WHEREAS, the Local Government Code of 1991 (R.A. 7160) accords every local government unit the power and authority to promote the general welfare of its constituents, including the preservation and enrichment of culture, promote health and safety, enhance the right of the people to a balanced ecology;

WHEREAS, it is the policy of the City Government of Davao to pursue within the context of a balanced ecology through the proper use of natural resources, giving due consideration to the protection and conservation of the environment and adapt to the impacts of climate change;

WHEREAS, the City Government of Davao recognizes the need to promote the proper harvesting, storage and utilization of rainwater as a viable alternative source of water supply, primarily for non-potable use;

WHEREAS, the proper harvesting, storage and utilization of rainwater would reduce the effects of storm water and surface runoff and siltation, that will contribute in the reduction or mitigation of flooding, soil erosion, deposit of silt loads on local roads and rivers, non-point source pollution in urban areas, and improve the quality of surface water;

WHEREAS, the adoption and development of appropriate technologies, related to rainwater utilization by medium to large size commercial, institutional, agricultural and industrial establishments, including medium to high-end residential subdivisions, are vital to realize the primary objective of the Davao City Rainwater Ordinance of 2009;

WHEREAS, the City Government of Davao passed and approved Ordinance No. 0298-09, series of 2009, otherwise known as, “Davao City Rainwater Ordinance of 2009;”

WHEREAS, there is a need to have an Implementing Rules and Regulations, to ensure the effective implementation of Ordinance No. 0298-09, series of 2009;
NOW, THEREFORE, I RODRIGO R. DUTERTE, Mayor of City of Davao, by virtue of the power and authority vested in me by law, do hereby promulgate and issue the Implementing Rules and Regulations of Ordinance No. 0298-09, series of 2009, otherwise known as, Davao City Rainwater Ordinance of 2009.

RULE I
GENERAL PROVISIONS

SECTION 1. TITLE.
These Rules shall be known and cited as the “Implementing Rules and Regulations (IRR) of Ordinance No. 0298-09.”

SECTION 2. PURPOSE.
This IRR is promulgated to prescribe the procedures and guidelines for the implementation of “Davao City Rainwater Ordinance of 2009,” Ordinance No. 0298-09, series of 2009, in order to facilitate compliance therewith and achieve the objectives thereof.

SECTION 3. INTERPRETATION.
This IRR shall be construed to achieve the objectives of the Davao City Rainwater Ordinance of 2009.

RULE II
DEFINITION OF TERMS

SECTION 4. DEFINITION OF TERMS - As used in this IRR, the following terms are defined as follows:

a. Agricultural Plantations - refer to agricultural farm planting for commercial purposes;

b. Building - any structure built for the support, shelter or enclosure of persons, animals, chattels or property of any kind;

c. Catchment surface - the collection surface from which rainfall runs off;

d. Cluster-type Rainwater Catchment System (CTRCS) - type of structure that would serve as common system for a group of persons;

e. Commercial and industrial establishments - private buildings like malls, hotels, factory plantations and the like;
f. **Communal-type or cluster type of Rainwater Catchment System (CTRCS)** – type of structure that serves as the common system for a community;

g. **Detention Pond** - is a stormwater basin that has a controlled outflow located at the bottom of the basin so that all of the water eventually drains out and it remains dry between storms.

h. **Filter** – is the act of removing dirt or any matter suspended in the water by passing it through a porous article or mass;

i. **Ground Basin**- includes but not limited to retention ponds, detention ponds, reservoirs, and other water impounding systems.

j. **Gutters and downspout** – to channel water from the roof to the tank;

k. **Infiltration Trenches**- are canals designed to facilitate percolation of water to the ground;

l. **Institutional Buildings** – shall include but not limited to: hospitals, sanitaria, jails, prisons, reformatories, nurseries, and nursing homes;

m. **IRR** – shall mean Implementing Rules and Regulations;

n. **Leaf screens, first flush diverters and roof washers** – components of the treatment and disinfection subsystem of the rainwater harvesting system which will remove debris and dust from the captured rainwater before it goes to the tank;

o. **Major Renovations** - refer to renovation and expansion of buildings that comprise the structural component of the building, and any physical change made on buildings/structures to increase the value, quality, and/or to improve the aesthetic.

p. **PAG-ASA** – Philippine Atmospheric, Geophysical and Astronomical Services Administration – a national government agency that provide weather, flood, climate and astronomical product and services to promote people’s safety and well-being, and contribute to national development.

q. **Private Buildings** – refer to structures which are not owned by the government;

r. **Public buildings** - refer to structures owned by either the local or the national government, including those owned by Government-Owned and Controlled Corporations (GOCCs) with or without original charters;
s. *Rain or rainwater* – drops of freshwater that fall as precipitation from the clouds or a type of precipitation as a product of condensation of atmospheric water vapour that is released on the earth’s surface;

t. *Rainwater Catchment System (RCS)* - comprises the structure and the process of maintaining the system. The structure consists of the catchment area (roof, platform, ground, or any surface identified), the conveyance (gutter pipes, etc.) and the cistern (storage or tank). The processes for maintaining the system include accessories and procedures for maintaining water quality; process to determine water adequacy and special processes which include but not limited to multi-storey, mix system, multi-use design and processes;

u. *Rainwater Harvesting* – is simply defined as proper capture/collection of rain water, storage and use;

v. *Retention Pond* - is a stormwater basin designed with vegetations with a controlled outflow at a higher point so that it retains a permanent pool of water to manage stormwater runoff, to prevent flooding and downstream erosion and to improve water quality.

w. *Sewerage* – refers to the removal of surface water and water matter by sewers, and is a system of sewers that conveys wastewater to a treatment plant or disposal point;

x. *Sewers* – refer to a pipe or drain, usually underground, used to carry off water and waste matter;

y. *Storage tanks or cistern* – the container where the harvested rainwater is stored;

z. *Structure* - that which is built or constructed, an edifice or building of any kind, or horizontal construction such roads, driveways or pavements or any piece of work artificially built up or composed of parts joined together in some definite manner;

aa. *SWIS* – shall mean Small Water Impounding System

bb. *Tax rebates* – refer to a reduction in taxes or tax credits that may be granted to qualified persons or entities for complying with the RCS requirements;

c. *Vegetated Swales* - are broad, shallow channels, either natural or constructed, with a dense stand of vegetation covering the side slopes and bottom, designed to convey and infiltrate stormwater runoff.
RULE III
RAINWATER CATCHMENT SYSTEM

SECTION 5. BASIC COMPONENTS OF RAINWATER CATCHMENT SYSTEM (RCS) – A Rainwater Catchment System (RCS) is composed of five basic components namely: collection system (catchment surface), conveyance system, storage system, treatment and disinfection system and drainage/sewerage system.

The RCS design should be reviewed and approved by the Office of the Building Official.

SECTION 6. CLASSIFICATION - Rainwater harvesting system in Davao City is classified based on the size and nature of catchment surface and based on whether the systems are urban and rural settings as follows:

a. Small size RCS of individual residential and other types of buildings with catchment surface equal to or less than fifty (50) square meters;

i. Storage capacity is less than 2,000 liters
ii. Small size RCS can be any or a combination of the following:
   Catchment System:
   • Roof Surface
   • Paved or unpaved areas
   • And other similar structures

Conveyance System:
• Gutters
• Downspouts
• And other similar structures

Storage System:
• Rain barrels
• Rainwater storage tanks
• Catch basins
• Rain gardens
• And other similar structures

Treatment and Disinfection System:
• Leaf Screen
• First flush diverters
• Roof washers
• And other similar structures

Drainage and Sewerage Systems:
• And other similar structures

Treatment and Disinfection System:
• Leaf Screen
• First flush diverters
• Roof washers
• And other similar structures

Drainage and Sewerage Systems:
• Rainwater and storm water drains
• And other similar structures

vi. The storage capacity of the rainwater tank should be computed on the basis of the catchment surface area, the average monthly rainfall in the area and the efficiency of the catchment surface and the conveyance system.

The average monthly rainfall shall be determined by PAGASA.

The storage tank shall be able to hold at least 25% of the average monthly rainfall that can be collected from catchment surface.

c. RCS for apartments, duplex or multi-storey buildings in urbanized areas;

Catchment System:
• Roof Surface
• Paved or unpaved areas
• And other similar structures

Conveyance System:
• Gutters
• Downspouts
• And other similar structures

Storage System:
• Rain barrels
• Rainwater storage tanks
• Catch basins
• Rain gardens
• And other similar structures

Treatment and Disinfection System:
• Leaf Screen
• First flush diverters
• Vegetated Swales
• Infiltration Trench
• And other similar structures

In addition, porous pavements or crushed stones and other similar materials shall be used in parking areas, driveways and other similar structures, to facilitate infiltration thus reducing run off and minimizing soil erosion and impact to receiving water body.

Further, the storage capacity for retention/detention pond should be computed on the basis of the catchment surface area, rainfall intensity and runoff coefficient considering two hours rainfall. The rainfall intensity shall be determined by PAGASA and the runoff coefficient shall be based on published sources.

SECTION 7. RCS IN PUBLIC AND PRIVATE BUILDINGS - All construction of new commercial and industrial buildings including major renovations and expansions of existing public and private buildings must include an RCS.

RCS must be integrated in existing government buildings, specially public schools and public markets. Owners of other existing buildings are encouraged to install RCS.

SECTION 8. RCS IN RESIDENTIAL BUILDINGS - the developers and owners, including the homeowner’s Association of new residential building units may install a communal or cluster type RCS.

Owners of existing residential building units are encouraged to set up their own RCS upon the effectivity of this IRR.

SECTION 9. RCS IN AGRICULTURAL PLANTATIONS - RCS or Small Water Impounding Systems (SWIS) shall be integrated in newly-established agricultural plantations.

RCS or SWIS are encouraged to be built in existing plantations from the effectivity of this IRR.

SECTION 10. OTHER PRIORITY FARMS - the Office of the City Agriculturist shall identify priority farms in the agriculture sector, other than agricultural plantations, which shall be also encouraged to put up RCS or Small Water Impounding System (SWIS), whichever is appropriate.
RULE IV

MULTIPLE USES OF HARVESTED RAINWATER

SECTION 11. GENERAL STATEMENT ON MULTIPLE UTILIZATION OF HARVESTED RAINWATER:

a. To conserve water as well as energy, harvested rainwater stored in tanks and cisterns should be used as additional water for non-health purposes such as but not limited to: toilet flushing, general cleaning, gardening, laundry, car washing, fire fighting, and construction.

Use of stored rainwater for drinking should be with much caution. The Department of Health (DOH)/City Health Office (CHO) should be the recognized agency for the water quality tests needed to warrant the potability of the stored rainwater.

Stored rainwater to be used for drinking, shall secure a certificate of potability from the Department of Health/City Health Office.

b. To reduce run off and flooding in sealed ground surfaces, proprietors of such areas must have rainwater drainage/catchment systems that should recycle the runoff and not create nuisance in other places.

c. To increase the holdback capacity of water, reduce run off and soil erosion, contain effluents as well as augment farm water supply, agricultural areas must have ground basins or structures that should catch rainwater.

SECTION 12. NON-POTABLE USE - The harvested rain in residential, commercial, industrial, institutional establishments and agricultural farms shall be primarily used for non-potable purposes, such as but not limited to: flushing of toilets, general cleaning, gardening, washing of clothes, fire fighting and landscape irrigation.

Significant volume of water harvested from the rain can also supply the water requirement for sanitation and general cleaning of urban and rural agriculture, backyard, commercial animal raising and crop production.

SECTION 13. POTABLE USE - Unless adequately treated, filtered or boiled, harvested rainwater shall not be used for drinking.

The City Health Office or the Department of Health or its accredited laboratories should be the recognized entities for water quality tests needed to warrant potability of the stored rainwater.

Stored rainwater to be used for drinking shall secure a certificate of potability from the Department of Health/City Health Office.
RULE V
MANDATORY PROVISION OF RCS

SECTION 14. RCS AS A REQUIREMENT IN THE ISSUANCE OF BUILDING PERMIT FROM THE CITY ENGINEER’S OFFICE. – The putting up of an RCS shall be a mandatory requirement in the issuance of a new building permit.

The guidelines on the classification of buildings according to type of occupancy which shall be required to put-up RCS with corresponding capacities, are as follows:

Occupancy Classification:

(a) Buildings proposed for construction shall be identified according to their use or the character of its occupancy and shall be classified as follows:

(1) **Group A – Residential Dwellings**

Group A Occupancies shall be dwellings.

(2) **Group B – Residential, Hotels and Apartments**

Group B Occupancies shall be multiple units including boarding or lodging houses, hotels, apartment buildings, row houses, convents, monasteries and other similar building which accommodates more than 10 persons.

(3) **Group C – Education and Recreation**

Group C Occupancies shall be building used for school or day-care purposes, involving assemblage for instruction, education, or recreation, and not classified in Group I or in Division 1 and 2 or Group H Occupancies.

(4) **Group D – Institutional**

Group D Occupancies shall include:

Division 1. Mental hospitals, mental sanitaria, jails, prisons, reformatories, and buildings where personal liberties of inmates are similarly restrained.

Division 2. Nurseries for full-time care of children under kindergarten age, hospitals, sanitaria, nursing homes with non-ambulatory patients, and similar buildings each accommodating more than five persons.
Division 3. Nursing Homes for ambulatory patients, homes for children of kindergarten age or over, each accommodating more than five persons: Provided, that Group D occupancies shall not include building used only for private or family group dwelling purposes.

(5)  Group E – Business and Mercantile

Group E Occupancies shall include:

Division 1. Gasoline filing and service station, storage garages and boat storage structures where no work is done except exchange of parts and maintenance requiring no open flame, welding, or the use of highly flammable liquids.

Division 2. Wholesale and retail stores, office buildings, drinking and dining establishments having an occupant load of less than one hundred persons, printing plants, police and fire stations, factories and workshops using not highly flammable or combustible materials and paint stores without bulk handlings.

Division 3. Aircraft hangars and open parking garages where no repair work is done except exchange of parts and maintenance requiring no open flame, welding or the use of highly flammable liquids.

(6)  Group F – Industrial

Group F Occupancies shall include: ice plants, power plants, pumping plants, cold storage, and creameries, factories and workshops using incombustible and non-explosive materials, and storage and sales room for incombustible and non explosive materials.

(7)  Group G – Storage and Hazardous

Group G Occupancies include:

Division 1. Storage and handling of hazardous and highly flammable material.

Division 2. Storage and handling of flammable materials, dry cleaning plants using flammable liquids; paint stores with bulk handling, paint shops and spray painting rooms.

Division 3. Wood Working establishments, planning mills and box factories, shops, factories where loose combustible fibers or dust are manufactured, processed or generated; warehouses where highly combustible material is stored.

Division 4. Repair Garages.
(8) Group H – Assembly other than Group I

Group H Occupancies shall include:

Division 1. Any assembly building with a stage and an occupant load of less than 1000 in the building.

Division 2. Any assembly building without stage and having an occupant of 300 or more in the building.

Division 3. Stadia, reviewing stands, amusement park structures not included within Group 1 or in Division 1, 2 and 3 of this group.

(9) Group I – Assembly Occupant Load 1000 or More

Group I Occupancies shall be an assembly building with a stage and an occupant load of 1000 or more in the building.

(10) Group J – Accessory

Group J Occupancies shall include:

Division 1. Private garage, carports, sheds and agricultural buildings.

Division 2. Fences over 1.80 meters high, tanks and towers.

(11) Group K – Pavements

Group K Occupancies shall include pervious and impervious surfaces in roads, open air parking area, recreational and sports facilities including large areas on institutions or establishments.

(12) Group L – Subdivisions

Other sub groupings or divisions within Group A to L may be determined by the Office of the City Engineer. Any other occupancy not mentioned specifically in this Section, or about which there is any question, shall be included in the Group which it most nearly resembles.

RCS minimum capacity requirement to building according to type of occupancy

(1) Group A

(a) Less than 50 sq.m of catchment surface area ---- small size RCS
(b) 50 sq.m or more of catchment surface area ------ medium to large

RCS
(2) **Group B**

large

medium to RCS

(3) **Group C**

large

medium to RCS

(4) **Group D**

(a) Division 1

large

medium to RCS

(b) Division 2

large

medium to RCS

(c) Division 3

large

medium to RCS

(5) **Group E**

(a) Division 1

large

medium to RCS

(b) Division 2

large

medium to RCS

(c) Division 3

large

medium to RCS

(6) **Group F**

large

medium to RCS

(7) **Group G**

(a) Division 1

large

medium to RCS

(b) Division 2

large

medium to RCS

(c) Division 3

large

medium to RCS

(8) **Group H**

(a) Division 1

large RCS

(b) Division 2

large RCS
(c) Division 3 --------------------------------- medium to large RCS

(9) Group I --------------------------------- Large RCS

(10) Group J

(a) Division 1 --------------------------------- small, medium to Large RCS
(b) Division 2 --------------------------------- not required

(11) Group K --------------------------------- medium to large RCC

(12) Group L --------------------------------- large RCS

RULE VI

MANDATORY DESIGN OF RAINWATER HARVESTING AND FLOOD CONTROL SYSTEMS IN URBAN AREAS

SECTION 15. DESIGN INTEGRATION OF THE PROPER HARVESTING STORAGE AND UTILIZATION OF RAINWATER - The proper harvesting, storage and utilization of rainwater shall be integrated with the proper design, construction and maintenance of drainage systems that will imitate the natural hydrology of the developed site.

Establishments or individuals that will connect their drainage to the public drainage system shall secure a Drainage Clearance from the Office of the City Engineer, or from the Department of Public Works and Highways, in case of drainage systems along national roads.

SECTION 16. DESIGN INTEGRATION FOR ROADS, OPEN AIR PARKING AREA, RECREATIONAL AND SPORTS FACILITIES INCLUDING LARGE OPEN AREAS ON ESTABLISHMENTS - Pervious and impervious surfaces in roads, open air parking area, recreational and sports facilities, including large areas on institutions or establishments, especially in urbanized areas, shall be designed to catch rainwater which will reduce stormwater peak flow and surface runoff that will contribute to the reduction or mitigation of local flooding and erosion of canals, and enhance the quality of surface water in urban areas.

RULE VII

THE WATERSHED MANAGEMENT COUNCIL, AS THE IMPLEMENTING AGENCY

SECTION 17. THE WATERSHED MANAGEMENT COUNCIL - The Watershed Management Council, created by virtue of Ordinance No. 0310-07,
series of 2007, otherwise known as “The Watershed Code,” shall be the primary implementing body of this IRR and the Davao City Rainwater Ordinance of 2009, considering that rainwater harvesting is a component of the entire watershed management conservation effort.

SECTION 18. SECRETARIAT SUPPORT - To assist the Watershed Management Council, the secretariat support shall be provided by the City Engineer’s Office.

SECTION 19. TECHNICAL ASSISTANCE SERVICES - The Watershed Management Council shall provide technical assistance/services to households, commercial and industrial establishments and institutions in complying with the provisions of this IRR and the Davao City Rainwater Ordinance of 2009.

SECTION 20. SIMPLIFIED TECHNICAL MANUAL - The Watershed Management Council shall formulate a simplified Technical Manual on planning and development of rainwater harvesting system which includes the design, construction, operation and maintenance of the RCS, water quality testing and treatment, water balance, system sizing, rainwater harvesting guidelines and cost estimation.

SECTION 22. COMPREHENSIVE RAINWATER MANAGEMENT INFORMATION AND EDUCATION - The Watershed Management Council shall adopt strategies that will extensively promote and advocate rainwater harvesting, particularly providing a comprehensive information and education campaign on the advantages and benefits of rainwater harvesting;

SECTION 23. RESEARCH AND DEVELOPMENT - The Watershed Management Council shall collaborate with the academe, professional organizations, and other entities in the research and development of appropriate technology in harvesting rainwater for all types of RCS;

SECTION 24. MEDIA CAMPAIGN ON RAINWATER EDUCATION - In partnership with the Davao City Information Office and the various media organizations, the Watershed Management Council shall prepare and implement a media and communication plan for a regular information dissemination campaign and advocacy;

RULE VIII

TAX REBATES AND OTHER INCENTIVES

SECTION 25. SUBSIDIES AND TAX REBATES - The City Treasurer’s Office, with the assistance of the City Engineer’s Office or the Office of the Building Official and City Agriculturist’s Office, shall prepare guidelines on the grant of subsidies and tax rebates to owners of existing agricultural, residential, industrial, institutional and commercial buildings or plantations
upon installation of an RCS in compliance with the provisions of this IRR and the Davao City Rainwater Ordinance of 2009.

The guidelines shall be submitted to the Sangguniang Panlungsod for approval.

RULE IX
ECOLOGICAL AND SEALING FEES

SECTION 26. ECOLOGICAL FEE – The City Treasurer’s Office, with the assistance of the City Engineer’s Office or the Office of the Building Official, shall prepare guidelines on the fees to be collected from the owners of buildings without appropriate RCS, considering the volume of water withdrawn from the water utility that are used for non-potable purposes and the volume of untreated water discharged to the manmade and natural waterways. The same shall be submitted to the Sangguniang Panlungsod for approval.

SECTION 27. SEALING FEE - In addition, The City Treasurer’s Office, with the assistance of the City Engineer’s Office or the Office of the Building Official, shall formulate guidelines on the fees to be collected for the areas sealed or to be sealed due to the development of a site such as roads, open air parking areas, sports and recreational facilities and the like, considering the volume of the surface runoff and the untreated water discharged to the manmade and natural waterways. The same shall be submitted to the Sangguniang Panlungsod for approval.

RULE X
MISCELLANEOUS PROVISIONS


SECTION 29. EVALUATION – After the effectivity of this Implementing Rules and Regulations, the Watershed Management Council shall prepare a report on the impact of rainwater harvesting including the management of freshwater resources of the city, the reduction or mitigation of local flooding and erosion of canals and the enhancement in the quality of surface water.

SECTION 30. COLLECTED ECOLOGICAL AND SEALING FEES – The collected ecological and sealing fees shall be used for the grant of incentives, for compliance with the provisions of this IRR and the Davao City Rainwater Ordinance of 2009, including programs or projects for the improvement of freshwater resources in the city.

SECTION 31. PENALTIES - Any person or persons, owners of residential buildings, business entities or corporation found violating any provisions of this IRR and/or the Davao City Rainwater Ordinance of 2009,
shall be penalized with a fine of ONE THOUSAND PESOS (P1,000.00) but not exceeding FIVE THOUSAND PESOS (P5,000.00) and/or imprisonment for a period of six (6) months but not exceeding one (1) year at the discretion of the court;

The president or manager in case of a company, corporation, association, or partnership, or the owner/proprietor or operator in case of a single proprietorship shall be liable to the above-mentioned penalties.

**SECTION 32. REPEALING CLAUSE** – The provisions of other executive orders, and rules and regulations, which are inconsistent with this IRR, are hereby repealed accordingly.

**SECTION 33. SEPARABILITY CLAUSE** – Should any provision of this IRR be subsequently declared unconstitutional or invalid, the other provisions not so declared and not affected by such declaration shall remain in full force and effect.

**SECTION 34. EFFECTIVITY** – This Implementing Rules and Regulations shall take effect immediately upon approval.

Done at Davao City, Philippines, this ________ day of ________, 2014.

RODRIGO R. DUTERTE
City Mayor

Attested by:

J. MELCHOR V. QUITAIN
City Administrator

Agri  Dec 23, 2014
CPO  10/23
CEO  |
CFO  10/23