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## **LOCAL AUTHORITY NOTICE**

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### **LOCAL AUTHORITY NOTICE 840**

### **EMFULENI LOCAL MUNICIPALITY NOTICE**

### **WATER AND SANITATION BYLAWS**

The Emfuleni Local Municipality hereby promulgate the Water and Sanitation bylaws as set out in the attached schedule in terms of section 1 of the Municipal Systems Act, 2000 (Act No.32 of 2000) and Water Services Act, 1997 (Act No.108 of 1997).

Additional copies of the bylaws may be obtained from the government Printers or from the office of the Municipal Manager against payment of a nominal fee, every weekday between the hours of 8:00 and 16:00.

The Municipal Manager's Office Address is as follows:

Municipal Manager  
Corner Frikkie Meyer and Klassie Havenga  
First Floor, Room 127A  
Vanderbijlpark  
1900  
Tel: (016) 950 - 5425

# **EMFULENI LOCAL MUNICIPALITY**

## **WATER SERVICES B Y – L A W S**

**As Approved and Adopted by the Municipal Council For promulgation**

**21 May 2004**

**SCHEDULE**

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**CHAPTER I: DEFINITIONS****Definitions**

1. (1) In these regulations, unless the context otherwise indicates :

<b>"accommodation unit"</b>	in relation to any premises, means a building or section of a building occupied or used or intended for occupation or use for any purpose;
<b>"account"</b>	means an account rendered for municipal services provided;
<b>"Act"</b>	means the Water Services Act No. 108 of 1997, as amended from time to time;
<b>"agreement"</b>	means the contractual relationship between the Municipality and a customer, whether written or deemed as provided for in the Municipality's bylaws relating to credit control and debt collection;
<b>"approved"</b>	means approved by the Municipality in writing;
<b>"area of supply"</b>	means any area within or partly within the area of jurisdiction of the Municipality to which water services are provided;
<b>"authorised agent"</b>	means – <ul style="list-style-type: none"> <li>(a) any person authorised by the Municipality to perform any act, function or duty in terms of, or exercise any power under these by-laws; and / or</li> <li>(b) any person to whom the Municipality has delegated the performance of certain rights, duties and obligations in respect of providing water supply services; and / or</li> <li>(c) any person appointed by the Municipality in terms of a written contract as a service provider to provide water services to customers on its behalf, to the extent authorised in such contract;</li> </ul>
<b>" average consumption"</b>	means the average consumption of a customer of a municipal service during a specific period, which consumption is calculated by dividing the total measured consumption of that municipal service by that customer over the preceding six months by six;
<b>"best practicable environmental option"</b>	means the option that provides the most benefit or causes the least damage to the environment as a whole, at a cost acceptable to society, in the long term as well as in the short term;
<b>"borehole"</b>	means a hole sunk into the earth for the purpose of locating, abstracting or using subterranean water and includes a spring;
<b>"Building Regulations"</b>	means the National Building Regulations made in terms of the National Building Regulations and Building Standards Act, (Act No. 103 of 1977) as amended;
<b>"charges"</b>	means the rate, charge, tariff, flat rate, or subsidy determined by the municipal council;
<b>"cleaning eye"</b>	means any access opening to the interior of a discharge pipe or trap provided for the purposes of internal cleaning;
<b>"combined installation"</b>	means a water installation used for fire-fighting and domestic, commercial or industrial purposes;





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<b>"emergency"</b>	means any situation that poses a risk or potential risk to life, health, the environment or property;
<b>"environmental cost"</b>	means the cost of all measures necessary to restore the environment to its condition prior to the damaging incident;
<b>"estimated consumption"</b>	means the deemed consumption by a customer whose consumption is not measured during a specific period, which estimated consumption is rationally determined taking into account at least the consumption of water supply services for a specific level of service during a specific period in the area of supply of the Municipality;
<b>"fire installation"</b>	means a potable water installation that conveys water for fire-fighting purposes only;
<b>"french drain"</b>	means a soil soak pit for the disposal of sewage and effluent from a septic tank;
<b>"high strength sewage"</b>	means industrial sewage with a strength or quality greater than standard domestic effluent in respect of which a specific charge as calculated in accordance with Schedule C may be charges;
<b>"household"</b>	means a traditional family unit, as determined by the Municipality from time to time taking into account the number of persons comprising a household, the relationship between the members of a household, the age of the persons who are members of the household and any other relevant factors; ;
<b>"illegal connection"</b>	means a connection to any system through which water services are provided that is not authorised or approved by the Municipality;
<b>"industrial effluent"</b>	means effluent emanating from the use of water for industrial purposes and includes for purposes of these bylaws any effluent other than standard domestic effluent or stormwater;
<b>"indigent"</b>	means
<b>"industrial purposes"</b>	in relation to the supply of water means water supplied to any premises which constitutes a factory as defined in the General Administrative Regulations, published in terms of the Occupational Health and Safety Act, Act 85 of 1993;
<b>"installation work"</b>	means any work done in respect of a water installation, including the construction, rehabilitation, improvement and maintenance thereof;
<b>"manhole"</b>	means any access chamber to the interior of the sewer provided for the purpose of maintenance and internal cleaning;
<b>"main"</b>	means a pipe, other than a connection pipe, of which the ownership vests in the Municipality and used by it for the purpose of conveying water to customer;
<b>"measuring device"</b>	means any method, procedure, process, device, apparatus or, installation that enables the quantity of water services provided to be quantified and includes any method, procedure or process whereby the quantity is estimated or assumed;
<b>"meter"</b>	means a water meter as defined by the Regulations published in terms of the Trade Metrology Act, Act No. 77 of 1973 or, in the case of water meters

	of size greater than 100 mm, a device which measures the quantity of water passing through it, including a pre-paid water meter;
<b>"Municipality"</b>	means – (a) the Emfuleni Local Municipality or its successors-in-title; or (b) the municipal manager of the Emfuleni Local Municipality in respect of the performance of any action or exercise of any right, duty, obligation or function in terms of these by-laws; (c) an authorised agent of the Emfuleni Local Municipality;
<b>"municipal council"</b>	means the municipal council as referred to in section 157(1) of the Constitution, 1996 (Act No. 108 of 1996);
<b>"municipal manager"</b>	means the person appointed by the municipal council as the municipal manager of the Municipality in terms of section 82 of the Local Government Municipal Structures Act, 1998 (Act No. 117 of 1998) and includes any person – (a) acting in such position; and (b) to whom the municipal manager has delegated a power, function or duty in respect of such a delegated power, function or duty;
<b>"municipal services"</b>	means for purposes of these by-laws, services provided by the Municipality, including refuse removal, water supply, sanitation, electricity services and rates or any one of the above;
<b>"occupier"</b>	includes any person occupying land or premises without regard to the title under which he or she occupies, and, in the case of premises sub-divided and let to lodgers or various tenants, shall include the person receiving the rent payable by the lodgers or tenants whether for his, her or its own account or as an agent for any person entitled thereto or interested therein;
<b>"on-site sanitation services"</b>	means any sanitation services other than water borne sewerage disposal through a sewerage disposal system;
<b>"owner"</b>	means: (a) the person in whose name the ownership of the premises is registered from time to time; (b) in a case where the person in whom the ownership of the premises is vested is insolvent or deceased, or is under any form of legal disability whatsoever, the person in whom the administration and control of such premises is vested as curator, trustee, executor, administrator, judicial manager, liquidator or other legal representative; (c) in any case where the Municipality is unable to determine the identity of such a person, a person who has a legal right in or to the benefit of the use of such premises or a building or buildings thereon; (d) in the case of premises for which a lease agreement of 30 years or longer has been entered into, the lessee thereof; (e) in relation to : (i) a piece of land delineated on a sectional plan registered in terms of the Sectional Titles Act, Act No. 95 of 1986, the developer or the body corporate in respect of the common property, or (ii) a section as defined in such Act, the person in whose name such section is registered under a sectional title deed and includes the lawfully appointed agent of such a person; (f) a person occupying land under a register held by a tribal authority or in accordance with a sworn affidavit made by a tribal authority;
<b>"person"</b>	means any person, whether natural or juristic and includes, but is not

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	limited to any local government body, a company or close corporation incorporated under any law, a body of persons whether incorporated or not, a statutory body, public utility body, voluntary association or trust;
<b>"plumber"</b>	means a person who has passed a qualifying Trade Test in Plumbing or has been issued with a certificate of proficiency in terms of the Manpower Training Act, Act no. 56 of 1981 or such other qualification as may be required under national legislation;
<b>"pollution"</b>	means the introduction of any substance into the water supply system, a water installation or a water resource that may make the water harmful to health or environment or impair its quality for the use for which it is normally intended;
<b>"premises"</b>	means any piece of land, the external surface boundaries of which are delineated on : <ul style="list-style-type: none"> <li>(a) a general plan or diagram registered in terms of the Land Survey Act, Act No. 9 of 1927, or in terms of the Deeds Registries Act, Act No. 47 of 1937; or</li> <li>(b) a sectional plan registered in terms of the Sectional Titles Act, Act No. 95 of 1986;</li> <li>(c) a register held by a tribal authority or in accordance with a sworn affidavit made by a tribal authority;</li> </ul>
<b>"professional Engineer"</b>	means a person registered in terms of the Engineering Profession Act, 2000 (Act No. 46 of 2000) as a professional engineer;
<b>"public notice"</b>	means publication in appropriate media that may include one or more of the following - <ul style="list-style-type: none"> <li>(a) publication of a notice, in the official languages determined by the municipal council, -           <ul style="list-style-type: none"> <li>(i) in any local newspaper or newspapers circulating in the area of supply of the Municipality; or</li> <li>(ii) in the newspaper or newspapers circulating in the area of supply of the Municipality determined by the municipal council as a newspaper of record; or</li> <li>(iii) by means of radio broadcasts covering the area of supply of the Municipality; or</li> </ul> </li> <li>(b) displaying a notice at appropriate offices and pay-points of the Municipality; or</li> <li>(c) communication with customers through public meetings and ward committee meetings;</li> </ul>
<b>"sanitation services"</b>	has the same meaning assigned to it in terms of the Act and includes for purposes of these by-laws the disposal of industrial effluent;
<b>"sanitation system"</b>	means the structures, pipes, valves, pumps, meters or other appurtenances used in the conveyance through the sewer reticulation system and treatment at the sewage treatment plant under the control of the Municipality and which may be used by it in connection with the disposal of sewage;
<b>"septic tank"</b>	means a water tight tank designed to receive sewage and to effect the adequate decomposition of organic matter in sewage by bacterial action;
<b>"service pipe"</b>	means a pipe which is part of a water installation provided and installed on any premises by the owner or occupier and which is connected or to be connected to a connection pipe to serve the water installation on the premises;
<b>"shared consumption"</b>	means the consumption of a customer of a municipal service during a

	specific period, which consumption is calculated by dividing the total metered consumption of that municipal service within the supply zone within which a customer's premises is situated for the same period by the number of customers within that supply zone, during the same period;
<b>"sewage"</b>	means waste water, industrial effluent, standard domestic effluent and other liquid waste, either separately or in combination, but shall not include stormwater;
<b>"sewer"</b>	means any pipe or conduit which is the property of or is vested in the Municipality and which may be used for the conveyance of sewage from the connecting sewer and shall not include a drain as defined;
<b>"standpipe"</b>	means a connection through which water supply services are supplied to more than one person;
<b>"standard domestic effluent"</b>	means domestic effluent with prescribed strength characteristics as determined by the Municipality in respect of chemical oxygen demand and settleable solids as being appropriate to sewage discharges from domestic premises within the jurisdiction of the Municipality, but shall not include industrial effluent;
<b>"stormwater"</b>	means water resulting from natural precipitation or accumulation and includes rainwater, subsoil water or spring water;
<b>"terminal water fitting"</b>	means a water fitting at an outlet of a water installation that controls the discharge of water from a water installation;
<b>"trade premises"</b>	means premises upon which industrial effluent is produced;
<b>"trap"</b>	means a pipe fitting or portion of a sanitary appliance designed to retain a water seal which serves as a barrier against the flow of foul air or gas, in position;
<b>"unauthorised services"</b>	means receipt, use or consumption of any water services which is not in terms of an agreement, or authorised or approved by the Municipality;
<b>"water fitting"</b>	means a component of a water installation, other than a pipe, through which water passes or in which it is stored;
<b>"water installation"</b>	means the pipes and water fittings which are situated on any premises and ownership thereof vests in the owner thereof and used or intended to be used in connection with the use of water on such premises, and includes a pipe and water fitting situated outside the boundary of the premises, which either connects to the connection pipe relating to such premises or is otherwise laid with the permission of the Municipality;
<b>"water services"</b>	means water supply services and sanitation services;
<b>"water services intermediaries"</b>	has the same meaning assigned to it in terms of the Act;
<b>"water supply services"</b>	has the same meaning assigned to it in terms of the Act and includes for purposes of these by-laws water for industrial purposes and fire extinguishing services;
<b>"water supply system"</b>	means the structures, aqueducts, pipes, valves, pumps, meters or other apparatus relating thereto of which the ownership vests in the Municipality and are used or intended to be used by it in connection with the supply of water, and includes any part of the system;

**"working day"** means a day other than a Saturday, Sunday or public holiday.

- (2) Any word or expression used in these by-laws to which a meaning has been assigned in:
- (a) the Act will bear that meaning; and
  - (b) The National Building Regulations and Building Standards Act, the Building Regulations will in respect of Chapter III bear that meaning; unless the context indicates otherwise.

## **CHAPTER II: APPLICATION, PAYMENT AND TERMINATION**

### **PART 1: APPLICATION**

#### **Application for water services**

2.(1) No person shall be provided with access to water services unless application has been made to, and approved by, the Municipality on the form prescribed in terms of the Municipality's by-laws relating to credit control and debt collection.

(2) Water services rendered to a customer by the Municipality are subject to the Municipality's by-laws relating to credit control and debt collection, these by-laws and the conditions contained in the relevant agreement.

#### **Special agreements for water services**

3. The Municipality may enter into a special agreement for the provision of water services with an applicant in accordance with the Municipality's by-laws relating to credit control and debt collection.

#### **Change in purpose for which water services are used**

4. Where the purpose for or extent to which water services used is changed from that provided for in the agreement, the onus and obligation is on the customer to advise the Municipality of such change and to enter into a new agreement with the Municipality in accordance with the Municipality's by-laws relating to credit control and debt collection.

### **PART 2: CHARGES**

#### **Prescribed charges for water services**

5.(1) All applicable charges payable in respect of water services, including but not restricted to the payment of connection charges, fixed charges or any additional charges or interest will be set by the municipal council in accordance with –

- (a) its Rates and Tariff policy;
- (b) any by-laws in respect thereof; and
- (c) any regulations in terms of national or provincial legislation.

(2) Applicable charges may differ between different categories of customers, users of services, types and levels of services, quantities of services, infrastructure requirements and geographic areas.

#### **Availability charges for water services**

6. The municipal council may, in addition to the charges determined for water services actually provided, levy a monthly fixed charge, annual fixed charge or once-off fixed charge where water services are available, whether or not such services are consumed or not.

### **PART 3: PAYMENT**

#### **Payment for water services**

7. The owner, occupier and customer shall be jointly and severally liable and responsible for payment of all water services charges and water services consumed by a customer, in accordance with the

Municipality's by-laws relating to credit control and debt collection.

**PART 4: TERMINATION, LIMITATION AND DISCONNECTION**

**Termination of Agreement for the provision of water services**

8. (1) A customer may terminate an agreement for the provision of water services in accordance with the Municipality's by-laws relating to credit control and debt collection.

**Limitation and or disconnection of water services provided**

9. (1) The Engineer may restrict or discontinue water supply services provided in terms of these by-laws -
- (a) on failure to pay the determined charges on the date specified, in accordance with and after the procedure set out in the Municipality's by-laws relating to credit control and debt collection was applied;
  - (b) at the written request of a customer;
  - (c) if the agreement for the provision of services has been terminated in accordance with the Municipality's by-laws relating to credit control and debt collection;
  - (d) the building on the premises to which services were provided has been demolished;
  - (e) if the customer has interfered with a restricted or discontinued service;
  - (f) in an emergency or emergency situation declared in terms of the Municipality's by-laws relating to credit control and debt collection;
  - (g) if the customer has interfered, tampered or damaged or caused or permitted interference, tampering or damage to the water supply system of the Municipality for the purposes of gaining access to water supply services after notice by the Municipality;
- (2) The Engineer may disconnect sanitation services provided in terms of these by-laws -
- (a) at the written request of a customer;
  - (b) if the agreement for the provision of sanitation services has been terminated in accordance with the Municipality's by-laws relating to credit control and debt collection; or
  - (c) the building on the premises to which services were provided has been demolished.
- (3) The Municipality shall not be liable for any damages or claims that may arise from the limitation or disconnection of water services provided in terms of sub-sections (1) and (2), including damages or claims that may arise due to the limitation or disconnection of water services by the Municipality in the *bona fide* belief that the provisions of sub-sections (1) and (2) applied.

**CHAPTER III: SERVICE LEVELS**

10.(1) The municipal council may, from time to time, and in accordance with national policy, but subject to principles of sustainability and affordability, by public notice, determine the service levels it is able to provide to customers.

(2) The municipal council may in determining service levels differentiate between types of customers, domestic customers, geographical areas and socio-economic areas.

(3) The following levels of service may, subject to sub-section (1), be provided by the municipality on the promulgation of these bylaws -

- (a) Communal water supply services and on-site sanitation services -
  - (i) constituting the minimum level of service provided by the municipality;
  - (ii) consisting of reticulated standpipes or stationery water tank serviced either through a network pipe or a water tanker located within a reasonable walking distance from any household with a Ventilated Improved Pit latrine located on each premises with premises meaning the lowest order of visibly demarcated area on which some sort of informal dwelling has been erected;
  - (iii) installed free of charge;
  - (iv) provided free of any charge to consumers; and
  - (iv) maintained by the municipality.

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- (b) Yard connection not connected to any water installation and an individual connection to the municipality's sanitation system -
  - (i) consisting of an un-metered standpipe on a premises not connected to any water installation and a pour-flush toilet pan, wash-trough and suitable toilet top structure connected to the municipality's sanitation system;
  - (ii) installed free of charge;
  - (iii) provided free of any charge to consumers; and
  - (iv) maintained by the municipality.
- (c) a metered pressured water connection with an individual connection to the municipality's sanitation system --
  - (i) installed against payment of the relevant connection charges;
  - (ii) provided against payment of prescribed charges; and
  - (iii) with the water and drainage installations maintained by the customer.

#### **CHAPTER IV: CONDITIONS FOR WATER SUPPLY SERVICES**

##### **PART 1: CONNECTION TO WATER SUPPLY SYSTEM**

###### **Provision of connection pipe**

11.(1) If an agreement for water supply services in respect of premises has been concluded and no connection pipe exists in respect of the premises, the owner shall make application on the prescribed form and pay the determined charge for the installation of such a pipe.

(2) If an application is made for water supply services which are of such an extent or so situated that it is necessary to extend, modify or upgrade the water supply system in order to supply water to the premises, the Municipality may agree to the extension provided that the owner shall pay for the cost of the extension, as determined by the Engineer.

(3) Only the Engineer may install a connection pipe. The owner or customer may connect the water installation to the connection pipe.

(4) No person may commence any development on any premises unless the Engineer has installed a connection pipe and meter.

###### **Location of connection pipe**

12.(1) A connection pipe provided and installed by the Engineer shall -

- (a) be located in a position determined by the Engineer and be of a suitable size as determined by the Engineer;
- (b) terminate at -
  - (i) the boundary of the land owned by or vested in the Municipality, or over which it has a servitude or other right; or
  - (ii) at the outlet of the water meter or isolating valve if it is situated on the premises.

(2) The Engineer may at the request of any person agree, subject to such conditions as it may impose, to a connection to a main other than that which is most readily available for the provision of water supply to the premises; provided that the applicant shall be responsible for any extension of the water installation to the connecting point designated by the Municipality and for obtaining at his or her cost, such servitudes over other premises as may be necessary.

(3) An owner must pay the determined connection charge in advance before a water connection can be effected.

###### **Provision of single water connection for supply to several customers on the same premises**

13.(1) Notwithstanding the provisions of section 12, only one connection pipe to the water supply system may be provided for the supply of water to any premises, irrespective of the number of accommodation



units, business units or customers located on such premises.

(2) Where the owner, or the person having the charge or management of any premises on which several accommodation units are situated, requires the supply of water to such premises for the purpose of supply to the different accommodation units, the Engineer may, in its discretion, provide and install either:

- (a) a single measuring device in respect of the premises as a whole or any number of such accommodation units; or
- (b) a separate measuring device for each accommodation unit or any number thereof.

(3) Where the Engineer has installed a single measuring device as contemplated in sub-section (2) (a), the owner or the person having the charge or management of the premises, as the case may be:

- (a) must install and maintain on each branch pipe extending from the connection pipe to the different accommodation units -
  - (i) a separate measuring device; and
  - (ii) an isolating valve; and
- (b) will be liable to the Municipality for the charges for all water supplied to the premises through such a single measuring device, irrespective of the different quantities consumed by the different customers served by such measuring device.

(4) Where a premises is supplied by a number of connection pipes, the Engineer may require the owner to reduce the number of connection points and alter his water installation accordingly.

**Disconnection of water installation from the connection pipe**

14. The Engineer may disconnect a water installation from the connection pipe and remove the connection pipe on termination of an agreement for the provision of water supply services in accordance with the Municipality's by-laws relating to credit control and debt collection.

**PART 2: STANDARDS**

**Quantity, quality and pressure**

15. Water supply services provided by the Municipality will comply with the minimum standards set for the provision of water supply services in terms of Section 9 of the Act.

**Testing of pressure in water supply systems**

16. The Engineer may, on application by an owner and on payment of the determined charge, determine and furnish the owner with the value of the pressure in the water supply system relating to his or her premises over such period as the owner may request.

**Pollution of water**

17. An owner shall provide and maintain approved measures to prevent the entry of a substance, which may be a danger to health or adversely affect the potability of water or affect its fitness for use, into:

- (a) the water supply system; and
- (b) any part of the water installation on his or her premises.

**Water restrictions**

18.(1)The Municipality may for purposes of water conservation or where, in its opinion, drought conditions prevail are imminent, by public notice:

- (a) prohibit or restrict the consumption of water in the whole or part of its area of jurisdiction -
  - (i) in general or for specified purposes;
  - (ii) during specified hours of the day or on specified days; and
  - (iii) in a specified manner; and
- (b) determine and impose -
  - (i) a restriction on the quantity of water that may be consumed over a specified period;
  - (ii) charges additional to those determined in respect of the supply of water in excess of a restriction contemplated in sub-section (1) (b) (i); and
  - (iii) a general surcharge on the determined charges in respect of the supply of water; and

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- (c) impose restrictions or prohibitions on the use or manner of use or disposition of an appliance by means of which water is used or consumed, or on the connection of such appliances to the water installation.
- (2) The Municipality may restrict the application of the provisions of a notice contemplated by sub-section (1) to specified areas and categories of customers, premises and activities, and may permit deviations and exemptions from, and the relaxation of, any of the provisions on reasonable grounds.
- (3) The Municipality:
- (a) may take, or by written notice require a customer at his or her own expense to take, such measures, including the installation of measurement devices and devices for restricting the flow of water, as may in its opinion be necessary to ensure compliance with a notice published in terms of sub-section (1); or
  - (b) may for such period as it may deem fit, restrict the supply of water to any premises in the event of a contravention on such premises or failure to comply with the terms of a notice published in terms of sub-section (1), subject to notice; and
  - (c) shall where the supply has been discontinued, only restore it when the determined charge for discontinuation and reconnecting the supply has been paid.

#### **Specific conditions of supply**

19. (1) Notwithstanding the undertaking in section 15, the granting of a supply of water by the Municipality shall not constitute an undertaking by it to maintain at any time or any point in its water supply system -
- (a) an uninterrupted supply, subject to the provisions of regulations 4 and 14 of Regulation 22355 promulgated in terms of the Act on 8 June 2003; or
  - (b) a specific pressure or rate of flow in such supply other than requires in terms of regulation 15(2) of Regulation 22355 promulgated in terms of the Act on 8 June 2003.
- (2) The Engineer may, subject to the provisions of sub-section (1) (b), specify the maximum pressure to which water will be supplied from the water supply system.
- (3) If an owner requires -
- (a) that any of the standards referred to in sub-section (1); or
  - (b) a higher standard of service than specified in section 15;
- be maintained on his or her premises, he or she shall take the necessary steps to ensure that his or her water installation is able to meet such standards.
- (4) The Engineer may, in an emergency, interrupt the supply of water to any premises without prior notice.
- (5) If in the opinion of the Engineer the consumption of water by a customer adversely affects the supply of water to another customer, he or she may apply such restrictions as he or she may deem fit to the supply of water to the first mentioned customer in order to ensure a reasonable supply of water to the other customer and will inform that customer of such restrictions.
- (6) The Municipality shall not be liable for any damage to property caused by water flowing from any water installation left open when the water supply is re-instated, following an interruption in supply.
- (7) Every steam boiler, hospital, industry and any premises which requires, for the purpose of the work undertaken on the premises, a continuous supply of water shall have a storage tank, which must comply with the specification for water storage tanks as stipulated in SABS 0252 Part 1, with a capacity of not less than 24 hours water supply calculated as the quantity required to provide the average daily consumption, where water can be stored when the continuous supply is disrupted.
- (8) No customer shall resell water supplied to him by the Municipality except with the written permission of the Municipality, which may stipulate the maximum price at which the water may be resold, and may impose such other conditions as the Municipality may deem fit.

#### **PART 3: MEASUREMENT**

**Measuring of quantity of water supplied**

- 20.(1) The Engineer will provide a measuring device designed to provide either a controlled volume of water or an uncontrolled volume of water to a customer.
- (2) The Municipality will measure the quantity of water supplied through a measuring device designed to provide an uncontrolled volume of water, at regular intervals.
- (3) Any measuring device and its associated apparatus through which water is supplied to a customer by the Municipality, shall be provided and installed by the Engineer, shall remain its property and may be changed and maintained by the Engineer when deemed necessary by him/her.
- (4) The Engineer may install a measuring device, and its associated apparatus, at any point on the service pipe.
- (5) If the Engineer installs a measuring device on a service pipe in terms of sub-section (4), it may install a section of pipe and associated fittings between the end of its connection pipe and the meter, and such section shall be deemed to form part of the water installation.
- (6) If the Engineer installs a measuring device together with its associated apparatus on a service pipe in terms of sub-section (4), the owner shall -
- provide a place satisfactory to the Engineer in which to install it;
  - ensure that unrestricted access is available to it at all times;
  - be responsible for its protection and be liable for the costs arising from damage thereto, excluding damage arising from normal fair wear and tear;
  - ensure that no connection is made to the pipe in which the measuring device is installed, between the measuring device and the connection pipe serving the installation;
  - make provision for the drainage of water which may be discharged, from the pipe in which the measuring device is installed, in the course of work done by the Engineer on the measuring device; and
  - not use or permit to be used on any water installation, any fitting, machine or appliance which causes damage or, in the opinion of the Engineer, is likely to cause damage to any meter.
- (7) No person other than the Engineer shall:
- disconnect a measuring device and its associated apparatus from the pipe in which they are installed;
  - break a seal which the Engineer has placed on a meter; or
  - in any other way interfere with a measuring device and its associated apparatus.
- (8) If the Engineer considers that, in the event of the measuring device being a meter that the size of a meter is unsuitable by reason of the quantity of water supplied to premises, he or she may install a meter of such a size as he or she deem necessary and may recover from the owner of the premises concerned the determined charge for the installation of the meter.
- (9) The Municipality may require the installation, at the owner's expense, of a measuring device to each dwelling unit, in separate occupancy, on any premises, for use in determining quantity of water supplied to each such unit; provided that where controlled volume water delivery systems are used, a single measuring device may be used to supply more than one unit.

**Quantity of water supplied to customer**

- 21.(1) For purposes of assessing the quantity of water measured by a measuring device installed by the Engineer and supplied to a customer over a specific period, it will, for the purposes of these by-laws, be deemed, unless the contrary can be proved, that -
- the quantity, for a measuring device designed to provide an uncontrolled volume of water, is represented by the difference between measurements taken at the beginning and end of such period;
  - the quantity, for a measuring device designed to provide a controlled volume of water, is represented by the volume dispensed by the measuring device;
  - the measuring device was accurate during such period; and
  - the entries in the records of the Municipality were correctly made;

provided that if water is supplied to, or taken by, a customer without it passing through a measuring device, the estimate by the Municipality of the quantity of such water shall be deemed to be correct.

(2) Where water supplied by the Municipality to any premises is in any way taken by the customer without such water passing through any measuring device provided by the Municipality, the Municipality may for the purpose of rendering an account estimate, in accordance with sub-section (3), the quantity of water supplied to the customer during the period that water is so taken by the customer.

(3) For the purposes of sub-section (2), an estimate of the quantity of water supplied to a customer shall be based on, as the Municipality may decide:-

- (a) the average monthly consumption of water on the premises registered over three succeeding measuring periods after the date on which the irregularity referred to in sub-section (2); was discovered and rectified, or
- (b) the average monthly consumption of water on the premises during any three consecutive measuring periods during the twelve months' period prior the date on which the taking in the manner mentioned in sub-section (2) was discovered.

(4) Nothing in these by-laws shall be construed as imposing on the Municipality an obligation to cause any measuring device installed by the Engineer on any premises to be measured at the end of every month or any other fixed period, and the Municipality may charge the customer an average consumption during the interval between successive measurements of the measuring device.

(5) Until such time a measuring device has been installed in respect of water supplied to a customer the estimated or shared consumption of that customer must be based on the average consumption of water supplied to the specific supply zone within which the customer's premises is situated, during a specific period.

(6) Where in the opinion of the Engineer it is not reasonably possible or cost effective to measure water supplied to each customer within a determined supply zone, the Municipality may determine a tariff or charge based on the estimated or shared consumption of water supplied to that supply zone.

(7) The Municipality will within seven days, on receipt of a written notice from the customer and subject to payment of the determined charge, measure the quantity of water supplied to the customer at a time or on a day other than that upon which it would normally be measured.

(8) If a contravention of sub-section 20 (7) occurs, the customer shall pay to the Municipality the cost of such quantity of water as in the Municipality's opinion was supplied to him or her.

#### **Special measurement**

22.(1) If the Engineer requires, for purposes other than charging for water consumed, to ascertain the quantity of water which is used in a part of a water installation, it may by written notice advise the owner concerned of its intention to install a measuring device at such point in the water installation as it may specify.

(2) The installation of a measuring device referred to in sub-section (1), its removal, and the restoration of the water installation after such removal shall be carried out at the expense of the Municipality.

(3) The provisions of sections 20 (5) and 20 (6) shall apply insofar as they may be applicable in respect of a measuring device installed in terms of sub-section (1).

#### **No reduction of amount payable for water wasted**

23. A customer shall not be entitled to a reduction of the amount payable for water wasted or water losses in a water installation.

### **PART 4: AUDIT**

#### **Water audit**

24.(1) The Municipality may require a customer, within one month after the end of a financial year of the

Municipality to undertake a water audit at his, her or its own cost.

- (2) The audit must at least contain details in respect of:
- (a) the amount of water used during the financial year;
  - (b) the amount paid for water for the financial year;
  - (c) the number of people living on the stand or premises;
  - (d) the number of people permanently working on the stand or premises;
  - (e) the seasonal variation in demand through monthly consumption figures;
  - (f) the water pollution monitoring methods;
  - (g) the current initiatives to manage demand for water;
  - (h) the plans to manage their demand for water;
  - (i) a comparison of the above factors with those reported in each of the previous three years (where available);
  - (j) estimates of consumption by various components of use; and
  - (k) a comparison of the above factors with those reported in each of the previous three years, where available.

#### **PART 5: INSTALLATION WORK**

##### **Approval of installation work**

25.(1) If an owner wishes to have installation work done, he or she must first obtain the Municipality's written approval; Provided that approval shall not be required in the case of water installations in dwelling units or installations where no fire installation is required in terms of SABS 0400, or in terms of any Municipal by-laws, or for the repair or replacement of an existing pipe or water fitting other than a fixed water heater and its associated protective devices.

- (2) Application for the approval referred to in sub-section (1) shall be made on the prescribed form and shall be accompanied by :
- (a) the determined charge, if applicable; and
  - (b) copies of the drawings as may be determined by the Municipality, giving information in the form required by Clause 4.1.1 of SABS Code 0252: Part I;
  - (c) a certificate certifying that the installation has been designed in accordance with SABS Code 0252 : Part I by a professional engineer.
- (3) Authority given in terms of sub-section (1) shall lapse at the expiry of a period of twenty-four months.
- (4) A complete set of approved drawings of installation work shall be available at the site of the work at all times until such work has been completed, where approval was required in terms of sub-section (1).
- (5) If installation work has been done in contravention of sub-section (1) or (2), the Municipality may require the owner;
- (a) to rectify the contravention within a specified period;
  - (b) if work is in progress, to cease the work; and
  - (c) to remove all such work which does not comply with these by-laws.

##### **Persons permitted to do installation and other work**

- 26.(1) No person who is not a plumber or working under the control of a plumber, shall be permitted to:
- (a) do installation work other than the replacement or repair of an existing pipe or water fitting;
  - (b) replace a fixed water heater or its associated protective devices;
  - (c) inspect, disinfect and test a water installation, fire installation or storage tank;
  - (d) service, repair or replace a back flow preventer; or
  - (e) install, maintain or replace a meter provided by an owner in a water installation.
- (2) No person shall require or engage a person who is not a plumber to do the work referred to in sub-section (1).
- (3) Notwithstanding the provisions of sub-section (1) the Municipality may permit a person who is not a plumber to do installation work on his or her own behalf on premises owned and occupied solely by himself or herself and his or her immediate household, provided that such work must be inspected and approved by

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a plumber at the direction of the Engineer.

**Provision and maintenance of water installations**

27.(1) An owner must provide and maintain his or her water installation at his or her own cost and except where permitted in terms of section 96, must ensure that the installation is situated within the boundary of his or her premises.

(2) An owner must install an isolating valve at a suitable point on service pipe immediately inside the boundary of the property in the case of a meter installed outside the boundary, and in the case of a meter installed on the premises at a suitable point on his or her service pipe.

(3) Before doing work in connection with the maintenance of a portion of his or her water installation, which is situated outside the boundary of his or her premises, an owner shall obtain the written consent of the Municipality or the owner of the land on which such portion is situated, as the case may be.

**Technical requirements for a water installation**

28. Notwithstanding the requirement that a certificate be issued in terms of section 25, all water installations shall comply with SABS 0252 Part 1 and all fixed electrical storage water heaters shall comply with SABS 0254.

**Use of pipes and water fittings to be authorised**

29.(1) No person shall, without the prior written authority of the Engineer, install or use a pipe or water fitting in a water installation within the Municipality's area of jurisdiction unless it is included in the Schedule of Approved Pipes and Fittings as compiled by the Municipality.

(2) Application for the inclusion of a pipe or water fitting in the Schedule referred to in sub-section (1) must be made on the form prescribed by the Municipality.

(3) A pipe or water fitting may be included in the Schedule referred to in sub-section (1) if:

- (a) it bears the standardisation mark of the South African Bureau of Standards in respect of the relevant SABS specification issued by the Bureau; or
- (b) it bears a certification mark issued by the SABS to certify that the pipe or water fitting complies with an SABS Mark specification or a provisional specification issued by the SABS, provided that no certification marks shall be issued for a period exceeding two years; or
- (c) if deemed acceptable by the Municipality.

(4) The Municipality may, in respect of any pipe or water fitting included in the Schedule, impose such additional conditions, as it may deem necessary in respect of the use or method of installation thereof.

(5) A pipe or water fitting shall be removed from the Schedule if it:

- (a) no longer complies with the criteria upon which its inclusion was based; or
- (b) is no longer suitable for the purpose for which its use was accepted.

(6) The current Schedule shall be available for inspection at the office of the Municipality at any time during working hours.

(7) The Municipality may sell copies of the current Schedule at the determined charge.

**Labelling of terminal water fittings and appliances**

30. All terminal water fittings and appliances using or discharging water shall be marked, or have included within the packaging of the item, the following information;

- (a) the range of pressure in kPa over which the water fitting or appliance is designed to operate.
- (b) The flow rate, in litres per minute, related to the design pressure range, provided that this information shall be given for at least the following pressures: 20 kPa, 100kPa and 400 kPa.

**Water demand management**

31.(1) In any water installation where the dynamic water pressure is more than 200 kPa at a shower control valve and where the plumbing has been designed to balance the water pressures on the hot and cold water supplies to the shower control valve, a shower head with a maximum flow rate of greater than 10 litres per minute shall not be installed.

(2) The maximum flow rate from any tap installed on a wash hand basin shall not exceed 6 litres per minute.

#### **PART 6: COMMUNAL WATER SUPPLY SERVICES**

##### **Provision of water supply to several consumers**

32.(1) The Engineer may install a communal standpipe for the provision of water supply services to several consumers at a location it deems appropriate, provided that the consumers to whom water supply services will be provided through that communal standpipe has been consulted.

(2) The Engineer may provide communal water supply services through a communal installation designed to provide a controlled volume of water to several consumers.

#### **PART 7: TEMPORARY WATER SUPPLY SERVICES**

##### **Water supplied from a hydrant**

33.(1) The Engineer may authorise a temporary supply of water to be taken from one or more fire hydrants specified by it, subject to such conditions and period as may be prescribed by him or her and payment of such applicable charges, including a deposit, as may be determined by the municipal council from time to time.

(2) A person who desires a temporary supply of water referred to in sub-section (1) must apply for such water supply services in terms of section (2) and must pay a deposit as may be prescribed by the municipal council from time to time.

(3) The Engineer shall provide a portable water meter and all other fittings and apparatus necessary for the temporary supply of water from a hydrant.

(4) The portable meter and all other fittings and apparatus provided for the temporary supply of water from a hydrant remains the property of the Municipality and must be returned to the Municipality on termination of the temporary supply. Failure to return the portable meter and all other fittings and apparatus shall result in penalties being imposed.

#### **PART 8: BOREHOLES**

##### **Notification of boreholes**

34.(1) No person may sink a borehole on premises situated in a dolomite area. Prior to sinking a borehole a person must determine if the premises on which the borehole is to be sunk is situated within a dolomite area.

- (2) The Municipality may, by public notice, require:
- (a) the owner of any premises within any area of the Municipality upon which a borehole exists or, if the owner is not in occupation of such premises, the occupier thereof, to notify it of the existence of a borehole on such premises, and provide it with such information in respect thereof as it may require; and
  - (b) the owner or occupier of any premises who intends to sink a borehole on such premises to notify it on the prescribed form of such intention before work in connection therewith is commenced.

(3) The Municipality may require the owner or occupier of any premises who intends to sink a borehole to undertake an environmental impact assessment for such intended borehole, to the satisfaction of the Municipality, before sinking the borehole.

(4) The Municipality may by notice to an owner or occupier or by public notice require owners and occupiers who have existing boreholes used for water supply services to -

- (a) obtain approval from it for the use of a borehole for potable water supply services in accordance with sections 6, 7 and 22 of the Act; and
- (b) impose conditions in respect of the use of a borehole for potable water services.

#### **PART 9: FIRE SERVICES CONNECTIONS**

##### **Connection to be approved by the Municipality**

35.(1) The Engineer shall be entitled in its absolute discretion to grant or refuse an application for the connection of a fire extinguishing installation to the Municipality's main.

(2) No water shall be supplied to any fire extinguishing installation until a certificate in terms of section 25 has been submitted to the Municipality and that the installation complies with the requirements of these and any other by-laws of the Municipality.

(3) If in the Engineer opinion a fire extinguishing installation which it has allowed to be connected to the Municipality's main is not being kept in proper working order or is otherwise not being properly maintained, or is being used for purpose other than fire fighting, the he or she shall be entitled either to require the installation to be disconnected from the main or itself to carry out the work of disconnecting it at the customer's expense.

##### **Special provisions**

36. The provisions of SABS 0252-1:1994 shall apply to the supply of water for fire fighting purposes.

##### **Dual and combined Installations**

37. All new buildings erected after the commencement of these by-laws, shall comply with the following requirements in relation to the provision of fire extinguishing services:

- (a) If boosting of the system is required, a dual pipe system shall be used, one for fire extinguishing purposes and the other for general domestic purposes.
- (b) Combined installations shall only be permitted where no booster pumping connection is provided on the water installation. In such cases a fire hydrant shall be provided by the Municipality, at the customer's expense within 90 m of the property to provide a source of water for the fire tender to extinguish the fire.
- (c) Combined installations where a booster pumping connection is provided shall only be permitted when designed and certified by a professional engineer.
- (d) All pipes and fittings must be capable of handling pressures in excess of 1 800 kPa, which could be expected when boosting takes place and shall maintain their integrity when exposed to fire conditions.

##### **Connection pipes for fire extinguishing services**

38.(1) After the commencement of these by-laws, a single connection pipe for both fire (excluding sprinkler systems) and potable water supply services shall be provided by the Engineer.

(2) The Engineer shall provide and install at the cost of the owner a combination meter on the connection pipe referred to in (1).

(3) A separate connection pipe shall be laid and used for every fire sprinkler extinguishing system unless otherwise approved.

(4) A connection pipe must be equipped with a measuring device that will not obstruct the flow of water while operating.

##### **Valves and meters in connection pipes**

39. Every connection pipe to a fire extinguishing installation shall be fitted with valves and a measuring



device which shall be:

- (a) supplied by the Engineer at the expense of the customer;
- (b) installed between the customer's property and the main; and
- (c) installed in such position as may be determined by the Engineer.

**Meters in fire extinguishing connection pipes**

40. The Engineer shall be entitled to install a water meter in any connection pipe used solely for fire extinguishing purposes and the owner of the premises shall be liable for all costs in so doing if it appears to the Municipality that water has been drawn from the pipe for purposes other than for the purpose of extinguishing a fire.

**Sprinkler extinguishing installation**

41. A sprinkler installation may be installed in direct communication with the main, but the Municipality may not be deemed to guarantee any specified pressure at any time.

**Header tank or double supply from main**

42.(1) The customer shall install a header tank at such elevation as will compensate for any failure or reduction of pressure in the Municipality's main for its sprinkler installation, unless this installation is provided with a duplicate supply from a separate main.

(2) The main pipe leading from such header tank to the sprinkler installation may be in direct communication with the main, provided that such main pipe shall be equipped with a reflux valve which, if for any reason the pressure in the main fails or is reduced, will shut off the supply from the main.

(3) Where a sprinkler installation is provided with a duplicate supply from a separate main, each supply pipe shall be equipped with a reflux valve situated within the premises.

**Sealing of private fire hydrants**

43.(1)(a) Except in the case of a combined system with a combination meter, all private hydrants and hose-reels shall be sealed by the Municipality and such seals shall not be broken by any person other than the Municipality in the course of servicing and testing, except for the purposes of opening the hydrant in the case of fire.

(b) The customer shall give the Municipality at least 48 hours notice prior to a fire extinguishing installation being serviced and tested.

(2) The cost of resealing such hydrants and hose-reels shall be borne by the customer except when such seals are broken by the Municipality's officers for testing purposes.

(3) Any water consumed through a fire installation or sprinkler system shall be paid for by the customer at the charges determined by the Municipality.

**CHAPTER V: CONDITIONS FOR SANITATION SERVICES**

**PART 1: CONNECTION TO SANITATION SYSTEM**

**Obligation to connect to sanitation system**

44.(1) All premises on which sewage is produced must be connect to the Municipality's sanitation system if a connecting sewer is available or it is reasonably possible or cost effective for the Municipality to install a connecting sewer, unless approval for the use of on-site sanitation services was obtained in accordance with section 98.

(2) The Municipality may, by notice, require the owner of premises not connected to the Municipality's sanitation system to connect to the sanitation system.

(3) The owner of premises required to connect to the Municipality's sanitation system in accordance with

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sub-section (2) must inform the Municipality in writing of the on-site sanitation services provided by the Municipality that will no longer be required as a result of the connection to the sanitation system. The owner will remain liable for any charges payable in respect of on-site sanitation services until the agreement for such services has been terminated in accordance with the Municipality's by-laws relating to credit control and debt collection.

(4) If the owner fails to connect to the sanitation system in accordance with the notice served in accordance with sub-section (2) the Municipality, notwithstanding any other actions it may take in terms of these by-laws, may impose penalties as determined by it.

#### **Provision of connecting sewer**

45.(1) If an agreement for sanitation services in respect of premises has been concluded in accordance with the Municipality's by-laws relating to credit control and debt collection and no connecting sewer exists in respect of the premises, the owner shall make application on the prescribed form and pay the determined charge for the installation of such a sewer.

(2) If an application is made for sanitation services which are of such an extent or so situated that it is necessary to extend, modify or upgrade the sanitation system in order to provide sanitation services to the premises, the Municipality may agree to the extension provided that the owner shall pay for the cost of the extension, as determined by the Engineer.

(3) Only the Engineer may install or approve an installed connecting sewer. The owner or customer may connect the sanitation installation to the connection pipe.

(4) No person may commence with any development on any premises unless the Engineer has installed a connecting sewer.

#### **Location of connecting sewer**

46.(1) A connecting sewer provided and installed by the Engineer shall -

- (a) be located in a position determined by the Engineer and be of a suitable size as determined by the Engineer;
- (b) terminate at -
  - (i) the boundary of the premises; or
  - (ii) at the connecting point if it is situated on the premises.

(2) The Engineer may at the request of the owner of premises approve, subject to such conditions as he or she may impose, a connection to a connecting sewer other than that which is most readily available for the provision of sanitation services to the premises; provided that the owner shall be responsible for any extension of the drainage installation to the connecting point designated by the Municipality and for obtaining at his or her cost, such servitudes over other premises as may be necessary.

(3) Where an owner is required to provide a sewage lift as provided for in terms of the Building Regulations or the premises is at a level that the drainage installation cannot discharge into the sewer by gravitation the rate and time of discharge into the sewer shall be subject to the approval of the Municipality.

(4) The owner of premises must pay the determined connection charge in advance before a connection to the connecting sewer can be effected.

#### **Provision of one connecting sewer for several consumers on same premises**

47.(1) Notwithstanding the provisions of section 46 only one connecting sewer to the sanitation system may be provided for the disposal of sewage from any premises, irrespective of the number of accommodation units of consumers located on such premises.

(2) Notwithstanding sub-section (1), the Municipality may authorise that more than one connecting sewer be provided on the sanitation system for the disposal of sewage from any premises comprising sectional title units or if, in the opinion of the Municipality, undue hardship or inconvenience would be caused to any consumer on such premises by the provision of only one connecting sewer.

(3) Where the provision of more than one connecting sewer is authorised by the Municipality under sub-section (2), the tariffs and charges for the provision of a connecting sewer is payable in respect of each sewage connection so provided.

**Interconnection between premises**

48. An owner of premises shall ensure that no interconnection exists between the drainage installation on his or her premises and the drainage installation on other premises, unless he or she has obtained the prior approval of the Municipality and complies with any conditions that it may have imposed.

**Disconnection of Connecting Sewer**

49. The Engineer may disconnect a drainage installation from the connection pipe and remove the connection pipe on termination of an agreement for the provision of water supply services in accordance with the Municipality's by-laws relating to credit control and debt collection.

**PART 2: STANDARDS**

**Standards for sanitation services**

50. Sanitation services provided by the Municipality will comply with the minimum standards set for the provision of sanitation services in terms of the section 9 of the Act.

**PART 3: METHODS FOR DETERMINING CHARGES**

**Measurement of Quantity of Domestic Effluent Discharged**

51.(1) As from 1 July 2003, the quantity of domestic effluent discharged shall be determined by a percentage of water supplied by the Municipality; provided that where the Municipality is of the opinion that such a percentage in respect of specific premises is excessive, having regard to the purposes for which water is consumed on those premises, the Municipality may reduce the percentage applicable to those premises to a figure which, in its opinion and in the light of the available information, reflects the proportion between the likely quantity of sewage discharged from the premises and the quantity of water supplied.

(2) Where a premises is supplied with water from a source other than or in addition to the Municipality's water supply system, including abstraction from a river or borehole, the quantity will be a percentage of the total water used on that premises as may be reasonably estimated by the Municipality.

**Measurement of Quantity and Determination of Quality of Industrial Effluent discharged**

52.(1) The quantity of industrial effluent discharged into the sanitation system must be determined –

- (a) where a measuring device is installed by the quantity of industrial effluent discharged from a premises as measured through that measuring device; or
- (b) until such time as a measuring device is installed by a percentage of the water supplied by the Municipality to that premises.

(2) The Municipality may require the owner of any premises to incorporate in any drainage installation conveying industrial effluent to a sewer, any control meter or gauge or other device of an approved type and in the control of the Municipality for the purpose of ascertaining to the satisfaction of the Municipality the tempo, volume and / or composition of the said effluent.

(3) The Municipality may install and maintain any such meter, gauge or device referred to in sub-section (2) at the expense of the owner of the premises on which it is installed.

(4) Where a premises is supplied with water from a source other than or in addition to the Municipality's water supply system, including abstraction from a river or borehole, the quantity will be a percentage of the total water used on that premises as may be reasonably estimated by the Municipality.

(5) Where a portion of the water supplied to the premises forms part of the end product of any manufacturing process or is lost by reaction or evaporation during the manufacturing process or for any other reason, the Municipality may on application reduce the assessed quantity of industrial effluent.

- (6) The Municipality may at its discretion enter into an agreement with any person discharging industrial effluent into the sanitation system, establishing an alternative method of assessing the quantity and tempo of effluent so discharged.
- (7) Charges relating to the quality of industrial effluent will be based on the formula for industrial effluent discharges as prescribed in Schedule cA.
- (8) The following conditions apply in respect of the assessment of the quality of industrial effluent discharged –
- (a) each customer must conduct the prescribed tests, on a regular schedule as provided for in the approval to discharge industrial effluent, and report the results to the Municipality;
  - (b) the Municipality may conduct random compliance tests to correlate those of the industry. If discrepancies are found, the values of the Municipality shall be taken as correct. Further tests may be requested by the Municipality to determine the values for the formula, at the cost of the customer;
  - (c) the average of the values of the different analysis results of 24 hourly composite or snap samples of the effluent, taken during the period of charge, will be used to determine the quality charges payable;
  - (d) in the absence of a complete daily set of 24 hourly composite or snap samples, the average of not less than two values of the sampled effluent, taken during the period of charge, will be used to determine the charges payable;
  - (e) in order to determine the strength (Chemical oxygen demand, suspended solids concentration, Ammonia concentration, ortho-phosphate concentration) in the effluent as well as the concentration of Group 1 and 2 metals, pH value and conductivity, the Municipality will use the tests normally used by municipalities or these respective purposes. Details of the appropriate test may be ascertained from the Municipality or the SABS. Test results from an accredited laboratory will have precedence over those of the Municipality.
  - (f) the formula is calculated on the basis of the different analysis results of individual snap or composite samples. The period treatment of calculation shall not be less than one full 24-hour period unless strong evidence is submitted to the Municipality that a lesser period is actually applicable;
  - (g) the terms of the disincentive formula cannot assume a negative value;
  - (h) the total system values for quality charges shall remain constant initially for a period of one month, but in any case not longer than twelve months from the date of commencement of these charges, after expiry whereof they may be amended or revised from time to time depending on such changes in the analysis results or further samples as may be determined from time to time: Provided that the Municipality in its discretion in any particular case may levy the minimum charges prescribed in subsection (7)(l), without taking any samples;
  - (i) whenever the Municipality takes a sample, one half thereof shall be made available to the customer;
  - (j) for the purpose of calculation of the quantity of effluent discharged from each point of discharge of effluent, the total quantity of water consumed on the premises shall be allocated among the several points of discharge as accurately as is reasonably practicable;
  - (k) the costs of conveying and treating of industrial effluent shall be determined by the Municipality and shall apply with effect from such date as may be determined by the Municipality; and
  - (l) in the discretion of the Municipality the charges for industrial effluent may be changed to a fixed monthly charge. The minimum charge is to be determined taking into consideration the effluent strengths, the volume and the economic viability of micro and small industries.

#### **Reduction in the Measured Quantity of Effluent Discharged**

53.(1) A person shall be entitled to a reduction in the quantity of effluent discharged as determined in terms of Sections 51 and 52, where the quantity of water on which the percentage is calculated was measured during a period where water was wasted or a leakage went undetected, if the consumer demonstrates to the satisfaction of the Municipality that the said water was not discharged into the sanitation system.

- (2) The reduction in the quantity shall be based on the quantity of water loss through leakage or wastage during the leak period.

(3) The leak period shall be either the measuring period immediately prior to the date of repair of the leak, or the measurement period during which the leak is repaired, whichever results in the greater reduction in the quantity.

(4) The quantity of water loss shall be calculated as the consumption for the leak period less an average consumption, based on the preceding 3 (three) months, for the same length of time. In the event of no previous consumption history being available, the average water consumption will be determined by the Municipality, after due consideration of all relevant information.

(5) There shall be no reduction in the quantity if the loss of water, directly or indirectly, resulted from the consumer's failure to comply with or is in contravention of these or other bylaws.

#### **Charges in respect of on-site sanitation services**

54. (1) Charges in respect of the removal or collection of conservancy tank contents, night soil or the emptying of pits will cover all the operating and maintenance costs in the removal of the pit contents, transportation to a disposal site, the treatment of the contents to achieve a sanitary condition and the final disposal of any solid residues and is payable by the owner.

#### **PART 4: DRAINAGE INSTALLATIONS**

##### **Installation of drainage installations**

55.(1) An owner must provide and maintain his or her drainage installation at his or her own cost and except where otherwise approved, must ensure that the installation is situated within the boundary of his or her premises.

(2) The Municipality may prescribe to what point in the sewer and at what depth below the ground any drainage installation is to be connected and the route to be followed by the drain to the connecting point and may require the owner not to commence with the construction or connection of the drainage installation until the Municipality's connecting sewer has been laid.

(3) Any drainage installation constructed or installed must comply with any applicable specifications in terms of the Building Regulations and any standards prescribed in terms of the Act.

(4) No person shall permit the entry of any liquid or solid substance whatsoever, other than clean water for testing purposes, to enter any drainage installation before the drainage installation has been connected to the sewer.

(5) Where premises is situated in the 1 in 50 years flood plain, the top level of all service access holes, inspection chambers and gullies is to be above the 1 in 50 years flood level.

(6) After the completion of any drainage installation or after any alteration to any drainage installation is completed, the plumber responsible for the execution of the work must submit to the building inspection section of the Municipality a certificate certifying that the work was completed to the standards as set out in the building regulations, these by-laws and any other relevant law or by-laws.

##### **Disconnection of drainage installations**

56.(1) Except for the purpose of carrying out maintenance or repair work no drain, no drainage installation disconnected from the connection point.

(2) Where any part of a drainage installation is disconnected from the remainder thereof because it will no longer be used, the disconnected part must be destroyed or entirely removed from the premises on which it was used, unless the Municipality approves otherwise.

(3) After all the requirements of the Building Regulations in regard to disconnection have been complied with and on request of the owner, the Engineer must issue a certificate to certify that the disconnection has been completed in terms of the Building Regulations and that any charges raised in respect of the disconnected portion of the drainage installation shall cease to be levied with effect from the first day of the month following the issue of such certificate.

(4) When a drainage installation is disconnected from a sewer, the Engineer shall seal the opening so caused and may recover the cost of such work from the owner of the premises on which the installation is disconnected.

(5) Where a drainage system is connected to or disconnected from the sewer system during a month, charges shall be calculated as if such connection was made on the first day of the month following the month in which such connection or disconnection was effected.

#### **Maintenance of drainage installations**

57.(1) An owner must provide and maintain his or her drainage installation at his or her own cost.

(2) Where any part of a drainage installation is used by two or more owners or occupiers, they shall be jointly and severally liable the maintenance of the installation.

(3) The owner of any premises must ensure that all manholes on the premises are permanently visible and accessible and is responsible for ensuring the visibility of all cleaning eyes and manholes on the premises at all times.

#### **Technical requirements for drainage installations**

58. All drainage installations shall comply with SABS 0252 and the Building Regulations.

#### **Drains**

59.(1) Drains passing through ground which in the opinion of the Engineer is liable to movement, shall be laid on a continuous bed of river sand or similar granular material not less than 100 mm thick under the barrel of the pipe with a surround of similar material and thickness, and the joints of such drains shall be approved flexible joints.

(2) A drain or part thereof may only be laid within, pass under or through a building with the approval of the Engineer.

(3) A drain or part thereof which it is laid in an inaccessible position under a building may not bend or be laid at a gradient.

(4) If a drain passes through or under a wall, foundation or other structure, adequate precautions shall be taken to prevent the discharge of any substance to such a drain.

#### **Sewer blockages**

60.(1) No person may cause or permit such an accumulation of grease, oil, fat, solid matter or any other substance in any trap, tank, or fitting as will cause its blockage or ineffective operation.

(2) When the owner or occupier of premises has reason to believe that a blockage has occurred in any drainage installation thereon, he shall take immediate steps to have it cleared.

(3) When the owner or occupier of premises has reason to believe that a blockage has occurred in the sewer system, he shall immediately inform the Municipality.

(4) Where a blockage occurs in a drainage installation, any work necessary for its removal must be done by or under the supervision of a plumber.

(5) Should any drainage installation on any premises overflow as a result of an obstruction in the sewer, and the Municipality is reasonable satisfied that such obstruction was caused by objects emanating from the drainage installation, the owner of the premises served by the drainage installation shall be liable for the cost of clearing the blockage.

(6) Where a blockage has been removed from a drain or portion of a drain which serves two or more premises the owners are jointly and severally liable for cost of clearing the blockage.

(7) Where a blockage in the sanitation system has been removed by the Engineer and such removal necessitated the disturbance of an owners paving, lawn or other artificial surface the Engineer shall not be responsible for reinstating such.

#### **Grease traps**

61. A grease trap of approved type, size and capacity shall be provided in respect of each premises that discharge sewage to on-site sanitation systems or where in the opinion of the Municipality the discharge of grease, oil and fat is likely to cause an obstruction to the flow in sewers or drains, or interference with the proper operation of any waste water treatment plant.

#### **Industrial grease traps**

62.(1) Industrial effluent which contains, or in the opinion of the Municipality is likely to contain grease, oil, fat or inorganic solid matter in suspence shall, before it is allowed to enter any sewer, be passed through one or more tanks or chambers of approved type, size and capacity designed to intercept and retain such grease, oil, fat or solid matter.

(2) Oil, grease or any other substance which is contained in any industrial effluent or other liquid and which gives off an inflammable or noxious vapour at a temperature of or exceeding 20 °C shall be intercepted and retained in a tank or chamber so as to prevent entry thereof into the sewer.

(3) A tank or chamber as referred to in sub-section (2) shall comply with the following requirements:

- (a) It shall be of adequate capacity, constructed of hard durable materials and water-tight when completed;
- (b) The water-seal of its discharge pipe shall be not less than 300 mm in depth; and
- (c) shall be provided with such number of manhole covers as may be adequate for the effective removal of grease, oil fat and solid matter.

(4) Any person discharging effluent to a tank or chamber shall regularly remove grease, oil, fat or solid matter from the tank or chamber and shall maintain a register in which shall be recorded:

- (a) the dates on which the tank or chamber was cleaned;
- (b) the name of the company employed to clean the tank or chamber; and
- (c) a certificate from the cleaning company, certifying the cleaning of the tank or chamber and stating the manner in which the contents of the tank or chamber were disposed of.

#### **Mechanical appliances for lifting sewage**

63.(1) The owner of any premise must obtain the approval of the Engineer before installing any mechanical appliance for the raising or transfer of sewage in terms of the Building Regulations.

(2) Approval must be applied for by a professional engineer and must be accompanied by drawings prepared in accordance with the relevant provisions of the Building Regulations and shall show details of the compartment containing the appliance, the sewage storage tank, the stilling chamber and the position thereof, and the position of the drains, ventilation pipes, rising main and the sewer connection.

(3) Notwithstanding any approval given in terms of subsection (1), the Municipality shall not be liable for any injury or damage to life or property caused by the use, malfunctioning or any other condition arising from the installation or operation of a mechanical appliance for the raising or transfer of sewage

(4) Every mechanical appliance installed for the raising or transfer of sewage shall be specifically designed for the purpose and shall be fitted with a discharge pipe, sluice valves and non-return valves located in approved positions.

(5) Unless otherwise permitted by the Engineer, such mechanical appliances shall be installed in duplicate and each such appliance shall be so controlled that either will immediately begin to function automatically in the event of failure of the other.

(6) Every mechanical appliance forming part of a drainage installation shall be so located and operated as to not cause any nuisance through noise or smell or otherwise, and every compartment containing any such appliance shall be effectively ventilated.

(7) The maximum discharge rate from any mechanical appliance and the times between which the discharge may take place shall be as prescribed by the Engineer who may, at any time, require the owner to install such fittings and regulating devices as may be necessary to ensure that the said prescribed maximum discharge rate shall not be exceeded.

(8) Except where sewage storage space is incorporated as an integral part of a mechanical appliance, a sewage storage tank shall be provided in conjunction with such appliance.

(9) Every sewage storage tank required in terms of paragraph (a) shall-

- (a) be constructed of hard, durable materials and shall be watertight and the internal surfaces of the walls and floor shall be rendered smooth and impermeable;
- (b) have a storage capacity below the level of the inlet equal to the quantity of sewage discharged there into in 24 hours or 900 litres, whichever is the greater quantity; and
- (c) be so designed that the maximum proportion of its sewage content shall be emptied at each discharge cycle of the mechanical appliance.

(10) Every storage tank and stilling chamber shall be provided with a ventilation pipe in accordance with the Engineer's specifications.

#### **PART 5: ON-SITE SANITATION SERVICES AND ASSOCIATED SERVICES**

##### **Installation of on-site sanitation services**

64.(1) If an agreement for on-site sanitation services in respect of premises has been concluded or if it is not reasonably possible or cost effective for the Municipality to install a connecting sewer, the owner must install an on-site sanitation services as specified by the Municipality.

##### **Ventilated improved pit latrines**

65.(1) The Municipality may, on such conditions as it may prescribe, having regard to the nature and permeability of the soil, the depth of the water table, the size of and access to the site and the availability of a piped water supply, approve the disposal of human excrement by means of a ventilated improved pit (VIP) latrine.

- (2) A ventilated improved pit latrine must have –
  - (a) a pit of 2 m<sup>3</sup> capacity;
  - (b) lining as required;
  - (c) a slab designed to support the superimposed loading; and
  - (d) protection preventing children from falling into the pit;
- (3) A ventilated improved pit latrine must conform to the following specifications –
  - (a) the pit must be ventilated by means of a pipe, sealed at the upper end with durable insect proof screening fixed firmly in place.
  - (b) the ventilation pipe must project not less than 0.5 m above the nearest roof, must be of at least 150 mm in diameter, and must be installed vertically with no bend;
  - (c) the interior of the closet must be finished smooth so that it can be kept in a clean and hygienic condition. The superstructure must be well-ventilated in order to allow the free flow of air into the pit to be vented through the pipe;
  - (d) the opening through the slab must be of adequate size as to prevent fouling. The rim must be raised so that liquids used for washing the floor do not flow into the pit. It shall be equipped with a lid to prevent the egress of flies and other insects when the toilet is not in use;
  - (e) must be sited in a position that is independent of the dwelling unit;
  - (f) must be sited in positions that are accessible to road vehicles having a width of 3.0 m in order to facilitate the emptying of the pit;
  - (g) in situations where there is the danger of polluting an aquifer due to the permeability of the soil, the pit must be lined with an impermeable material that is durable and will not crack under stress;
  - (h) in situations where the ground in which the pit is to be excavated is unstable, suitable support is to be given to prevent the collapse of the soil;



(4) A ventilated pit latrine should not usually be used by more than one household and have access to water for handwashing.

#### **Septic tanks and treatment plants**

66.(1) The Municipality may, on such conditions as it may prescribe approve the disposal of sewage or other effluent by means of septic tanks or other on-site sewage treatment plants.

(2) A septic tank or other on-site sewage treatment plant shall be situated nearer than 3 m to any dwelling unit or to any boundary of the premises on which it is situated.

(3) Effluent from a septic tank or other on-site sewage treatment plant shall be disposed of to the satisfaction of the Municipality.

(4) A septic tank must be watertight, securely covered and provided with gas-tight means of access to its interior adequate to permit the inspection of the inlet and outlet pipes and adequate for the purpose of removing sludge.

(5)(a) A septic tank serving a dwelling unit must –

- (i) have a capacity below the level of the invert of the outlet pipe of not less than 500 litres per bedroom, subject to a minimum capacity below such invert level of 2 500 litres;
- (ii) have an internal width of not less than 1 m measured at right angles to the direction of the flow;
- (iii) have an internal depth between the cover and the bottom of the tank of not less than 1,7 m; and
- (iv) retain liquid to a depth of not less than 1,4 m; and

(b) Septic tanks serving premises other than a dwelling unit shall be designed and certified by a professional civil Engineer, registered as a member of the Engineering Council of South Africa.

#### **French drains**

67.(1) The Municipality may, on such conditions as it may prescribe having regard to the quantity and the nature of the effluent and the nature of the soil as determined by the permeability test prescribed by the South African Bureau of Standards, approve the disposal of waste-water or other effluent by means of french drains, soakage pits or other approved works.

(2) A french drain, soakage pit or other similar work may not be situated closer than 5 m to any dwelling unit or to any boundary of any premises on which it is situated, nor in any such position as will, in the opinion of the Municipality, cause contamination of any borehole or other source of water which is or may be used for drinking purposes, or cause dampness in any building.

(3) The dimensions of any french drain, soakage pit or other similar work shall be determined in relation to the absorbent qualities of the soil and the nature and quantity of the effluent.

(4) French drains serving premises other than a dwelling house shall be designed and certified by a professional Civil Engineer, registered as a member of the Engineering Council of South Africa.

#### **Conservancy tanks**

68.(1) The Municipality may, on such conditions as it may prescribe; approve the construction of a conservancy tank and ancillary appliances for the retention sewage or effluent.

(2) No rain water, storm-water or effluent other than that approved by the Municipality may be discharged into a conservancy tank.

(3) No conservancy tank shall be used as such unless –

- (a) the invert of the tank slopes towards the outlet at a gradient of not less than 1 in 10;
- (b) the tank is gas and water tight;
- (c) the tank has an outlet pipe, 100 mm in internal diameter, made of wrought iron, cast iron or other approved material, and except if otherwise approved by the Municipality, terminating at an approved valve and fittings for connection to the council's removal vehicles;
- (d) the valve and fittings referred to in paragraph (h) or the outlet end of the pipe, as the case may

be, are located in a chamber, having an approved hinged cover and situated in such position as required by the Municipality;

- (e) access to the conservancy tank is provided by means of an approved manhole fitted with a removable cast iron cover placed immediately above the visible spigot of the inlet pipe.

(4) The council may, having regard to the position of a conservancy tank or of the point of connection for a removal vehicle, make it a condition of its emptying the tank that the owner or customer indemnify the Municipality, in writing, against any liability for any damages that may result from rendering of that service.

(5) Where the Municipality's removal vehicle has to traverse private premises for the emptying of a conservancy tank, the owner shall provide a roadway at least 3,5 m wide, so hardened as to be capable of withstanding a wheel load of 4 metric tons in all weather, and shall ensure that no gateway through which the vehicle is required to pass to reach the tank, shall be less than 3,5 m wide for such purposes.

(6) The owner or occupier of premises on which a conservancy tank is installed shall at all times maintain such tank in good order and condition to the satisfaction of the council.

#### **Operation and maintenance of on-site sanitation services**

69. The operation and maintenance of on-site sanitation services and all costs pertaining thereto remains the responsibility of the owner of the premises, unless the on-site sanitation services are subsidised services determined in accordance with the Municipality's by-laws relating to credit control and debt collection.

#### **Disused conservancy and septic tanks**

70. If an existing conservancy tank or septic tank is no longer required for the storage or treatment of sewage, or if permission for such use is withdrawn, the owner shall either cause it to be completely removed or to be completely filled with earth or other suitable material, provided that the Engineer may require such tank to be otherwise dealt with, or approve the use thereof for other purpose subject to such conditions as may be specified.

### **PART 6: INDUSTRIAL EFFLUENT**

#### **Approval to Discharge Industrial Effluent**

71. (1) No person shall discharge or cause or permit industrial effluent to be discharged into the sanitation system except with the approval of the Municipality. A person must apply for approval to discharge industrial effluent into the sanitation system to the Municipality on the prescribed form attached as Schedule B to these by-laws.

(2) The Municipality may, if in its opinion the capacity of the sanitation system is sufficient to permit the conveyance and effective treatment and lawful disposal of the industrial effluent, for such period and subject to such conditions it may impose, approve the discharge industrial effluent to the sanitation system.

(3) Any person who wishes to construct or cause to be constructed, a building which shall be used as a trade premises, must at the time of lodging a building plan in terms of section 4 of the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), also lodge applications for the provision of sanitation services and for approval to discharge industrial effluent.

#### **Withdrawal of approval to discharge industrial effluent**

72. (1) The Municipality may withdraw any approval, after giving at least 14 (fourteen) days written notice if its intention to a commercial customer authorised to discharge industrial effluent into the sanitation system if the customer –

- (a) fails to ensure that the industrial effluent discharged conforms to the industrial effluent standards prescribed in Schedule A of these bylaws or the written permission;
- (b) fails or refuses to comply with any notice lawfully served on him or her in terms of these bylaws or contravenes any provisions of these bylaws or any condition imposed in terms of any permission granted to him or her; or
- (c) fails to pay the assessed charges in respect of any industrial effluent discharged.

- (2) The Municipality may on withdrawal of any approval -
- (a) in addition to any steps prescribed in these bylaws, and on 14 (fourteen) days' written notice authorise the closing or sealing of the connecting sewer of the said premises; and
  - (b) refuse to accept any industrial effluent until it is satisfied that adequate steps to ensure that the industrial effluent to be discharged conforms to the standards prescribed in these bylaws.

**Quality standards for disposal of industrial effluent**

73. (1) A commercial customer to whom approval has been granted must ensure that no industrial effluent is discharged into the sanitation system of the Municipality unless it complies with the standards and criteria set out in Schedule A.

(2) The Municipality may in the approval relax or vary the standards in Schedule A, provided that the Municipality is satisfied that any such relaxation represents the best practicable environmental option.

(3) In determining whether relaxing or varying the standards in Schedule A represents the best practicable environmental option a Municipality must consider -

- (a) whether the commercial customer's undertaking is operated and maintained at optimal levels;
- (b) whether technology used by the commercial customer represents the best available option to the commercial customer's industry and, if not, whether the installation of such technology would entail unreasonable cost to the commercial customer;
- (c) whether the commercial customer is implementing a program of waste minimisation which complies with national waste minimisation standards set in accordance with national legislation, to the satisfaction of the Municipality;
- (d) the cost to the Municipality of granting the relaxation or variation; and
- (e) the environmental impact or potential impact of such a relaxation or variation.

(4) Test samples may be taken at any time by a duly qualified sampler to ascertain whether the industrial effluent complies with Schedule A or any other standard laid down in an approval.

**Conditions for the discharge of industrial effluent**

74. (1) The Municipality may on approval or at any time, by notice, require a commercial customer to -

- (a) subject the industrial effluent to such preliminary treatment as in the opinion of the Municipality will ensure that the industrial effluent conforms to the standards prescribed in Schedule A before being discharged into the sanitation system;
- (b) install such equalising tanks, valves, pumps, appliances, meters and other equipment as in the opinion of the Municipality will be necessary to control the rate and time of discharge into the sanitation system in accordance with the conditions imposed by it;
- (c) install for the conveyance of his or her industrial effluent into the sanitation system at a given point, a drainage installation separate from the drainage installation for other sewage and may prohibit a commercial customer from disposing of his or her industrial effluent at any other point;
- (d) construct on any pipe conveying his or her industrial effluent to any sewer, a service access hole or stop-valve in such position and of such dimensions and materials as the Municipality may prescribe;
- (e) provide all such information as may be required by the Municipality to enable it to assess the tariffs or charges due to the Municipality;
- (f) provide adequate facilities such as level or overflow detection devices, standby equipment, overflow catch-pits, or other appropriate means to prevent a discharge into the sanitation system which is in contravention of these bylaws;
- (g) cause any meter, gauge or other device installed in terms of this section to be calibrated by an independent authority at the cost of that person at such intervals as required by the Municipality and copies of the calibration to be forwarded to it; and
- (h) cause his or her industrial effluent to be analyzed as often and in such manner as may be prescribed by the Municipality and provide it with the results of these tests when completed.

(2) The cost of any treatment, plant, works or analysis, which a person may be required to carry out, construct or install in terms of sub-section (1), shall be borne by the commercial customer concerned.

(3) In the event that industrial effluent that does not comply with the standards in Schedule A or the

approval of the Municipality issued in respect of that process or premises, is discharged into the sanitation system, the Municipality must be informed of the incident and the reasons therefore within twelve hours of such discharge.

#### **PART 7: SEWAGE DELIVERED BY ROAD HAULAGE**

##### **Acceptance of sewage delivered by road haulage**

75. (1) The Engineer may, in his or her discretion, and subject to such conditions as he or she may specify, accept sewage for disposal delivered to the Municipality's sewage treatment plants by road haulage.

##### **Approval for delivery of sewage by road haulage**

76. (1) No person shall discharge sewage into the Municipality's sewage treatment plants by road haulage except with the approval of the Engineer and subject to such period and any conditions that may be imposed.

(2) The charges for any sewage delivered for disposal to the Municipality's sewage treatment plants shall be assessed by the Municipality in accordance with the prescribed tariffs of charges.

##### **Withdrawal of permission for delivery of sewage by road haulage**

77. (1) The Engineer may withdraw any permission, after giving at least 14 (fourteen) days written notice if its intention to a person permitted to discharge sewage by road haul if the person –

- (a) fails to ensure that the sewage so delivered conforms to the standards prescribed in Schedule A, as applicable, or in the approval; or
- (b) fails or refuses to comply with any notice served on him or her in terms of these bylaws or contravenes any provisions of these bylaws or any condition imposed on him or her in terms of any approval; and
- (c) fails to pay the relevant charges in respect of any sewage delivered.

##### **Conditions for delivery of sewage by road haulage**

78. When sewage is delivered by road haulage-

- (a) the time and place of delivery shall be arranged with the Engineer; and
- (b) the nature and composition of the sewage shall be established to the satisfaction of the Engineer prior to the discharge thereof and no person shall deliver sewage that does not comply with the standards laid down in terms of these bylaws.

#### **PART 8: OTHER SANITATION SERVICES**

##### **Stables and Similar Premises**

79.(1) The Municipality may approve the connection of stables, cowsheds, dairies, kennels, other premises for the accommodation of animals and tanneries to a drainage installation subject to subject to the payment of relevant charges and such conditions as the Municipality may impose, provided that –

- (a) the floor of the premises must be paved with approved impervious materials and graded to a silt trap, grease trap or gully of adequate capacity; and
- (b) every part of the floor of premises must be covered by a roof and otherwise effectively protected to prevent the entry of rain or storm water into the drainage installation.

##### **Mechanical Food-Waste or other Disposal Units**

80.(1) The Municipality may approve the connection or incorporation of a mechanical waste food, other disposal unit or garbage grinder into a drainage installation which has a capacity in excess of 500W, subject to the payment of relevant charges and such conditions as the Municipality may impose, provided that –

- (a) a water meter is installed by the Municipality;
- (b) the Engineer is satisfied that the Municipality sewerage and sewage treatment system shall not negatively affected; and
- (c) the installation or incorporation is installed in conformity with the Municipality's bylaws relating to electricity.

**PART 9: INSTALLATION WORK**

**Approval of installation work**

- 81.(1) If an owner wishes to have installation work done, he or she must first obtain the Municipality's written approval.
- (2) Application for the approval referred to in sub-section (1) shall be made on the prescribed form and shall be accompanied by:
- (a) the determined charge, if applicable; and
  - (b) copies of the drawings as may be determined by the Municipality;
  - (c) a certificate certifying that the installation has been designed in accordance with any applicable SABS Codes by a professional engineer.
- (3) Authority given in terms of sub-section (1) shall lapse at the expiry of a period of twenty-four months.
- (4) A complete set of approved drawings of installation work shall be available at the site of the work at all times until such work has been completed, where approval was required in terms of sub-section (1).
- (5) If installation work has been done in contravention of sub-section (1) or (2), the Municipality may require the owner;
- (a) to rectify the contravention within a specified period;
  - (b) if work is in progress, to cease the work; and
  - (c) to remove all such work which does not comply with these by-laws.

**Persons permitted to do installation and other work**

- 82.(1) No person who is not a plumber or working under the control of a plumber, shall be permitted to:
- (a) do installation work other than the replacement or repair of an existing pipe or sanitation fitting;
  - (b) inspect, disinfect and test a drainage installation, fire installation or storage tank;
  - (c) service, repair or replace a back flow preventer; or
  - (d) install, maintain or replace a meter provided by an owner in a drainage installation.
- (2) No person shall require or engage a person who is not a plumber to do the work referred to in sub-section (1).
- (3) Notwithstanding the provisions of sub-sections (1) and (2) the Municipality may permit a person who is not a plumber to do installation work on his or her own behalf on premises owned and occupied solely by himself or herself and his or her immediate household, provided that such work must be inspected and approved by a plumber at the direction of the Engineer.

**Use of pipes and water fittings to be authorised**

- 83.(1) No person shall, without the prior written authority of the Engineer, install or use a pipe or water fitting in a water installation within the Municipality's area of jurisdiction unless it is included in the Schedule of Approved Pipes and Fittings as compiled by the Municipality.
- (2) Application for the inclusion of a pipe or water fitting in the Schedule referred to in sub-section (1) must be made on the form prescribed by the Municipality.
- (3) A pipe or water fitting may be included in the Schedule referred to in sub-section (1) if:
- (a) it bears the standardisation mark of the South African Bureau of Standards in respect of the relevant SABS specification issued by the Bureau; or
  - (b) it bears a certification mark issued by the SABS to certify that the pipe or water fitting complies with an SABS Mark specification or a provisional specification issued by the SABS, provided that no certification marks shall be issued for a period exceeding two years; or
  - (c) it is included in the list of water and sanitation installations accepted by JASWIC.
- (4) The Municipality may, in respect of any pipe or water fitting included in the Schedule, impose such

additional conditions, as it may consider necessary in respect of the use or method of installation thereof.

- (5) A pipe or sanitation fitting shall be removed from the Schedule if it:
- (a) no longer complies with the criteria upon which its inclusion was based; or
  - (b) is no longer suitable for the purpose for which its use was accepted.
- (6) The current Schedule shall be available for inspection at the office of the Municipality at any time during working hours.
- (7) The Municipality may sell copies of the current Schedule at the determined charge.

#### **Testing of Drainage Installations**

84.(1) No drainage installation, or any part thereof, shall be connected to on-site sanitation services, the Municipality's sanitation system to an existing approved installation unless any one or more of the following tests have been applied in the presence and to the satisfaction of the Engineer, prior to the draining installation being enclosed -

- (a) The interior of every pipe or series of pipes between two points of access shall be inspected throughout its length by means of a mirror and a source of light. During the inspection a full circle of light shall appear to the observer, and the pipe or series of pipes shall be seen to be unobstructed;
  - (b) A smooth ball having a diameter 12 mm less than the nominal diameter of the pipe shall, when inserted at the higher end of the pipe, roll down without assistance or interruption to the lower end;
  - (c) All openings of the pipe or series of pipes to be tested having been plugged or sealed and all traps associated therewith filled with water, air shall be pumped into the said pipe or pipes until a manometric pressure of 38 mm of water is indicated, after which without further pumping the said pressure shall remain greater than 25 mm of water for a period of at least three minutes; and
  - (d) All parts of the installation is subjected to and withstand an internally applied hydraulic test pressure of not less than 3 m head of water for a period of not less than 10 minutes.
- (2) Where the Municipality has reason to believe that any drainage installation or any part thereof has become defective it may require the owner thereof to conduct any or all of the tests prescribed in subsection (1) and if the installation fails to withstand any such tests to the satisfaction of the Municipality, the Municipality may by notice require the owner to take reasonable measures necessary to enable the installation to withstand any or all of the tests.

#### **Water demand management**

85.(1) Notwithstanding the provisions of sections 92 and 113, no flushing urinal that is not user-activated shall be installed or continue to operate in any water installation. All flushing urinals that are not user-activated installed prior to the commencement of these regulations must be converted to user-activated urinals within two years of the commencement of these by-laws.

- (2) No cistern, and related pan designed to operate with such cistern, shall be installed with a cistern capacity of greater than 9 litres and all cisterns not intended for public use shall be fitted with flushing devices allowing interruptible or multiple flushes, provided that such flushing device shall not be required in cisterns with a capacity of 4,5 litres or less.

### **CHAPTER VI: WATER SERVICES INTERMEDIARIES**

#### **Registration**

86. The Municipality may by public notice require water services intermediaries or classes of water services intermediaries to register with the Municipality in a manner specified in the public notice.

**Provision of water services**

87.(1) A water services intermediaries must ensure that water services, including basic services as determined by the municipal council, are provided to such persons it is obliged to provide with water services.

(2) The quality, quantity and sustainability of water services provided by a water services intermediary must meet any minimum standards prescribed in terms of the Act and must at least be of the same standards as provided by the Municipality to customers.

**Charges for water services provided**

88.(1) A water services intermediary may not charge for water services at a price which does not comply with any norms and standards prescribed under the Act and any additional norms and standards as may be set by the Municipality.

(2) A water services intermediary must provide subsidised water services, as determined by the municipal council in terms of the Municipality's by-laws relating to credit control and debt collection from time to time, and provided by the Municipality to customers at a price that is the same or less than the charges at which the Municipality provides such services.

**CHAPTER VII: UNAUTHORISED WATER SERVICES**

**Unauthorised services**

89. (1) No person may gain access to water services unless it is in terms of an agreement entered into with the Municipality for the rendering of those services.

(2) The Municipality may, irrespective of any other action it may take against such person in terms of these by-laws by written notice order a person who is using unauthorised services to -

- (a) apply for such services in terms of sections 2 and 3; and
- (b) undertake such work as may be necessary to ensure that the customer installation through which access was gained complies with the provisions of these or any other relevant by-laws.

**Interference with infrastructure for the provision of water services**

90. (1) No person other than the Municipality shall manage, operate or maintain infrastructure through which water services are provided.

(2) No person other than the Municipality shall effect a connection to infrastructure through which water services are provided.

(3) The Municipality may recover any costs associated with repairing damage caused as a result of a contravention of sub-sections (1) and (2). The costs recoverable by the Municipality is the full cost associated with repairing the damage and includes, but is not restricted to, any exploratory investigation, surveys, plans, specifications, schedules of quantities, supervision, administration charge, the use of tools, the expenditure of labour involved in disturbing or rehabilitation of any part of a street or ground affected by the repairs and the environmental cost.

**Obstruction of access to infrastructure for the provision of water services**

91. (1) No person shall prevent or restrict the physical access of the Municipality to infrastructure through which water services are provided.

- (2) If a person contravenes sub-section (1), the Municipality may -
- (a) by written notice require such person to restore access at his or her own expense within a specified period; or
  - (b) if it is of the opinion that the situation is a matter of urgency, without prior notice restore access and recover the cost from such person.

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(3) The costs recoverable by the Municipality is the full cost associated with restoring access and includes, but is not restricted to, any exploratory investigation, surveys, plans, specifications, schedules of quantities, supervision, administration charge, the use of tools, the expenditure of labour involved in disturbing or rehabilitation of any part of a street or ground affected by restoring access and the environmental cost.

#### **Waste of water**

92.(1) No customer shall permit :

- (a) the purposeless or wasteful discharge of water from terminal water fittings;
- (b) pipes or water fittings to leak;
- (c) the use of maladjusted or defective water fittings; or
- (d) an overflow of water to persist.

(2) An owner shall repair or replace any part of his or her water and sanitation installation which is in such a state of disrepair that it is either causing or is likely to cause an occurrence listed in sub-section (1).

(3) If an owner fails to take measures as contemplated in sub-section (2), the Municipality shall, by written notice, require the owner to comply with the provisions of sub-section (1).

(4) The Municipality may, by written notice, prohibit the use by a customer of any equipment in a water or sanitation installation if, in its opinion, its use of water is inefficient. Such equipment shall not be returned to use until its efficiency has been restored and a written application to do so has been approved by the Municipality.

#### **Unauthorised and illegal discharges**

93.(1) No person may discharge or cause or permit any sewage to be discharged directly or indirectly into a storm water drain, river, stream or other watercourse, whether natural or artificial.

(2) The owner or occupier of any premises on which steam or any liquid, other than potable water, is stored, processed or generated shall provide all facilities necessary to prevent any discharge or leakage of such liquid to any street, storm water drain or watercourse, whether natural or artificial, except where, in the case of steam, the Municipality has approved such discharge.

(3) Where the hosing down or flushing by rainwater of an open area on any premises is in the opinion of the Municipality is likely to cause the discharge of objectionable matter into any street, storm water drain, river, stream or other watercourse, whether natural or artificial, or to cause or contribute towards the pollution of any such watercourse, the Municipality may, by notice, require the owner of the premises to take reasonable measures to prevent or minimise such discharge or pollution.

(4) No person may discharge or cause or permit the discharge of –

- (a) any substance, including storm water, other than sewage to be discharged into a drainage installation;
- (b) of water from any swimming pool directly or indirectly over any road or into a gutter, storm water drain, watercourse, open ground or private premises other than the premises of the owner of such swimming pool;
- (c) water from artificial fountains, reservoirs or swimming pools situated on premises into a drainage installation, without the approval of the Municipality and subject to the payment of relevant charges and such conditions as the Municipality may impose;
- (d) any sewage, industrial effluent or other liquid or substance which –
  - (i) in the opinion of the Engineer may be offensive to or may cause a nuisance to the public;
  - (ii) is in the form of steam or vapour or has a temperature exceeding 44° C at the point where it enters the sewer;
  - (iii) has a pH value less than 6.0;
  - (iv) contains any substance of whatsoever nature likely to produce or release explosive, flammable, poisonous or offensive gases or vapours in any sewer;
  - (v) contains any substance having an open flashpoint of less than 93°C or which releases



- (vi) a poisonous vapour at a temperature below 93° C;
- (vi) contains any material of whatsoever nature, including oil, grease, fat or detergents capable of causing obstruction to the flow in sewers or drains or interference with the proper operation of a sewerage treatment works;
- (vii) shows any visible signs of tar or associated products or distillates, bitumens or asphalts;
- (viii) contains any substance in such concentration to produce an undesirable taste after chlorination or an undesirable odour or colour, or excessive foam;
- (ix) has either a greater PV or COD (Chemical Oxygen Demand) value, a lower pH value, or a higher caustic alkalinity or electrical conductivity than specified in Schedule A, without the prior approval and subject to the payment of relevant charges and such conditions as the Municipality may impose;
- (x) contains any substance which in the opinion of the Engineer –
  - (aa) cannot be treated at the sewage treatment work to which it could be discharged; or
  - (bb) will negatively affect the treatment processes at the sewage treatment work to which it could be discharged or
  - (cc) will negatively impact on the ability of the sewage treatment work to produce discharges that meet the waste water discharge standards set in terms of the National Water Act, 1998 (Act 36 of 1998), or
- (xi) either alone or in combination with other substance may –
  - (aa) generate or constitute a toxic substance dangerous to the health of persons employed at the sewage treatment works or entering the council's sewers or manholes in the course of their duties; or
  - (bb) be harmful to sewers, treatment plant or land used for the disposal of treated waste water; or
  - (cc) adversely affect any of the processes whereby sewage is treated or any re-use of sewage effluent.

(5) No person shall cause or permit the accumulation of grease, oil, fat or solid matter in any drainage installation that will affect its effective functioning.

(6) The Municipality may, notwithstanding any other actions that may be taken in terms of these by-laws, recover from any person who discharges industrial effluent or any substance which is unauthorised or illegal all costs incurred, by the Municipality as a result of such discharges, including costs that result from -

- (a) injury to persons, damage to the sanitation system; or
- (b) a prosecution in terms of the National Water Act, 1998 (Act No. of 1998).

**Illegal connection and re-connection**

94.(1) A customer whose access to water supply services have been restricted or disconnected, who intentionally unlawfully reconnects to services or who intentionally or negligently interferes with infrastructure through which water supply services are provided, shall immediately be disconnected.

**Immediate disconnection**

95. The provision of water supply services may immediately be disconnected by the Municipality if any person unlawfully and intentionally or negligently interferes with or obstructs access to infrastructure through which the Municipality provides water supply services.

**Pipes in streets or public places**

96. No person shall for the purpose of conveying water or sewage derived from whatever source, lay or construct a pipe or associated component on, in or under a street, public place or other land owned by or under the control of any Municipality, except with the prior written permission of the Municipality and subject to such conditions as it may impose.

**Use of water from sources other than the water supply system**

97.(1) No person shall use or permit the use of water obtained from a source other than the water supply system, other than rain water tanks which are not connected to the water installation, except with the prior

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approval of the Engineer, and in accordance with such conditions as it may impose, for domestic, commercial or industrial purposes.

(2) Any person desiring the consent referred to in sub-section (1) shall provide the Engineer with evidence satisfactory to it that the water referred to in sub-section (1) complies, whether as a result of treatment or otherwise, with the requirements of SABS 241: Drinking Water, or that the use of such water does not or will not constitute a danger to health.

(3) Any consent given in terms of sub-section (1) may be withdrawn if, in the opinion of the Engineer -  
(a) a condition imposed in terms of sub-section (1) is breached; or  
(b) the water quality no longer conforms to the requirements referred to in sub-section (2).

(4) The Engineer may take samples of water obtained from a source, other than the water supply system and cause the samples to be tested for compliance with the requirements referred to in subsection (2).

(5) The determined charge for the taking and testing of the samples referred to in sub-section (4) above shall be paid by the person to whom consent was granted in terms of sub-section (1).

(6) If water obtained from a borehole or other source of supply on any premises is used for a purpose which gives rise to the discharge of such water or a portion thereof into the Municipality's sewerage system, the Municipality may install a meter in the pipe leading from such borehole or other source of supply to the point or points where it is so used.

(7) The provisions of section 20 shall apply insofar as they may be applicable in respect of the meter referred to in sub-section (4).

#### **Use of on-site sanitation services not connected to the sanitation system**

98.(1) No person shall use or permit the use of on-site sanitation services not connected to the Municipality's sanitation system except with the prior approval of the Engineer, and in accordance with such conditions as it may impose, for domestic, commercial or industrial purposes.

(2) Any person desiring the consent referred to in sub-section (1) shall provide the Engineer with evidence satisfactory to it that the sanitation facility is not likely to have a detrimental effect on health or the environment.

(3) Any consent given in terms of sub-section (1) may be withdrawn if, in the opinion of the Engineer -  
(a) a condition imposed in terms of sub-section (1) is breached; or  
(b) the sanitation facility has a detrimental impact on health or the environment.

(4) The Engineer may undertake such investigations as he or she may deem necessary to determine if a sanitation facility has a detrimental impact on health or the environment.

(5) The person to whom consent was granted in terms of sub-section (1) shall be liable for the costs associated with an investigation undertaken in terms of sub-section (2) if the result of the investigation indicates that the sanitation facility has a detrimental impact on health or the environment.

### **CHAPTER VIII: NOTICES**

#### **Power to serve and compliance with notices**

99. (1) The Municipality may, by written notice, order an owner, consumer or any other person who fails, by act or omission, to comply with the provisions of these by-laws or of any condition imposed thereunder to remedy such breach within a period specified in the notice, which period shall not be less than thirty days except in the case of a notice issued in terms of section 18 when the period shall not be less than seven days.

(2) If a person fails to comply with a written notice served on him or her by the Municipality in terms of these by-laws within the specified period, it may take such action that in its opinion is necessary to ensure compliance, including -

- (a) undertaking the work necessary itself and recovering the cost of such action or work from that owner, consumer or other person;
  - (b) restricting or discontinuing the provision of services; and
  - (c) instituting legal proceedings.
- (3) A notice in terms of sub-section (1) will –
- (a) give details of the provision of the by-laws not complied with;
  - (b) give the owner, consumer or other person a reasonable opportunity to make representations and state his or her case, in writing, to the Municipality within a specified period, unless the owner, consumer or other person was given such an opportunity before the notice was issued;
  - (c) specify the steps that the owner, consumer or other person must take to rectify the failure to comply;
  - (d) specify the period within which the owner, consumer or other person must take the steps specified to rectify such failure; and
  - (e) indicate that the Municipality –
    - (i) may undertake such work necessary to rectify the failure to comply if the notice is not complied with and that any costs associated with such work may be recovered from the owner, consumer or other person; and
    - (ii) may take any other action it deems necessary to ensure compliance.
- (4) In the event of an emergency the Municipality may without prior notice undertake the work required by sub-section (3)(e)(i) and recover the costs from such person.
- (5) The costs recoverable by the Municipality in terms of sub-sections (3) and (4) is the full cost associated with that work and includes, but is not restricted to, any exploratory investigation, surveys, plans, specifications, schedules of quantities, supervision, administration charge, the use of tools, the expenditure of labour involved in disturbing or rehabilitation of any part of a street or ground affected by the work and the environmental cost.

## CHAPTER IX: APPEALS

### Appeals against decisions of the Municipality

100. (1) A customer may appeal against a decision of or notice issued by the Municipality in terms of these by-laws in writing.
- (2) An appeal and request in terms of sub-section (1) must be made in writing and lodged with the Municipality within 14 (fourteen) days after a customer became aware of the decision or notice and must –
- (a) set out the reasons for the appeal; and
  - (b) be accompanied by any security determined for the testing of a measuring device, if applicable.
- (3) An appeal must be decided by the Municipality within 14 (fourteen) days after an appeal was lodged and the customer must be informed of the outcome in writing, as soon as possible thereafter.
- (4) The decision of the Municipality is final.
- (5) The Municipality may condone the late lodging of appeals or other procedural irregularities.

## CHAPTER X: OFFENCES

### Offences

101. A domestic consumer who –
- (a) obstructs or hinders the Municipality in the exercising of the powers or performance of functions or duties under these by-laws;
  - (b) uses, tampers or interferes with municipal equipment, the water supply system, sanitation system and reticulation network or consumption of services rendered;
  - (c) contravenes or fails to comply with a provision of these by-laws other than a provision relating to payment for municipal services;

(d) fails to comply with the terms of a notice served upon him/her in terms of these by-laws; shall be guilty of an offence and liable upon conviction to a fine not exceeding R 4 000 (four thousand Rand) or to a period of imprisonment or community service not exceeding 4 (four) months or in the event of a continued offence to a further fine of R 2 000 (two thousand Rand) for every day during the continuance of such offence.

102. A commercial customer who –
- (a) obstructs or hinders the Municipality in the exercising of the powers or performance of functions or duties under these by-laws;
  - (b) uses, tampers or interferes with municipal equipment, the water supply system, sanitation system and reticulation network or consumption of services rendered;
  - (c) contravenes or fails to comply with a provision of these by-laws other than a provision relating to payment for municipal services;
  - (d) fails to comply with the terms of a notice served upon it in terms of these by-laws shall be guilty of an offence and liable upon conviction of a fine not exceeding R40 000 (forty thousand Rand) and in the event of a continued offence to a further fine of R20 000 (twenty thousand Rand) for every day during the continuance of such offence.

## CHAPTER XI: DOCUMENTATION

### Signing of notices and documents

103. A notice or document issued by the Municipality in terms of these by-laws and signed by a staff member of the Municipality shall be deemed to be duly issued and must on its mere production be accepted by a court as prima facie evidence of that fact.

### Notices and documents

104.

(1) Any notice or other document that is served on an owner, customer or any other person in terms of these by-laws is regarded as having been served -

- (a) if it has been delivered to that person personally;
- (b) when it has been left at that person's village, place of residence, or business or employment in the Republic, with a person apparently over the age of sixteen years;
- (c) when it has been posted by registered or certified mail to that person's last known residential address or business address in the Republic and an acknowledgement of posting thereof from the postal service is obtained;
- (d) if that person's address in the Republic is unknown, when it has been served on that person's agent or representative in the Republic in the manner provided in sub-sections (a) – (c); or
- (e) if that person's address and agent or representative in the Republic is unknown, when it has been posted in a conspicuous place on the property or premises, if any, to which it relates.

(2) When any notice or other document must be authorised or served on the owner, occupier or holder of any property it is sufficient if that person is described in the notice or other document as the owner, occupier or holder of the property or right in question, and is not necessarily the name of that person.

(3) In the case where compliance with a notice is required within a specified number of working days, such period shall be deemed to commence on the date of delivery or sending of such notice.

### Authentication of documents

105. Every order, notice or other document requiring authentication by the Municipality shall be sufficiently authenticated, if signed by the municipal manager or by a duly authorised officer of the Municipality or the Manager of the Municipality's authorised agent; such authority being conferred by resolution of the Municipality, written agreement or by a by-law.

### Prima facie evidence

106. In legal proceedings by or on behalf of the Municipality, a certificate reflecting the amount due and payable to the Municipality, under the hand of the municipal manager, or suitably qualified municipal staff

member authorised by the municipal manager or the Manager of the Municipality's authorised agent, shall upon mere production thereof be accepted by any court of law as prima facie evidence of the indebtedness.

## **CHAPTER XII: GENERAL PROVISIONS**

### **Responsibility for compliance with these by-laws**

107. (1) The owner of premises is responsible for ensuring compliance with these by-laws in respect of all or any matters relating to any water and sanitation installation.

(2) The customer is responsible for compliance with these by-laws in respect of matters relating to the use of any water and sanitation installation.

### **Provision of information**

108.(1) An owner, occupier, customer or person within the area of supply of the Municipality must provide the Municipality with accurate information requested by the Municipality that is reasonably required by the Municipality for the implementation or enforcement of these by-laws.

### **Power of entry and inspection**

109.(1) The Municipality may enter and inspect any premises for any purpose connected with the implementation or enforcement of these by-laws, at all reasonable times, after having given reasonable written notice to the occupier of the premises of the intention to do so.

(2) Any entry and inspection must be conducted in conformity with the requirements of the Constitution of South Africa Act No. 108 of 1996, and any other law and, in particular, with strict regard to decency and order, respect for a person's dignity, freedom and security, and personal privacy.

(3) The Municipality may be accompanied by an interpreter and any other person reasonably required to assist the authorised official in conducting the inspection.

(4) A person representing the Municipality must, on request, provide his or her identification.

### **Indemnification from liability**

110. Neither employees of the Municipality nor any person, body, organisation or corporation acting on behalf of the Municipality is liable for any damage arising from any omission or act done in good faith in the course of his or her duties.

### **Exemption**

111. (1) The Engineer may, in writing exempt an owner, customer, any other person or category of owners, customers, ratepayers, users of services from complying with a provision of these by-laws, subject to any conditions it may impose, if he or she is of the opinion that the application or operation of that provision would be unreasonable, provided that the Engineer shall not grant exemption from any section of these by-laws that may result in -

- (a) the wastage or excessive consumption of water supply services;
- (b) significant negative effects on public health, safety or the environment;
- (c) the non-payment for services;
- (d) the Act, or any regulations made in terms thereof, is not complied with.

(2) The Municipality may at any time after giving written notice of at least thirty days, withdraw any exemption given in terms of sub-section (1).

### **Availability of by-laws**

112. A copy of these by-laws shall be included in the Municipality's Municipal Code as required in terms of legislation.

**Conflict of law**

113. If there is any conflict between these by-laws and any other by-laws of the Municipality, these by-laws will prevail.

**Transitional arrangements**

114. (1) Installation work authorised by the Municipality prior to the commencement date of these by-laws or authorised installation work in progress on such date shall be deemed to have been authorised in terms of these by-laws. The Municipality may for a period of 90 days after the commencement of these by-laws authorise installation work in accordance with the by-laws that regulated such work immediately prior to the promulgation of these by-laws.

(2) Any reference in these by-laws to a charge determined by the municipal council shall be deemed to be a reference to a charge determined by the municipal council under the laws repealed by section 114, until the effective date of any applicable charges that may be determined by the municipal council in terms of these by-laws or by-laws relating to credit control and debt collection and any reference to a provision in the laws repealed by section 114 shall be deemed to be a reference to a corresponding provision in these by-laws.

(3) Any approval, consent or exemption granted under the laws repealed by section 114 shall, save for the provisions of sub-section (3), remain valid.

(4) No customer shall be required to comply with these by-laws by altering a water installation or part thereof which was installed in conformity with any laws applicable immediately prior to the commencement of these by-laws; provided that if, in the opinion of the Engineer, the installation or part thereof is so defective or in such a condition or position as to cause waste or undue consumption of water, pollution of the water supply or a health hazard, the Engineer may by notice require the customer to comply with the provisions of these by-laws.

**Repeal of existing municipal water services by-laws**

115. (1) The provisions of any by-laws relating to water supply services and sanitation services by the Municipality are hereby repealed insofar as they relate to matters provided for in these by-laws.

(2) The Standard Water By-laws of the Western Vaal Metropolitan Local Council and the Vereeniging Kopanong City Council, published under the Administrator's Notice 21 of 5 January 1977, as amended, are hereby repealed.

(3) The Standard Drainage By-laws of the Western Vaal Metropolitan Council and the Vereeniging Kopanong City Council, published under the Administrator's Notice 665 of 8 June 1977, as amended, are hereby repealed.

**Short title and commencement**

116. (1) These by-laws are called the Water Services By-laws of the Emfuleni Local Municipality.

(2) The Municipality may, by notice in the *Provincial Gazette*, determine that provisions of these by-laws, listed in the notice, does not apply in certain areas within its area of jurisdiction listed in the notice from a date specified in the notice.

(3) Until any notice contemplated in sub-section (2) is issued, these By-laws are binding.

**Schedule A****LIMITS OF CONCENTRATION OF SUBSTANCES THAT MAY BE DISCHARGED TO THE MUNICIPALITY'S SANITATION SYSTEM**

**LIMITS OF CONCENTRATION OF SUBSTANCES THAT MAY BE DISCHARGED TO THE MUNICIPALITY'S SANITATION SYSTEM**

Parameter	Allowed Specification
PV-not exceed	1400 ml/l
Ph within range	6,0 – 10,0
Electrical conductivity - not greater than	500 m S / m at 20 °C
Caustic alkalinity (expressed as CaCO <sub>3</sub> )	2 000 mg / l
Substance not in solution (including fat, oil, grease waxes and like substances)	2 000 mg / l
Substances soluble in petroleum ether	500 mg / l
Sulphides, hydro-sulphides and polysulphides (expressed as S)	50 mg / l
Substances from which hydrogen cyanide can be liberated in the drainage installation, sewer or sewage treatment works (expressed as HCN)	20 mg / l
Formaldehyde (expressed as HCHO)	50 mg / l
Non - organic solids in suspension	100 mg / l
Chemical oxygen demand (CO)	5 000 mg / l
All sugars and / or starch (expressed as glucose)	1 500 mg / l
Available chlorine (expressed as Cl)	100 mg / l
Sulphates (expressed as SO <sub>4</sub> )	1 800 mg / l
Fluorine - containing compounds (expressed as F)	5 mg / l
Anionic surface active agents	500 mg / l

Titanium	Ti
Cadmium	Cd

The total collective concentration of all metals in Group 1 (expressed as indicated above) in any sample of the effluent, shall not exceed 50 mg / l, nor shall the concentration of any individual metal in a sample exceed 20 mg / l.

**Group 2:**

Metal	Expressed as
Lead	Pb
Selenium	Se
Mercury	Hg

The total collective concentration of all metals in Group 2 (expressed as indicated above) in any sample of the effluent shall not exceed 10 mg / l, nor shall the concentration of any individual metal in any sample exceed 5 mg / l.

**OTHER ELEMENTS**

Element	Expressed as
Arsenic	As
Boron	B

The total collective concentration of all elements (expressed as indicated above) in any sample of the effluent shall not exceed 20 mg / l.

**RADIO-ACTIVE WASTES**

Radio-active wastes or isotopes: Such concentration as may be laid down by the Atomic Energy Board or any national or Department:

Provided that, notwithstanding the requirements set out in this Part, the Municipality reserves the right to limit the total mass of any substance or impurity discharged per 24 hours into the sanitation system from any premises.

**METHOD OF TESTING:**

The method of testing in order to ascertain the concentration of any substance in this Schedule, shall be the test normally used by the Municipality for these purposes. Any person discharging any substance referred to in this Schedule shall ascertain the details of the appropriate test from the Municipality.

**METALS:**

**Group 1:**

Metal	Expressed as
Manganese	Mn
Chromium	Cr
Copper	Cu
Nickel	Ni
Zinc	Zn
Iron	Fe
Silver	Ag
Cobalt	Co
Tungsten	W

**Schedule B**

**APPLICATION FORM FOR THE DISCHARGE OF INDUSTRIAL EFFLUENT TO THE MUNICIPALITY'S SANITATION SYSTEM**

(Please complete application in block capitals)

I (name):

the undersigned, duly authorised to set on behalf of

and hereinafter referred to as the applicant, hereby apply in terms of the Water Services By-laws of the Municipality for approval to discharge industrial effluent into the Municipality's sanitation system in accordance with the information provided herein.

**PART I**

Water Services By-laws

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1. NATURE OF THE BUSINESS OR INDUSTRY CONCERNED: \_\_\_\_\_

2. NAME OR STYLE UNDER WHICH THE BUSINESS OR INDUSTRY IS CONDUCTED: \_\_\_\_\_

3. POSTAL ADDRESS OF THE BUSINESS OR INDUSTRY: \_\_\_\_\_

4. PHYSICAL STREET ADDRESS: \_\_\_\_\_

5. If the business or industry is conducted by a company or closed corporation, state the name of the secretary, and if it is a partnership state the names of the partners: \_\_\_\_\_

6. IS THIS A NEW OR ESTABLISHED BUSINESS: \_\_\_\_\_

DESCRIPTION OF INDUSTRIAL OR TRADE PROCESS BY WHICH THE EFFLUENT WILL BE PRODUCED: \_\_\_\_\_

8. INFORMATION RELATING TO EMPLOYEES:

	Office	Factory
Total number of daily employees (not included in (4)):		
(2) Number of shifts worked per day:		
(3) Number of days worked per week :		
(4) Number of persons resident on the premises:		
(5) Is a canteen provided? :		

**PART II**

INFORMATION RELATING TO THE CONSUMPTION OF WATER

1. TOTAL NUMBER OF LITRES OF WATER CONSUMED IN SIX MONTHS:

	Meter No	Meter No	Meter No	Total
Water purchased from the Municipality				
Water from borehole or other source				
Water entering with raw materials				
Section of plant served by meter				
Total A				

2. WATER CONSUMPTION

(1) Industrial kl/Month

(i) Quantity of water in product .....

(ii) Quantity of water lost by evaporation .....

(iii) Quantity of water used as boiler make-up .....

(iv) Quantity of water for other uses (e.g. cooling, gardens, etc) .....

TOTAL B .....

(2) Domestic use kl/Month



- (i) Total number of employees (Allow 1 kilolitre/person/month) .....
- (ii) Total number of employees permanently resident on the premises eg. hostels (Allow 1 kilolitre/person/month) .....

TOTAL C \_\_\_\_\_

3. EFFLUENT DISCHARGE INTO SANITATION SYSTEM

- (1) Metered volume (if known) .....kl/ Month
- (2) Estimated un-metered volume (see below\*) .....kl/ Month
- (3) Estimated rate of discharge .....
- (4) Period of maximum discharge (eg. 07:00 to 08:00) .....

\* In the event that no effluent meter is installed on the premises, the estimated volume of un-metered effluent discharge to sewer is calculated as follows:

A = (B + C) = .....Kilolitre /Month

PART III

INFORMATION REGARDING THE COMPOSITION OF INDUSTRIAL EFFLUENT

Information relating to the chemical and physical characteristics of the effluent to be discharged:

- (1) Maximum temperature of effluent °C
- (2) pH value Ph .....
- (3) Nature and amount of settleable solids .....
- (4) Organic Content (Expressed as Chemical Oxygen Demand) .....
- (5) Maximum total daily discharge (kilolitres) .....
- (6) Maximum rate of discharge (kilolitres / hr) .....
- (7) Periods of maximum discharge, (e.g. 7:00 am to 8:00 am) .....
- (8) If any of the substances or their salts, specified in the table, are formed on the premises, a cross must be placed in the space in which the substance appears, and, if possible, the average concentration of this substance likely to be present in any effluent must also be stated.

TABLE

ELEMENTS		COMPOUNDS		OTHER SUBSTANCES	
Arsenic	mg/l	Ammonium	mg/l	Grease and / or oil	mg/l
Boron	mg/l	Nitrate	mg/l	Starch and / or sugars	mg/l
Cadmium	mg/l	Sulphide	mg/l	Synthetic detergents	mg/l
Chromium	mg/l	Sulphate	mg/l	Tar and / or tar oils	mg/l
Cobalt	mg/l	Others (Specify)	mg/l	Volatile Solvents	mg/l
Copper	mg/l			Others (Specify)	mg/l
Cyanide	mg/l				
Iron	mg/l				
Lead	mg/l				
Manganese	mg/l				
Mercury	mg/l				
Nickel	mg/l				
Selenium	mg/l				
Tungsten	mg/l				
Titanium	mg/l				
Zinc	mg/l				
Other (Specify)	mg/l				

- (9) Any further information as to kind or character, chemical compositions, concentrations or other properties peculiar to the industrial effluent to be furnished on a separate sheet and attached hereto.

PART IV

CONDITIONS RELATING TO THE ACCEPTANCE OF INDUSTRIAL EFFLUENT

- 1. The applicant shall attach descriptions and a statement of the dimensions of grease and oil traps, screens,

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- dilution and neutralising tanks and any other provision made for the treatment of the effluent prior to discharge to the sanitation system.
2. The applicant shall submit to the Municipality, if requested, plans showing the reticulation systems on his premises for water and industrial effluent.
  3. The applicant shall, in addition to complying with the provisions of the Municipality's Water Services By-laws aimed at the protection of its employees, sewers and treatment plant from damage, comply with any direction concerned with such protection given by the Engineer verbally or in writing for the purpose of ensuring the applicant's compliance with the said by-laws.
  4. The applicant shall notify the Municipality, as soon as possible after he becomes aware thereof, or at least 14 days before anything is done to cause material alteration in the nature or quantity of the industrial effluent specified in this application or in any of the facts stated by him therein.
  5. The applicant shall, within 30 days from the date of signature of this application, procure an accurately representative sample of not less than 5 litre of the industrial effluent to be discharged into the sewer, which sample shall be free of domestic sewage, and shall submit one half thereof to the Municipality for analysis and also submit to the Engineer a report on the sample made by an analyst appointed by him: Provided that in the case of a newly established industry the period specified may be extended by the Municipality for a period not exceeding six months or such further extended periods as the Municipality in its discretion may approve.
  6. The applicant hereby declares and warrants that the information given by him in this form, or otherwise, in connection with this application is, to the best of his knowledge and belief, in all respects correct.
  7. The applicant agrees that the said information, being in all respects correct, shall form the basis on which this application is granted by the Municipality.

Thus done at ..... by the applicant this ..... day of ..... 20 .....

.....  
Signature and capacity of the applicant

**Schedule C**

**FORMULA FOR THE CALCULATION OF EFFLUENT DISCHARGE CHARGES**

1. The additional charge for industrial effluent for the disposal of high strength sewage to a waste water treatment plant shall be determined in accordance with the following formula:

$$T_c = Q_c t \left[ a \left( \frac{COD_c - COD_d}{COD_d} \right) + b \left( \frac{P_c - P_d}{P_d} \right) + c \left( \frac{N_c - N_d}{N_d} \right) \right]$$

- Where  $T_c$  = Extraordinary Treatment Cost to Consumer  
 $Q_c$  = Waste water Volume discharged by consumer in kl  
 $t$  = Unit Treatment cost of waste water in R/kl  
 $COD_c$  = Total COD of waste water discharged by consumer in milligrams/litre and is inclusive of both the biodegradable and non-biodegradable portion of the COD  
 $COD_d$  = Total COD of domestic

- waste water in milligrams per litre  
 $P_c$  = Ortho-phosphate concentration of waste water discharged by consumer in milligrams phosphorus per litre  
 $P_d$  = Ortho-phosphate concentration of domestic waste water in milligrams phosphorus per litre  
 $N_c$  = Ammonia concentration of waste water discharged by consumer in milligrams of nitrogen per litre  
 $N_d$  = Ammonia concentration of domestic waste water in milligrams of nitrogen per litre  
 $a$  = Portion of the costs directly related to COD  
 $b$  = Portion of the costs directly related to the removal of phosphates  
 $c$  = Portion of the costs directly related to the removal of nitrates

Different terms	Value
-----------------	-------

<i>T</i>	R0.82/kl
<i>COD<sub>d</sub></i>	600 mg/l
<i>P<sub>d</sub></i>	10 mg/l
<i>N<sub>d</sub></i>	25 mg/l
<i>A</i>	0.6
<i>B</i>	0.25
<i>C</i>	0.15

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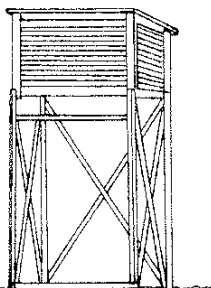
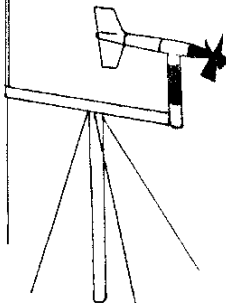
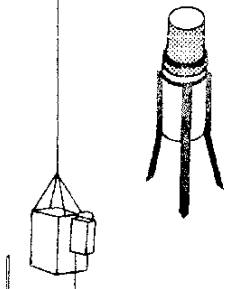
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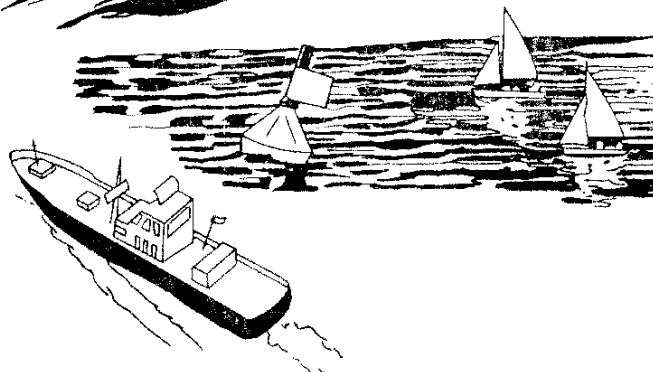
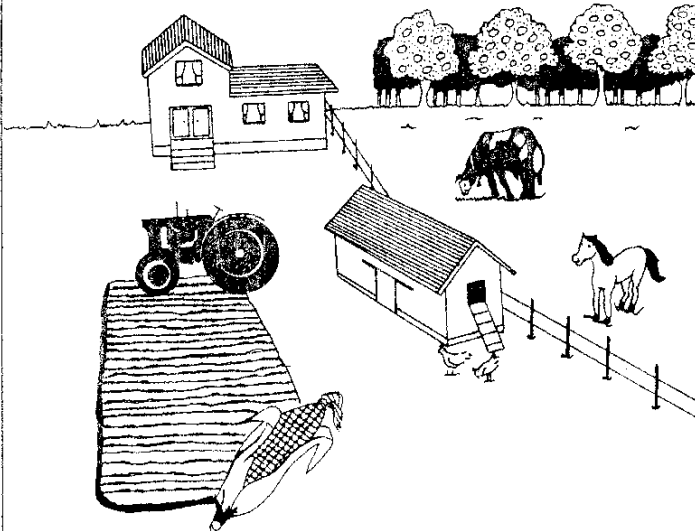
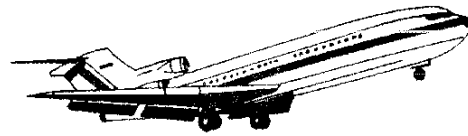
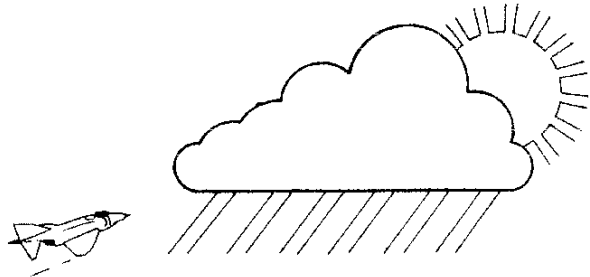
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