BUFFALO CITY METROPOLITAN MUNICIPALITY

DRAFT NOISE CONTROL

BY-LAW

THE DRAFT NOISE CONTROL BY-LAW

The Council of Buffalo City Metropolitan Municipality acting in terms of section 156(2) of the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996, read with section 13(a) of the Local Government: Municipal Systems Act, 2000 (Act No. 32 of 2000) has made the Noise Control By-Law hereunder:

TABLE OF CONTENTS:

This is a chronological list of all sub-headings and page numbers

1. PREAMBLE	
2. DEFINITIONS	3
A	4
3. INTERPRETATION	<i>6</i>
4. OBJECTIVE	<i>6</i>
5. SCOPE AND APPLICATION	
6. POWERS OF THE MUNICIPALITY	
7. GENERAL PROHIBITION	c
8. PROHIBITION OF DISTURBING NOISE	12
9. PROHIBITION OF NOISE NUISANCE	12
10. USE OF MEASURING INSTRUMENTS	13
11. MUSIC EVENTS EXEMPTIONS	14
12. ATTACHMENT	15
13. ENFORCEMENT OF THE BY-LAW	16
14. OFFENCES	16
15. SANCTION	
16. CONFLICTING BY-LAWS	16
17. REVIEW	16
18. REPEAL OF BY-LAWS	16
19. SHORT TITLE	
20. COMMENCEMENT	





1. PREAMBLE.

Whereas Buffalo City Metropolitan Municipality is a Category A Municipality established in terms of Section 155 (1) (a) of the Constitution of the Republic of South Africa, 1996; read together with Section 12 of the Local Government: Municipal Structures Act, 117 of 1998.

And.

Whereas Buffalo City Metropolitan Municipality may make and administer by-laws for the effective administration of the area for which it was established in terms of section 156 (2) of the Constitution, read together with Section 11 (3) of the Local Government: Municipal Systems Act, 32 of 2000.

2. DEFINITIONS.

In this by-law, any word or expression to which a meaning has been assigned in the bylaw and the relevant SANS Standards, shall have the meaning so assigned to it and, unless the context otherwise indicates:

- 1. In this By-Law, a reference to one gender includes the other gender; any word or expression to which a meaning has been assigned in the Act bears the meaning so assigned; and unless the context indicates otherwise the following words bear the meanings set out hereunder-
 - "council" means the Council of the Buffalo City Metropolitan Municipality and includes any employee of the Council exercising powers or performing duties or functions delegated to him/her by the Council;
 - "ambient" sound level" means the reading on an integrating impulse sound level meter taken at a measuring point in the absence of any alleged disturbing noise at the end of a continuous total period of at least 10 minutes, after such meter had been put into operation;
 - "animal" also includes birds and poultry;
 - "controlled area" means a piece of land designated by the Municipality where, in the case of -
 - (a) road transport noise in the vicinity of a road-





- (i) the reading on an integrating impulse sound level meter, taken outdoors at the end of a period extending from 06:00 to 24:00 which such meter is in operation, exceeds 65 dBA; or
- (ii) the equivalent continuous "A" –weighted sound pressure level at a height of at least 1,2 metres, but not more than 1,4 metres, above the ground for a period extending from 06:00 to 24:00 as calculated in accordance with SANS 10210-2004, titled: "Calculating and predicting road traffic noise", published under Government Notice 1373 of 8 November 2002, and projected for a period of 15 years following the date on which the Municipality has made such designation, exceeds 65 dBA;
- (b) aircraft noise in the vicinity of an airfield, the calculated noisiness index, projected for a period of 15 years following the date on which the Municipality has made such designation, exceeds 65 dBA; or
- (c) industrial noise in the vicinity of an industry -
 - (i) the reading on an integrating impulse sound level meter, taken outdoors at the end of a period of 24 hours while such meter is in operation, exceeds 61 dBA; or
 - (ii) the calculated outdoor equivalent continuous "A" –weighted sound pressure level at a height of at least 1,2 metres, but not more than 1,4 metres, above the ground for a period of 24 hours, exceeds 61 dBA;
- (d) noise in the vicinity of, or in, residential and commercial areas, determined in accordance with the provisions of SANS 10103: 2004, titled 'The measurement and rating of environmental noise with respect to land use, health, annoyance and to speech communication', published on 19 November 2004, which provides for methods and guidelines to assess working and living environments;

"dBA" means the value of the sound pressure level in decibels, determined using a frequency weighting network A, and derived from the following equation:

L
$$P = 10 \log \left(\frac{P}{A}\right)^2$$
, where $\frac{A}{P}$

P A = the "A" - weighted sound pressure

Ρ





O = the reference sound pressure

$$(PO = 20 \mu Pa);$$

"disturbing noise" means a noise level which exceeds the zone sound level or, if no zone sound level has been designated, a noise level which exceeds the ambient sound level at the same measuring point by 7 dBA or more;

"erect" also means alter, convert, extend or re-erect;

"integrating impulse sound level meter" means a device which integrates a function of the root mean square value of sound pressure over a period of time while it is set on "I" -time weighting and indicates the result in dBA;

"measuring point", relating to -

- a piece of land from which an alleged disturbing noise emanates, means a
 point outside the property projection plane where an alleged disturbing noise,
 in the opinion of the Municipality, shall be measured in accordance with the
 provisions of section 6;
- (b) a building with more than one occupant, means a point in or outside the building where an alleged disturbing noise, in the opinion of the Municipality, shall be measured in accordance with the provisions of section 6; and
- (c) a stationary vehicle, means a point as described in SANS 10181-2003, titled: "The measurement of noise emitted by road vehicles when stationary", published under General Notice 1373 of 8 November 2002, where a measuring microphone shall be placed;

"Municipality" means the Buffalo City Metropolitan Municipality and includes any employee of the Municipality exercising powers or performing duties or functions delegated to him/her by the Municipality;

"noise level" means the reading on an integrating impulse sound level meter taken at a measuring point in the presence of any alleged disturbing noise at the end of continuous total period of at least 10 minutes, after such meter had been put into operation, and if the alleged disturbing noise has a discernible pitch for example- a whistle, buzz, drone or music- to which 5 dBA is added;

"noise" nuisance" means any sound which disturbs or impairs or may disturb or impair the convenience or peace of any person;

"noisiness index" means a number expressed in dBA as defined in SANS 10117-2004, titled: "Calculation and prediction of aircraft noise around airports for land use purposes", published under Government Notice 26962 in November 2004;





"plant" means a refrigeration machine, air-conditioners, fan system, compressor, power generator or pump;

"property projection plane" means a vertical plane on, and including the boundary line of a piece of land defining the boundaries of such piece of land in space;

"public place" means any road, street, thoroughfare bridge, overhead bridge, subway, foot pavement, footpath, sidewalk, lane, square, open space, garden park, path, bus or taxi rank, servitude or enclosed space vested in the Council and includes any road, place or thoroughfare which is in the use of the public or which the public have the right to use;

"recreational vehicle" also means-

- (a) an off-road vehicle, scrambler, dune buggy or ultra-light aircraft;
- (b) a model aircraft, vessel or vehicle;
- (c) any aircraft or helicopter used for sport or recreational purposes; or
- (d) any other conveyance or model which in the opinion of the Municipality is a recreational vehicle:

"sound level" means the reading on a integrating impulse sound level meter taken at a measuring point;

"the Act", means the Environment Conservation Act, 1989 (Act No. 73 of 1989);

"zone sound level" means a derived dBA value determined indirectly by means of a series of measurements, calculations or table readings and designated by the Municipality for an area.

3. INTERPRETATION

Clause sub-headings shall not be used in the interpretation of this by-law; and unless specifically otherwise provided, all listed amounts of fine in this by-law are inclusive of Value Added Tax (VAT).

4. OBJECTIVE

The objective of this by-law is to regulate the noise levels within the Buffalo City Metropolitan Municipality and to give effect to the implementation of any policy that may





have been affected for the same, which may be developed in terms of Section 74 of the Local Government: Municipal Systems Act, 32 of 2000.

5. SCOPE AND APPLICATION

This by-law shall apply to the entire area of jurisdiction of the Buffalo City Metropolitan Municipality

6. POWERS OF THE MUNICIPALITY

- 6. The Municipality may -
 - (a) For the purposes of applying this By-Law, at any reasonable time enter a premises without prior notice:
 - (i) to conduct any appropriate examination, enquiry or inspection as it may deem expedient thereon; and
 - (ii) to take any steps it may deem necessary;
 - (b) In order to determine whether a vehicle using any road in its area of jurisdiction, including a private, provincial or national road crossing its area of jurisdiction, complies with the provisions of this By-Law, instruct the owner or person in control of the vehicle -
 - (i) to have any appropriate inspection or test, as the Municipality may deem necessary, conducted on the vehicle on a date and at a time and a place determined by the Municipality, in writing;
 - (ii) to stop the vehicle or cause it to be stopped;
 - (iii) to have any appropriate inspection or test that the Municipality may deem necessary, conducted on the vehicle;
 - (c) If a noise emanating from a building, premises, vehicle, recreational vehicle or street is a disturbing noise or noise nuisance, or may in the opinion of the Municipality be a disturbing noise or noise nuisance, instruct in writing the person causing such noise or who is responsible therefore, or the owner or occupant of such building or premises from which or from where such noise emanates or may emanate, or all such persons, to discontinue or cause to be discontinued such a noise, or take steps to lower the level of the noise to a level conforming to the requirements of this By-law within the period stipulated in the instruction: Provided that the provisions of this paragraph





- shall not apply in respect of a disturbing noise or noise nuisance caused by rail vehicles or aircraft which are not used as recreational vehicles:
- (d) Before changes are made to existing facilities or existing uses of land or buildings, or before new buildings are erected, in writing require that noise impact assessments or tests are conducted to the satisfaction of the Municipality by the owner, developer, tenant or occupant of the facilities, land or buildings or that, for the purposes of section 3 (b) or (c), reports or certificates in relation to the noise impact to the satisfaction of the Municipality are submitted by the owner, developer, tenant or occupant to the Municipality on written demand;
- (e) If excavation work, earthmoving work, pumping work, drilling work, construction work or demolition work or any similar activity, power generation or music causes a noise nuisance or a disturbing noise, instruct in writing that such work, activity, generation or music be forthwith discontinued until such conditions as the Municipality may deem necessary have been complied with;
- (f) Designate a controlled area in its area of jurisdiction or amend or cancel an existing controlled area by notice in the provincial Gazette of the Eastern Cape;
- (g) If the owner or person in charge of an animal fails to comply with an instruction referred to in paragraph (c), subject to the appropriate provisions of any other law, impound or cause to be impounded such animal;
- (h) Subject to the provisions of section 8 and the appropriate provisions of any other law, attach a vehicle if the sound level of such vehicle exceeds the sound level referred to in section 3 (j) by more than 5 dBA;
- (i) In writing request the owner or person in control of a plant referred to in section 3 (k) to furnish forthwith proof to its satisfaction that the plant shall not cause a disturbing noise;
- (j) Impose such conditions as it may deem fit when granting any permission or exemption in terms of this By-Law;
- (k) Incorporate conditions in relation to noise control with the establishment of a new township, in order to implement the objectives of the Act;
- (I) Subject to the appropriate provisions of any other law, place or cause to be placed measuring instruments or similar devices, road traffic signs or notices at any place within its area of jurisdiction for the enforcement of the provisions of this By-Law: Provided that road traffic signs and notices be placed on private property only with the permission of the owner;





(m) Designate zone sound levels for specific areas and for specific times by notice in the provincial Gazette of the Eastern Cape.

7. GENERAL PROHIBITION

- 7. No person shall -
 - (a) Establish a new township unless the lay-out plan concerned, if required by the Municipality, indicates in accordance with the specifications of the Municipality only, the existing and future sources of noise, with concomitant dBA values which are foreseen in the township for a period of 15 years following the date on which the erection of the buildings in and around the township commences;
 - (b) Erect educational, residential, flat, hospital, church or office buildings in an existing township within a controlled area, unless acoustic screening measures have been provided in the building to limit the reading on an integrating impulse sound level meter, measured inside the building after completion, to 40 dBA: Provided that any air-conditioning or ventilating system shall be switched off during the course of such noise measurements;
 - (c) Make changes to existing facilities or existing uses of land or buildings or erect new buildings, if it shall in the opinion of the Municipality house or cause activities which shall, after such change or erection, cause a disturbing noise, unless precautionary measures to prevent the disturbing noise have been taken to the satisfaction of the Municipality;
 - (d) Build a road or change an existing road, or alter the speed limit on a road, if it shall in the opinion of the Municipality cause an increase in noise in or near residential areas, or office, church, hospital or educational buildings, unless noise control measures have been taken in consultation with the Municipality to ensure that the land in the vicinity of such road shall not be designated as a controlled area;
 - (e) Situate educational, office, residential, hospital or church erven within a controlled area in a new township or an area which has been rezoned: Provided that such situation may be allowed by the Municipality in accordance with the acoustic screening measures mentioned by the Municipality in the approved building plans;
 - (f) Fail to comply with a directive, instruction or notice issued by the Municipality in terms of this By-Law;





- (g) Notwithstanding the provisions of paragraph (h), stage an organized openair music festival or similar gathering without the prior consent in writing of the Municipality;
- (h) Subject to the provisions of sections 4 and 5 (a), operate or play a radio, television set, gramophone, recording device, drum, musical instrument, sound amplifier or similar device producing, reproducing or amplifying sound, or allow it to be operated or played, in a public place, if the noise level, measured at any point which may be occupied by a member of the public, exceeds 95 dBA, unless the following warning is displayed in at least the Afrikaans, English and Isi-Xhosa languages and in legible form in a conspicuous place at each entrance to such place:

WARNING: SOUND LEVELS INSIDE MAY CAUSE PERMANENT HEARING DAMAGE.

- (i) Use any power tool or power equipment for construction, earth drilling or demolition works, or allow it to be used, in a residential area during the following periods of time:
 - (i) Before 06:00 and after 18:00 from Monday to Saturday; and
 - (ii) At any time on Sundays, Public Holidays, or any other day as may be determined by the Municipality;
- (j) Drive a vehicle, or allow it to be driven, on a public road, if the sound level at the measuring point measured in accordance with the procedure prescribed in SANS 10181-2003, titled: "The measurement of noise emitted by road vehicles when stationary", published under General Notice 1373 of 8 November 2002, exceeds the sound level indicated in the second or third column, as the case may be, of the following table opposite to the type of vehicle indicated in the first column of that table:

Type of vehicle	Sound level dBA up to and Including 1992-01-01	Sound level dBA after 1992-01-01
Two and three-wheeled vehicles	95	95
Vehicles with spark ignition and		





	re wheels used ance of passengers	99	96
Vehicles with diesel engines and not equipped with an engine brake		109	105
	liesel engines and an engine brake:		
(i) engine t	orake switched off	109	105
(ii) engine l	orake switched on	109	109

- (k) If required by the Municipality, install, replace or modify a plant with a total input power exceeding 10 kilowatts on any premises, unless the Municipality has been notified by the owner of the plant in writing at least 14 days before such installation, replacement or modification of -
 - (i) the particulars of the plant;
 - (ii) the number, street address and title deed description of the premises concerned; and
 - (iii) the nature of and the date on which the installation, replacement or modification shall commence:

Provided that if an existing plant had to be replaced by necessity without preceding notification to the Municipality, the Municipality shall be notified thereof by the owner of the plant in writing within 14 days after the replacement of the plant;

- (I) Tamper with, remove, put out of action, damage or impair the functioning of a noise monitoring system, noise limiter, noise measuring instrument, acoustic device, road traffic sign or notice, placed in a position by or on behalf of the Municipality;
- (m) For the purposes of this By-Law in respect of a duly authorized employee of the Municipality -
 - (i) fail or refuse to grant admission to such employee to enter and to inspect a premises;





- (ii) fail or refuse to give information which may lawfully be required of her to such employee;
- (iii) hinder or obstruct such employee in the execution of her duties; or
- (iv) knowingly give false or misleading information to such employee.

8. PROHIBITION OF DISTURBING NOISE

8. No person shall make, produce or cause a disturbing noise, or allow it to be made, produced or caused by any person, animal, machine, device or apparatus or any combination thereof.

9. PROHIBITION OF NOISE NUISANCE

- 9. No person shall -
 - (a) Cause a noise nuisance, or allow it to be caused, by operating or playing any radio, television set, drum, musical instrument, sound amplifier, loudspeaker system or similar device producing, reproducing or amplifying sound;
 - (b) Offer any article for sale by shouting or ringing a bell, or by allowing shouting or the ringing of a bell, in a manner which may cause a noise nuisance;
 - (c) Allow an animal owned or controlled by him to cause a noise nuisance;
 - (d) Build, repair, rebuild, modify, operate or test a vehicle, vessel or aircraft on residential premises, or allow it to be built, repaired, rebuilt, modified, operated or tested, if it may cause a noise nuisance:
 - (e) Use or discharge any explosive, firearm or similar device which emits impulsive sound, or allow it to be used or discharged, if it may cause a noise nuisance, except with the prior consent in writing of the Municipality and subject to such conditions as the Municipality may deem necessary;
 - (f) On a piece of land designated by the Municipality by means of a notice on that piece of land and in the press in at least the Afrikaans, English and Isi-Xhosa languages, or in the air-space above that piece of land -
 - (i) move about on or in a recreational vehicle;
 - (ii) exercise control over recreational vehicle; or





- (iii) as owner or person in control of the piece of land concerned, allow that on that piece of land, or in the air-space above that piece of land
 - (aa) is being moved about on or in a recreational vehicle; or
 - (bb) control is being exercised over a recreational vehicle, if it may cause a noise nuisance;
- (g) Except in an emergency, emit a sound, or allow a sound to be emitted, by means of a bell, carillon, siren, hooter, static alarm, whistle, loudspeaker or similar device, if it may cause a noise nuisance;
- (h) Operate any machinery, saw, sander, drill, grinder, lawnmower, power garden implement or similar device in a residential area, or allow it to be operated, if it may cause a noise nuisance;
- (i) Load, unload, open, shut or in any other way handle a crate, box, container, building material, rubbish container or similar article, or allow it to be loaded, unloaded, opened, shut or handled, if it may cause a noise nuisance;
- (j) Drive a vehicle on a public road in such a manner that it may cause a noise nuisance.

10. USE OF MEASURING INSTRUMENTS.

- 10. (1) The measurement of dBA values in respect of controlled areas, ambient sound levels or noise levels in terms of this By-law shall be done as follows:
 - (a) Outdoor measurements on a piece of land: By placing the microphone of an integrating impulse sound level meter at least 1,2 metres, but not more than 1,4 metres, above the ground and at least 3,5 metres away from walls, buildings or other sound reflecting surfaces; and
 - (b) Indoor measurements in a room or enclosed space, which is not ventilated mechanically: By placing the microphone of an integrating impulse sound level meter at least 1,2 metres, but not more than 1,4 metres, above the floor and at least 1,2 metres away from the wall, with all the windows and outer doors of the room or enclosed space entirely open: Provided that the windows and doors are closed for indoor measurements in rooms or enclosed spaces which are mechanically ventilated.
 - (2) Any person taking readings, shall ensure that -





- (a) The microphone of an integrating impulse sound level meter is at all times provided with a windshield;
- (b) The measuring instruments are operated strictly in accordance with the manufacturer's instructions; and
- (c) Sound measuring instruments are checked annually by the South African Bureau of Standards or a calibration laboratory approved by the Minister in order to comply with the appropriate specifications for accuracy.

11. MUSIC EVENTS EXEMPTIONS

- 11. The provisions of this By-Law shall not apply, if -
 - (a) The emission of sound is for the purposes of warning people of a dangerous situation; or
 - (b) The emission of sound takes place during an emergency.
 - (1) Any person may by means of a written application, in which the reasons are given in full, apply to the Municipality for exemption from any provision of this By-Law.
 - (2) An exemption shall, if approved, be granted by the City Manager of the Municipality or any person acting on his/her capacity in writing, and the conditions under which and the period for which such exemption is granted, shall be stipulated in such exemption.

The conditions may include but not limited to the following:

- a) A site layout diagram to be submitted with application for exemption.
- b) Ensure compliance with the requirements of Buffalo City Metropolitan Municipality.
- c) Amplified sound should be played at such levels as not to cause a disturbing noise or noise nuisance.
- d) Loudspeakers should be directed away from the closest residential premises.
- e) The representative of the event should appoint a qualified sound engineer for the event, who will submit a noise management plan to Council, or any authorized official of Council.
- f) The sound engineer will be the contact person for sound management, thus should be available for the duration of the event.





- g) The sound engineer will be responsible for the monitoring of sound levels to ensure compliance with sound limits.
- h) Your representative must keep a copy of this exemption for the duration of its validity and must present such exemption to any authorized official of Council or the South African Police Services, when requested to do so.
- i) Council, or any authorized official of Council, reserves the right to withdraw the exemption in its entirety, at any stage with immediate effect should it be deemed necessary and in the interest of the public.
- j) Complaints being received from the public: In this regard council reserves the right to take appropriate action. Should complaints be received, such actions could include but may not be limited to requiring the modulation of the sound level outputs to an acceptable level.
- k) Any generators intended to be used must be of the muffled (silenced variety) and positioned so as to create the least noise nuisance to the abutting residential premises.
- The music output must not exceed the predetermined ambient sound level taken before the start of play by more than 7dB at any given time, as per the By-Law. Readings must be taken at pre-determined intervals so as to ensure compliance when there is change in wind direction, weather condition, and different times of the day. At no time shall the output exceed the ambient sound level by more than the prescribed 7dB.
- m) Should any condition of the exemption not be complied with, the exemption will lapse immediately, which will cause you to be in direct contravention of the Buffalo City Metropolitan Municipality Noise By-Law for which legal action could be instituted against you.
- n) In terms of Section 7 (2), this exemption will not take effect unless you have forwarded a written undertaking to the author to the effect that you agree to abide by the aforementioned conditions.

12. ATTACHMENT.

- 12. (1) A vehicle attached under section 2 (h) shall be kept in safe custody by the Municipality.
 - (2) The Municipality may lift the attachment contemplated in section 2 (h) if the owner or person in control of the vehicle concerned has been instructed in writing by it -
 - (a) To repair or to modify the vehicle concerned or cause it to be repaired or to be modified; and
 - (b) To have any inspection or test as the Municipality may deem necessary conducted on the vehicle on a date and at a time and a place mentioned in the instruction.





13. ENFORCEMENT OF THE BY-LAW

The by-law shall be enforced through the policy and any other enforcement mechanism.

14. OFFENCES

It will be an offense punishable in terms of this by-law not to pay in accordance with the fines as adopted by Council where such tariff fees are applicable.

15. SANCTION.

- 15. (1) Any person who contravenes or fails to comply with a provision of section 3, 4 or 5, is guilty of an offence and liable on conviction to a fine not exceeding R20 000,00, or to imprisonment for a period not exceeding two years, or to both such fine and such imprisonment.
 - (2) In the event of a continuing contravention, to a fine not exceeding R3 500,00, or to imprisonment for a period not exceeding twenty days, or to both such fine and such imprisonment, for each day on which such contravention continues.

16. CONFLICTING BY-LAWS.

- 16. (1) In the event of a conflict between this By-Law and any other By-Law, this By-Law prevails, and such other By-Law becomes inoperative and unenforceable for as long as the conflict remains.
 - (2) Where possible, when considering an apparent conflict between this By-Law and any other By-Law, a reasonable interpretation that avoids a conflict must be preferred over any alternative interpretation that results in a conflict.

17. REVIEW

This by-law will be reviewed after a period of five years from the date of its promulgation in the Provincial Government Gazette.

18. REPEAL OF BY-LAWS.

- 18. The following By-Laws are hereby repealed:
 - (1) Gonubie Municipality By-Law for the Prevention and Suppression of Nuisances (P.N. 67/1977);





- (2) King William's Town Municipality Regulations for the Control of Noise (P.N. 891/1974);
- (3) Buffalo City Metropolitan Municipality: Noise By-Laws, L.A Notice No. 122 dated 22 October 2010 (GN No. 2459); and
- (3) Buffalo City Metropolitan Municipality, Municipal Health Services By–Law, Provincial Gazette No. 4949 of 10 July 2023:
 Chapter 4, Section 30 (a), (b) and (e); Section 31 (1) (e), (2) (a), (b), (c), (d), (3) (a), (b), (4) (1) (a), (b), (2) (a) (i) (ii), (b), (3) (a), (b), (4) (1) (a), (b), (4) (2) (a)(i) (ii), (b), (4) (3), (4) (4) (a), (b), (5) (a), (b), (c) (ii) (iii) (iv)

19. SHORT TITLE.

19. This By–Law is called the Buffalo City Metropolitan Municipality Noise Control By–Law.

20. COMMENCEMENT.

19. This By-Law comes into operation on the date of publication.



