EXCERPT FROM THE MINUTES OF THE REGULAR SESSION OF THE CITY COUNCIL HELD AT THE SESSION HALL ON APRIL 6, 2006

PRESENT:

HON. WILLIAM E. ABLONG, *Presiding Officer* CITY VICE-MAYOR
HON. ROTELIO U. LUMJOD CITY COUNCILOR
HON. MANUEL T. SAGARBARRIA CITY COUNCILOR
HON. NOEL C. DE JESUS CITY COUNCILOR
HON. FRANKLIN O. ESMEÑA CITY COUNCILOR
HON. URBANO E. DIGA, JR. CITY COUNCILOR
HON. SALETO J. ERAMES CITY COUNCILOR
HON. ESPIRIDION V. CATAN CITY COUNCILOR
HON. MANUEL C. PATRIMONIO CITY COUNCILOR
HON. HARRISON K. GONZALES, *Liga President* CITY COUNCILOR
HON. KARISSA FAYE R. TOLENTINO, *SK Chairman* CITY COUNCILOR

ABSENT:

HON. SAMUEL D. DICEN CITY COUNCILOR

**RESOLUTION NO. 141**
*Series of 2006*

WHEREAS, mandated by the new *Clean Water Act of 2004 (R.A. 9275)* and other existing laws and ordinances related directly or indirectly to wastewater and septage management, the City of Dumaguete, as a non-highly urbanized city, is establishing a septage management system;

WHEREAS, untreated wastewater affects health by spreading diseases, making water unfit for human consumption and other uses, contaminating groundwater, threatening biodiversity, and reducing the quality of life of the citizens;

WHEREAS, most of the residences, businesses and institutions in Dumaguete City use septic tanks for wastewater treatment and disposal;

WHEREAS, most of the septic tanks in the city are not properly designed, constructed or regularly desludged;

WHEREAS, groundwater is the city's water source;

WHEREAS, the construction and operation of a sewerage network and treatment system is beyond the financial capacity of the city government at this time;



WHEREAS, the City is committed to the improvement, maintenance and conservation of the ecosystem and the protection of public health;

WHEREAS, Section 7 of the Clean Water Act (RA 9275) provides, among others, that each LGU may raise funds to subsidize necessary expenses for the operation and maintenance of sewage treatment or septage facilities servicing their area of jurisdiction through local property taxes and enforcement of a service fee system;

WHEREFORE, on motion of ***Councilor Manuel C. Patrimonio***, duly seconded by ***Councilor Harrison K. Gonzales***, the City Council in session assembled.

RESOLVED, AS IT IS HEREBY RESOLVED, to enact the following ordinance:

## ORDINANCE NO. 18

*Series of 2006*

## AN ORDINANCE ESTABLISHING A SEPTAGE MANAGEMENT

## SYSTEM IN THE CITY OF DUMAGUETE.

*Be it ordained by the City Council of Dumaguete that:*

### ARTICLE I
*Title of the Ordinance*

## AN ORDINANCE ESTABLISHING A SEPTAGE MANAGEMENT SYSTEM IN THE CITY OF DUMAGUETE.

### ARTICLE II
*Scope*

**Section 1**. This ordinance shall apply to all buildings and structures whether public or private, residential or commercial, proposed/ planned or existing. However, properties or businesses that have onsite wastewater treatment facilities approved by the City Environment and Natural Resources Officer (CENRO) shall be exempted from this ordinance.

**Section 2.** ***Pretreatment for Commercial Facilities***. Septage from a commercial or other non-residential facility is acceptable if the septic tank only receives wastewater typical of a household (i.e., from toilets and sinks). If the wastewater contains substances of a commercial nature such as oil or fuel residue, metals, or high volumes of fats and grease, an appropriate pretreatment program, approved by the CENRO, must be in place.

### ARTICLE III
*Authority*

**Section 3**. This ordinance is enacted to supplement the provisions and specifications of existing laws and ordinances related to septage management and complement existing laws on clean water and building and plumbing regulations.

### ARTICLE IV
*Definitions*

**Section 4**. The words and phrases used in this Ordinance shall mean as follows:

***Anaerobic ponds*** – are deep stabilization ponds used to treat high-strength organic wastewater that also contains high

concentration of solids. Anaerobic treatment does not require the presence and use of oxygen and encourages the growth of bacteria, which breaks down the waste material, releasing methane and carbon dioxide.

***Baffle*** – a device (as a wall or screen) to deflect, check or regulate the flow of sewage and septage. It promotes preliminary and primary treatment of the incoming sewage by allowing the physical separation of solid and liquid components in the sewage.

***CENRO*** – City Environment and Natural Resources Office.

***Chamber*** – an enclosed space, cavity or compartment of a septic tank.

***Communal Excreta Disposal System*** – an excreta disposal system serving a group of dwelling units.

***Desludging*** – the process of removing the accumulated sludge or septage from the septic tank.

***Digestion*** – a microbiological process that converts the chemically complex organic sludge to methane, carbon dioxide, and inoffensive humus-like material.

***Disposal Field or Leaching Bed*** – a soil-based effluent disposal system composed of pipes and shallow trenches leading from the outlet of the septic tank, consisting of open jointed or perforated pipes so distributed that effluent from a septic tank is oxidized and absorbed by the soil. The surrounding bedding material of the network of pipes should be of high enough permeability to effect treatment by seepage.

***Domestic Sewage*** – sewage containing human excrement and liquid household waste. Also called sanitary sewage.

***Effluent –*** a general term denoting any wastewater, partially or completely treated, or in its natural state, flowing out of a drainage canal, septic tank, building, manufacturing plant, industrial plant, treatment plant, etc.

***Facultative Ponds*** – shallow rectangular ponds that stabilize wastes using a combination of anaerobic, aerobic, and facultative (aerobic-anaerobic) processes.

***Freeboard or Airspace of a Septic Tank*** – the distance as measured from the maximum liquid level line to the underside of the septic tank slab or cover.

***Individual Excreta Disposal System*** – an excreta disposal system serving a dwelling unit.

***Maturation ponds*** – low-rate stabilization ponds that are designed to provide for secondary effluent polishing and seasonal nitrification.

***"P" traps*** – traps used on plumbing fixtures, such as toilets and drains, to prevent sewage gases from entering the plumbing system or the atmosphere.

***Scum*** – a slimy or filmy covering on the surface of the liquid in the septic tank.

***Seepage pit*** – a loosely lined excavation in the ground that receives the discharge of a septic tank and designed to permit the effluent from the septic tank to seep through pit bottom and sides.

***Septage*** – thickened and partially treated sewage that is removed from a septic tank.

***Septic tank*** – a watertight receptacle, which receives the discharge of a sanitary plumbing system or part thereof, and is designed and constructed to accomplish the sedimentation and digestion of the organic matter in the sewage within the period of detention/retention and to allow the liquid to discharge to a leaching field, sewer lines, a combined sewerage network or directly to a secondary wastewater treatment facility in accordance with the standards set forth by the Revised National Plumbing Code of the Philippines.

***Sewage*** – any wastewater containing human, animal or vegetable waste matter in suspension or solution including human excreta and urine and may possibly contain liquids consisting of chemicals in solution.

***Sewer*** – an artificial pipe or conduit for carrying sewage and wastewater.

***Sewerage*** – a comprehensive term, including all construction for collecting, transporting, and pumping of sewage. Usually refers to a buried system of underground pipes.

***Sewage works*** – a comprehensive term for pumping, treating and final disposal of effluent via a centralized treatment plant.

***Sludge*** – precipitated solid matter with a highly mineralized content produced by water and sewage treatment processes.

***Stabilization pond*** – An artificial pond designed to treat wastewater in general using solely naturally occurring biological treatment processes, and without the need for an electro-mechanical energy input.

***Subsurface Absorption Bed or Drain field*** – also called leaching bed, leaching field, or soak-away. An underground system of pipes embedded in a suitably porous soil medium leading from the outlet of the septic tank, consisting of open jointed or perforated pipes so distributed that the effluent from a septic tank is oxidized and absorbed by the soil. Must be located far from environmentally critical waterways or groundwater wells.

## ARTICLE V
*Septage Management System*

**Section 5**. ***Excreta Disposal System***. All houses/buildings shall have an approved excreta disposal system for treatment of domestic sewage.

**Section 6. *Desludging and Transfer of Septage to the Septage Treatment Facility***. Liquid and/or solid materials removed from septic tanks shall be transported by a septage hauler/pumper to the Septage Treatment Facility in Barangays Camanjac and Candau-ay of this City following Department of Health regulations on desludging and transport of sludge. No septage hauler/pumper can unload or dispose of septage in other places, including bodies of water, agricultural fields, and the drainage system within the city until the implementing rules and regulations for proper land application have been issued by the authorized government agencies.

**Section 7. *Septage Treatment Facility***. The septage treatment facility shall use stabilization ponds or lagoons, composed of anaerobic, facultative, and maturation or aerobic ponds. All stabilization ponds shall be lined with high density polyethylene (HDPE) geomembrane on top of highly compacted soil. Jointing of adjacent sections of geomembrane sections shall be in accordance with manufacturers' jointing guidelines. Effluent from the last aerobic pond shall flow into a constructed wetland to ensure that the quality of the final effluent shall meet DENR standard for the receiving water body. Periodically, the solid material that

accumulates in the receiving tank and ponds shall be removed and deposited in sludge drying beds. Dried sludge shall be recovered as compost material, soil conditioner or landfill material. An operations and maintenance plan shall be developed, which shall include a vector control strategy to insure that no disease-causing elements shall thrive in the treatment facility and a maintenance schedule for clearing excess vegetation growth.

The operations and maintenance plan shall also include provisions for reducing system upset, including immediate actions to prevent the occurrence of foul smells and release of partially treated effluent from the system.

## ARTICLE VI

*General Design and Construction Requirements of Septic Tanks*

**Section 8**. ***General Requirements.***

**Section 8.1**. *Buildings or Structures Proposed for Construction*

a. No building plan for residential dwelling units or commercial and institutional structures shall be approved unless the design of the sanitary plumbing and septic tank conforms to the specifications set herein and other pertinent regulations; alternative wastewater treatment systems shall be duly approved and endorsed by the CENRO. Further, per DENR regulations, all malls, restaurants, hotels, apartelles and other residential buildings, subdivisions, hospitals and similar establishments are required to utilize sewage treatment facilities as a condition to the granting of Environmental Clearance Certificates (ECCs) and permits to operate.

b. It shall be the duty of the owner, administrator or contractor to inform the concerned agency that the newly constructed septic tank, sewage treatment facility or alternative treatment system, with prior plan approval, is ready for inspection. The new system shall not be covered or used until inspected and approved by the City Engineer's Office.

**Section 8.2.** *Existing Buildings or Structures*

a. Owners of existing septic tanks that are not accessible for desludging are required to repair or upgrade their tank so it can be desludged. If repairs are not possible,

such owners are encouraged to build a new septic tank that will comply with the provisions set herein.

b. The cost of repair and upgrading of septic tanks shall be borne by the owners.

c. Communal or shared septic tanks can be used alternatively whenever feasible, particularly for existing clustered structures that are highly dense and characterized by lack of or inadequate land space. The design and the manifest of ownership and joint maintenance shall go through an approval process as determined by the City Government.

**Section 9.** ***Specifications***. Septic tanks shall be designed and constructed in compliance with the mandate set forth in the National Building Code, including use of unconventional or new material for building parts, and as prescribed by the National Plumbing Code and the Code on Sanitation, including proper sizing and layout, and the criteria set forth below.

a. It shall be designed to produce an effluent consistent with approved engineering and environmental standards.

b. It shall be built of solid durable materials and shall be watertight. Materials shall conform to applicable Philippine material standards.

c. It shall not be constructed under any building and not within twenty–five (25) meters from any existing source of water supply.

d. It shall be divided into three compartments; the volume of the first compartment shall be between one-half to two-thirds of the total tank volume.

e. Where more than one tank is used to accommodate the required liquid volume in a given minimum retention time of 2 days, the tanks shall be conjoined. The first tank shall be equal to or larger than any subsequent tank in the series.

f. Baffles or similar devices shall be installed at each inlet and outlet of the tank and at each compartment. Materials shall conform to approved applicable standards. It must be integrally cast with the tank, affixed with a permanent waterproofing material, or attached at the top and bottom with connectors that are not subject to corrosion or decay. Sanitary tees used on baffles shall have a minimum diameter of 100 mm (4 inches).

g. The baffles between compartments shall extend at least 200 mm above the maximum liquid surface or all the way to the underside of the top cover.

h. The centerline of the inlet pipe shall be at least 50 mm above the centerline of the outlet pipe. Both inlet and outlet pipes shall be similar in diameter with each other and shall have a minimum diameter of 100 mm.

i. Adequate venting shall be provided in each compartment with the use of ventilating pipes not less than 50 mm in diameter. For buildings where plumbing fixtures have appropriate “p” traps, venting should occur through the plumbing stack in the building, not from the septic tank. For buildings where toilets and sinks are not protected with “p” traps, traps should be installed, or vent directly from the septic tank.

j. Access to the septic tank: There shall be at least one maintenance hole for each compartment, with a minimum side dimension of 500 mm. All maintenance holes shall extend through the tank cover and shall extend to finished grade. Manhole covers shall be designed with durable and fully coated or non-corrosive handles for easy lifting. Septic tank access covers should be secured from unauthorized entry, either through safety screws, locks or a tank lid that weighs 15 kg or more.

k. Outlet from the septic tank:
The design, construction, and location of structures receiving effluent from septic tanks shall conform to the National Plumbing Code of the Philippines. Effluent treatment is further required but will be covered by a separate ordinance and other infrastructure projects.

l. For clustered structures or houses that are highly dense and characterized by lack of or inadequate land space, there shall be designed a communal septic tank consistent with approved engineering and environmental standards.

## ARTICLE VII
*Administration and Enforcement*

**Section 10.** The administration and enforcement of this ordinance for new buildings is hereby vested in the Building Official of the City Government of Dumaguete.

**Section 11.** There shall be created a City Septage Management Authority (CSMA) composed of representatives from the City Environment and Natural Resources Office, City Health Office, General

Services, City Treasurer's Office, Dumaguete City Water District, City Legal Office, City Engineer's Office and a non-government organization who shall be appointed by the City Chief Executive from the NGO members of the City Development Council. Other persons may be invited to provide technical advice to the CSMA.

a. The CSMA shall conduct a survey of all properties and premises in coordination with barangay officials to determine if a septic tank is present, and if it is accessible for desludging.

b. If a septic tank is not present or it is inaccessible for desludging, the CSMA shall serve notices of non-conformance to the provisions of this ordinance to the owners/administrators, or occupants.

c. The CSMA or its authorized representatives shall be permitted to enter all properties for the purpose of inspection, observation, measurement, sampling and testing. A prior notice shall be given property-owners to facilitate inspection and provide assistance to the CSMA representatives.

d. For those property owners, administrators or occupants served with notices of non-conformance, a compliance period shall be set by the property owners, administrators or occupants and the CSMA. The compliance period shall be based on the proper installation of an acceptable septic tank of which design is specified in this ordinance

e. The CSMA shall issue a certificate of compliance to the property owners who are deemed to have met the minimum requirements for septic tanks.

f. For new developments, the occupancy permit issued by the building officials shall serve as certificate of compliance until the CSMA conducts another round of inspection.

g. The CSMA shall conduct a periodic survey of properties every three years or as determined by the CSMA to verify changes in septic tank accessibility or changes in tank capacity requirements. This shall be done in coordination with the barangay officials.

h. The CSMA shall plan and implement an information and education program on wastewater management and the city's septage management system.

**Section 12.** ***Monitoring and Evaluation***. Close monitoring of all activities in the treatment facility shall be conducted by the CSMA in conjunction with the operations and maintenance plan that will be contained in the operational guidelines. Adverse effects of the project

shall be mitigated and considered top priority in prevention and maintenance operations. Any environmental change/hazard attributed to the project implementation shall be immediately addressed.

**Section 13.** ***Desludging***. Septic tanks require desludging on an average of every three (3) to five (5) years. Septic tanks shall be desludged when the sludge volume is 1/3$^{rd}$ of the total volume of the septic tank.

a. The CSMA shall keep a record of all owners/administrators of buildings and structures who have desludged their septic tanks, those that are inaccessible, those that do not have septic tanks, and those that do not have water-sealed toilets, and other data that may be deemed necessary by the CSMA.

b. The CSMA shall implement and adhere to the rules and regulations set forth by the Department of Health in handling, transporting, treatment and disposal of septage.

c. The CSMA shall strictly implement an accreditation system and operational guidelines for private desludging service providers that would like to operate in the city, including but not limited to securing an environmental sanitation clearance (ESC) which is discussed more thoroughly in the rules and regulations set forth by the Department of Health in handling, transporting, treatment and disposal of septage.

**Section 14.** ***Funding***. The City Government shall allocate necessary funds to support capital expenditures and operating and maintenance expenses of the septage management system.

**Section 15.** ***User fee***. All building or structure owners shall pay an amount for the desludging of their septic tanks and treatment of the septage equivalent to the following:

**User Fees**. A user fee of Two Pesos (P2.00) per cubic meter of water consumed shall be charged and added to the Dumaguete City Water District (DCWD) monthly water bill. The fee may be adjusted periodically following public consultations.

**Section 15.1.** Users of un-metered water and users with no history of billable water flow or water consumption shall have their user fee estimated by the Water District by averaging the billable flow of other households with the same number of members and toilets. Commercial establishments that have their own water source shall be required to install a production meter. The quantity of water produced shall be the basis for computing the cost of desludging the septic tank.

**Section 15.2.** Users who have their own onsite wastewater treatment system certified by the CENRO as functioning and compliant shall be exempt from paying the required user fee.

**Section 15.3.** Trust Fund. Monies collected from **users' fee** or the desludging and treatment fees shall be held in Trust by the City Treasurer's Office. Said Trust Fund shall only be disbursed upon proper authorization by the CSMA, subject to the usual accounting and auditing regulations.

**Section 16.** ***Violations and Penalties***. -

**Section 16.1.** *Issuance of Non-Conformity*. The CSMA shall issue a notice of non-conformity to property owners, administrators or occupants who do not have a septic tank, whose septic tank is not designed properly, or is inaccessible for desludging unless they have an alternative system approved by the CENRO.

**Section 16.2.** *Penalties*. The violator, or owner of a non-complying establishment or household, who fails to comply with the provisions of this Ordinance within one (1) year as provided by the Local Government Code, must pay the fines per violation set herein in lieu of prosecution:

a For private residential buildings …… …… **P1,000.00**

b. For hotels, apartments, banks, offices, shops, lodging houses, malls, restaurants, and other commercial establishments ……. **P2,000.00**

c. For hospitals, funeral parlors and similar operation …… **P3,000.00**

or by imprisonment of not less than one (1) day nor more than one (1) year, or both fine and imprisonment at the discretion of the court. Failure to comply with the provisions herein shall result in the cancellation of business permits for commercial establishments.

## ARTICLE VIII
*Final Provision*

**Section 17**. All provisions of existing laws and ordinances are hereby supplemented and added to come up with a system that will work for the city.

**Section 18**. This Ordinance shall take effect upon its approval.

UNANIMOUSLY APPROVED.

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I hereby certify to the correctness of the above quoted resolution with an ordinance.

**RAMON A. VILLAROSA**
*City Secretary*

ATTESTED:

**WILLIAM E. ABLONG**
*City Vice-Mayor*
*Presiding Officer*

APPROVED:

**AGUSTIN R. PERDICES**
*City Mayor*

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