

**BERGRIVIER MUNICIPALITY**

**BY-LAW RELATING TO WATER SUPPLY, SANITATION SERVICES AND INDUSTRIAL EFFLUENT**

Under the provisions of section 156 of the Constitution of the Republic of South Africa, 1996, the Bergrivier Municipality enacts as follows:—

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**CHAPTER I  
GENERAL PROVISIONS**

*Part 1:  
Definitions*

**1. Definitions**

(1) For the purpose of this by-law, any word or expressions to which a meaning has been assigned in the Water Services Act, 1996 (Act No 108 of 1996), the Local Government: Municipal Systems Act, 2000 (Act No 32 of 2000) or the National Building Regulations made in terms of the National Building Regulations and Building Standards Act, 1977 (Act No 103 of 1977) shall bear the same meaning in this by-law and unless the context indicates otherwise and a word in any one gender shall be read as referring also, to the other gender, the singular includes the plural and vice versa, the English text prevails in the event of an inconsistency between the different text:—

“**accommodation unit**” 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;

“**account**” means an account rendered for municipal services provided;

“**Act**” means the Water Services Act, 1997 (Act No 108 of 1997), as amended from time to time;

“**agreement**” means the contractual relationship between the municipality and a consumer, whether written or deemed as provided for in the municipality's by-law relating to credit control and debt collection;

“**approved**” means approved by the municipality in writing;

“**area of supply**” means any area within or partly within the area of jurisdiction of the municipality to which a water service is provided;

“**authorised agent**” means—

- (a) any person authorised by the municipality to perform any act, function or duty in terms of, or to exercise any power under, this by-law;
- (b) any person to whom the municipality has delegated the performance of certain rights, duties and obligations in respect of providing water supply services; or
- (c) any person appointed by the municipality in a written contract as a service provider for the provision of water services to consumers on its behalf, to the extent authorised in such contract;

“**average consumption**” means the average consumption of a consumer of a municipal service during a specific period, and is calculated by dividing the total measured consumption of that municipal service by that consumer over the preceding three months by three;

“**best practicable environmental option**” 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;

“**borehole**” means a hole sunk into the earth for the purpose of locating, abstracting or using subterranean water and includes a spring;

“**Building Regulations**” means the National Building Regulations made in terms of the National Building Regulations and Building Standards, 1977 (Act No 103 of 1977) as amended;

“**charges**” means the rate, charge, tariff, flat rate or subsidy determined by the municipal council;

“**cleaning eye**” means any access opening to the interior of a discharge pipe or trap provided for the purposes of internal cleaning;

“**communal water services**” means a consumer connection through which water services are supplied to more than one person;

“**combined installation**” means a water installation used for fire-fighting and domestic, commercial or industrial purposes;

“**commercial consumer**” means any consumer other than domestic consumer and indigent consumers, including, without limitation, business, industrial, government and institutional consumers;

“**connecting point**” means the point at which the drainage installation joins the connecting sewer;

“**connecting sewer**” means a pipe owned by the municipality and installed by it for the purpose of conveying sewage from a drainage installation on a premises to a sewer beyond the boundary of those premises or within a servitude area or within an area covered by a way-leave or by agreement;

“**connection**” means the point at which a consumer gains access to water services;

“**connection pipe**” means a pipe, the ownership of which is vested in the municipality and installed by it for the purpose of conveying water from a main to a water installation, and includes a “communication pipe” referred to in SANS 0252 Part I;

“**conservancy tank**” means a covered tank used for the reception and temporary retention of sewage and which requires emptying at intervals;

is provided through a single connection to a number of occupiers, it shall mean the occupier, or person, to whom the municipality has agreed to provide water services; or

(b) a person that obtains access to water services provided through a communal water services work;

**"determined"** means determined by the municipality or by any person who makes a determination in terms of these laws;

**"domestic consumer"** means a consumer using water for domestic purposes;

**"domestic purposes"** in relation to the supply of water means water supplied for drinking, ablution and culinary purposes to premises-used predominantly for residential purposes;

**"drain"** means that portion of the drainage installation that conveys sewage within any premises;

**"drainage installation"** means a system situated on any premises and vested in the owner thereof and which is used for or intended to be used for or in connection with the reception, storage, treatment or conveyance of sewage on that premises to the connecting point and includes drains, fittings, appliances, septic tanks, conservancy tanks, pit latrines and private pumping installations forming part of or ancillary to such systems;

**"drainage work"** includes any drain, sanitary fitting, water supplying apparatus, waste or other pipe or any work connected with the discharge of liquid or solid matter into any drain or sewer or otherwise connected with the drainage of any premises;

**"duly qualified sampler"** means a person or accredited company who takes samples for analysis from the sewage disposal and storm water disposal systems and from public waters and who has been certified to do so by an authorised agent;

**"dwelling unit"** means an interconnected suite of rooms, including a kitchen or scullery, designed for occupation by a single family, irrespective of whether the dwelling unit is a single building or forms part of a building containing two or more dwelling units;

**"effluent"** means any liquid whether or not containing matter in solution or suspension;

**"engineer"** means the engineer of the municipality, or any other person authorised to act on his behalf;

**"emergency"** means any situation that poses a risk or potential risk to life, health, the environment or property;

**"environmental cost"** means the cost of all measures necessary to restore the environment to its condition prior to an incident resulting in damage;

**"estimated consumption"** means the consumption that a consumer, whose consumption is not measured during a specific period, is deemed to have consumed, that is estimated by taking into account factors that are considered relevant by the municipality and which may include the consumption of water services by the totality of the users of a service within the area where the service is rendered by the municipality, at the appropriate level of service, for a specific time;

**"fire hydrant"** means a potable water installation that conveys water for fire-fighting purposes only;

**"fixed quantity water delivery system"** means a water installation, which delivers a fixed quantity of water to a consumer in any single day;

**"flood level (1 in 50 years)"** means that level reached by flood water resulting from a storm of a frequency of 1 in 50 years;

**"flood plain (1 in 50 years)"** means the area subject to inundation by flood waters from a storm of a frequency of 1 in 50 years;

**"French drain"** means a soil soak pit for the disposal of sewage and effluent from a septic tank;

**"grey water"** means waste water resulting from the use of water for domestic purposes but does not include human excreta;

**"high strength sewage"** 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 charged;

**"household"** means a family unit, as determined by the municipality as constituting a traditional household by 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 it and any other factor that the municipality considers to be relevant;

**"illegal connection"** means a connection to any system, by means of which water services are provided that is not authorised or approved by the municipality;

**"industrial effluent"** means effluent emanating from the use of water for industrial purposes and includes for purposes of this by-law, any effluent other than standard domestic effluent or storm water;

**"industrial purposes"** 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, 1993 (Act No 85 of 1993);

**"installation work"** means any work done in respect of a water installation, including construction, rehabilitation, improvement and maintenance;

**"interest"** means interests as may be prescribed by the Minister of Justice in terms of section 1 of the Prescribed Rate of Interest Act, 1975 (Act No 55 of 1975);

**"manhole"** means any access chamber to the interior of the sewer provided for the purpose of maintenance and internal cleaning;

**"main"** means a pipe, other than a connection pipe, of which the ownership vests in the municipality and which is used by it for the purpose of conveying water to a consumer;

**"measuring device"** 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;

**"meter"** means a water meter as defined by the regulations published in terms of the Trade Metrology Act, 1973 (Act No 77 of 1973) or, in the case of water meters of a size greater than 100mm, a device that measures the quantity of water passing through it, including a pre-paid water meter;

**"municipality"** means—

(a) the Bergrivier Municipality, a local municipality established in terms of section 12 of the Act of Local Government: Municipal Structures, 1998 (Act No 117 of 1998) and its successors-in-title; or

(b) subject to the provisions of any other law and only if expressly or impliedly required or permitted by this by-law the municipal manager in respect of the performance of any function, or the exercise of any duty, obligation, or right in terms of this by-law or any other law; or

(c) an authorised agent of the Bergrivier Municipality;

**"municipal council"** means a municipal council as referred to in section 157(1) of the Constitution of the Republic of South Africa, 1996;

**"municipal manager"** 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 to whom the municipal manager has delegated a power, function or duty but only in respect of that delegated power, function or duty;

**"municipal services"** means, for purposes of this by-law, services provided by a municipality, including refuse removal, water supply, sanitation, electricity services and rates or any one of the above;

**"occupier"** means a person who occupies any (or part of any) land, building, structure or premises and includes a person who, for someone else's reward or remuneration allows another person to use or occupy any (or any part of any) land, building structure or premises;

**"on-site sanitation services"** means any sanitation services other than water borne sewerage disposal through a sewerage disposal system;

**"owner"** means—

- (a) the person in whose name the ownership of the premises is registered from time to time or his agent;
- (b) where the registered owner of the premises is insolvent or dead, or for any reason lacks legal capacity, or is under any form of legal disability, that has the effect of preventing him from being able to perform a legal act on his own behalf, 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) where the municipality is unable to determine the identity of the owner, a person who has a legal right in, or the benefit of the use of, any premises, building, or any part of a building, situated on them;
- (d) where a lease has been entered into for a period of 30 (thirty) years or longer, or for the natural life of the lessee or any other person mentioned in the lease, or is renewable from time to time at the will of the lessee indefinitely or for a period or periods which, together with the first period of the lease, amounts to 30 years, the lessee or any other person to whom he has ceded his right title and interest under the lease, or any gratuitous successor to the lessee;
- (e) in relation to—
  - (i) a piece of land delineated on a sectional plan registered in terms of the Sectional Titles Act, 1986 (Act No 95 of 1986), the developer or the body corporate in respect of the common property, or
  - (ii) a section as defined in the Sectional Titles Act, 1986 (Act No 95 of 1986), the person in whose name such section is registered under a sectional title deed and includes the lawfully appointed agent of such a person; or
  - (iii) a person occupying land under a register held by a tribal authority or in accordance with a sworn affidavit made by a tribal authority;

**"person"** means any person, whether natural or juristic and includes, but is not limited to, any local government body or like authority, 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;

**"plumber"** 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, 1981 (Act No 56 of 1981) or such other qualification as may be required under national legislation;

**"pollution"** 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;

**"premises"** means any piece of land, the external surface boundaries of which are delineated on—

- (a) a general plan or diagram registered in terms of the Land Survey Act, 1927 (Act No 9 of 1927), or in terms of the Deeds Registries Act, 1937 (Act No 47 of 1937);
- (b) a sectional plan registered in terms of the Sectional Titles Act, 1986 (Act No 95 of 1986); or
- (c) a register held by a tribal authority or in accordance with a sworn affidavit made by a tribal authority;

**"prescribed tariff or charge"** means a charge prescribed by the municipality;

**"professional engineer"** means a person registered in terms of the Engineering Profession Act, 2000 (Act No 46 of 2000) as a professional engineer;

**"public notice"** means publication in the media including one or more of the following:

- (a) publication of a notice, in the official languages determined by the municipal council:
  - (i) in any local newspaper or newspapers circulating in the area of supply of the municipality;
  - (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
  - (iii) on the official website of the municipality;
  - (iv) by means of radio broadcasts covering the area of supply of the municipality;
- (b) displaying a notice in or at any premises, office, library or pay-point of either the municipality, or of its authorised agent, to which the public has reasonable access; and
- (c) communication with consumers through public meetings and ward committee meetings;

**"public water"** means any river, watercourse, bay, estuary, the sea and any other water to which the public has the right of use or to which the public has the right of access;

**"SANS"** means the South African National Standard;

**"sanitation services"** has the same meaning assigned to it in terms of the Act and includes for purposes of this by-law the disposal of industrial effluent;

“**sanitation system**” 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;

“**septic tank**” means a water tight tank designed to receive sewage and to effect the adequate decomposition of organic matter in sewage by bacterial action;

“**service pipe**” 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;

“**shared consumption**” means the consumption by a consumer of a municipal service during a specific period, that is calculated by dividing the total metered consumption of that municipal service in the supply zone where the consumer's premises are situated for the same period by the number of consumers within the supply zone, during that period;

“**sewage**” means waste water, industrial effluent, standard domestic effluent and other liquid waste, either separately or in combination, but shall not include stormwater;

“**sewage disposal system**” 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;

“**sewer**” 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;

“**standpipe**” means a connection through which water supply services are supplied to more than one person;

“**standard domestic effluent**” 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;

“**stormwater**” means water resulting from natural precipitation or accumulation and includes rainwater, subsoil water or spring water;

“**terminal water fitting**” means water fitting at an outlet of a water installation that controls the discharge of water from a water installation;

“**trade premises**” means premises upon which industrial effluent is produced;

“**trap**” means a pipe fitting or portion of a sanitary appliance designed to retain water seal which serves as a barrier against the flow of foul air or gas, in position;

“**unauthorised service**” means the receipt, use or consumption of any municipal service which is not in terms of an agreement with, or approved by, the municipality;

“**water fitting**” means a component of a water installation, other than a pipe, through which water passes or in which it is stored;

“**water installation**” 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;

“**water services**” means water supply services and sanitation services;

“**water services intermediaries**” has the same meaning as that assigned to it in terms of the Act;

“**water supply services**” has the same meaning assigned to it in terms of the Act and includes for purposes of this by-law water for industrial purposes and fire extinguishing services;

“**water supply system**” means the structures, aqueducts, pipes, valves, pumps, meters or other apparatus relating thereto of which the ownership vests in the municipality and which are used or intended to be used by it in connection with the supply of water, and includes any part of the system;

“**wet industry**” means an industry which discharges industrial effluent; and

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

- (2) Any word or expression used in this by-law 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, 1997 (Act No. 103 of 1977), the Building Regulations will in respect of Chapter IV bear that meaning, unless the context indicates otherwise.
- (3) Any reference in Chapter I of this by-law to water services or services must be interpreted as referring to water supply services or sanitation services depending on the services to which it is applicable.

*Part 2:  
Application for water services*

**2. Application for water services**

- (1) No person shall gain access to water services from the water supply system, sewage disposal system or through any other sanitation services unless he or she has applied to the municipality on the prescribed form for such services for a specific purpose and to which such application has been agreed.
- (2) The municipality may refuse to provide a water connection.
- (3) Where a premises or consumer are provided with water services, it shall be deemed that an agreement in terms of subsection (1) exists.
- (4) The municipality must on application for the provision of water services by a consumer inform that consumer of the different levels of services available and the tariffs and/or charges associated with each level of services.
- (5) A consumer must elect the available level of services to be provided to him or her or it.



- (6) A consumer may at any time apply to alter the level of services elected in terms of the agreement entered into, provided that such services are available or that the municipality's water supply service allows for such alteration and that any costs and expenditure associated with altering the level of services will be payable by the consumer.
- (7) An application agreed to by the municipality shall constitute an agreement between the municipality and the applicant, and such agreement shall take effect on the date referred to or stipulated in such agreement.
- (8) A consumer shall be liable for all the prescribed tariffs and/or charges in respect of water services rendered to him or her until the agreement has been terminated in accordance with this by-law or until such time as any arrears have been paid.
- (9) In preparing an application form for water services the municipality will ensure that the document and the process of interaction with the owner, consumer or any other person making application are understood by that owner, consumer or other person. In the case of illiterate or similarly disadvantaged persons, the municipality will take reasonable steps to ensure that the person is aware of and understands the contents of the application form.
- (10) An application form will require at least the following minimum information:
  - (a) certification by an authorised agent that the applicant is aware of and understands the contents of the form;
  - (b) acceptance by the consumer of the provisions of this by-law and acceptance of liability for the cost of water services rendered until the agreement is terminated or until such time as any arrears have been paid;
  - (c) name of consumer;
  - (d) address or stand number of premises to or on which water services are to be rendered or the communal water services work where water services will be used;
  - (e) address where accounts will be sent;
  - (f) source of income of the applicant;
  - (g) name and address of the applicant's employer, where appropriate;
  - (h) if water will be supplied, the purpose for which the water is to be used; and
  - (i) the agreed date on which the provision of water services will commence.
- (11) Water services rendered to a consumer are subject to the provisions of this by-law and the conditions contained in the relevant agreement.
- (12) If a municipality refuses an application for the provision of water services, is unable to render such water services on the date requested for such provision of water services to commence or is unable to render the water services, the municipality will inform the consumer of such refusal and/or inability, the reasons therefor and, if applicable, when the municipality will be able to provide such water services.

### 3. Special agreements for water services

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

### 4. Change in purpose for which water services are used

Where the purpose for, or extent to which, any municipal service is changed, the consumer must promptly advise the municipality of the change and enter into a new agreement with the municipality.

#### *Part 3: Tariffs and charges*

### 5. Prescribed charges for water services

All tariffs and or charges payable in respect of water services rendered by the municipality in terms of this by-law, including but not limited to the payment of connection charges, fixed charges or any additional charges or interest in respect of failure to pay such tariffs or charges on the specified date will be set by the municipality by a resolution passed by the Council in accordance with:

- (i) its tariff policy;
- (ii) any by-law in respect thereof; and
- (iii) any regulations in terms of national or provincial legislation

### 6. Availability charges for water services

- (1) The municipality may, in addition to the tariffs or charges prescribed for water services actually provided, levy a monthly fixed charge, annual fixed charge or once-off fixed charge in respect of the provision of water services in accordance with—
  - (a) its tariff policy;
  - (b) any by-law in respect thereof; and
  - (c) any regulations in terms of national or provincial legislation
- (2) Where a fixed charge is levied in terms of subsection (1), it shall be payable by every owner or consumer in respect of water services provided by the municipality to him, her or it, whether or not water services are used by him, her or it.

*Part 4:  
Payment*

**7. Payment of deposit**

- (1) Every consumer must on application for the provision of water services and before such water services will be provided by the municipality, deposit with the municipality a sum of money as determined by the municipality from time to time except in the case of a pre-payment measuring device being used by the municipality.
- (2) The municipality may require a consumer to whom services are provided and who was not previously required to pay a deposit, for whatever reason, to pay a deposit on request, within a specified period.
- (3) No interest shall be payable by the municipality on the amount of a deposit held by it in terms of this section.
- (4) An agreement for the provision of water services may contain a condition that a deposit shall be forfeited to the municipality if it has not been claimed within twelve months of the termination of the agreement.

**8. Payment for water services provided**

- (1) Water services provided by the municipality to a consumer shall be paid for by the consumer at the prescribed tariff or charge set in accordance with sections 5 and 6, for the particular category of water services provided.
- (2) A consumer shall be responsible for payment for all water services provided to the consumer from the date of an agreement until the date of termination thereof.
- (3) The municipality may estimate the quantity of water services provided in respect of a period or periods within the interval between successive measurements and may render an account to a consumer for the services so estimated.

*Part 5:  
Accounts*

**9. Accounts**

- (1) Monthly accounts will be rendered to consumers for the amount due and payable, at the address last recorded with the municipality.
- (2) Failure by the municipality to render an account does not relieve a consumer of the obligation to pay any amount due and payable.

*Part 6:  
Termination, limitation and discontinuation of water services*

**10. Termination of agreement for the provision of water services**

- (1) A consumer may terminate an agreement for the provision of water services by giving to the municipality notice in writing of his or her intention to do so.
- (2) The municipality may, by notice in writing of not less than thirty working days, advise a consumer of the termination of his, her or its agreement for the provision of water services if—
  - (a) he, she or it has not used the water services during the preceding six months and has not made arrangements to the satisfaction of the municipality for the continuation of the agreement;
  - (b) he, she or it has failed to comply with the provisions of this by-law and has failed to rectify such failure to comply on notice in terms of section 19;
  - (c) in terms of an arrangement made by it with another water services institution to provide water services to the consumer.
- (3) The municipality may, after having given reasonable notice, terminate an agreement for services if a consumer has vacated the premises to which such agreement relates.

**11. Limitation and/or discontinuation of water services provided**

- (1) The engineer may restrict or discontinue water services provided in terms of this by-law—
  - (a) on failure to pay the prescribed tariffs or charges on the date specified, in accordance with and after the procedure set out in the municipality's by-law relating to credit control and debt collection has been applied;
  - (b) at the written request of a consumer;
  - (c) if the agreement for the provision of services has been terminated in terms of section 10 and it has not received an application for subsequent services to the premises within a period of 90 (ninety) days of such termination.
  - (d) the building on the premises to which services were provided has been demolished;
  - (e) if the consumer has interfered with a restricted or discontinued service;
  - (f) in an emergency;
  - (g) if the consumer 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;
  - (h) on failure to comply with any other provisions of this by-law, after notice in terms of section 19 was given.
- (2) 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 subsections (1), 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 subsection (1) applied.

*Part 7:  
General provisions*

**12. Responsibility for compliance with this by-law**

- (1) The owner of premises is responsible for ensuring compliance with this by-law in respect of all or any matters relating to any installation.
- (2) The consumer is responsible for compliance with this by-law in respect of matters relating to the use of any installation.

**13. Exemption**

- (1) The engineer may, in writing exempt an owner, consumer, any other person or category of owners, consumers, or other persons from complying with a provision of this by-law, 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 this by-law that may result in—
  - (a) the wastage or excessive consumption of water;
  - (b) the evasion or avoidance of water restrictions;
  - (c) significant negative effects on public health, safety or the environment;
  - (d) the non-payment for services;
  - (e) the installation of pipes and fittings which are not approved in terms of this by-law and
  - (f) the Act, or any regulations made in terms of it, not being 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 subsection (1).

**14. Unauthorised use of water services**

- (1) No person may gain access to water services from the water supply system, sewage disposal system or any other sanitation services unless an agreement has been 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 this by-law, by written notice order a person who has gained access to water services from the water supply system, sewage disposal system or any other sanitation services without an agreement with the municipality for the rendering of those services,
  - (a) to apply for such services in terms of sections 2 or 3; and
  - (b) to undertake such work as may be necessary to ensure that the consumer installation through which access was gained complies with the provisions of this by-law.
- (3) The provisions of sections 18 and 19 shall apply to a notice in terms of subsection (2) above.

**15. Interference with water supply system or any sanitation services**

- (1) No person other than the municipality shall manage, operate or maintain the water supply system or any sanitation system unless authorised by this by-law or an authorised agent.
- (2) No person other than the municipality shall effect a connection to the water supply system or sewage disposal system or render any other sanitation services.

**16. Interference with infrastructure**

- (1) No person may unlawfully interfere with infrastructure through which the municipality provides municipal services.
- (2) If a person contravenes subsection (1), the municipality may—
  - (a) by written notice require such person to seize or rectify the interference at his 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 prevent or rectify the interference and recover the cost from such person.

**17. Obstruction of access to water supply system or any sanitation services**

- (1) No person shall prevent or restrict physical access to the water supply system or sewage disposal system.
- (2) If a person contravenes subsection (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.

**18. Signing of notices and documents**

A notice or document issued by the municipality in terms of this by-law and signed by a staff member of the municipality shall be deemed to have been duly issued and must on its mere production be accepted by a court as prima facie evidence of that fact.

**19. Service of notices**

- (1) Any notice, order or other document that is served on any person in terms of this by-law must, subject to the provisions of the Criminal Procedure Act 1977 (Act 51 of 1977), be served personally, failing which it may be regarded as having duly been served—
  - (a) when it has been left at a person's village, place of residence, or business or employment in the Republic, with a person apparently over the age of sixteen years;
  - (b) when it has been posted by registered or certified mail to a person's last known residential address or business address in the Republic and an acknowledgement of posting thereof from the postal service is obtained;
  - (c) if a person's address in the Republic is unknown, when it has been served on that person's agent or representative in the Republic in a manner provided for in subsections (a), (b) or (d); or
  - (d) if that person's address and agent or representative in the Republic is unknown, when it has been placed in a conspicuous place on the property or premises, if any, to which it relates.
- (2) Any legal process is effectively and sufficiently served on the municipality when it is delivered to the municipal manager or a person in attendance at the municipal manager's office.
- (3) When any notice or other document must be authorised or served on the owner, occupier of any property, or of any person who holds a right over, or in respect of it, it is sufficient if that person is described in the notice or other document as the owner, occupier or holder of the right over or in respect of, the property, and shall not be necessary to name him.
- (4) Where compliance with a notice is required within a specified number of working days, the period that is required shall commence on the date when the notice is served or when it has first been given in any other way contemplated in this by-law.

**20. Authentication of documents**

- (1) Every order, notice or other document requiring authentication by the municipality shall be sufficiently authenticated, if it is signed by the municipal manager, by a duly authorised officer of the municipality or by the Manager of the municipality's authorised agent.
- (2) Authority to authorise, as envisaged in subsection (1) must be conferred by a resolution of the municipality, by a written agreement or by a bylaw.

**21. Prima facie evidence**

In legal proceedings by or on behalf of the municipality, a certificate reflecting an amount of money as being due and payable to the municipality, shall, if it is made under the hand of the municipal manager, or of a suitably qualified employee of the municipality who is authorised by the municipal manager or the Manager of the municipality's authorised agent, shall upon its mere production constitute prima facie evidence of the indebtedness.

**22. Power to serve and compliance with notices**

- (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 this by-law or of any condition imposed thereunder to remedy such breach within a period specified in the notice.
- (2) If a person fails to comply with a written notice served on him or her by the municipality in terms of this by-law 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) limiting or discontinuing the provision of services; and
  - (c) instituting legal proceedings.
- (3) A notice in terms of subsection (1) will—
  - (a) give details of the provision of the by-law 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 subsection (3)(e)(i) and recover the costs from such person.
- (5) The costs recoverable by the municipality in terms of subsections (3) and (4) is the full cost associated with that work and includes, but is not limited 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.

**23. Power of entry and inspection**

- (1) The municipality may enter and inspect any premises for any purpose connected with the implementation or enforcement of this by-law, 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, 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 identification.

**24. Provision of information**

An owner, occupier, consumer 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 this by-law.

**25. False statements or information**

No person shall make a false statement or furnish false information to the municipality or falsify a document issued in terms of this by-law.

**26. Indemnification from liability**

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 duties unless the damage is caused by a wrongful and intentional act or negligence.

**27. Conflict of law**

If there is any conflict between this by-law and any other by-law of the municipality, this by-law will prevail.

**28. Transitional arrangements**

- (1) Installation work authorised by the municipality prior to the commencement date of this by-law or authorised installation work in progress on that date shall be deemed to have been authorised in terms of this by-law; and the municipality may, for a period of 90 (ninety) days after the commencement of this by-law, authorise installation work in accordance with the by-law that regulated that work immediately prior to the promulgation of this by-law.
- (2) Any reference in this by-law 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 29, until the effective date of any applicable charges that may be determined by the municipal council in terms of this by-law, or by-law relating to credit control and debt collection, and any reference to a provision in the laws repealed by section 29 shall be deemed to be a reference to a corresponding provision in this by-law.
- (3) Any approval, consent or exemption granted under the laws repealed by section 29 shall, save for the provisions of subsection (3), remain valid.
- (4) No consumer shall be required to comply with this by-law by altering a water installation or part of it which was installed in conformity with any laws applicable immediately prior to the commencement of this by-law; provided that if, in the opinion of the engineer, the installation, or part, is so defective or in a condition or position that could cause waste or undue consumption of water, pollution of the water supply or a health hazard, the engineer may by notice require the consumer to comply with the provisions of this by-law.

**29. Repeal of existing municipal water services by-law**

The provisions of any by-law relating to water supply and sanitation services by the municipality are hereby repealed insofar as they relate to matters provided for in this by-law.

**30. Short title and commencement**

- (1) This by-law are called the Water Services By-law of the Bergrivier Municipality.
- (2) The municipality may, by notice in the Provincial Gazette, determine that provisions of this by-law, listed in the notice, do 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 subsection (2) is issued, this by-law is binding.

**31. Appeals against decisions of the municipality**

- (1) A consumer may appeal in writing against a decision of, or a notice issued by, the municipality in terms of this by-law.
- (2) An appeal in terms of subsection (1) must be made in writing and lodged with the municipality within 14 (fourteen) days after a consumer 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 by the municipality for the testing of a measuring device, if it has been tested.
- (3) An appeal must be decided by the municipality within 14 (fourteen) days after an appeal was lodged and the consumer 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.

### 32. Waste of water

- (1) No consumer 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;
  - (d) an overflow of water to persist or
  - (e) an inefficient use of water to persist.
- (2) An owner shall repair or replace any part of his 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 subsection (1).
- (3) If an owner fails to take measures as contemplated in subsection (2), the municipality shall, by written notice in terms of section 22, require the owner to comply with the provisions of subsection (1).
- (4) A consumer shall ensure that any equipment or plant connected to his or her water installation uses water in an efficient manner.
- (5) The municipality may, by written notice, prohibit the use by a consumer 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.

### 33. Unauthorised and illegal discharges

- (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 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 No 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 adversely affect its effective functioning.
- (6) The municipality may, notwithstanding any other actions that may be taken in terms of this by-law, 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 36 of 1998).

#### 34. Illegal re-connection

A consumer whose access to water supply services have been restricted or disconnected, who intentionally reconnects to services or who intentionally or negligently interferes with infrastructure through which water supply services are provided, shall be disconnected.

#### 35. Pipes in streets or public places

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.

#### 36. Use of water from sources other than the water supply system

- (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 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 subsection (1) shall provide the engineer with evidence satisfactory to it that the water referred to in subsection (1) complies, whether as a result of treatment or otherwise, with the requirements of SANS 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 subsection (1) may be withdrawn if, in the opinion of the engineer—
  - (a) a condition imposed in terms of subsection (1) is breached; or
  - (b) the water quality no longer conforms to the requirements referred to in subsection (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 subsection (4) above shall be paid by the person to whom consent was granted in terms of subsection (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.

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

- (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 subsection (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 subsection (1) may be withdrawn if, in the opinion of the engineer—
  - (a) a condition imposed in terms of subsection (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 subsection (1) shall be liable for the costs associated with an investigation undertaken in terms of subsection (2) if the result of the investigation indicates that the sanitation facility has a detrimental impact on health or the environment.

#### 38. Offences and penalties

- (1) No person may—
  - (a) unlawfully and intentionally or negligently interfere with any water services works of the municipality;
  - (b) refuse or neglect to provide information or provide false information reasonably requested by the municipality;

- (c) refuse to give access required by a municipality in terms of section 23;
  - (d) obstruct or hinder a municipality in the exercise of his or her powers or performance of his or her functions or duties under this by-law;
  - (e) contravene or fail to comply with a provision of this by-law;
  - (f) contravene or fail to comply with a condition or prohibition imposed in terms of this by-law;
  - (g) contravene or fail to comply with any conditions imposed upon the granting of any application; consent, approval, concession, exemption or authority in terms of this by-law; or
  - (h) fail to comply with the terms of a notice served upon him or her in terms of this by-law.
- (2) Any person who contravenes any of the provision of subsection (1) shall be guilty of an offence and liable on conviction to:
- (a) a fine or imprisonment, or either such fine or such imprisonment or both such fine and such imprisonment;
  - (b) in the case of a continuing offence, and additional fine or an additional period of imprisonment or either such additional fine or such additional imprisonment or both such additional fine and imprisonment for each day on which such offence is continued, and
  - (c) a further amount equal to any costs and expenses found by the court to have been incurred by the municipality as result of such contravention.

### 39. Service levels

- (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 consumers.
- (2) The municipal council may in determining service levels differentiate between types of consumers, domestic consumers, geographical areas and socio-economic areas.
- (3) The following levels of service may, subject to subsection (1), be provided by the municipality on the promulgation of this by-law:
- (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
    - (v) maintained by the municipality.
  - (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) 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 consumer.

## CHAPTER II

### WATER SERVICES INTERMEDIARIES

#### 40. Registration

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.

#### 41. Provision of water services

- (1) 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 consumers.

#### 42. Charges for water services provided

- (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-law relating to credit control and debt collection from time to time, and provided by the municipality to consumers at a price that is the same or less than the charges at which the municipality provides such services.

### CHAPTER III

#### WATER SUPPLY SERVICES

##### Part I:

##### *Connection to water supply system*

#### 43. Provision of connection pipe

- (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 but the owner or consumer 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. A connection point will be provided by the municipality within 15 working days after a successful agreement for water supply services in respect of premises has been concluded.

#### 44. Location of connection pipe

- (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 the engineer 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 cost, any servitudes over other premises that may be necessary.
- (3) An owner must pay the determined connection charge in advance before a water connection can be effected.

#### 45. Provision of single water connection for supply to several consumers on the same premises

- (1) Notwithstanding the provisions of section 43, 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 consumers 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 subsection (2) (a), the owner or the person having the charge or management of the premises, as the case may be—
  - (a) must, if the municipality so requires, 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 consumers served by such measuring device.
- (4) Notwithstanding subsection (1), the municipality may authorise that more than one connection pipe to be provided on the water supply system for the supply of water to any premises comprising sectional title units 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 connection pipe.
- (5) Where the provision of more than one connection pipe is authorised by the municipality under subsection (4), the tariffs and charges for the provision of a connection pipe is payable in respect of each water connection so provided.

#### 46. Interconnection between premises or water installations

An owner of premises shall ensure that no interconnection exists between—

- (a) the water installation on his or her premises and the water installation on other premises; or

- (b) where several accommodation units are situated on the same premises, the water installations of the accommodation units; unless he or she has obtained the prior written consent of the municipality, and complies with any conditions that it may have imposed.

#### 47. Disconnection of water installation from the connection pipe

The engineer may disconnect a water installation from the connection pipe and remove the connection pipe if—

- (a) the agreement for supply has been terminated in terms of section 10 and it has not received an application for a subsequent supply of water to the premises served by the pipe within a period of 90 days of such termination, or
- (b) the building on the premises concerned has been demolished, or
- (c) on termination of an agreement for the provision of water supply services in accordance with the municipality's by-law relating to credit control and debt collection.

#### *Part 2: Communal water services works*

#### 48. Provision of a water services work for water supply to several consumers

- (1) The engineer may install a communal standpipe for the provision of water supply services to several consumers at a location it considers appropriate, provided that a majority of consumers, who in the opinion of the engineer, constitute a substantial majority, and to whom water services will be provided by the standpipe, has been consulted by him or the municipality and informed of the level of service, tariffs that will be payable and location of the work.
- (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 3: Temporary water supply services*

#### 49. Water supplied from a hydrant

- (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 for any period that may be prescribed by him 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 wishes to obtain a temporary supply of water referred to in subsection (1) must apply for such a water supply service in terms of section 2 and must pay a deposit determined by the municipal council from time to time.
- (3) The supply of water in terms of subsection (1) must be measured and the applicant shall provide a portable water meter and all other fittings and apparatus necessary, to the satisfaction of the engineer, for the temporary supply of water from a hydrant.

#### *Part 4: Standards and general conditions of supply*

#### 50. Quantity, quality and pressure

Water supply services provided by the municipality must comply with the minimum standards set for the provision of water supply services in terms of section 9 of the Act.

#### 51. Testing of pressure in water supply systems

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

#### 52. Specific conditions of supply

- (1) Notwithstanding the undertaking in section 50, 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 subsection (1)(b), specify the maximum pressure to which water will be supplied from the water supply system.
- (3) If an owner of consumer requires—
  - (a) that any of the standards referred to in subsection (1); or
  - (b) a higher standard of service than specified in section 50;be maintained on his premises, he or she shall take the necessary steps to ensure that the proposed 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 consumer adversely affects the supply of water to another consumer, he may

apply such restrictions as he may consider fit, to the supply of water to consumer in order to ensure a reasonable supply of water to the other consumer and must inform that consumer about the restrictions.

- (6) The municipality shall not be liable for any damage to property caused by water flowing from any water installation that is left open when the water supply is re-instated, after 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 SANS 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 consumer 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 5:*

*Measurement of water supply services*

**53. Measuring of quantity of water supplied**

- (1) The engineer must provide a measuring device designed to provide either a controlled volume of water, or an uncontrolled volume of water, to a consumer.
- (2) The municipality must, at regular intervals, measure the quantity of water supplied through a measuring device designed to provide an uncontrolled volume of water.
- (3) Any measuring device and its associated apparatus through which water is supplied to a consumer 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 he consider it necessary to do so.
- (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 subsection (4), he may install a section of pipe and associated fittings between the end of its connection pipe and the meter, and that section shall 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 subsection (4), the owner shall—
  - (a) provide a place satisfactory to the engineer in which to install it;
  - (b) ensure that unrestricted access is available to it at all times;
  - (c) be responsible for its protection and be liable for the costs arising from damage to it, excluding damage arising from normal fair wear and tear;
  - (d) 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;
  - (e) 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
  - (f) not use, or permit to be used on any water installation, any fitting, machine or appliance which causes damage or which, in the opinion of the engineer, is likely to cause damage to any meter.
- (7) No person other than the engineer shall:
  - (a) disconnect a measuring device and its associated apparatus from the pipe on which they are installed;
  - (b) break a seal which the engineer has placed on a meter; or
  - (c) in any other way interfere with a measuring device and its associated apparatus.
- (8) If the engineer considers that, a measuring device is a meter whose size is unsuitable because of the quantity of water supplied to premises, he may install a meter of a size that he considers necessary, and may recover the determined charge for the installation of the meter from the owner of the premises.
- (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 ascertaining the quantity of water supplied to each such unit; but where controlled volume water-delivery systems are used, a single measuring device may otherwise be used for more than one unit.

**54. Quantity of water supplied to consumer**

- (1) For the purposes of ascertaining the quantity of water that has been measured by a measuring device that has been installed by the engineer and that has been supplied to a consumer over a specific period, it will, for the purposes of this by-law, be presumed except in any criminal proceedings, unless the contrary is proved, that—
  - (a) the quantity, where the measuring device designed to provide an uncontrolled volume of water, is the difference between measurements taken at the beginning and end of that period;
  - (b) the quantity, where the measuring device designed to provide a controlled volume of water, is the volume dispensed by the measuring device;
  - (c) the measuring device was accurate during that period; and
  - (d) the entries in the records of the municipality were correctly made; and
  - (e) if water is supplied to, or taken by, a consumer without having passed through a measuring device, the estimate by the municipality of the quantity of that water shall be presumed, except in any criminal proceedings, to be correct unless the contrary is proved.
- (2) Where water supplied by the municipality to any premises is in any way taken by the consumer without the water passing through any

measuring device provided by the municipality, the municipality may, for the purpose of rendering an account, estimate, in accordance with subsection (3), the quantity of water supplied to the consumer during the period that water is so taken by the consumer.

- (3) For the purposes of subsection (2), an estimate of the quantity of water supplied to a consumer shall, as the municipality may decide, be based either on—
  - (a) the average monthly consumption of water on the premises recorded over three succeeding measuring periods after the date on which an irregularity referred to in subsection (2) has been discovered and rectified, or
  - (b) the average monthly consumption of water on the premises during any three consecutive measuring periods during the twelve months immediately before the date on which an irregularity referred to in subsection (2) was discovered.
- (4) Nothing in this by-law 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 estimate the quantity of water supplied over any period during the interval between successive measurements of the measuring device and render an account to a consumer for the quantity of water so estimated.
- (5) Until the time when a measuring device has been installed in respect of water supplied to a consumer, the estimated or shared consumption of that consumer during a specific period, must be based on the average consumption of water supplied to the specific supply zone within which the consumer's premises are situated, during a specific period.
- (6) Where in the opinion of the engineer it is not reasonably possible or cost effective to measure water that is supplied to each consumer within a determined supply zone, the municipality may in terms of its tariff policy determine a basic tariff or charge to be paid by each consumer within that zone irrespective of actual consumption.
- (7) The municipality must within seven days, on receipt of a written notice from the consumer and subject to payment of the determined charge, measure the quantity of water supplied to the consumer at a time, or on a day, other than that upon which it would normally be measured.
- (8) If a contravention of section 53 (7) occurs, the consumer must pay to the municipality the cost of whatever quantity of water was, in the opinion by the municipality, supplied to him.

#### **55. Defective measurement**

If a consumer has reason to believe that a measuring device, used for measuring water, which was supplied to him or her by the municipality is defective he or she may take the steps as provided for in the municipality's by-law relating to credit control and debt collection.

#### **56. Special measurement**

- (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, may, by written notice, advise the owner concerned of his intention to install a measuring device at any point in the water installation that he may specify.
- (2) The installation of a measuring device referred to in subsection (1), its removal, and the restoration of the water installation after such a removal shall be carried out at the expense of the municipality.
- (3) The provisions of sections 53 (6) and 53 (7) shall apply, insofar as they may be applicable, in respect of a measuring device that has been installed in terms of subsection (1).

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

A consumer shall not be entitled to a reduction of the amount payable for water wasted or lost in a water installation.

#### *Part 6: Audit*

#### **58. Water audit**

- (1) The municipality may require a consumer, within one month after the end of a financial year of the municipality, to undertake a water audit at his own cost.
- (2) The audit must at least involve and report—
  - (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 for the management of the demand for water;
  - (h) the plans to manage their demand for water;
  - (i) a comparison of the report with any report that may have been made during the previous three years;
  - (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 7:  
Installation work*

**59. Approval of installation work**

- (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 SANS 0400, or in terms of any Municipal by-law, 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 subsection (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 SANS Code 0252: Part I;
  - (c) a certificate certifying that the installation has been designed in accordance with SANS Code 0252: Part I by a professional engineer.
- (3) The provisions of subsections (1) and (2) shall not apply to a qualified plumber who replaces a fixed water heater or its associated protective devices.
- (4) Authority given in terms of subsection (1) shall lapse at the expiry of a period of twenty-four months.
- (5) A complete set of approved drawings of installation work must be available at the site of the work at all times until the work has been completed, where approval was required in terms of subsection (1).
- (6) If installation work has been done in contravention of subsection (1) or (2), the municipality may by written notice require the owner of the premises concerned to—
  - (a) 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 this by-law.

**60. Provision and maintenance of water installations**

- (1) An owner must provide and maintain his water installation at his own cost and except where permitted in terms of subsection (2), must ensure that the installation is situated within the boundary of his premises.
- (2) Before doing work in connection with the maintenance of a portion of his water installation, which is situated outside the boundary of his premises, an owner shall obtain the written consent of the municipality or the owner of the land on which the portion is situated, as the case may be.

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

- (1) Only a plumber, a person working under the control of a plumber, or another person authorised in writing by the municipality, 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 subsection (1).
- (3) Notwithstanding the provisions of subsection (1) the municipality may permit a person who is not a plumber to do installation work on his own behalf on premises owned and occupied solely by himself and his immediate household, provided that such work must be inspected and approved by a plumber at the direction of the engineer.

**62. Technical requirements for a water installation**

Notwithstanding the requirement that a certificate be issued in terms of section 59, all water installations shall comply with SANS 0252 Part 1 and all fixed electrical storage water heaters shall comply with SANS 0254.

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

- (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 subsection (1) must be made on the form prescribed by the municipality and be accompanied by the prescribed charge.
- (3) A pipe or water fitting may be not be included in the Schedule referred to in subsection (1) unless it—
  - (a) bears the standardisation mark of the South African Bureau of Standards in respect of the relevant SANS specification issued by the Bureau; or
  - (b) bears a certification mark issued by the SANS to certify that the pipe or water fitting complies with an SANS Mark specification or a

provisional specification issued by the SANS, provided that no certification marks shall be issued for a period exceeding two years; or

- (c) is acceptable to 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 consider necessary in respect of the use or method of installation.
- (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 a determined charge.

#### **64. Labelling of terminal water fittings and appliances**

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 water pressures: 20 kPa, 100kPa and 400 kPa.

#### **65. Water demand management**

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

#### *Part 8:*

#### *Water pollution, restriction and wasteful use of water*

#### **66. Owner to prevent pollution of water**

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.

#### **67. Water restrictions**

- (1) The municipality may by public notice to prevent the wasteful use of water in terms of section 32 or in the event of a water shortage, drought or flood—
  - (a) prohibit or restrict the consumption of water in the whole or part of its area of jurisdiction in general or for—
    - (i) 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) limits on the quantity of water that may be consumed over a specified period;
    - (ii) charges additional to those prescribed in respect of the supply of water in excess of a limit contemplated in subsection (1)(b)(i); and
    - (iii) a general surcharge on the prescribed charges in respect of the supply of water; and
  - (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 limit the application of the provisions of a notice contemplated by subsection (1) to specified areas and categories of consumers, premises and activities, and may permit deviations and exemptions from, and the relaxation of, any of the provisions on reasonable grounds.
- (3) The municipality may—
  - (a) take, or by written notice require a consumer 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 subsection (1); or
  - (b) discontinue or, for such period as it may deem fit, limit 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 subsection (1), subject to notice in terms of section 22; and
  - (c) shall where the supply has been discontinued, restore it only when the determined charge for discontinuation and reconnecting the supply has been paid.

- (4) The provisions of this section shall also apply in respect of water supplied directly by the municipality to consumers outside its area of jurisdiction, notwithstanding anything to the contrary in the conditions governing such supply, unless otherwise specified in the notice published in terms of subsection (1).

*Part 9:  
Fire services connections*

**68. Connection to be approved by the municipality**

- (1) The engineer shall be entitled in his 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 that the municipality's approval in terms of section 59 has been obtained and that the installation complies with the requirements of these and any other by-law of the municipality, has been submitted.
- (3) If in the engineer's opinion a fire extinguishing installation, which he 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, that 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 consumer's expense.

**69. Special provisions**

The provisions of SANS 0252-1 shall apply to the supply of water for fire fighting purposes.

**70. Dual and combined installations**

All new buildings erected after the commencement of this by-law, must 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 must 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 must be provided by the municipality, at the consumer's expense, within 90 metres of the property to provide a source of water for the fire tender to use in extinguishing 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, if that pressure could be expected when boosting takes place and must be capable of maintaining their integrity when exposed to fire conditions.

**71. Connection pipes for fire extinguishing services**

- (1) After the commencement of this by-law, 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 the engineer gives his approval to the contrary.
- (4) A connection pipe must be equipped with a measuring device that will not obstruct the flow of water while the device is operating.

**72. Valves and meters in connection pipes**

Every connection pipe to a fire extinguishing installation must be fitted with valves and a measuring device which shall be:

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

**73. Meters in fire extinguishing connection pipes**

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.

**74. Sprinkler extinguishing installation**

A sprinkler installation may be installed directly to the main, but the municipality may not be deemed to guarantee any specified pressure at any time.

**75. Header tank or double supply from main .**

- (1) The consumer must 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 a header tank to the sprinkler installation may be in direct communication with the main, provided that the main pipe must 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 must be equipped with a reflux valve situated within the premises.

#### **76. Sealing of private fire hydrants .**

- (1) Except where a system is a combined system with a combination meter, all private hydrants and hose-reels must be sealed by the municipality and the seals must not, except for the purposes of opening the hydrant or using the hose when there is a fire, be broken by any person other than by the municipality in the course of servicing and testing.
- (2) The consumer must give the municipality at least 48 hours notice prior to a fire extinguishing installation being serviced and tested.
- (3) The cost of resealing hydrants and hose-reels shall be borne by the consumer except when the seals are broken by the municipality's officers for testing purposes.
- (4) Any water consumed through a fire installation or sprinkler system shall be paid for by the consumer at the charges determined by the municipality.

#### *Part 10: General provisions*

#### **77. Notification of boreholes**

- (1) No person may sink a borehole on premises situated in a dolomite area, and before sinking a borehole a person must determine if the premises on which the borehole is to be sunk are 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 to notify it of the existence of a borehole on such premises, and provide it with such information about the borehole that it may require; and
  - (b) the owner or occupier of any premises who intends to sink a borehole on the premises, to notify it on the prescribed form of its intention to do so before any work in connection sinking it 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 of the intended borehole, to the satisfaction of the municipality, before sinking it.
- (4) Boreholes are subject to any requirements of the National Water Act, 1998 (Act No 36 of 1998).
- (5) The municipality may by notice to an owner or occupier or by public notice, require an owner or occupier who has an existing borehole that is 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) adhere to conditions imposed by it in respect of the use of a borehole for water services; and
  - (c) to pay a fixed charge imposed by it in respect of the use of such a borehole.

#### **78. Sampling of water**

- (1) The municipality may take samples of water obtained from a source, authorised in terms of section 6 or 7 of the Act, other than the water supply system for domestic purposes and cause the samples to be tested for compliance with any national standards prescribed in terms of section 9 of the Act.
- (2) The prescribed charge for the taking and testing of the samples referred to in subsection (1) shall be paid by the person to whom approval to use the water for potable water was granted in terms of section 6(1) of the Act.

#### **79. Supply of non-potable water by municipality**

- (1) The municipality may on application in terms of section 3 agree to supply non-potable water to a consumer, subject to such terms and conditions as the municipality may impose.
- (2) Any supply of water agreed to in terms of subsection (1) shall not be used for domestic or any other purposes, which, in the opinion of the municipality, may give rise to a health risk.
- (3) No warranty, expressed or implied, shall apply to the purity of any non-potable water supplied by the municipality or its suitability for the purpose for which the supply was granted.
- (4) The supply of non-potable water shall, both as to condition and use, be entirely at the risk of the consumer, who shall be liable for any consequential damage or loss arising to himself, herself or others arising directly or indirectly there from, including the consequences of any bona fide fault of the municipality or the malfunction of a treatment plant.

#### **80. Testing of pressure in water supply systems**

The municipality may, on application by an owner and on payment of the prescribed 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.



**81. Pipes in streets or public places**

No person shall for the purpose of conveying water 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, vested in, or under the control of any municipality, except with the prior written permission of that municipality and subject to such conditions as it may impose.

**82. Use of grey water**

No person shall use grey water or permit such water to be used, except with the prior written permission of the municipality and subject to such conditions as it may impose.

**CHAPTER IV  
SANITATION SERVICES**

*Part 1:  
Standards and general provisions*

**83. Standards for sanitation services**

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.

**84. Objectionable discharge to sewage disposal system**

- (1) No person shall discharge, or permit the discharge or entry into the sewage disposal system of any sewage or other substance—
  - (a) which does not comply with the standards and criteria prescribed in sections 109 to 112 below;
  - (b) which contains any substance in such concentration as will produce or be likely to produce in the effluent produces for discharge at any sewage treatment plant or sea outfalls discharge point or in any public water any offensive, or otherwise undesirable taste, colour, odour, temperature or any foam;
  - (c) which may prejudice the re-use of treated sewage or adversely affect any of the processes whereby sewage is purified for re-use, or treated to produce sludge for disposal;
  - (d) which contains any substance or thing of whatsoever nature which is not amenable to treatment to a satisfactory degree at a sewage treatment plant or which causes or is likely to cause a breakdown or inhibition of the processes in use at such plant;
  - (e) which contains any substance or thing of whatsoever nature which is of such strength, or which is amenable to treatment only to a degree as will result in effluent from the sewage treatment plant or discharge from any sea outfalls not complying with standards prescribed under the National Water Act, 1998 (Act No. 36 of 1998);
  - (f) which may cause danger to the health or safety of any person or may be injurious to the structure or materials of the sewage disposal system or may prejudice the use of any ground used by the municipality for the sewage disposal system, other than in compliance with the permissions issued in terms of this by-law; and
  - (g) which may inhibit the unrestricted conveyance of sewage through the sewage disposal system.
- (2) No person shall cause or permit any storm water to enter the sewage disposal system.
- (3) The municipality may, by written notice, order the owner or occupier to conduct, at his or her cost, periodic expert inspections of the premises in order to identify precautionary measures which would ensure compliance with this by-law and to report such findings to an authorised agent.
- (4) If any person contravenes any provision of subsection (1) or subsection (2) he or she shall within twelve hours, or earlier if possible, advise the municipality of the details of the contravention and the reasons for it.

*Part 2:  
On-site sanitation services and associated services*

**85. Application for infrastructure**

- (1) If and agreement for on site sanitation and associated services in accordance with section 2 exists and no infrastructure in connection therewith exists on the premises, the owner must immediately make application on the approved form and—
  - (a) pay the prescribed charge for the installation of necessary infrastructure; or
  - (b) with the approval by the municipality and at the request of the owner, install the connecting sewer or on site sanitation services in accordance with the specifications of the municipality.
- (2) A municipality may specify the type of on site sanitation services to be installed.

**86. Services associated with on-site sanitation services**

- (1) The removal or collection of conservancy tank contents, night soil or the emptying of pits will be undertaken by the municipality in accordance with a removal and collection schedule determined by the municipality.
- (2) Copies of the collection and removal schedule will be available on request.

**87. Charges in respect of services associated with on-site sanitation services**

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 shall be payable in terms of the municipality's tariff policy when the service is rendered.

**88. Installation of on-site sanitation services**

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 sanitation services specified by the municipality, on the site unless the service is a subsidised service that has been determined by the municipality in accordance with the municipality's Credit Control and Debt Collection By-law.

**89. Ventilated improved pit latrines**

- (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 2m<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 0.5m above the nearest roof, must be of at least 150mm 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 3.0m 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; and
  - (i) the latrine must have access to water for washing hands.

**90. Septic tanks and treatment plants**

- (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 sewage treatment plant on a site must not be situated closer than 3 metres 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 must 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 septic tank serving a dwelling unit must—
  - (a) 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 an invert level of 2 500 litres;
  - (b) have an internal width of not less than 1 metre measured at right angles to the direction of the flow;
  - (c) have an internal depth between the cover and the bottom of the tank of not less than 1,7metre; and
  - (d) retain liquid to a depth of not less than 1,4metre.
- (6) Septic tanks serving premises other than a dwelling unit must be designed and certified by a professional civil engineer registered as a member of the engineering Council of South Africa.
- (7) No rain water, storm-water, or effluent other than that approved by the municipality may be discharged into a septic tank.

**91. French drains**

- (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 shall not be situated closer than 5m to any dwelling unit or to any boundary of any premises on which it is situated, nor in any such position that 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 must be designed and certified by a professional Civil engineer registered as a member of the engineering Council of South Africa.

#### 92. Conservancy tanks

- (1) The municipality may, on such conditions as it may prescribe; approve the construction of a conservancy tank and ancillary appliances for retention of sewage or effluent.
- (2) No rain water, storm-water, or effluent other than approved by the municipality may be discharged into a conservancy tank.
- (3) No conservancy tank must 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, 100mm 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 municipality's removal vehicles;
  - (d) the valve and fittings referred to in paragraph (c) or the outlet end of the pipe, as the case may be, are located in a chamber that has hinged cover approved by the engineer and which is situated in a position required by the municipality;
  - (e) access to the conservancy tank must be 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 municipality may, having regard to the position of a conservancy tank or of the point of connection for a removal vehicle, require the owner or consumer to indemnify the municipality, in writing, against any liability for any damages that may result from rendering of that service as a condition for emptying the tank.
- (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 3.5m 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 3.5m wide for such purposes.
- (6) The owner or occupier of premises on which a conservancy tank is installed shall at all times maintain the tank in good order and condition to the satisfaction of the municipality.

#### 93. Operation and maintenance of on-site sanitation services

The operation and maintenance of on-site sanitation services and all costs pertaining to it 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-law relating to credit control and debt collection.

#### 94. Disused conservancy and septic tanks

If an existing conservancy tank or septic tank is no longer required for the storage or treatment of sewage, or if permission for its use is withdrawn, the owner must either cause it to be completely removed or to be completely filled with earth or other suitable material, provided that the engineer may require a tank to be dealt with in another way, or approve its use for other purposes, subject to any conditions specified by him.

*Part 3:  
Sewage disposal*

#### 95. Obligation to connect to sanitation system

- (1) All premises on which sewage is produced must be connected to the municipality's sanitation system if a connecting sewer is available or if 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 37.
- (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) An owner of premises, who is required to connect those premises to the municipality's sanitation system in accordance with subsection (1), must inform the municipality in writing of any sanitation services, provided by the municipality on the site, which will no longer be required as a result of the connection to the sanitation system.
- (4) The owner will be liable for any charge payable in respect of sanitation services on the site, until an agreement for rendering those services has been terminated in accordance with the municipality's by-law relating to credit control and debt collection.
- (5) If the owner fails to connect premises to the sanitation system after having had a notice in terms of subsection (2) the municipality, notwithstanding any other action that it may take in terms of this by-law, may impose a penalty determined by it.

#### 96. Provision of connecting sewer

- (1) If an agreement for sanitation services in respect of premises has been concluded in accordance with section 2 and no connecting sewer exists in respect of the premises, the owner shall make application on the prescribed form, and—

- (a) pay the tariffs and charges determined by the municipality for the installation of a connecting sewer.
- (b) with the approval by the municipality and at the request of the owner, install the connecting sewer in accordance with any specifications of the municipality.
- (2) If an application is made for sanitation services which are of such an extent or so situated that it will become necessary to extend, modify or upgrade the sanitation system in order to provide sanitation services to any premises, the municipality may agree to the extension only if the owner pays or undertakes to pay for the cost, as determined by the engineer, of the extension, modification or upgrading of the services.
- (3) Only the engineer may install or approve an installed connecting sewer; but the owner or consumer may connect the sanitation installation to the connection pipe.
- (4) No person may commence any development on any premises unless the engineer has installed a connecting sewer.

**97. Location of connecting sewer**

- (1) A connecting sewer that has been provided and installed by the engineer or owner in terms of section 96 must—
  - (a) be located in a position determined by the engineer and be of a suitable size determined by the engineer; and
  - (b) terminate at
    - (i) the boundary of the premises; or
    - (ii) at the connecting point if it is situated on the premises
- (2) In reaching with an owner concerning the location of a connecting sewer, the municipality shall ensure that the owner is aware of—
  - (a) practical restrictions that may exist regarding the location of a connecting sewer pipe;
  - (b) the cost implications of the various possible locations of the connecting sewer;
  - (c) whether or not the municipality requires the owner to fix the location of the connecting sewer by providing a portion of his or her water installation at or outside the boundary of his or her premises, or such agreed position inside or outside his or her premises where the connection is required, for the municipality to connect to such installation.
- (3) The engineer may at the request of the owner of premises, approve, subject to any conditions that he may impose, a connection to a connecting sewer other than one that is most readily available for the provision of sanitation services to the premises; in which event 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 own cost, any servitude over other premises that may be necessary.
- (4) Where an owner is required to provide a sewage lift as provided for in terms of the Building Regulations, or the premises are at a level where the drainage installation cannot discharge into the sewer by gravitation, the rate and time of discharge into the sewer has to be subject to the approval of the municipality.
- (5) The owner of premises must pay the connection charges and tariffs determined by the municipality before a connection to the connecting sewer can be effected.

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

- (1) Notwithstanding the provisions of section 97, 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) Where the owner, or the person having the charge or management of any premises on which several accommodation units are situated, requires the disposal of sewage from such premises for the purpose of disposal from the different accommodation units, the municipality may, in its discretion, provide and install either—
  - (a) a single connecting sewer in respect of the premises as a whole or any number of such accommodation units; or
  - (b) a separate connecting sewer for each accommodation unit or any number thereof.
- (3) Where the municipality has installed a single connecting sewer as contemplated in subsection (2) (a), the owner or the person having the charge or management of the premises, as the case may be—
  - (a) must if the municipality so requires, install and maintain on each branch pipe extending from the connecting sewer to the different accommodation units—
    - (i) a separate connecting sewer; and
    - (ii) an isolating valve;
  - (b) will be liable to the municipality for the tariffs and charges for all sewage disposed from the premises through such a single connecting sewer, irrespective of the different quantities disposed by the different consumers served by such connecting sewer.
- (4) Notwithstanding subsection (1), the municipality may authorise that more than one connecting sewer be provided in 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.
- (5) Where the provision of more than one connecting sewer is authorised by the municipality under subsection (4), the tariffs and charges for the provision of a connecting sewer are payable in respect of each sewage connection so provided.

**99. Interconnection between premises**

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

**100. Disconnection of draining installation from connecting sewer**

The municipality may disconnect a drainage installation from the connecting sewer and remove the connecting sewer if—

- (a) the agreement for provision has been terminated in terms of section 11 and it has not received an application for subsequent provision to the premises served by the sewer within a period of 90 days of such termination; or
- (b) the building on the premises concerned has been demolished.

*Part 4:  
Sewage delivered by road haulage*

**101. Acceptance of sewage delivered by road haulage**

A municipality may, at its discretion, and subject to such conditions as it may specify, accept sewage for disposal delivered to the municipality's sewage treatment plants by road haulage.

**102. Written permission for delivery of sewage by road haulage**

- (1) No person shall discharge sewage into the municipality's sewage treatment plants by road haulage except with the written permission of the municipality and subject to such period and any conditions that may be imposed terms of the written permission.
- (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 or charges.

**103. Conditions for delivery of sewage by road haulage**

- (1) When sewage is delivered by road haulage—
  - (a) the time of delivery shall be arranged in consultation with the municipality; and
  - (b) the nature and composition of the sewage shall be established to the satisfaction of the municipality prior to the discharge thereof and no person shall deliver sewage that does not comply with the standards laid down in terms of this by-law.

**104. Withdrawal of permission for delivery of sewage by road haulage**

- (1) The municipality may withdraw any permission, after giving 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" or in the written permission; or
  - (b) fails or refuses to comply with any notice lawfully served on him or her in terms of this by-law or contravenes any provisions of this by-law or any condition imposed on him or her in terms of any permission granted to him or her; and
  - (c) fails to pay the assessed charges in respect of any sewage delivered.

*Part 5:  
Purified sewage*

**105. Use of purified sewage**

- (1) The municipality may on application in terms of section 2, agree to supply purified sewage to a consumer, subject to such terms and conditions as the municipality may impose.
- (2) No warranty, expressed or implied, shall be supplied by the municipality in respect of the suitability of the purified sewage for the purpose for which the supply was granted.
- (3) The supply of purified sewage shall, both as to condition and use, be entirely at the risk of the consumer, who shall be liable for any consequential damage or loss arising to himself, herself or others arising directly or indirectly there from, including the consequences of any bona fide fault of the municipality or the malfunction of a treatment plant.

*Part 6:  
Disposal of industrial effluent and trade premises*

**106. Application for disposal of industrial effluent**

- (1) A person must apply for approval to discharge industrial effluent into the sewage disposal system of the municipality in terms of section 2(1) and on the prescribed form attached as Schedule B to this by-law.
- (2) The municipality may, if in its opinion the capacity of a sewage disposal 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, grant written permission to discharge industrial effluent.
- (3) The provisions of Chapter I will mutatis mutandis apply to any permission to discharge industrial effluent.
- (4) Any person who wishes to construct or cause to be constructed, a building which shall be used as a trade premises, shall 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 permission to discharge industrial effluent in terms of subsection (1).

**107. Unauthorised discharge of industrial effluent**

- (1) No person shall discharge or cause or permit to be discharged into the sewage disposal system any industrial effluent except with and in terms of the written permission of the municipality and in accordance the provisions of this part.
- (2) A person to whom such permission is granted shall pay to the municipality any prescribed charges.

**108. Quality standards for disposal of industrial effluent**

- (1) A person to whom permission has been granted must ensure that no industrial effluent is discharged into the sewage disposal system of the municipality unless it complies with the standards and criteria set out in Schedule A hereto.
- (2) The municipality may by writing in the permission concerned, relax or vary the standards in Schedule A, provided that the municipality is satisfied that any such relaxation or variation 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 will consider—
  - (a) whether the applicant's undertaking is operated and maintained at optimal levels;
  - (b) whether technology used by the applicant represents the best available option to the applicant's industry and, if not, whether the installation of such technology would entail unreasonable cost to the applicant;
  - (c) whether the applicant is implementing a programme of waste minimisation which complies with national and local waste minimisation standards 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 a written permission.

**109. Conditions for disposal of industrial effluent**

- (1) The municipality may in the written permission or at any time, by written notice, require a person 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 sewage disposal 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 sewage disposal system in accordance with the conditions imposed by it;
  - (c) install for the conveyance of his or her industrial effluent into the sewage disposal system at a given point, a drainage installation separate from the drainage installation for waste water and standard domestic effluent and may prohibit such person from disposing of his or her industrial effluent at any other point and from disposing of his or her waste water and standard domestic effluent by means other than into a sewage disposal system;
  - (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 sewage disposal system which is in contravention of this by-law;
  - (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 analysed 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 the person mentioned in subsection (1) may be required to carry out, construct or install in terms of subsection (1) shall be borne by the said person.
- (3) The written permission of the municipality must be obtained for any proposed changes to the composition of industrial effluent discharged into the sewage disposal system.
- (4) In the event that industrial effluent that does not comply with the standards in Schedule A or the written permission issued in respect of that process or premises, is discharged into the sewage disposal system, the municipality must be informed of the incident and the reasons therefor within twelve hours of such discharge.

**110. Withdrawal of written permission for disposal of industrial effluent**

- (1) The municipality may withdraw any permission, after giving written notice if its intention to a person permitted to discharge industrial effluent into the sewage disposal system if the person—
  - (a) fails to ensure that the industrial effluent discharged conforms to the industrial effluent standards prescribed in Schedule A of this by-law or the written permission;
  - (b) fails or refuses to comply with any notice lawfully served on him or her in terms of this by-law or contravenes any provisions of this by-law 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 written permission—
  - (a) in addition to any steps prescribed in this by-law, and on written notice authorise the closing or sealing of the connecting sewer of the said premises to any sewer for such charge as may be prescribed in the municipality's tariff of charges; and
  - (b) refuse to accept any industrial effluent until it is satisfied that adequate steps have been taken to ensure that the industrial effluent to be discharged conforms with the standards prescribed in this by-law.

#### 111. Sea outfalls

- (1) The provisions of this part shall apply equally to industrial effluent discharged into any of the municipality or its authorised agent's sea outfalls, subject to any additional conditions specific to sea outfalls that may be imposed.
- (2) Where industrial effluent is accepted for discharge into a sea outfall it shall be delivered to the point of acceptance approved by the municipality or its authorised agent by means of a pipeline constructed and maintained by the permitted person at his or her expense.
- (3) No industrial effluent shall be accepted for discharge into a sea outfall unless—
  - (a) it complies with the standards and criteria set out in Schedule A; and
  - (b) it is proved to the satisfaction of the municipality or its authorised agent, that such effluent—
    - (i) is not toxic to marine fauna or flora;
    - (ii) contains no constituents in concentrations which can create a nuisance on the beaches or in the sea, or a health hazard or which may have an adverse effect on bathing or other recreational areas;
    - (iii) contains no floating material;
    - (iv) contains no substance which may be prejudicial or injurious to the municipality or its authorised agent's sea outfalls and associated sumps, sewers, plant and equipment or to its employees;
    - (v) contains no materials capable of creating a nuisance by frothing;
    - (vi) contain no standard domestic effluent; and
  - (c) it complies with any applicable standards in terms of the National Water Act, 1998 (Act No. 36 of 1998).
- (4) The municipality or its authorised agent may relax or vary the standards and criteria in Schedule A, provided that such relaxation or variation shall not constitute a relaxation or variation of those matters referred to in subsection (3).
- (5) The delivery pipeline from the premises concerned to the point of acceptance shall be maintained in a proper condition and free from all leaks.
- (6) Acceptance of the industrial effluent shall be subject to review at any time.

#### Part 7:

#### *Measurement of quantity of effluent discharged to sewage disposal system*

#### 112. Measurement of quantity of standard domestic effluent discharged

- (1) The quantity of standard 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 thereto.
- (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 of standard domestic effluent will be a percentage of the total water used on that premises as may be reasonably estimated by the municipality.

#### 113. Measurement of quantity of industrial effluent discharged

- (1) The quantity of industrial effluent discharged into the sewage disposal system shall 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, according to Part II in Schedule B.
- (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 composition of the effluent.
- (3) The municipality may install and maintain any meter, gauge or device referred to in subsection (2) at the expense of the owner of the premises on which it is installed.
- (4) Where premises are 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 of standard industrial effluent 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 C.
- (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 with those used in subsection (a) and, if discrepancies are found, the values of the municipality shall, except for the purpose of criminal proceedings, be presumed to be correct and further tests may be required by the municipality to determine, at the cost of the customer, the values for the formula;
  - (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, and orthophosphate concentration) in the effluent as well as the concentration of the metals, pH value and conductivity, the municipality will use the tests normally used by municipalities for these respective purposes. Details of the appropriate test may be ascertained from the municipality or the SANS. Test results from a laboratory, accredited by the municipality, 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 and the period-of treatment for calculation shall not be less than one full 24-hour period; unless 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 for an initial period of one month, but in any case not longer than twelve months from the date of commencement of these charges, after the expiry of which time 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 section 5 without taking any samples;
  - (i) whenever the municipality takes a sample, one half of it must be made available to the customer;
  - (j) for the purpose of calculating the quantity of effluent discharged from each point of discharges of effluent, the total quantity of water consumed on the premises shall be allocated to the several points of discharge as accurately as is reasonably practicable;
  - (k) the costs of conveying and treating industrial effluent shall be determined by the municipality and shall apply with effect from a date determined by the municipality; and
  - (l) in the discretion of the municipality, the charges for industrial effluent may be charged to a fixed monthly charge determined by taking into consideration the effluent strengths, the volume and the economic viability of micro and small industries.

#### 114. Reduction in the quantity determined in terms of sections 112 and 113

- (1) A person shall be entitled to a reduction in the quantity determined in terms of sections 112 and 113 in the event that the quantity of water on which the percentage is calculated was measured during a period were water was wasted or a leakage was undetected if the consumer demonstrates to the satisfaction of the municipality that the said water was not discharged into the sewage disposal 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 by-law.

#### 115. Charges in respect of "on-site" sanitation services

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 arising from the removal of the pit contents, its transportation to a disposal site, the treatment of the contents to achieve a sanitary condition and the final disposal of any solid residues and are payable by the owner.

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 formula for the calculation of effluent discharge charges as included in Schedule C.

#### Part 8: Drainage installations

#### 116. Construction or installation of drainage installations

An owner must provide and maintain his drainage installation at his own expense, unless the installation constitutes a basic sanitation facility as determined by the municipality, and except where otherwise approved by the municipality, must ensure that the installation is situated within the boundary of his premises.

- (1) The municipality may prescribe the point in the sewer, and the depth below the ground, at which 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 the construction or connection of the drainage installation until the municipality's connecting sewer has been laid.
- (2) An drainage installation that has been constructed or installed must comply with any applicable specifications in terms of the Building Regulations and any standard prescribed in terms of the Act.



- (3) 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.
- (4) Where premises are situated in the 1 in 50 years flood plain, the top level of all service access holes, inspection chambers and gullies must be above the 1 in 50 years flood level.
- (5) 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 set out in the building regulations, this by-law and any other relevant law or by-law.
- (6) No rainwater or storm-water, and no effluent other than an effluent that has been approved by the municipality, may be discharged into a drainage installation.

#### 117. Drains

- (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 100mm thick under the barrel of the pipe and with a surround of similar material and thickness, and the joints of such drains must be flexible joints approved by the engineer.
- (2) A drain or part of it may only be laid within, or either passes under or through a building, with the approval of the engineer.
- (3) A drain or part of it 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 the drain.

#### 118. Drains in streets or public places

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

#### 119. Construction by municipality

The municipality may agree with the owner of any premises that any drainage work which such owner desires, or is required to construct in terms of this by-law or the Building Regulations, will be constructed by the municipality against payment, in advance or on demand, of all costs associated with such construction.

#### 120. Maintenance of drainage installation

- (1) The owner or occupier of any premises must maintain any drainage installation and any sewer connection on such premises at his own cost.
- (2) Any person who requests the municipality to clear a drainage installation will be liable to pay the prescribed tariff.
- (3) A municipality may, on the written application of the owner or occupier of any premises, inspect and test the drainage installation of such premises or any section thereof and recover from the owner or occupier the cost of such inspection and test, calculated at the rate specified in the prescribed tariff or charges.
- (4) Where any part of a drainage installation is used by two or more owners or occupiers, they shall be jointly and separately liable for the maintenance of the installation.
- (5) The owner of any premises must ensure that all manholes and cleaning eyes on the premises are permanently visible and accessible.

#### 121. Installation of pre-treatment facility

A municipality may require that any new premises must be provided with a minimum pre-treatment facility of a type specified by it prior to that premises being connected to the sewage disposal system.

#### Protection from ingress of floodwaters

122. Where a premises is situated in the 1 in 50 years flood plain the top level of service access holes, inspection chambers and gullies is to be above the 1 in 50 years flood level, except, in the case of service access holes and inspection chambers, where the cover is secured in place by approved means.

#### 123. Disconnection of drainage installations

- (1) Except for the purpose of carrying out maintenance or repair work, no drainage installation may be disconnected from the connection point.
- (2) Where any part of a drainage installation is disconnected from the remainder 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) When a disconnection has been made after all the requirements of the Building Regulations in regard to disconnection have been complied with, the engineer must upon the request of the owner, issue a certificate certifying 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 from the end of the month preceding the first day of the month following the issue of such certificate.
- (4) When a drainage installation is disconnected from a sewer, the engineer must seal the opening caused by the disconnection and may recover the cost of doing so 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 will be calculated as if the connection or disconnection were made on the first day of the month following the month in which the connection or disconnection took place.

#### 124. Technical requirements for drainage installations

All drainage installations shall comply with SANS code 0252 and the Building Regulations.

#### 125. Sewer blockages

- (1) No person may cause or permit an accumulation of grease, oil, fat, solid matter, or any other substance in any trap, tank, or fitting that may 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 in or on it, 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 if the municipality is reasonably satisfied that the 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 the cost of clearing the blockage.
- (7) Where a blockage in a sanitation system has been removed by the engineer and the removal necessitated the disturbance of an owners paving, lawn or other artificial surface neither the engineer nor the municipality shall be required to restore them to their previous condition and shall not be responsible for any damage to them unless caused by the wrongful act or negligence of the engineer.

#### 126. Grease traps

A grease trap of an approved type, size and capacity must be provided in respect of all 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 to interference with the proper operation of any waste-water treatment plant.

#### 127. Industrial grease traps

- (1) The owner or manufacturer must ensure that industrial effluent which contains, or which, in the opinion of the municipality is likely to contain, grease, oil, fat of inorganic solid matter in suspension shall, before it is allowed to enter any sewer, is passed through one or more tanks or chambers, of a type, size and capacity designed to intercept and retain such grease, oil, fat or solid matter, that is approved by the engineer.
- (2) The owner or manufacturer must ensure that 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 must be intercepted and retained in a tank or chamber so as to prevent its entry of into the sewer.
- (3) A tank or chamber as referred to in subsection (2) must 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 300mm in depth; and
  - (c) shall be provided with a sufficient number of manhole covers for the adequate and effective removal of grease, oil fat and solid matter.
- (4) Any person discharging effluent to a tank or chamber must remove grease, oil, fat or solid matter regularly from the tank or chamber and must maintain a register recording—
  - (a) the dates on which the tank or chamber was cleaned;
  - (b) the name of any the persons employed by him to clean the tank or chamber or, if he cleaned it himself, that fact that he did so; and
  - (c) a certificate from the person employed to clean it certifying that the tank or chamber has been cleaned and stating the manner in which the contents of the tank or chamber were disposed of, or, if he cleaned it himself, his own certificate to that effect.

#### 128. Mechanical appliances for lifting sewage

- (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 must show details of the compartment containing the appliance, the sewage storage tank, the stilling chamber and their position, 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, loss 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 unless the injury or damage be caused by the wrongful intentional or negligent act or negligence of an employee of the municipality.
- (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 located and operated so as to not cause any nuisance through noise or smell or otherwise, and every compartment containing any such appliance must 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 determined by the engineer who may, at any time, require the owner to install such fittings and regulating devices as may in his opinion, be necessary to ensure that the determined 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 must be provided in conjunction with such appliance.
- (9) Every sewage storage tank required must—
  - (a) be constructed of hard, durable materials and must be watertight and the internal surfaces of the walls and floor must be smooth and impermeable;
  - (b) have a storage capacity below the level of the inlet equal to the quantity of sewage discharged there into it in 24 hours or 900 litres, whichever is the greater quantity; and
  - (c) be so designed that the maximum 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 9:  
Other sanitation services*

**129. Stables and similar premises**

The municipality may approve the connection of a drainage installation to stables, cowsheds, dairies, kennels, other premises for the accommodation of animals, and tanneries, subject to the payment of all applicable charges and the fulfilment of any condition that the municipality may impose; but approval will be given only if—

- (a) the floor of the premises is paved by impervious materials that are approved by the municipality and graded to a silt trap, grease trap or gully of adequate capacity; and
- (b) every part of the floor of the premises is covered by a roof, or another protective device, in a way that adequately prevents the entry of rain or storm water into the drainage installation.

**130. Mechanical food-waste or other disposal units**

The municipality may approve the connection or incorporation of a mechanical waste food, disposal which and any disposal unit or garbage grinder, into a drainage installation that has a capacity in excess of 500W, subject to the payment of all applicable charges and to any condition that the municipality may impose, but approval will be given only if—

- (a) a water meter is installed by the municipality;
- (b) the engineer is satisfied that the municipality's sewerage and sewage treatment system will not be adversely affected; and
- (c) the installation or incorporation is installed in conformity with the municipality's by-law relating to electricity.

*Part 10:  
Installation work*

**131. Approval of installation work**

- (1) If an owner wishes to have installation work done, he must first obtain the municipality's written approval.
- (2) Application for the approval referred to in subsection (1) must be made on the prescribed form and shall be accompanied by—
  - (a) a charge determined by the municipality, if a charge is determined, and
  - (b) copies of all drawings that may be required and approved by the municipality;
  - (c) a certificate by a professional engineer certifying that the installation has been designed in accordance with any applicable SANS Codes.
- (3) Approval given in terms of subsection (1) shall lapse after 24 (twenty-four) months.
- (4) When approval has been given in terms of subsection (1), a complete set of the drawings that have been required and approved by the municipality must be available for inspection at the site at all reasonable times until the work has been completed.
- (5) If installation work has been done in contravention of subsections (1) or (2), the municipality may require the owner—
  - (a) to rectify the contravention within a specified time;
  - (b) if work is in progress, to cease the work; and
  - (c) to remove all work that does not comply with this by-law.

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

- (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 subsection (1).

- (3) Notwithstanding the provisions of subsections (1) and (2), the municipality may permit a person, who is not a plumber, to do installation work at his own premises if they are occupied by himself or his own household, but if permission is given, the work must be inspected and approved by a plumber under the direction of or who has been nominated by, the engineer.

### 133. Testing of drainage installations

- (1) No drainage installation, or any part of one, shall be connected to on-site sanitation services nor shall, the municipality's sanitation system be connected 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, before the draining installation has been 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, and during the inspection, a full circle of light must appear to the observer, and the pipe or series of pipes must be seen to be unobstructed;
  - (b) a smooth ball having a diameter 12mm 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) after all openings to the pipe or series of pipes to be tested, after having been plugged or sealed and after all traps associated with them have been filled with water, air shall be pumped into the pipe or pipes until a manometric pressure of 38mm of water is indicated, after which the pressure must remain greater than 25mm of water for a period of at least 3 (three) minutes without further pumping; and
  - (d) all parts of the installation are subjected to and required to withstand an internally applied hydraulic test pressure of not less than a 3m head of water for a period of not less than 10minutes.
- (2) If the municipality has reason to believe that any drainage installation or any part of it has become defective, it may require the owner of any premises to conduct any or all of the tests prescribed in subsection (1) and, if the installation fails to pass any test, or all the tests, to the satisfaction of the municipality, the municipality may by notice require the owner to take all reasonable measures that may be necessary to enable the installation to satisfy any or all of them.

### 134. Water demand management

- (1) Notwithstanding the provisions of section 32, 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 this by-law.
- (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.

*Part 11:  
General*

### 135. Conflict with other legislation

In the event of any conflict between any provision of this by-law and National and Provincial legislation, standards, policies or guidelines, the National and Provincial legislation, standards, policies or guidelines shall prevail.

### 136. Revocation of by-laws

The provisions of any by-laws previously promulgated by the municipality or by any of the disestablished municipalities now incorporated in the municipality, are hereby repealed as far as they relate to matters provided for in this by-law, and insofar as it has been made applicable to the municipality by the authorisation for the execution of powers and functions in terms of section 84(3) of the Local Government: Municipal Structures Act, Act 117 of 1998.

### 137. Short title and commencement

This by-law shall be known as the Water Services By-law and commences on the date of publication thereof in the Provincial Gazette.

*Part 12:  
Quality standards*

#### SCHEDULE A

##### Acceptance of industrial effluent for discharge into the sewage disposal system

No person shall discharge or cause or permit to be discharged directly or indirectly into any sewer any effluent which—

- (i) has a temperature exceeding 40 deg. C ;
- (ii) has a pH value of less than 6,0 or more than 10,0 at 25 deg. C;
- (iii) contains calcium carbide;
- (iv) contains any substance which gives off or produces or is liable to give off or produce explosive, inflammable, poisonous or offensive gases or vapours;
- (v) contains any substance which has an open flash point of less than 95 deg. C;
- (vi) contains any volatile inflammable solvents or organic solvents immiscible with water;
- (vii) contains any radio-active waste or isotopes of such nature or in such concentration as do not meet the requirements laid down in the Nuclear Energy Act, Act 46 of 1999;
- (viii) contains any of the following substances in concentrations exceeding the amount, in milligrams per litre, shown opposite such substances:

(a) Settleable solids .....	50mg/l
(b) Suspended solids .....	500mg/l
(c) Total dissolved solids at 105 deg. C .....	1 000mg/l
(d) Inorganic dissolved solids at 600 deg. C .....	500mg/l
(e) Chloride as Cl .....	150mg/l
(f) Total sulphates as SO <sub>4</sub> .....	500mg/l
(g) Total cyanides as CN .....	20mg/l
(h) Total sulphides as S .....	50mg/l
(i) Total phenols as C <sub>6</sub> H <sub>5</sub> OH .....	50mg/l
(j) Substances soluble in toluene .....	50mg/l
(k) Substances soluble in petroleum 40/60 deg. C .....	50mg/l
(l) Total of "j" and "k" .....	80mg/l
(m) Sodium as Na .....	500mg/l
(n) Anionic surface active compounds .....	500mg/l
(o) Sugars and/or starch (expressed as glucose) .....	1 000mg/l
(p) Metals:	
Iron as Fe .....	25mg/l
Arsenic as As .....	5mg/l
Boron as B .....	5mg/l
Cadmium as Cd .....	5mg/l
Chromium as Cr .....	10mg/l
Cobalt as Co .....	5mg/l
Copper as Cu .....	10mg/l
Lead as Pb .....	5mg/l
Mercury as Hg .....	5mg/l
Nickel as Ni .....	5mg/l
Selenium as Se .....	5mg/l
Titanium as Ti .....	5mg/l
Zinc as Zn .....	20mg/l
Permissible total concentration of all heavy metals .....	50mg/l

(ix) has an electrical conductivity exceeding 220mS/m at 25 deg. C, or

(x) contains any substance which may, in the opinion of the municipality, of itself or in combination with any other substance—

- (a) cause a nuisance to the public or any section thereof;
- (b) endanger the health of or injure any person, whether employed by the municipality or not;
- (c) have a harmful effect on any sewer or any works or land connected with any sewer or with the conveyance, treatment, purification, disposal or re-use of the effluent, or
- (d) in any way prejudice the disposal or re-use of sewage of effluent after treatment or purification or lead to an effluent which does not meet any requirement laid down in terms of the National Water Act, 1998 (Act 36 of 1998), as amended.

**RADIO-ACTIVE WASTES**

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

**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-law of the municipality for approval to discharge industrial effluent into the municipality's sanitation system in accordance with the information provided herein.

**PART I**

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: .....
- ERF NO OR FARM PTN: ..... TOWNSHIP OR FARM: .....
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: .....
7. DESCRIPTION OF INDUSTRIAL OR TRADE PROCESS BY WHICH THE EFFLUENT WILL BE PRODUCED: .....
8. INFORMATION RELATING TO EMPLOYEES:

	Office	Factory
(2) Total number of daily employees (not included in (4)):		
(2) Number of shifts worked per day:		
(3) Number of days worked per day:		
(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, 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-law 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-law.
- 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
T	R0.82/kl
$COD_d$	600mg/l
	10mg/l
$N_d$	25mg/l
A	0.6
B	0.25
C	0.15