# North East District Council (Public Sewer) Bye-Laws.

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Schedules

S.I. 30, 2009

# 1. Citation

These Bye-Laws may be cited as the North East District Council (Public Sewer) Bye-Laws.

# 2. Interpretation

In these Bye-Laws, unless the context otherwise requires-

"authorised officer" means a person authorised by the Council to inspect public sewers or pipes or drains connected to public sewers:

"Council" means the North East District Council;

"drainage installation" means a system of drains, pipes and sewers used for the sewerage of a building, including any fitting, appliance or equipment connected to public sewers;

"foul water" means water contaminated by soil water, waste water or trade effluent;

"latrine" includes a privy, urinal, earth-closet or water-closet;

"owner" in relation to immovable property, means the person or the person's agent receiving the rent or profits for land or premises from the occupier of the land or premises, or a person who occupies or holds land in accordance with terms of a lease agreement;

"public sewer" means any piped sewer, ditch or water course for the passage of foul water, constructed or maintained by or vested in the Council;

"sewer" means a pipe conveying foul water, forming part of the sewerage or drainage installation of a building, including any pipe connecting a drain to a public sewer;

"soil water" means water containing excreted matter, of human or animal origin;

"storm water" means surface water or rain water;

"trade effluent" means liquid, either with or without particles of matter in suspension, which is wholly or in part produced in the course of trade, industry or research; and

"waste water" means used water, not being soil water, trade effluent or storm water.

# 3. Existence of public sewer

A building shall be deemed to have-

- (a) a public sewer available where there exists or there is, in the course of construction within 30 metres of the site of the building, a public sewer or a sewer connecting thereto at a suitable invert level which the owner of the building is entitled to use; or
- (b) a sufficient supply of water, where such is laid on or where a supply can be connected from a point within 30 metres of the site of the building:

Provided that, where the distance of a public sewer or the point from which a supply of water available exceeds 30 metres, and the Council agrees to undertake the construction, at its expense, of a drain to connect a public sewer or the laying of a pipe to the point of connection to a supply of water, the 30 metres limit shall not apply.

# 4. Map showing sewers

The Council shall keep deposited at its office for inspection by any person during normal working hours, a map showing and distinguishing each public sewer and any sewer in the course of construction within its area.

## 5. Alteration or closure of public sewer

The Council may alter the size or course of any public sewer or discontinue and prohibit the use thereof:

Provided that the Council shall, at its expense, execute any work necessary to connect to another sewer, the drainage installations of the users of the sewer under alteration or discontinued.

# 6. Adoption of sewer or sewerage disposal works

The Council may enter into an agreement with any person constructing or proposing to construct a sewer or sewerage disposal works, to the effect that upon completion of the work to the satisfaction of the Council or on a specified date, the sewer or works shall be vested in and thereafter be maintained by the Council.

# 7. Certain matter not to be passed into sewer

- (1) No person shall throw or empty or permit to be thrown or emptied into a public sewer or into any drainage, installation or sewer connecting to a public sewer, any-
- (a) matter which is likely to cause damage to the fabric of the sewer or interfere with the free flow of its contents;
- (b) chemicals, refuse or waste stream, or liquid which alone or in combination with the contents of the sewer, is dangerous or would cause a nuisance or be prejudicial to health;
  - (c) petroleum product, carbide or calcium; or
  - (d) radioactive substance.
- (2) Any person who contravenes subbye-law (1) commits an offence and is liable to a fine not exceeding P100 for each day on which the offence continues.

# 8. Storm water not to enter public sewer

No person shall discharge or cause or permit the discharge, directly or indirectly, of storm water into a public sewer.

#### 9. Sewage not to enter storm water drains

No person shall discharge or cause or permit the discharge, directly or indirectly, of any sewage or foul water into a storm water drain, a river, a stream or other watercourse, whether natural or artificial.

#### 10. Right to connect to public sewer

- (1) Subject to the provisions of bye-law 12, an owner shall, at the owner's expense, be entitled to have the drainage installation of his or her premises connected to a public sewer.
- (2) Notwithstanding the provisions of subbye-law (1), no person shall discharge, directly or indirectly, into a public sewer, any liquid or other matter-
- (a) from a factory or trade premises or a manufacturing process except with the written permission of the Council under bye-law 18; or
  - (b) the discharge of which is prohibited under these Bye-Laws or any enactment.

#### 11. Connection to public sewer

Where a public sewer and sufficient supply of water is available and the Council is of the opinion that-

- (a) satisfactory provision has not been made for the hygienic and adequate disposal of foul water; or
- (b) any cesspool, septic tank, latrine or appliance or equipment provided for the collection or disposal of foul water is defective or insufficient and likely to be prejudicial to health or a nuisance, the Council may, within a specified time and the owner's expense, require the owner to remove any latrine or other non-waterborne system and replace it with a water closet connected to the Council's sewerage system.

#### 12. Procedure for connection to public sewer

- (1) A person who requires the drainage installation on that person's premises to be connected to a public sewer shall apply in writing to the Council.
- (2) Where the Council receives an application under subbye-law (1) it shall, within 21 days of receipt of the application, advise the applicant in writing whether or not the application has been granted.
- (3) A rejection of an application under subbye-law (1) shall be in writing to the applicant and shall state the reason for the rejection.
- (4) Where an application is granted, the Council shall advise the applicant whether or not it intends to carry out the work required on behalf of the applicant.
- (5) Where the Council intends to carry out the work under subbye-law (4) it shall, before work commences, require the applicant to pay the cost of such work to the Council.
- (6) Where the applicant carries out or causes to be carried out the work required, the applicant shall give the Council reasonable notice of his intention in writing, and shall accord to an authorised officer reasonable access to inspect the work.
- (7) A connecting drain, pipe or sewer constructed under the preceding provisions of this bye-law shall vest in the Council, and the maintenance, repair or renewal of the connecting drain, pipe or sewer shall, at the expense of the owner of the premises served, be carried out by the Council.
- (8) Any person who causes a drain, pipe or sewer to be connected to a public sewer in contravention of the provisions of these Bye-Laws commits an offence and is liable to a fine not exceeding P500, and the Council may close the connection in question and recover from the offender any costs incurred thereby.
  - (9) Where a payment made under subbye-law (5)-
  - (a) exceeds the cost incurred, the Council shall repay the excess to the applicant; or
  - (b) is insufficient, the balance shall be recoverable from the person for whom the work was done.

# 13. Common sewer or drain

The Council may, in its discretion and with the agreement of the owners concerned, permit the drainage installation of two or more buildings to connect with a public sewer by means of a common sewer or drain.

#### 14. Fees

- (1) A person who intends to connect the sewage drains on the person's premises to the public sewer shall pay a sewerage connection fee at the rates set out in the First Schedule, and shall enter into a sewerage service agreement with the Council after connection of the premises to the sewerage system.
- (2) A person whose premises are connected to a public sewer shall pay an annual sewerage service fee at the rates set out in the Second Schedule.

- (3) The due date for the payment of any fees shall be 30 calendar days from the date reflected on any statement sent by the Council.
- (4) Where the due date under subbye-law (3) lapses, a period of 90 calendar days shall be allowed for the payment of any fees without interest, thereafter, all arrears shall be subject to an interest rate of 12 per cent per annum.
- (5) The interest accrued on any arrears shall be calculated from the date on which any fee becomes overdue until the date of payment.
- (6) In the case of change of ownership of the premises or of the postal address of any owner, the person who appears, from the Council records to be the owner of the premises shall continue to be liable to pay the fees under these Bye-Laws unless the person notifies the Council, in writing, of such change.

# 15. Maintenance

- (1) The Council shall be responsible for the operation and maintenance of any sewer mains within the streets and public easements.
  - (2) An owner shall be responsible for the maintenance of the sewer line within his or her property.
  - (3) Any maintenance or work carried out under subbye-law (2) shall be at the expense of the owner.
- (4) In the event that any blockage exists between a Council manhole and an inspection chamber, the Council shall be responsible for clearing the blockage at no expense to the owner.
  - (5) Any work carried out on the Council sewer system shall take place with the approval of the Council.

# 16. Disconnection and re-connection

- (1) The sewer line of an owner shall be disconnected and legal action shall commence against such owner if the period of 90 calendar days referred to in bye-law 14 (4) has lapsed without the owner paying the fees due under bye-law 14 (1) and (2).
- (2) A re-connection fee of P150 in respect of residential property and P400 in respect of commercial or industrial property shall be payable by the owner of premises upon his or her request for the reconnection of the sewer line.
- (3) The Council shall not re-connect any sewer line unless all amounts due to the Council have been paid in full.
- (4) No person shall obstruct any authorised person executing his or her duties in accordance with this bye-law.

# 17. Discharge of trade effluent into public sewer

- (1) The Council may, subject to the written approval of the Minister and to any condition the Minister may think fit to impose, grant permission in writing for the discharge into a public sewer of trade effluent from any premises.
- (2) An approval under subbye-law (1) may incur a charge for alteration which may be necessary to a pump, sewer, sewage disposal works or machinery connected therewith as set out in the Second Schedule.
- (3) A person who wishes to discharge trade effluent into a public sewer shall make an application, in writing, to the Council for permission to do so, and shall sign a Trade Effluent Agreement as set out in the Third Schedule, and shall submit to the Council-

- (a) the chemical composition, nature and volume of the effluent;
- (b) a description of the industrial process or trade giving rise to the effluent;
- (c) the number of persons employed on the premises; and
- (*d*) such other information, including the submission of samples, which the Council may consider necessary.
- (4) A person permitted in terms of subbye-law (1) to discharge trade effluent into a public sewer shall, prior to any discharge in the nature or volume of that effluent, notify the Council in writing of the date on which the proposed change will take place and the Council may impose any other conditions it considers necessary.
- (5) A person who discharges or causes or permits the discharge, directly or indirectly, of trade effluent into a public sewer without the prior written permission of the Council commits an offence and is liable to a fine not exceeding P500 and to such charge as the Council may, with the approval in writing of the Minister, incur for the conveyance and treatment of the effluent so discharged.
- (6) Without prejudice to its rights in terms of subbye-law (5), the Council may recover from any person who discharges, directly or indirectly, trade effluent into a public sewer, any costs which may be incurred by it as a result of any damage caused thereby to a public sewer or sewage treatment works.

#### 18. Control of trade effluent

The Council shall-

- (a) be responsible for the control of individual discharges into public sewers to ensure compliance with the Trade Effluent Agreement; and
  - (b) formulate the necessary mechanisms and regulations for the control of trade effluent.

# 19. Metering and assessment of trade effluent

The Council shall conduct regular sampling and analysis of discharges from the industries to ensure compliance with the discharge limits set out in the Fourth Schedule.

# 20. Installation of interceptors

- (1) The Council may, by written notice to the owner of a hotel, boarding house, restaurant, eating house, hair salon, bakery, food-processing company, laundry, or other premises from which waste water of a fatty, oily, greasy or soapy nature is discharged into a drain or sewer, require such owner, within a reasonable time to be specified in the notice, to install, to the satisfaction of the Council, a proper and efficient fat, oil and grease interceptor for the reception of the waste water prior to the waste water being discharged into the sewer or drain.
- (2) A fat, oil and grease interceptor shall be equipped with a sampling port for periodical inspection purposes by an authorised official from the Council.

#### 21. Penalties

(1) A person found guilty of an offence against any provision of these Bye-Laws shall, where no penalty is prescribed therefore, be liable to a fine not exceeding P500 and a further fine not exceeding P100 for each day on which the offence continues.

(2) Any person who contravenes any provision of these Bye-Laws on second or subsequent conviction commits an offence and is liable to a fine not exceeding P500 or to imprisonment not exceeding six months or to both.

FIRST SCHEDULE
SEWERAGE CONNECTION FEES

SEVERAGE CONNECTION LES	
	(bye-law 14 (1))
TYPE OF SERVICE	
CHARGES (P)	
REMARKS	
Connection to residential premises:	
Perusal fee Plot owner bears the full cost of all works	
Low cost	
P100	
Medium cost	
P150	
High cost	
P200	
Multi-unit developments (more than one tow	n-house or flat on a plot)
P300	
Connection to commercial premises	
P300	
Perusal fee Plot owner bears the full cost of all works	
Connection to industrial premises (all types)	
P500	
Perusal fee Plot owner bears the full cost of all works	
Clearing or removal of Blockage within plots	
P55	
Flat rate	

Vacuum tank (registration) (Private operators)

P200

April to March of subsequent year

Vacuum tank (sewage dumping)

P5 per cubic metre

Per service

**OPTION 1** 

RE-Use of Effluents

P0.60 per cubic metre

Council to provide transport and labour

**OPTION II** 

**RE-Use of Effluents** 

P0.40 per cubic metre

Owner/purchaser to provide transport and labour

SECOND SCHEDULE

ANNUAL SEWERAGE SERVICES FEE RATES

(bye-law 14 (2))

**TABLE 1: SERVICE CHARGES** 

П

# **TYPE OF PREMISES**

CHARGES (PULA PER SERVICE)

Residential

P100

Commercial (a): Laundries, hair salons, bakeries, restaurants and garages

P300

Commercial (b): Hotels and motels

P250

Commercial (c): Small general dealers, bars and bottle stores

P150

Institutional (a): Schools with hostel facilities and hospitals

P400

Institutional (b): Offices, clinics, day-schools and churches P150 Institutional (c): Abattoirs, meat-processing industries and textile P500 Manufacturers P600 Industrial (a): Dry manufacturing P250 TABLE 2: MONTHLY RATES - RESIDENTIAL USER CHARGES WASTE WATER QUANTITY **CHARGES** Monthly residential user charge TABLE 3: MONTHLY RATES - COMMERCIAL (C) AND INSTITUTIONAL (B) Flat rates: P20 WASTE WATER QUALITY **CHARGES** Usage Basic fee (Pula) Commercial and Institutional P20 TABLE 4: INDUSTRIES AND COMMERCIAL (A) - MONTHLY RATE WASTE WATER CONCENTRATION (F) **CHARGES** Usage Basic fee (Pula) Industrial and Commercial

# THIRD SCHEDULE TRADE EFFLUENT AGREEMENT

(bye-law 17(3))
This agreement is made and entered into by and between North East District Council (herein after referred to as the Council) and(hereinafter referred to as the Company)
Whereas:
The Council is responsible for the control and maintenance of sewers, pumping stations and sewage treatment plant. The Company are the occupiers of trade premises situated at
plot number Wherein they intend to operate a
and have requested the Council to consent to the discharge of the trade effluent by them from
the said trade premises into the sewer shown on the plan
annexed hereto. The Council is willing to grant such consent subject
to the terms and conditions stated hereunder.
It is hereby agreed as follows:
(1) The trade effluent shall consist solely of wastewater from themanufacturing and the Company shall not cause the effluent or any surface or storm water to be discharged into the said sewer.
(2) The Company shall cause the effluent to be discharged into the said sewer only in accordance with the following special conditions-
(a) The pH value of the effluent shall not be less than 6.0 and not more than 9.5 subject to the water received by the company from the public water supply having a maximum pH value of 8.0;
(b) The solids in suspension (SS) in the effluent shall not exceed 100 milligrams per litre.
( ) = 1

- (c) The biological oxygen demand (BOD5) of the effluent shall not exceed 500 milligrams per litre;
- (d) The temperature of the effluent at the point of entry into the sewer shall not exceed 43 degrees Celsius;
- - (f) No free layer of liquid fats or oils shall be permitted in the effluent;
  - (g) No solid fats shall be permitted into the effluent;
  - (h) Maximum size of solids in the effluent should not be larger than passing through a 15 minutes;
- (i) Settleable solids in the effluent should not exceed 20 milligrams per litre allowed to settle in the 1mhoff cone for 15 minutes;
  - (j) Total dissolved inorganic solids should not exceed 3000 milligrams per litre;
- (k) Concentration of specific substances in the effluent should comply with standards issued by the Botswana Bureau of Standards;
  - (I) No visible signs of tar or associated products or distillates bitumen or asphalt shall be allowed; or

- (*m*) No pesticides, herbicide or any chlorinated hydrocarbons or their derivatives shall be allowed into the effluent to be discharged into the sewer.
- (3) The effluent shall not contain any substance or substances which either alone or in combination with any other matter in any sewer or the pumping station or the treatment plant would give rise to poisonous inflammable gases or obnoxious gases process in use at the treatment plant.
- (4) For the purposes of effectively complying with clauses 1, 2 and 5, the Company shall, at their own expenses provide and maintain to the satisfaction of the Council:
- (a) An inspection chamber constructed so as to enable a sample of the effluent to be collected at any time before discharging onto the sewer;
  - (b) A buffer tank for the purposes of adjusting the pH of the effluent;
- (c) A continuous chart recording apparatus to measure the flow and the pH of the effluent being discharged into the sewer.
- (5) The company shall, at all times, furnish the Council with the records made by the recording apparatus for purposes of verifying compliance to the conditions of this agreement.
- (6) The company shall permit the Council Secretary or his authorised representative to inspect and test any works and equipment installed in connection with the effluent.
  - (7) The Council shall conduct routine sampling of the effluent to ensure compliance to this agreement.
- (8) The Council shall charge an annual maintenance fee of P ...... to the Council as may be reviewed from time to time. This payment shall become due and payable on the first day of January of each year.
- (9) The Company shall pay to the Council on demand expenses incurred in connection with special cleansing of the sewer or repair of sewers or pumping machinery necessitated by discharging effluent in contravention to clauses 1, 2 and 3 of this agreement.
- (10) Failure to comply with any conditions under this Agreement will lead to the termination of this Agreement. The Company will be given 30 days notice, after which the Council will stop the flow of the effluent into the sewerage system.
- (11) The special conditions contained in clause 2 hereof shall be reviewed from time to time according to advice from the Botswana Bureau of Standards and the Department of Water Affairs.

	5	Signed at
This day of	20	
FOURTH SCHEDULE ACCEPTABLE/MAXIMUM DISCHAR	GE LIMITS INTO A PUBLIC SE	EWER

(bye-law 19)

Subject to the provision of Paragraph (1) of the Trade Effluent Agreement, the following are the maximum permissible concentration limits of substances contained in any effluent to be discharged into any public sewer in the North East District Council administrative area-

Sulphates (expressed as SO4)

-1500.0 mg/1

Ammonia (expressed as N)

-100.0 mg/1

Sulphides (expressed as S) -50.0 mg/1 Cynide (expressed as CN) -20.0 mg/1 Arsenic (expressed as As) -5.0 mg/1 Boron (expressed as B) -5.0 mg/1 Zinc (expressed as Zn) -20.0 mg/1 Copper (expressed Cu) -5.0 mg/1 Lead (expressed Pb) -5.0 mg/1 Cadmium (expressed as Cd) -5.0 mg/1 Selenium (expressed as Se) -5.0 mg/1 Total Chrome (expressed as Cr) -10.0 mg/1 Iron (expressed as Fe) -20.0 mg/1 Manganese (expressed as Mn) -20.0 mg/1 Sodium (expressed as Na) -500.0 mg/1 Chloride (expressed as CI) -500.0 mg/1 Fluoride (expressed as F) -5.0 MG/1 Cobalt (expressed as Co) -20.0 mg/1 Nickel (expressed as Ni) -20.0 mg/1

Molybdenum (expressed as Mo)

-5.0 mg/1

Fats, Oil & Grease (FOG)

-250.0 mg/1

Suspended Solids

-1000.0 mg/1

Settleable Solids (60 min)

-50.0 mg/1

Temperature at point of entry

-43 Degrees Celsius

**Electric Conductivity** 

-500 mSm

Caustic Alkalinity

-2000 mg/1