
5) Annex 3b: Analysis of WSB Expenditure					
6) Annex 4: Debt immortalization plan for WSP/ WSB					
7) Annex 5a: Performance Analysis WSP					
8) Annex 5b: Performance Analysis WSB					
9) Annex 6: Calculation of average Tariff					
10) Annex 7: Revenue projections / Tariff structure					
Annex 8: Tariff Schedule					
<del>2) Annex 9: General performance assessment</del>					
<del>3) Annex 10: Tariff proposal submission checklist</del>					
4) Annex 11: Tariff Study (if required Business plan (Current version) and summary of implementation status for the WSP, including Capital Investment Plan (as required in Bussiness Planning					
5) Guidelines					

Financial statements (Audited statements required for  
16) Category- ) for the WSP and the WSB

## Annex 11: Table of Contents of a Tariff Study

A Tariff study must be realized by any WSP that exceeds a monthly turn-over of 10 Mio KES. The minimum required content should address

- 1) Executive Summary
  - Summarize the key findings from the tariff study
- 2) Introduction
  - Purpose and scope of study
  - Methodology
  - Tariff period covered by study
- 3) Demand Forecast
  - Historical demand, future demand assumptions, and demand projects by customer class (residential, commercial, industrial)
  - Estimations of physical and commercial losses
  - Comparison of production and demand forecasts
- 4) Cost Analysis and Total Revenue Requirement
  - a. Operation and Maintenance
    - Costs Staffing levels and remuneration Fuels and chemicals Equipment Transportation Maintenance
    - Other administrative and general expenses Water abstraction and permitting/bulk water
  - b. New Capital Works Costs
    - Projected capital investments (timing, value, and financing arrangements) Debt serving requirements
  - c. Capital Works Maintenance
    - Costs Residual asset value
    - Projected asset replacement requirements (timing and value)
  - d. Other Costs

WSB Administrative

Costs Regulatory

Levy

e. Calculation of O&M costs





- 5) Affordability Analysis
  - a. Methodology (such as customer willingness and ability to pay survey)
  - b. Findings
- 6) Proposed Tariff Structure and Tariff Schedule
  - a. Proposed tariff structure (customer classes, rising blocks, fixed/variable charges, etc.)
  - b. Treatment of Metered Versus Unmetered Customers
  - c. Tariff Options
    - i. Proposed tariffs and revenue forecasts
    - ii. Comparison of options and preferred option
    - iii. Impact on customers and affordability

## Annex 12: Sample Assessment and Calculation of Tariffs

1	<b>Cost Analysis WSP and WSB</b>		
a	<b>WSP cost analysis</b>		
	Projected O&M costs for 2008		135,000 (in thousand KES
	<p><b>Deduction of unacceptable costs</b></p> <p>The WSP plans an increase of staff cost by 25%. The actual number of employees per 1000 connections is 24. Companies of comparable size (e.g. a and b) have achieved higher levels of performance with less staff in place.</p> <p>The increase of staff cost is therefore not justified. The company should adjust their staff portfolio to be able to realize the necessary improvements.</p> <p>The staff cost of the provider are 40% of the projected cost The increase of other expenditures are justified.</p>	43200 instead of 54000 staff cost	- 10,800
	<b>Justified O&amp;M costs WSP</b>		124,200
b	<b>WSB cost analysis</b>		
	Projected administrative costs WSB for WSP for 2008		6,750
	<p>Deduction of unacceptable costs</p> <p>The WSB plans an increase of staff cost by 25%. Compared to other WSBs, the WSB has a reasonable number of staff and levels of salary. Nevertheless an increment of 25% seems to be high in comparison to other Boards. WASREB will therefore allow in increment of 15% only.</p>	Allowed increase from staff cost 486 instead of 810	324
	<b>Justified Administrative cost WSB for WSP for 2008</b>		6,426
2	<b>Performance Analysis</b>		
a	<b>Performance Assessment of WSP</b>		
	<p>The analysis shows that the WSP has reached the targets (as established in SPA) for metering ratio and water quality. The WSP has not achieved any progress in increasing the service hours and reaching the agreed targets. According to weighting list of the guidelines, this leads to -7 points equivalent of -4,67%</p> <p>The WSP has made special efforts to extend services into informal settlements and has successfully implemented 5 Water Kiosk systems. The WSP will therefore be awarded with 15 points (equivalent of 10.00%)</p>	124,200 * -0.0467  124,200 * 0.10	5,800  12,420

b **Performance Assessment of WSB**

6,426

The analysis shows that No. of rural networks and point sources that comply with drinking water standards are covering the agreed target number

The operational expenditure as a percentage of turn-over in the sector in

6,426 \* - 0.03

- 192.78

WSB area is high compared to other Boards and could not be reduced.

Therefore -3 points are given to the WSB, leading to -3%

The WSB could not document special efforts. Therefore no Bonus can be awarded

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**Performance weighted justified administrative costs for WSB**
6,233.  
22

---

**TOTAL performance weighted justified costs**
130,8  
20137,053  
.22+  
6,233.  
2

3	<b>Calculation of Total Allowed Costs for WSP I:</b>  Total performance weighted justified costs + Regulatory Levy	137,053 .22  1,370. <sup>+</sup> <sub>3</sub>	
	<b>Total Allowed Costs I (TAC I)</b>		138,423. <sub>75</sub>
4	<b>Repayment of debts - Calculation of Total Allowed Costs for WSP Type II (WSP type I can skip this step):</b>  Total allowed costs I + repayment of debts  The projected repayment rate of debt of the WSP/WSB is reasonable.	+ 10,500	148,923. <sub>75</sub>
5	<b>Increase towards full cost recovery (for WSP type 3 only. For type 1 and 2, this step can be skipped)</b>  The WSP has reached coverage of O&M cost and is able to repay its debts.  Therefore an increase of 10% (of TAC I) of the Justified Cost towards full cost recovery is allowed	138,423.75 * 0.1  13,842. <sub>38</sub>	138,423.75  13,842. <sub>38</sub>
	<b>Total Allowed Cost III</b>		152,266.13
6	<b>Balancing Tariff Level</b>		
a	Projected Water Quantity Produced UfW Benchmark for new period (40%)  = Projected Quantity billed (25,000,000 * 0,40 = 10,000,000	25,000,000 m  - 10,000,000 m  = 15,000,000 m  152,266. <sub>13</sub> /	
	Projected Average tariff (Total Allowed Cost III / Projected Quantity Billed for WSPs with 100% metering and without collection efficiency balancing - step 7)	15,000 =	10.15 KES / m
b	<b>Unaccounted for Water balancing</b> for WSPs with metering ration < 100% The actual UfW is 45%. The benchmark for the new period is 40%. The deviation from is 5% from Benchmark. Steps Actual metering ratio = 30% 100% - 30% = 70% 70% * 5% = 3.5% 3.5 % / 2 = 1.75% Projected average tariff = 10.15 KES/m ; Reduction by 1.75%		

10.15% \*  
0.0175  
= 0.1776

10,15 -

9.9724

c **Collection Efficiency**

The collection efficiency benchmark according to the SPA is 80%

10.15 :  
0.80

Or 9.9724 :  
0.8

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7 **Projected Average Tariff in KES/m**

For WSP with 100% metering ratio

12.69

For WSP with metering ration below 100% (see example 6b)

12.47

