

NINETEENTH CONGRESS OF THE)
REPUBLIC OF THE PHILIPPINES)
First Regular Session)

 Senate
Office of the Secretary

'22 JUL 13 A10 :00

SENATE
S. No. 454

RECEIVED BY: 

Introduced by SENATOR JINGGOY EJERCITO ESTRADA

AN ACT
MANDATING THE ESTABLISHMENT, MANAGEMENT, MAINTENANCE, AND
REGULATION OF A RAINWATER HARVESTING FACILITY IN ALL NEW
INSTITUTIONAL, COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL
DEVELOPMENT PROJECTS IN METRO MANILA

EXPLANATORY NOTE

Rainwater harvesting system, also referred to as rainwater collection system or rainwater catchment system is the “technology that collects and stores rainwater for human use. Rainwater harvesting systems range from simple rain barrels to more elaborate structures with pumps, tanks, and purification systems. The nonpotable water can be used to irrigate landscaping, flush toilets, wash cars, or launder clothes, and it can even be purified for human consumption.”¹

Rainwater harvesting system is a viable solution to water scarcity, which is prominent in densely populated areas. The water collected may be used for different purposes in agriculture, businesses, and households – from irrigation, car wash, laundry, to toilet flush. When subjected to purification process, it can even be used for human consumption.

In a forum held in 2019, the Secretary of the Department of Agriculture stated that the Philippines receives one of the world’s highest rainfall which amounts to 2,400 millimeters annually. However, only six percent (6%) of that rainfall is being

¹ <https://www.britannica.com/technology/rainwater-harvesting->

harvested. This shows that we are not able to maximize the country's natural gifts compared to India which only receives 700 millimeters of rainfall every year but is able to harvest sixty percent (60%) of it.

Various public utilities and private companies have rainwater harvesting facilities. Maynilad Water Services, Inc. (Maynilad) recently installed a system capable of holding 700-liters of water at Putatan Elementary School. At present, twenty (20) SM malls have rainwater catchment facilities that can store a total of 79,257 cubic meters of rainwater, equivalent to almost 32 Olympic-size swimming pool. The company intends to promote resilience by helping communities to be flood free, and sustainability by optimizing water.

However, according to the publication, "Rainwater Harvesting: A Lifeline for Human Well-Being", a report prepared for the United Nations Environment Programme (UNEP) by Stockholm Environment Institute, "The biggest challenge with using rainwater harvesting is that it is not included in water policies in many countries. In many cases water management is based on renewable water, which is surface and groundwater with little consideration of rainwater. Rainwater is taken as a 'free for all' resource and the last few years have seen an increase in its use. This has resulted in over abstracting, drastically reducing water downstream users including ecosystems. This has introduced water conflicts in some regions of the world. For the sustainable use of water resources, it is critical that rainwater harvesting is included as a water sources as is the case for ground wand surface water."

Water is a scarce resource and due importance is given to this under the Sustainable Development Goal #6 which identified access to clean water as one of the global priorities to be achieved by 2030.

The "*Rainwater Harvesting Facility Act*" seeks to mandate the construction of rainwater harvesting facilities in all new public and private commercial, institutional, industrial and residential developments in Metro Manila. This will serve a multitude of purposes including contribution to the flood control efforts of the government,

conservation of potable faucet water, and achieving a sustainable environment. The measure enumerated the uses of the harvested rainwater: for urban irrigation; groundwater recharge; firefighting; construction; non-potable water supply such as washing cars, toilet and fishponds; potable uses such as drinking, cooking, dishwashing and bathing; and for ecological requirements.

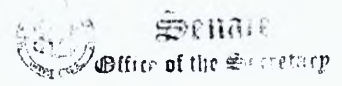
The bill mandates the Department of Public Works and Highways (DPWH) to prepare the Rainwater Design Manual (RDM) which shall serve as a guideline for the construction of rainwater harvesting facilities.

This bill was approved on Third Reading by the House of Representatives in the 18th Congresses.

In view of the foregoing, the approval of this measure is earnestly sought.


JINGGOY EJERCITO ESTRADA

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Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

1 Section 1. *Short Title.* – This Act shall be known as the "*Rainwater Harvesting*
2 *Facility Act.*"

3 Sec. 2. *Declaration of Policy.* – It is the declared policy of the State to protect
4 the right of the people to a balanced and healthful ecology and advance the health
5 and welfare of its citizens in accordance with the rhythm and harmony of nature.
6 Pursuant thereto, the government and all its instrumentalities shall systematically
7 integrate the concept of climate change in the various phases of policy formulation
8 and development planning, in drawing up and implementing poverty reduction
9 strategies and innovations that provide beneficial effects to the greatest number of
10 people with the least cost and negative externalities.

11 In this light, and given the demands of a growing population, the State shall
12 adopt measures and strategies in order to efficiently conserve water and help attain
13 water security. Among other strategies on water conservation, rainwater harvesting
14 facilities shall be established not only to conserve the supply of potable faucet water
15 but also to prevent flooding in communities that sometimes result into devastating

1 effects to human life and property. Both the public and private sectors are urged to
2 actively participate in flood mitigating efforts and initiatives of the government.

3 The State recognizes Metro Manila as one of the densest areas in the country.
4 To mitigate the adverse effects of continuing growth in population and human
5 settlements, the State shall ensure that Metro Manila local governments are
6 capacitated to respond to threats brought by natural calamities and disasters such as
7 massive flooding. Towards this end, the State shall mandate the construction of
8 rainwater harvesting facilities in all new public and private commercial, institutional,
9 industrial and residential developments in Metro Manila which will serve as a pilot area
10 from which other similar areas can learn.

11 Pursuant thereto, owners and developers of all new public and private realty
12 development projects in Metro Manila requiring the issuance of building permits are
13 mandated to design and construct a rainwater harvesting facility to prevent or delay
14 the release of rainwater and runoff water into the public drainage systems, creeks and
15 natural waterways.

16 *Sec. 3. Purpose.* – This Act seeks to establish minimum rainwater management
17 requirements and controls to protect and safeguard the general health, safety, and
18 welfare of the public against the ill effect of floods on one hand, and water shortage
19 on the other. This Act pursues the following objectives:

- 20 a) Reduction of flooding, siltation, increases in stream temperature and stream
21 bank erosion, and maintain the integrity of stream channel by regulating
22 the accumulation of rainwater runoff in any proposed and existing
23 commercial, institutional, industrial and residential developments;
- 24 b) Prevention of the degradation of water quality by averting non-point source
25 pollution cause by rainwater runoff developments;
- 26 c) Regulation of the annual volume of surface water runoff from any specific
27 site during and following a development so as not to exceed the pre-
28 development hydrologic regime in an area; and
- 29 d) Establishment of standards for rainwater management control to ensure
30 that these and the facilities thus built are properly complied with and do not
31 pose without a threat to public safety.

32 *Sec. 4. Definition of Terms.* – As used in this Act:

- 1 a) *Applicant* – refers to a property owner or agent who has filed an application
2 for a rainwater management permit;
- 3 b) *Building* – refers to any structure built for the support, shelter, or enclosure
4 of person, animals, chattels, or moveable property of any kind and which is
5 permanently affixed to the land;
- 6 c) *Building Official* – refers to a local building official as appointed or
7 designated pursuant to Presidential Decree (PD) 1096, or the “National
8 Building Code of the Philippines (NBCP)”;
- 9 d) *Certificate of Occupancy* – refers to a permit issued by the Zoning Officer
10 indicating that the use of the building or land is in conformity with the
11 Zoning Ordinance or that there has been a legal variance therefrom;
- 12 e) *Channel* – refers to a natural or artificial watercourse with definite bed and
13 banks that conducts flowing water continuously or periodically;
- 14 f) *Contour interval* – refers to the vertical distance between the elevations
15 represented by adjacent contour lines on a map;
- 16 g) *Contour line* - refers to a line on a map or chart connecting all points of the
17 same elevation or depth in a particular area;
- 18 h) *Detention* – refers to a rainwater management practice of temporarily
19 storing rainwater runoff to control the peak discharge rate and to likewise
20 induce settling of pollutants through gravity;
- 21 i) *Developer* – refers to a person or entity who undertakes land disturbance
22 or land development activities; a developer may only be contracted to
23 develop and may or may not be the owner of the development, such as a
24 building structure being built;
- 25 j) *Development* – refers to any man-made change to improved or unimproved
26 real estate; including buildings or other structures, mining, dredging, filling,
27 grading, paving, excavation, or drilling operation;
- 28 k) *Flood frequency* – refers to a record of past flood events or occurrences that
29 yield flood data estimates used principally to compare expected changes in
30 flood damages with the economic and social costs or benefits guiding a
31 contemplated action;

- 1 l) *Hydrologic regime* – refers to the quantity and dynamic of water flow or the
2 variations in the state and characteristic of a water body depending on
3 location and time of the year, which may occur in regular patterns;
- 4 m) *Infiltration* – refers to the process of percolating or gradually filtering
5 rainwater into the subsoil;
- 6 n) *Infiltration facility* – refers to any structure or device designed to infiltrate
7 water to the subsurface. These facilities may be above ground or below
8 ground;
- 9 o) *Land disturbance* – refers to any activity which changes the volume or peak
10 flow discharge rate of rainfall from the land surface. This may include
11 grading, digging, cutting, scraping, or excavating of soil, placement of fill
12 materials, paving, construction, substantial removal of vegetation, or any
13 activity which bares soil or rock or involves the diversion or piping of any
14 natural or man-made watercourse;
- 15 p) *Landowner* – refers to the legal or beneficial owner of land, including those
16 holding the right to purchase or lease the land, or any other person holding
17 proprietary rights over the land;
- 18 q) *Off-site facility* – refers to a rainwater management installation located
19 outside the subject property boundary described in the permit application
20 for land development activity;
- 21 r) *On-Site facility* – refers to a rainwater management measure located within
22 the subject property boundary described in the permit application for land
23 development activity;
- 24 s) *Rainwater Design Manual* – refers to the Planning and Design Manual for
25 the Control of Erosion, Sediment and Rainwater of the Department of Public
26 Works and Highways;
- 27 t) *Rainwater management* – refers to the use of structural or non-structural
28 practices that are designed to reduce rainwater runoff pollutant loads,
29 discharge volumes, and peak flow discharge rates;
- 30 u) *Rainwater retrofit* – refer to a rainwater management practice designed for
31 an existing development site that had not implemented rainwater

- 1 management measures, or had previously implemented measures that were
2 inadequate to meet the rainwater management requirements of the site;
- 3 v) *Rainwater runoff* – refers to water flow in the surface of the ground,
4 resulting from precipitation;
- 5 w) *Rainwater treatment* – refers to a process by which collected rainwater is
6 filtered or cleaned through either structural or non-structural means to
7 prevent or reduce point source or nonpoint source pollution inputs to
8 rainwater runoff and water bodies, as well as to upgrade rainwater for re-
9 use;
- 10 x) *Rainwater Harvesting Facility* – refers to a flood control structure such as
11 vertical detention tank, horizontal water tank, open retarding basin, and
12 multi-water catchment area or an on-site regulation pond used to prevent
13 or delay the release of rainwater into the public drainage system;
- 14 y) *Return period* – refers to the average length of time in years for a rain-
15 related natural disaster of given magnitude to be equalled or exceeded by
16 the length of time that a rainwater-related disaster may probably recur;
- 17 z) *Recharge* – refers to the replenishment of underground water reserves;
- 18 aa) *Redevelopment* – refers to any construction, alteration or improvement
19 exceeding one hundred (100) square meters in high density areas where
20 existing land use is for commercial, industrial, institutional or multi-family
21 residential purposes;
- 22 bb) *Stop Work Order* – refers to an issuance by the Building Official that requires
23 the discontinuance or stoppage, in part or whole, of the construction activity
24 in a site due to a violation of the law;
- 25 cc) *Watercourse* – refers to a permanent or intermittent stream or other body
26 of water, either natural or man-made, which gathers or carries surface.

27 Sec. 5. *Rainwater Harvesting Facility Requirement.* – A project owner or
28 developer of a new commercial, institutional, industrial, and residential development
29 project in Metro Manila, with a building footprint area of at least one hundred (100)
30 square meters that requires the issuance of building permit, shall reserve, develop and

1 maintain a rainwater harvesting facility with a minimum storage tank size in cubic
2 meters calculated by dividing the building footprint area by 75².

3 The owner or developer of an ongoing development project in Metro Manila,
4 that has no existing provision for rainwater harvesting shall build a facility within a
5 period of three (3) years from the effectivity of this Act, or suffer the penalty imposed
6 in Section 13 hereof.

7 When additions, alterations, conversions, and renovations of an existing
8 building constructed after the effectivity of this Act fit within the minimum building
9 footprint, the whole building shall be subject to the applicable provisions of this Act.

10 To conserve potable water, rainwater collected by a harvesting facility may be
11 used for non-potable and suitable purposes, such as gardening and air-cooling
12 processes, provided through a distinct and separate piping system from the potable
13 water supply system. The landowner or developer may opt to utilize a system or
14 technology that can recycle collected rainwater for potable uses such as bathing,
15 dishwashing, or cooking, provided it meets the water quality standard of any
16 government water agency or duly accredited water testing center.

17 *Sec. 6. Requirements for Rainwater Management Plan.* – All project owners or
18 developers of proposed commercial, industrial, and residential development or any
19 residential multi-dwelling units of more than One thousand square meters (1,000 sqm)
20 land area must submit a Rainwater Management Plan (RMP) as part of the site
21 development application and approval process.

22 The RMP shall include the following information:

- 23 a) Description of existing conditions in the location of the development site:
- 24 i) Topographic map with 1.0 meter minimum contour line or an
25 appropriate contour interval of the land proposed for development or
26 redevelopment;
 - 27 ii) Location of natural waterways including banks and centreline of
28 streams and channels;
 - 29 iii) Normal shoreline, coastlines, outline of lakes, natural depressions
30 and ponds, including drainage flow lines; and

² Standard indicated in Paragraph c.i of Section 11.2.1 of the Philippine Green Building Code, 2015.

1 iv) Quantification of flows (discharge and volume) in its natural
2 condition.

3 b) Proposed Site Development Plan (SDP) in an appropriate scale and size
4 showing the following:

5 i) Retention/detention basins and lines of inflow and outflow;

6 ii) Location, size and slope of rainwater conduits and drainage swales;

7 iii) Rain, sanitary and combined sewer and outfalls;

8 iv) Delineation of upstream and downstream drainage features and
9 watershed which might be affected by the development; and

10 v) Other environmental features including limits of wetland areas, green
11 buffers, planting strips, and any designated natural areas for
12 rainwater management.

13 c) Description of the Proposed Rainwater Management System (RMS) to safely
14 and completely manage rainwater runoff onsite or offsite, help maintain the
15 natural hydrologic cycle and condition of flow in a locality, and reduce the
16 risk of downstream flooding.

17 The proposed RMS shall be accompanied by hydrologic and hydraulic
18 calculations to adequately demonstrate the effectiveness of the RMP. It shall
19 be designed to meet the desired flood frequency which is designated to a
20 particular drainage structure as stated in the Design Manual of the DPWH:
21 Provided, That a 25-year flood frequency or higher may be required for
22 major rivers and waterways, subject to the design criteria in Section 9 of
23 this Act.

24 The RMP shall be accompanied by relevant information such as rainfall
25 data in a locality, maps and other descriptive material to include the
26 following:

27 1) The extent of catchment and drainage channels on site, and direction
28 of the flow of the channels including the final outfall of the discharge
29 from the site;

30 2) Hydrologic and hydraulic design calculations for the pre-development
31 and post development conditions of a rainwater management system
32 as required under Section 9 hereof. The calculations for determining

1 peak flows include a description of storm frequency, intensity,
2 duration, time of concentration, soil curve number or runoff
3 coefficients, peak runoff rates and total runoff volumes, infiltration
4 rates, culvert capacities, flow velocities, data on the increase in rate
5 and volume of runoff for the design storm; and

- 6 3) Technical specifications of the proposed RMS, including a description
7 of proposed rainwater conveyance practices on-site, existing off-site
8 rainwater conveyance systems including receiving streams, channels
9 and outfall and inlet locations, and elevations of locations and high-
10 water elevations.

11 *Sec. 7. Chemicals, Effluents, and Other Contaminants.* – Prior to the issuance
12 of a building permit for their development or re-development, all industrial plants and
13 estates shall secure the appropriate certification from the Department of Environment
14 and Natural Resources (DENR) that all chemicals used in their operations, their by-
15 products, effluents, and other operational discharges do not contain harmful
16 contaminants that can be washed by or into the rainwater.

17 The type of roofing must also be identified and assessed if used for collecting
18 rainwater as some roofing materials may seep chemicals that can cause adverse
19 effects if ingested, used in irrigation, fishponds, groundwater recharge, among others.

20 *Sec. 8. Utilization of Rainwater.* – Rainwater shall be harvested for the following
21 uses:

- 22 a) Rainwater for urban irrigation. – Due to the high cost of Class A water, its
23 use for yard irrigation shall be minimized if not prohibited and instead, water
24 for irrigation shall come from the rainwater detention system.

25 Rainwater as source for urban irrigation or watering of lawns shall be
26 indicated in all development plans. Treated grey water from effluent of
27 treatment facility may be a secondary source of water for urban irrigation.

- 28 b) Rainwater for groundwater recharge. – The RMS is intended mainly to
29 ensure natural balance of the hydrologic cycle by allowing rainwater to
30 recharge the groundwater table that sustains the yield and production of
31 deep wells. Groundwater table recharging may be in the form of the
32 following management systems:

- 1 i) Lagoon or retention pond that allows for natural seepage to the
- 2 ground water aquifer;
- 3 ii) Swales and depression storage;
- 4 iii) Porous or paver blocks on some developed areas;
- 5 iv) Retention channels.

6 The sizes and dimensions of any of the above facilities shall be
7 dependent on the rainfall intensity and the size of the development.

- 8 c) Rainwater for firefighting. – Rainwater may substitute or augment the
- 9 firefighting requirement, subject to health and corrosion standards. A
- 10 separate storage tank for fire water reserve shall be constructed. Other laws
- 11 concerning the requirement of water for firefighting shall be considered.
- 12 d) Rainwater for construction. – Simple filtration systems and other applicable
- 13 methods to remove suspended solids and other coarse materials may be
- 14 employed to improve water quality and avert adverse effects to construction
- 15 equipment and the environment.
- 16 e) Rainwater for other non-potable water supply. – Rainwater shall be
- 17 subjected to primary and secondary treatment to make it a viable secondary
- 18 source for the following purposes:
 - 19 i) Washing of cars, floor yards;
 - 20 ii) Flushing of toilet (water quality should meet certain standard to avoid
 - 21 discoloration of fixtures); and
 - 22 iii) Fish ponds, aquarium and the like.
- 23 f) Rainwater for potable uses. – To make it potable, rainwater may be
- 24 collected, processed, subjected to filtering innovations or technological
- 25 interventions, and used for drinking, cooking, dishwashing, and bathing,
- 26 subject to water standards.

27 Potable water quality shall at all times comply with the requirements and
28 standards of the Philippine National Standard for Drinking Water (PNSDW).

- 29 g) Rainwater for ecological requirements. – Seasonal fluctuation of rainfall
- 30 affects the rain flora and fauna of waterways. Rainwater runoff shall
- 31 therefore be managed properly to allow steady release of water to
- 32 waterways, thus, ensuring the continued supply of water.

1 *Sec. 9. Preparation of the Rainwater Design Manual.* – The Department of
2 Public Works and Highways (DPWH) shall prepare the Rainwater Design Manual (RDM)
3 which must provide, among others, information on the following: 1) conveyance
4 systems of the rainwater harvesting facility; 2) make of the rainwater retention facility;
5 3) management of rainwater discharge to control flooding; 4) protection of the local
6 water bodies from pollution through rainwater discharge treatment; 5) dike or bank
7 protection for water bodies receiving rainwater discharge; and 6) utilization options
8 for collected rainwater.

9 The RDM shall contain the following guidelines:

- 10 a) All sites shall establish a rainwater management system to control the peak
11 flow rates of rainwater discharge and to allow the RMS facility to treat
12 collected rainwater for both water quality and quantity. Peak post-
13 construction rainwater runoff should not exceed peak pre-construction
14 rainwater runoff from the site to the greatest extent possible;
- 15 b) All rainwater runoff generated from any development shall not discharge
16 untreated rainwater directly into a jurisdictional wetland or local water body
17 without adequate treatment;
- 18 c) A structural and non-structural Rainwater Treatment System (RTS) shall be
19 designed to treat the first 20 millimeters of rainwater runoff. Thus, for every
20 one (1) hectare of new development, a 200 cubic meter detention or
21 retention tank shall be constructed to minimize flooding and improve water
22 quality. Sanitary wastewater treatment facilities shall be designed and
23 installed to comply with existing health regulations and the effluent standard
24 of the DENR;
- 25 d) Untreated sanitary waste shall not be discharged to waterways and land
26 surface without proper treatment and shall not come in contact with
27 rainwater runoff. The discharge of treated effluent to water bodies shall be
28 in accordance with the river classification. For unclassified rivers and water
29 courses, effluents should meet the Class C water category. To be discharged
30 to an urban drainage system, effluents should meet the Class D water
31 category. In all cases, the prescription provided by the DENR shall be
32 followed;

- 1 e) To protect stream channels from degradation, the velocity of runoff water
2 shall be limited to less than 1.0 m/s, otherwise, bank protection shall be
3 provided;
- 4 f) Rainwater discharges to critical areas with sensitive resources (including
5 shellfish beds, swimming areas, water supply reservoirs and groundwater
6 recharge areas) may be subject to additional performance criteria and
7 management restrictions;
- 8 g) Rainwater discharges from land uses or activities with higher potential
9 pollutant loadings, known as "hotspots," must be in accordance with the
10 specific structural and pollution prevention practices;
- 11 h) Rainwater storage and drainage systems must be secured from mosquito
12 breeding and those of other similar insects that may endanger public health;
- 13 i) Prior to designing the RDM, an applicant for a building permit must consult
14 with the Building Official to determine compliance with additional rainwater
15 design requirements;
- 16 j) For existing development or developed areas, the rainwater management
17 system requirement must be imposed on the following conditions:
- 18 1) The owners of existing or old developments shall submit to the
19 concerned building officials the technical design of existing rainwater
20 management system to demonstrate its contribution to flood control and
21 mitigation and the rainwater management program;
- 22 2) The total required storage volume of rainwater may be the cumulative
23 volume stored from various sources such as cistern, lagoon onsite or
24 offsite and a depression storage; and
- 25 3) That at least 50% of the required volume shall be met within five (5)
26 years from the effectivity of this Act.

27 The Department of Public Works and Highways (DPWH), Department of
28 Human Settlements and Urban Development (DHSUD), Department of
29 Environment and Natural Resources (DENR) and local government units (LGUs)
30 shall require the incorporation of a Rainwater Management System in the
31 design of all new commercial, institutional, industrial, and residential

1 development projects in Metro Manila. The LGUs shall ensure that these
2 facilities are built during the construction phase of the projects.

3 In formulating the design manual, the DPWH shall consult the experts
4 or the Department of Science and Technology (DOST) and DENR on
5 requirements that entail scientific bases or study.

6 *Sec. 10. Construction Inspection. –*

- 7 a) The applicant for a building permit must notify the concerned building
8 official in advance before the commencement of construction;
- 9 b) All applicants for a building permit for commercial buildings and multi-family
10 residential buildings over four (4) units are required to submit actual
11 drawings of the rainwater management facilities located on-site after final
12 construction. The rainwater facility plan must show the final design
13 specification for all rainwater management facilities and must be certified
14 by a licensed engineer. A final inspection of the rainwater facility is required
15 before the release of any performance security, performance bond, or
16 guaranty between the owner or developer and the contractor or builder;
- 17 c) The City or Municipal Engineer shall inspect all drainage facilities while under
18 construction. When facilities are not constructed according to approved
19 plans, the local government unit (LGU) shall require the project owner or
20 developer to make the necessary corrections. All drainage facilities, whether
21 or not these are owned by or assigned to the LGU, located on private
22 property, shall be accessible at all times for inspection by the City or
23 Municipal Engineer or other responsible public official;
- 24 d) The City or Municipal Engineer shall inspect all sanitary waste treatment
25 facilities while under construction of building and upon completion to insure
26 proper installation and connection to waste water collection systems when
27 applicable. The City/Municipal Engineer shall ensure that sanitary waste
28 treatment facilities are properly functioning before issuing the required
29 certificate of occupancy.

30 Any contracted architect or civil engineer employed by the owner or developer
31 to plan and supervise the construction of the facility shall not be precluded from
32 inspecting the construction work to check and determine compliance with the plans

1 and specifications of the building, pursuant to the provisions under Inspection and
2 Supervision of Work or Section 308 of the National Building Code of the Philippines.

3 *Sec. 11. Maintenance and Repair of Rainwater Facilities.* – The owner or
4 developed is expected to perform regular maintenance and repair of the rainwater
5 facility whenever necessary to make sure that this is in working condition, safe for
6 public use and the environment. At the minimum, the following must be undertaken:
7 1) visual inspection and cleaning of the facility after major rain events; 2) regular
8 clearing of all sediments, silts, and debris; 3) drainage clean-up; and 4) replacement
9 of filter and insect screens as necessary.

10 In addition, the owner or developer shall comply with the following
11 requirements:

- 12 a) All rainwater management facilities must undergo a yearly or regular
13 inspection process at a frequency sufficient to determine the functioning
14 ability of the conveyance system and any repair needs. This shall include
15 inspection prior to the beginning of the Typhoons Season or any forecasted
16 major rains that may equal the design requirements, and after any major
17 rain events;
- 18 b) All drainage and sanitary waste treatment facilities located on private
19 property, whether dedicated to the LGU or not, shall be accessible at all
20 times for inspection by the City/Municipal Engineer or other responsible
21 public officials, especially when there is reason to suspect that a malfunction
22 has resulted in rainwater runoff pollution by unsanitary wastes;
- 23 c) Depending on the type of facility, mosquito or insect screens must be
24 replaced as necessary to avoid infestation or breeding ground for
25 pathogens;
- 26 d) Parties responsible for the operation and maintenance of a rainwater
27 management facility shall make and keep records of the installation,
28 maintenance and repairs, and shall retain these records for at least five
29 years, these records shall be made available to the city or municipality
30 during inspection of the facility and other reasonable times upon request;
- 31 e) The concerned Building Official shall notify the owner of a rainwater facility
32 in writing that maintenance work is required on it. The owner will have sixty

1 (60) days from the receipt thereof to ensure that the facility is in proper
2 working condition.

3 Sec. 12. *Reportorial Requirements.* – The DPWH shall require the owner or
4 developer of all new commercial, institutional, industrial, and residential development
5 projects to submit a compliance report within twelve (12) months from the date of the
6 completion of the project.

7 The DPWH shall henceforth require the building owners covered under Sections
8 5 and 6 of this Act to submit an annual report of the performance of such rainwater
9 retention facility which may include information on the total volume of retained
10 rainwater and its utilization.

11 Sec. 13. *Enforcement and Penalties.* –

- 12 a) Any persons found to be in violation of any of the provisions of this Act shall
13 be guilty of a misdemeanour and shall be penalized with a fine not to exceed
14 Fifty thousand pesos (P50,000.00) or imprisonment for no more than ninety
15 (90) days, or both. A continuance of a violation without reasonable effort
16 on the part of the violator to correct the same shall constitute a new and
17 separate offense each day;
- 18 b) In the case of a partnership, association, corporation, or any juridical
19 person, the penalty shall be imposed upon the president, treasurer, or any
20 other officer or person responsible for the violation;
- 21 c) If the offender is a foreigner, the foreigner shall be deported immediately
22 without further proceedings after payment of fine.
- 23 d) If the concerned Building Official shall find that any provision of this Act is
24 violated, the person responsible for such violation shall be notified in writing
25 about the nature of the violation and the proper action necessary to correct
26 it, such as the discontinuance of any construction on site.

27 Sec. 14. *Incentives.* – Landowners or developers of existing structures built
28 prior to the implementation of this Act who may opt to install a rainwater harvesting
29 system or a rainwater retrofit in accordance with this law shall receive a realty tax
30 incentive from the local government which may be in the form of a tax discount of not
31 less than three percent (3%) per annum over and above the regular discount provided
32 by the local government. An additional two percent (2%) tax discount per annum will

1 be granted to those who will invest in any innovation or a technology that will recycle
2 collected rainwater for potable uses within the standard prescribed by law.

3 *Sec. 15. Obligation of the Regulatory Agencies.* – The DPWH, DENR, DOST,
4 LGUs, their sub-agencies, and subsidiaries are mandated to provide full assistance to
5 every project owner or developer covered in this Act in order that the requirements
6 and standards prescribed herein may be properly executed in the designed and
7 construction of rainwater harvesting facilities. Agency assistance shall include proper
8 advice, technical guidance provision for needed data and facilitation of required
9 documents. As much as practicable, all technical and documentation requirements
10 must be at zero to minimal cost to the applicant project owner or developer who shall
11 establish, manage, and maintain a rainwater harvesting facility.

12 *Sec. 16. Implementing Rules and Regulations.* – Within sixty (60) days from
13 the effectivity of this Act, the Secretary of Public Works and Highways shall, in
14 coordination with the Secretary of the Interior and Local Government, Secretary of
15 Environment and Natural Resources, Secretary of Human Settlements and Urban
16 Development, and Secretary of Science and Technology, promulgate the rules and
17 regulations for the effective implementation of this Act. The implementing rules and
18 regulations shall include the standards and guidelines for the design, construction,
19 installation, materials, site selection and planning, site-specific considerations, and
20 maintenance of the rainwater harvesting facility.

21 *Sec. 17. Separability Clause.* – If any provision or part hereof is held invalid or
22 unconstitutional, the remainder of the law or the provision or part not otherwise
23 affected shall remain valid and subsisting.

24 *Sec. 18. Repealing Clause.* – Any law, presidential decree or issuance, executive
25 order, letter of instruction, administrative order, rule, or regulation contrary to or
26 inconsistent with the provisions of this Act are hereby repealed, modified, or amended
27 accordingly.

28 *Sec. 19. Effectivity.* – This Act shall take effect fifteen (15) days after its
29 publication in the *Official Gazette* or in a newspaper of general circulation.

Approved,