GUIDELINES ON REQUIRED MINIMUM SERVICE LEVEL

NWS/G001/12-2000
Required Minimum Service Level
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**Reason for a Minimum Service Level**

The Water Supply and Sanitation Act No. 28 of 1997 (5.12 – vi - A) requires providers to ensure efficient, affordable and sustainable water supply and sanitation services within the service areas.

This implies that the providers must guaranty a certain and defined level of services to the customer for a specified price ensuring therefore “value for money”.

Requirements regarding the price of water aiming at full cost recovery and social feasibility, as well as, standards for a minimum service level are some of the main instruments of regulation necessary to balance the interests of the providers and the consumers in a market with limited competition.

It is in the very interest of the providers to offer adequate services to the consumers because it increases the willingness of the consumers to pay for them. Consequently total cost recovery cannot be achieved without a certain guaranteed service level. The latter will have to be adjusted regularly as development in the sector is achieved and prices for services are increased.

As the name indicates, the required minimum service level is a standard, which can and should be exceeded by the provider whenever possible in order to foster his image among consumers, public, politicians and regulator.

The defined minimum service level complements the standards approved by the Zambia Bureau of Standards for the water and sanitation sector.

**Content of the guidelines**

Guidelines are issued to set targets for the sector as a whole and set standards to be reached by the providers. Additionally, they explain conditions and procedures too.

The present guidelines indicate not only the service level the providers have to meet but also the specific time frame within which indicators have to be achieved.

In order to allow assessment of the service rendered to the consumers and to give directions on the development the regulator has selected 11 Service Indicators (SI) described in detail in the guidelines.

Benchmarks indicating the standards reached by efficient water and sewerage companies in Africa are also used to set targets for the water sector in Zambia.

In order to guide the provider this document includes a list of the necessary monitoring tools the provider needs to have in place in order to verify his service level.

Among performing providers in Africa the listed tools are part of the standard requirements of operation.
Guaranties for a service level

On one side, the provider shall at all time guaranty a specific service level to the customer with increasing progress towards the service level required by the regulator.

Certain indicators like unjustified disconnection affects the consumers in a very constraining way. If the provider reserves his right to disconnect a consumer when the water bill is not paid on time, it can be considered fair, that the consumer receives a compensation in case of unjustified disconnection.

Verifying bills before distribution, as well as listings before disconnection can be regarded as absolute minimum requirements for operation.

Like the information on tariffs and complaints the service level guaranty has to be accessible free of charge to all consumers and a respective poster has to be placed in all offices, pay stations and public stand post by the providers.

Agreements between providers and regulator

On the other hand, the regulator and the provider will agree on a stepwise progress towards the required service level by signing every three years (adjusted) service level agreements based on a relevant programme.

Reporting and monitoring

To document the services rendered providers shall forward a Service Level Report to NWASCO not later than the 31st of December each year for a reporting period from 1st October to 30th September following year. Reporting requirements are included in the guidelines.

As the regulator is accountable to the government and the public and has to assure transparency he will make the results of the sector development including achievements and non-compliances regarding service levels public once a year.

The provider himself shall ensure the monitoring of the service level in the first place. Consumers will be encouraged by the regulator to participate in the monitoring activities and in the process to solve complaints brought to the provider by individuals.

NWASCO will proceed to audit the provider if the information received seems incorrect or is of poor quality. He will also closely collaborate with the other regulatory bodies involved in the sector like the Ministry of Health and the Environmental Council of Zambia.
2) DEFINITIONS AND PROCEDURES

Definitions

**Required Minimum Service Level**
The Service Level providers have to reach within a specified time, which is defined by the regulator and measured by Service Indicators – SI. To this, the regulator issues guidelines. The service level will be regularly adjusted according to the development of the sector. Therefore, the provider will need time to comply with new requirements.

**Programme to reach the Required Minimum Service Level**
The provider has to line out how he intends to reach the Required Minimum Service Level including the measure and the time frame. This programme has to be proposed with the first Service Level Agreement and the Service Level Guarantee. A maximum time frame for each indicator is included in these guidelines.

**Service Level Adjustment Agreement**
The provider shall propose his planned progress towards fulfilling the required minimum service level. His proposal will be assessed by the regulator and agreed upon by the two parties in form of a service level adjustment agreement. This procedure will be in place as long as the provider has not been able to fulfil all indicators of the required minimum service level and implies that the provider proposes continuous improvements of his service level.

**First Service Level Agreement**
To start the cycle of Service Level Adjustment Agreements the provider shall propose a First Service Level Agreement.

**Service Level Guarantee**
Before signing the Service level Adjustment Agreement the regulator and provider agree on a Service Level Guarantee, which shall ensure the required standard of service at any time for a period of 3 years. The service level guarantee shall be made public in all pay stations and offices where customer services are offered throughout the entire service area.

**Service Contract**
A contract signed between the provider and the customer containing the rights and obligations of each party. The Service Contract has to contain a clause indicating that regulations issued by the regulator are part of the contract and prevail in case of differences.

**Service Level Report**
The services rendered to the customer shall be documented with the Service Level Report.
Procedures

1) Not later than two month after receiving the licence the provider shall propose his First Service Level Agreement indicating for each SI – Service Indicator the level he intends to reach within the next 3 years. The proposal shall include a programme of measures indicating the actions and the time frame in order to show how the provider intends to reach the aimed service level.

2) With the Service Level Agreement the provider shall also submit a Service Level Guarantee containing the SI – levels he is going to ensure to the consumers from the date of acceptance by the regulator for the next 3 years.

3) Once the Service Level Agreement with its programme and the Service Level Guarantee has been agreed upon by the regulator, it will be signed by both parties and has to be put in effect not later than 4 month after the licence has been issued.

4) Then the provider shall print the Service Level Guarantee in due form and make it public (posters and leaflets) in all pay stations and offices where customer services are offered throughout the entire service areas.

5) The regulator will verify at any time if the provider is offering the information concerning his Service Level Guarantee

6) Not later than two month before the expiring date of the Service Level Agreement the provider will propose an Service Level Adjustment Agreement indicating the presently achieved service level and the progress he intents to reach within the following 3 years. The proposal has to include an action programme as explained under 1).

7) Yearly the provider shall document with a Service Level Report the progress achieved over a period of 12 month – 1st October to the 30th September - which shall be send to the regulator not later than 3 month after the end of the reporting period - 31st December.

8) The regulator will render the performance of the provider’s concerning the service level requirements public in the form of an aggregated comparative report.
The following main indicators (SI – Service Indicator), some of them divided into several sub-indicators, have been selected by the regulator to measure the service level of the provision of water and sewer services.

SI 1 Coverage of the Service Area  
Population served with individual connections to the water and sewer networks, as well as, public stand posts, Kiosks etc.

SI 2 Drinking Water Quality  
An adequate water-testing programme to ensure effective control (number of tests) and the assessment of potability through bacteriological and chlorine residual tests

SI 3 Service Hours  
Time of continuous water supply at connections, as well as, the opening hours of public stand posts and offices accessible to consumers

SI 4 Billing for Services  
Billing and meter reading sequences, conditions for payment of bills by the customer and some of the cost implicated in billing, as well as ratio on metered connection to total customer

SI 5 Client Contacts  
Complaints from clients, the response time on billing contacts, written complaints, customer demand for a meter or meter testing and new connections to the networks, as well as, the ease of access to pay stations and telephone contacts

SI 6 Interruption of Water Supply and Blockage of Sewer  
Unannounced interruption of supply or sewer evacuation due to maintenance and repair work

SI 7 Pressure in the Network for Water Supply  
Water pressure and the minimum flow at the connection and the main leading directly to the connection

SI 8 Unjustified Disconnections  
Number of unjustified disconnections and the compensation paid by the provider to the customer

SI 9 Sewer Flooding  
Number of households flooded with sewer during a year

SI 10 Quality of Discharged Sewer  
Non-and insufficient treated discharged effluent, as well as, tests carried out (quantity and quality) particularly MES, DCO, DBO5 and NK.

SI 11 Support to Public Institutions - Curb Wastage + Settle Bills on Time  
Actions taken by the providers to help reduction of wastage of drinking water by government institutions, to increase metering on connections for public institutions, reduce outstanding bills of government and the delay of payment.
According to the Water Supply and Sanitation Act the regulator has the responsibility to promote development in the sector, which can be assessed partly with the indicator of the service level.

The benchmarks for these indicators draw the line between failure and achievement of the sector policy goals.

Several water and sewerage companies in Africa, regardless of their institutional status have already achieved the requirement set out by the following benchmarks.

Providers in Zambia who do not reach these benchmarks must be aware that NWASCO is obliged to take regulatory actions to ensure compliance.

As the service standards in Zambia in the sector at present is very low, the regulator will grant the providers a well defined transition period which can be different for each of the companies depending on the existing level.

Providers attaining a higher level in a shorter period will be granted advantages during tariff negotiations in comparison with providers advancing on a slower pace.

### 4) BENCHMARKS FOR THE MINIMUM SERVICE LEVEL (SI)

<table>
<thead>
<tr>
<th>Service Indicator</th>
<th>Primary Indicator</th>
<th>Secondary Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>SI 1 Coverage of the Service Area</td>
<td>% of population served with <strong>drinking water</strong> (connections and public distribution system) between <strong>75-90%</strong> - depending on alternative water resources used by the population</td>
<td>% of population with <strong>adequate sanitation</strong> facilities (connected to sewer and individual installations) <strong>75–90 %</strong></td>
</tr>
<tr>
<td>SI 2 Drinking Water Quality</td>
<td><strong>No. of tests</strong> carried out and <strong>tests results</strong> (<strong>bacteriological and chlorine residual</strong>) within the standards of Ministry of Health for drinking water.</td>
<td></td>
</tr>
<tr>
<td>SI 3 Service Hours</td>
<td>Average (avr.) daily water supply at <strong>connections</strong> in towns &gt;100.000 inhabitants <strong>24 hours and</strong> others a minimum of <strong>16 hours</strong>. Opening hours of <strong>public distribution</strong> system <strong>12 hours/day, 7 days a week</strong>.</td>
<td><strong>Pay stations and offices not less than 40 hours per week open</strong></td>
</tr>
<tr>
<td>SI 4 Billing for Services</td>
<td>Minimum of <strong>one bill per month</strong> for all customers, with minimum of <strong>meter read once in 3 months</strong>. Minimum period for <strong>payment after bill delivery is 2 weeks</strong>. <strong>% of metered connections 100%</strong>.</td>
<td><strong>Cost of billing</strong> by No. and costs of meter readers + supervisors + expenditures of contracting out compared to No. of bills</td>
</tr>
</tbody>
</table>
### SI 5 Client Contacts

<table>
<thead>
<tr>
<th>Response time</th>
<th>No. of complaints</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Response time on billing contacts, written complaint</strong> 5 working days.</td>
<td>categorised by type of complaints</td>
</tr>
<tr>
<td><strong>Response time on demand for meter and meter testing</strong> 10 working days.</td>
<td>Telephone contacts to requested department / contact person &lt; 5 minutes</td>
</tr>
<tr>
<td><strong>Response time on paid new connection</strong> &lt;3 weeks</td>
<td></td>
</tr>
<tr>
<td><strong>Waiting time to pay bill and file complaint</strong> &lt;15 minutes</td>
<td></td>
</tr>
</tbody>
</table>

### SI 6 Interruption of Water Supply and Blockage of Sewer

| % of connected properties | Percentage of connected properties subject to an unannounced supply interruption of 20-36 hours in the reporting time <15 hours, 36-48 hours <8% and > 48 hours <3% |

### SI 7 Pressure in the Network for Water Supply

| <7 litres per minute water flow | < 5% of service area in towns with > 100,000 inhabitants and at < 20% with < 100,000 inhabitants |

### SI 8 Unjustified Disconnections

| Maximum of 0.2 % of connection | Maximum of 0.2 % of connection in a year in towns > 10,000 connections and 0.4% < 10,000 connections |

### SI 9 Sewer Flooding

| Maximum of 0.5% of total connections | |

### SI 10 Quality of Discharged Sewer

| No. of tests carried out and tests results within the standards of ECZ for effluent | |

### SI 11 Support to Public Institutions to Curb Wastage and Settle Bills on Time

| The action programme will be assessed by the type of actions/support the providers offer public institutions for the reduction of wastage, sensitising to budget the appropriate amount etc. in comparison to the % of unpaid bill of the total amount of outstanding debts. | % of actions carried out from the action programme |
In order to generate the information required to assess the service indicators (SI) the following tools shall be introduced by the provider if they do not already exist;

<table>
<thead>
<tr>
<th>Tools for data collection and justification</th>
<th>Reference to Service Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Register on tests carried out on water quality, (raw and drinking water)</td>
<td>SI 2 Drinking water quality</td>
</tr>
<tr>
<td>Register of complaints comprising at least the details lined out in the guidelines</td>
<td>SI 5 Client contact</td>
</tr>
<tr>
<td>Register on written complaints</td>
<td>SI 5 Client contact</td>
</tr>
<tr>
<td>Register on demand for meter (demand and installation)</td>
<td>SI 5 Client contact</td>
</tr>
<tr>
<td>Register on meter testing (demand and result)</td>
<td>SI 5 Client contact</td>
</tr>
<tr>
<td>Register on new connections (demand, payment and construction)</td>
<td>SI 5 Client contact</td>
</tr>
<tr>
<td>Register of network repair</td>
<td>SI 6 Interruption of water supply</td>
</tr>
<tr>
<td>Register of failure on treatment plants and storage tanks</td>
<td>SI 6 Interruption of water supply</td>
</tr>
<tr>
<td>Register on blockage/unblockage of sewer and sewer flooding of private premises</td>
<td>SI 9 Sewer flooding</td>
</tr>
<tr>
<td>Register on disconnection carried out</td>
<td>SI 8 Unjustified disconnection</td>
</tr>
<tr>
<td>Register on tests carried out on effluent discharged</td>
<td>SI 10 Quality of discharged effluent</td>
</tr>
</tbody>
</table>

Additionally, the provider has to dispose of:

- Socio-economic data concerning the average number of persons living in a household, the number of households on a plot with one connection and the average number of persons served by a public stand post
- Yearly programme of testing drinking water and discharged effluent

- Yearly action programme to support public institutions to curb wastage and settle water bills

It is important that the providers are aware that the above-mentioned tools are part of the standard management tools used by performing water and sewer companies and shall not be regarded as a special obligation introduced by the regulator.
Today none of the providers in Zambia are in a position to meet the entire standards of service level within a short period. However, some of the water and sewerage companies are already in a position to fulfil the requirements of some of the indicators.

The regulator will take this and the difference of the ability due to network configuration etc. to fulfil today the service level requirement among the providers into consideration when agreeing to individually adapted progress plans for each of the water and sewerage companies.

**First “Service Level Agreement” and “Service Level Guarantee”**

Consequently, each provider shall propose 2 month after receiving the licence a first “Service Level Agreement” to the regulator, indicating the service level, which will be reached within the next 3 years. It shall be negotiated and put in effect not later than 4 month after the reception of the licence. It will be considered as a firm engagement of the provider.

With the presentation of the “Service Level Agreement” the provider has to propose the Service Level Guarantee (engagement to the customer), which will be in place for three years. This Guarantee, once approved by the regulator has to be put up as a notice in all pay stations, at public stand posts and all offices offering customer services.

**Programme to reach the Minimum Service Level**

With the proposal of the first service level agreement the providers shall also submit a programme indicating how to reach the minimum service level as described in the guidelines within the given time frame.

As not all SI (service indicators) will be reached within the same period the regulator proposes the following time schedule for each of the SI:

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**TIME FRAME FOR REACHING THE SI**

The providers shall ensure progress in steps of 3 years moving as planned towards the required level of the SI. Therefore, once the provider has proposed the first service level for each of the SI he has to show in his programme the progress for every 3 years reaching finally the Minimum Service Level set by the regulator not later than the maximum time given by the time following frame.

**SI 1 Coverage of the Service Area**

A maximum of 12 years will be given to the providers to reach a level of 75-90% (depending on the use of secure alternative resources used by the population in the service area)
SI 2 Drinking Water Quality
A maximum of 4 years are given to reach the number of tests appropriate for the quantity produced and the population served (in absence of Zambian standards the WHO recommendation have to be observed), as well as, to reach the tests results particularly the bacteriological quality of drinking water.

SI 3 Service Hours
A maximum time of 6 years is given to reach a 24 hours water delivery in towns with more than 100,000 inhabitants and a minimum of 16 hours in the other towns.

The minimum opening hours – 12 - of public stand posts and 40 hours weekly at pay stations and offices with customer services should be reached within 4 years.

SI 4 Billing for Services
A maximum time of 3 month after receiving the licence is given to the provider to:
- Introduce monthly billing for all customers, without exceptions
- Read all meters installed at connections and standposts regularly (preferably monthly but not less than quarterly) and bill the customer according to consumption
- Accord the customer at least 2 weeks to pay his bill after he has received it 10 years are given to reach 100% metering of connections, including the distribution system by public stand post

SI 5 Client Contacts
A maximum time of 4 years is granted to respond to:
- Billing contacts and written complaints within 5 working days
- Demand for meters and meter testing within 10 working days
- Complete new connections paid for by the consumer within 3 weeks
- Pay bills and file a complaint at pay stations within 15 minutes

SI 6 Interruption of Water Supply and Blockage of Sewer
A maximum time of 4 years is given to the provider to reduce supply interruption due to network repair or maintenance and failure of treatment plants to less than 20 hours.

SI 7 Pressure in the Network for Water Supply
A maximum of 6 years is given to reduce the service areas with insufficient pressure under 5% of total area served for towns with a population of more than 100,000 and less than 20% for the other towns.
SI 8 Unjustified Disconnections
A maximum time of 6 month after receiving the licence is given to the provider to reduce the percentage of unjustified disconnections to under 0.2 of the total connections in towns over 100,000 inhabitants and under 0.4 in the others per year.

SI 9 Sewer Flooding
A maximum of 4 years are granted to reduce the sewer flooding of customers premises to 0.5% of the total connections per year.

SI 10 Quality of Discharged Sewer
A maximum of 6 years are given to reach the number of tests appropriate for the quantity discharged and a maximum of 14 years to comply with the standards set by ECZ concerning the quality of the effluent discharged

SI 11 Support to Public Institutions to Curb Wastage and Settle Bills on Time
Every 2 years the provider shall reach an significant improvement in dealing with public institutions which shall lead to the reduction of drinking water wastage and the amount of outstanding bills of this client category. Therefore the providers are granted a maximum of 1 year to install meters on all connections paid for by public institutions and proceed to monthly invoicing according to the quantity consumed. The same applies to the launching of a regular programme to sensitis the institutions to name a responsible to curb water wastage, consider their average consumption in the budget and pay regularly the water bills.

Monitoring the Service Level Agreement
The provider has to line out in his yearly service level report the progress he has achieved and compare it to the Service level agreement and the proposed programme to reach the service level defined in the guidelines.

Incentives for reaching and consequences of not reaching the SI within the time schedule
A high level of service fulfilling the SI will be considered during tariff negotiations. His achievements will also be publicised in the comparative competition measures. Not achieving the SI as planned in the proposed programme will mean that the regulator will take actions to seek compliance and consider non achievement of service levels also during tariff negotiations.

Service Contract
All providers shall be obliged to sign with each consumer a standardised Service Contract outlining the rights and responsibilities of each party. Existing Service Contract have to be approved by the regulator not later than 6 month after the receipt of the licence. The Service Contract has to contain a clause indicating that regulations issued by the regulator are part of the contract and prevail in case of differences.
7) Details on the Service Indicators SI 1-SI 11
Considering the universal and fundamental right of people to have access to adequate water supply and sanitation services, the coverage of the service area by a provider constitutes the main indicator for the service level offered.

The Water and Sanitation Act obliges the providers to acquire a licence for a specific area and offer their water and sanitation services to every one who is willing to pay for it.

The indicator is calculated as a percentage by dividing the population served (household connections and public stand posts) by the total population living in the service areas multiplied by 100.

The number of household connections shall be multiplied by the average members living in a household. The number of public stand posts, Kiosks etc. shall be multiplied by the average number of the population served by one of them. Both results added will provide the number of persons served by the provider.

The data for the number of members in a household and people served by a stand post should be obtained from relevant studies, which shall be quoted in the report. It is also possible to conduct a brief survey including a few representative stand posts during a defined observation period by questioning the consumers collecting drinking water with recipients.

If no reliable information concerning the population served by the stand post system is available then the amount of water sold at the stand post shall be indicated. This will still allow a good approximation of persons served through an assumption like average consumption of 15-30 litres per person per day.

<table>
<thead>
<tr>
<th>Year..........</th>
<th>Coverage of the Service Area / Population served</th>
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</thead>
<tbody>
<tr>
<td><strong>Towns and population</strong></td>
<td><strong>Sewer</strong></td>
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<tr>
<td></td>
<td>Sewer connections x avr. HH members</td>
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</table>
An acceptable water quality is essential to guarantee public health. Examination should be frequent and regular. Although it is the responsibility of the Ministry of Health to set standards and monitor compliance the regulator for water supply and sanitation has to dispose a minimum of information in order to exercise his responsibility of customer protection. Therefore his attention is only focused on the microbiological quality, which is of the greatest importance for drinking water.

Additionally, it is of the greatest interest to the provider to collect information on water tests in order to optimise the use of chemical products necessary to reach the required water quality and consequently curb wastage and save costs. It is crucially important for the provider to define a yearly program of tests in order to verify the quality of water supplied to the population. Any test results not meeting the requirements set by the Ministry of Health and the standards set by the Zambia Bureau of Standards with implications to public health has to be reported to the regulator within 48 hours.

The testing program for the following year as well as a statistic on testing results for the reporting year are part of the “Service Level Report”.

### Drinking Water Quality

<table>
<thead>
<tr>
<th>Year………</th>
<th>Water Quality Program</th>
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<tbody>
<tr>
<td></td>
<td><strong>Planned for N</strong></td>
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<tr>
<td>Towns and population served</td>
<td>Water produced in m3</td>
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</table>

### Water Quality – Test Results (yearly)

<table>
<thead>
<tr>
<th>Year………</th>
<th>Water Quality – Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Towns</td>
<td>No. of tests carried out - Bacteriological</td>
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</table>

Drinking Water Quality
To what degree consumers have access to the services offered by a provider depends largely on the time (hours per day) water is supplied and personnel from the provider dealing with costumers are available for contacts.

Therefore, the information on service hours shall comprise the:

- Average (avr.) daily water supply through the network for the different towns and if different, service areas
- Opening hours of public stand posts, Kiosks etc.
- Opening hours of pay stations
- Opening hours of offices with consumer services

Service hours of water supply are defined as the hours per day a consumer can draw drinking water from the tap at his household connection or the public stand post. These numbers of hours are not necessarily identical with the operation time of treatment plants or wells, as tanks, part of the distribution system, are used for storage. Regarding the opening hours of pay stations and offices, the number of days/week and the total hours /week is of great interest to the public.

The information concerning the service hours shall be presented in the “Service Level Report” as follows:

<table>
<thead>
<tr>
<th>Year.................</th>
<th>Service hours (in hours per day and/or week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Towns</td>
<td>Avr. daily water supply of households etc.</td>
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Service hours must be clearly visualised and easily readable for customers at pay stations, public stand posts, Kiosks etc. and at offices where customer services are offered.
Experience shows that most of the customer complaints are related directly or indirectly to the billing. Unjustified tariff applications, meter readings with errors, late dispatching of bills or no bills at all during a certain period, cumulated billing etc. etc. are just some of the reasons why consumers are not satisfied with the provider. Additionally, holding a monopoly, the providers can only be advised by the regulator where self-initiative is insufficient to adjust organisation in order to resolve these issues permanently.

However, changes focusing on resolving these issues should be a very high priority for the providers because of its impact on the image of the companies.

Considering the difficulties households, industries and public customers face to pay for cumulated consumption, providers shall forward their bill to a client on a monthly basis. Meter readings for billing shall not be less than quarterly, but preferably monthly too, because most of the bills will have to be delivered to the customers premises anyway. Consequently, there are few cost implications if meter reading and bill distribution is carried out simultaneously.

Badly organised, meter reading and distribution of bills can be very costly for the consumers. Therefore, the providers have to indicate in the “Service Level Report” the average number of monthly meter readings and distribution of bills compared to the number of meter readers and meter reader supervisors. Additionally, if distribution of bills is contracted out, the report has to include the amount paid for these services covering the entire reporting period.

The providers have to grant the clients connected to the network sufficient time, but not less than 14 calendar days, from the date of delivery of bills for payment. Bills and payments have to be verified by the providers before distribution in order to detect abnormal estimation of consumption and avoid wrong billing.

No customer can be charged for the consumption of another customer under a different contract. All payments shall be documented with a receipt.

If bills for water have to be adjusted, also the charges for sewer have to be adjusted where the tariff levels are linked to each other and the customer is subject to sewer charges.
The information concerning billing shall be presented in the “Service Level Report” as follows:

<table>
<thead>
<tr>
<th>Year..........</th>
<th>Billing for Services</th>
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</tbody>
</table>

The information has to complete by indicating the number of complaints related to billing and particularly the ones for not receiving a bill at all for a certain month.

Additionally, the progress on metered connection has to be documented by indicating the ratio of metered connections to total connections/customers for the reporting and the previous year.

Tariffs, as well as, the “Service Level Guarantee” must be posted as a notice at pay stations, public stand posts, and all other offices where client services are offered in such a way that it is clearly visible for anyone.

A hand out explaining the tariffs in force, as well as, the content of the bills have to be given to anyone asking for it free of charge.
The treatment a client receives when approaching the provider’s personnel and the response time the water and sewerage company offers to the client’s requests or complaints is an essential part of the quality of service.

Therefore, the monitoring of indicators of client contacts will be given particular attention by the regulator.

The following indicators are considered under client contacts:

- **Complaints**,
  - On billing (no bill received, wrong or no meter reading and other reasons for wrong billing, insufficient time for payment, ill or non-consideration of previous payment etc.)
  - Unjustified disconnection
  - Insufficient pressure
  - Water quality
  - Service hours
  - No or late response on inquiries and complaints
  - Sewer flooding
  - Interruption of water supply
  - No meter or wrong metering / meter testing
  - Unjustified delay on new connection
  - Insufficient information
  - Undue behaviour of providers’ personnel
  - Etc.

- **Response time on billing contacts** like change of address, request for alternative payment arrangements etc. (but no complaints)

- **Response time on written complaints** and the quality of the answers linked to the complaint

- **Ease of telephone contacts**, indicating the time calls are answered by the provider and linked to the responsible department

- **Ease of access to pay bills and file complaints** comprising the waiting time to pay bills, make enquiries and file complaints

- **Response time on demand on meter installation and meter testing**

- **Response time on establishing new connection**

At pay stations and offices offering customer services easily detectable signs shall clearly indicate at which counters the different services are accessible to the consumers.

The customer shall have the right to receive a meter within 10 working days on his request without any charge for the provision and installation. The provider is free to inform his client that he is responsible for the new meter and will be charged for any damage inflicted to it. Installed meters shall be tested by the provider at least every 8 years, but also upon request by the customer who can be charged for the service if the test
results show accuracy is within the set standards.

Once the water company has accepted the application for the establishment of a new connection and the customer has paid for it the provider shall complete the works within 3 weeks and ensure the supply of water or evacuation of the effluent.

In order to collect the necessary data all providers shall introduce and maintain a “Register of Complaints” at every pay station and in offices where written complaints are treated. Complaints have to be numbered chronologically and the register shall indicate the type of complaint, the date and hour, the name and contacts of the person filing the complaint, as well as, the way and date the complaint has been settled.

Written complaints as well as the exchange that follows has to be filed and kept on records for at least 5 years. All written complaints shall be answered within 5 working days and answers shall contain statements by the provider directly relating to the complaints.

The information concerning customer contacts shall be presented in the “Service Level Report” as follows

<table>
<thead>
<tr>
<th>Year……….</th>
<th>No. of customer complaints registered in the reporting period N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of complaints*</td>
<td>Town A**</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Listing the type of complaints please refer to the indicator for complaints
**Medium and smaller sized towns can be grouped

<table>
<thead>
<tr>
<th>Year……….</th>
<th>Meter testing and new connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Sewer</td>
</tr>
<tr>
<td>Total No. of metered clients</td>
<td>No. of meters tested</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Complaints from customers, which are not resolved by the provider within an acceptable and defined period, can be passed on to the NWASCO substructure. The regulator will inform the public to the effect.

NWASCO management will also use the information collected by the substructure particularly the response time on billing contacts and written complaints, as well as, the ease of telephone contacts and ease of access to customer in order to assess the service level offered by the concerned provider and its compliance with the Service Level Agreement and the Minimum Service Level Standards.
Interruption of services due to a burst of water pipes or a failure in the treatment plant, as well as, blockage in the sewer network etc. is not only a nuisance to the customer because of non availability of drinking water, or, of sewer flooding but constitutes in both cases an important health risk to the population.

Therefore, all continuous and unannounced interruptions in the supply of drinking water or sewer evacuation exceeding 20 hour have to be reported to the regulator with the “Service Level Report”.

Consequently, providers are required to maintain a “Register for Interruption of Services” covering the entire service areas and containing the following information:

- Interruption on water supply or sewer evacuation
- Classification of interruption by >20hours, >36hours, >48 hours
- No. of customers concerned
- Towns and area affected
- Reason (Pipe burst, treatment plant failure, etc.)
- Date

This register has to be accessible to the regulator at any time and shall be summarised for the “Service Level Report” as follows:

<table>
<thead>
<tr>
<th>Year ..........</th>
<th>Statistics on interruption of services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of Interruption</td>
</tr>
<tr>
<td>20-36 hours, water</td>
<td></td>
</tr>
<tr>
<td>20-36 hours, sewer</td>
<td></td>
</tr>
<tr>
<td>36-48 hours, water</td>
<td></td>
</tr>
<tr>
<td>36-48 hours, sewer</td>
<td></td>
</tr>
<tr>
<td>&gt;48 hours, water</td>
<td></td>
</tr>
<tr>
<td>&gt;48 hours, sewer</td>
<td></td>
</tr>
</tbody>
</table>

Interruption caused by third parties and planned maintenance work where customers have been given advance warning through the local media or through on-the-ground information 48 hours in advance need not to be included in the required “Service Level Report” but has to be inserted in the “Register for Interruption of Services”.

In cases were interruption of services exceed 48 hours providers shall be obliged to offer emergency supply services like water supply with water bowsers etc.
The quality of services delivered by the provider includes, that water can be drawn from a tap with a certain quantity within an acceptable time. Consequently, the number of customers not receiving regularly a certain pressure at the taps has to be monitored and gradually reduced.

The indicator for pressure includes all connections where within the reference period the water pressure has not reached the required minimum level of 7 meters head pressure at the ingoing pipe to the premise with a minimum flow of 7 litres per minute for more than 4 weeks. If the main supplying pipes leading to the properties of the consumers within a living quarter do not reach 12 meters head of pressure, it shall be concluded that the pressure at the connections served by the main is not sufficient.

Circumstances beyond the provider’s control leading to a lower pressure as required shall be mentioned in the report.

The report shall also include the number of customer complaints due to insufficient pressure at the connections and the towns/areas concerned. The information concerning the water pressure in the network shall be presented in the “Service Level Report” as follows:

<table>
<thead>
<tr>
<th>Year………………</th>
<th>Insufficient water pressure (for more than 4 weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Towns / service areas</td>
<td>No. of connections</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The provider has the responsibility to repair all leakages on the mains and connections leading up to the premise boundary of the customer and/or to the meter if situated outside or on the boundary of the customer’s premise.
If customers do not pay the justified amount for the services received, the provider can proceed to disconnect the premise from the water supply and sewer network until the amount due has been paid. The same applies if the installations on the premise of the consumer belonging to the provider like the water meter have been damaged.

Disconnecting a customer from water and sewer always has an important impact on the health situation on the population living on the premise.

Hence, in no cases has the provider the right do disconnect a customer if the bills are paid and the installations belonging to the provider (i.e. water meter) are intact. The provider has to ensure himself that the above-mentioned conditions are not fulfilled before proceeding with the disconnection.

If unjustified disconnection takes place, the customer shall receive a compensation payment as laid down in the “Service Level Guarantee” and services must be restored within 24 hours after the customer has signalled the error or the provider’s personnel has detected it.

The information concerning unjustified disconnection shall be presented in the “Service Level Report” as follows:

<table>
<thead>
<tr>
<th>Year……………</th>
<th>Unjustified disconnections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Towns</td>
<td>Avr. monthly disconnection/No. of total connections</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------</td>
</tr>
</tbody>
</table>

The compensation level shall be based on an agreement between the regulator and the provider and stated in the Service Level Guarantee.

Compensation for unjustified disconnection shall be credited on the customer’s bill within the following billing period.
The flooding of customer property due to blockage of the sewer network outside their premises constitutes a serious health hazard.

Therefore, providers have to report on:
- sewer flooding incidents including the area,
- period,
- duration of flooding

Repeated flooding of the same premise within a year has to be stated separately.

The information concerning sewer flooding shall be presented in the “Service Level Report” as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Sewer flooding incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>SI 9</td>
<td></td>
</tr>
<tr>
<td>SI 9</td>
<td></td>
</tr>
<tr>
<td>SI 9</td>
<td></td>
</tr>
<tr>
<td>SI 9</td>
<td></td>
</tr>
</tbody>
</table>

In order to generate and monitor the information required by the regulator the provider shall establish and maintain a “Register for Sewer Flooding Incidents” accessible at any time.
Discharging of non-or insufficiently treated effluent constitutes a serious risk to public health and damages the environment.

The provider can only gain sufficient information to avoid these risks if an adequate programme of tests is elaborated and carried out by his personnel yearly. Examination should be frequent and regular.

Although it is the responsibility of the Environmental Council of Zambia (ECZ) to set standards and monitor compliance the regulator for water supply and sanitation has to dispose of a minimum of information in order to exercise his responsibility of customer protection.

This is also seen as a contribution to foster close collaboration between the regulator and ECZ.

Any test results not meeting the requirements set by the ECZ with implications to public health has to be reported to the regulator within 48 hours.

In cases where the effluents are discharged without treatment due to the absence or malfunctioning of treatment facilities it is compulsory that the provider presents to the regulator an investment program to rectify the situation.

The testing program for the following year, as well as, statistics on testing results for the reporting year are part of the “Service Level Report”.

<table>
<thead>
<tr>
<th>Year………</th>
<th>Quality of Discharge of Effluent - Monitoring Program</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Planned for N</td>
</tr>
<tr>
<td></td>
<td>Effluent discharged in m3</td>
</tr>
<tr>
<td>Towns and population served</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year………</th>
<th>Quality of Discharged Effluent – Test Results (yearly)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Towns</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Although in Zambia in general the private clients are the biggest debtors of the providers, the state with its public institutions consumes a large share of the water produced and pays its water bills very irregularly and in some cases not at all.

As total cost recovery is one of the seven sector principles the provider has a great interest that public institution reduce wastage, provide a budget for water consumption and sewer services and pay their bills on time. Otherwise the private clients will have to support higher tariffs to cover the provider’s losses due to late or non-payment by the State.

Consumer protection includes that the providers ensure that all measures have been taken to collect the billed invoices (benchmark >95%) before losses can be considered during the tariff negotiations. Therefore, it is in the providers’ interest to collaborate with public institutions in order to achieve a satisfying collection rate and timely payment of water bills.

The indicators for the support to public institutions to curb wastage and settle bills on time is:

- Implementation of programmes to collaborate with public institutions with unjustified high consumption and important outstanding debts
- Outstanding water bills of public institutions compared to total outstanding bills
- Average delay of payment by public institutions compared to the average of the other clients

The providers shall establish a **yearly action plan** on collaboration with public institutions focusing on the biggest public debtors included in the “**Service Level Report**” which shall equally contain the following information:

<table>
<thead>
<tr>
<th>Year</th>
<th>Public Institutions</th>
<th>Public Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicators*</td>
<td>Total</td>
<td>Public Inst.</td>
</tr>
<tr>
<td>Consumption in m3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Billing in million ZMK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. non-metered connections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outstanding bills in MZMK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ø delay of payment in days</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Attach a list of the biggest debtors of public institutions with the outstanding amount.

The **report on the yearly action plan** should line out the progress and the existing difficulties, as well as, a strategy to reduce outstanding debts, curb wastage by public institutions, disconnections campaigns and improve timely payments.