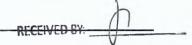
NINETEENTH CONGRESS OF THE REPUBLIC OF THE PHILIPPINES First Regular Session



22 JUL 13 P4:41

SENATE S. No. 545



Introduced by Senator Grace Poe

## AN ACT

CREATING A RAINWATER HARVESTING FACILITY FOR THE MANAGEMENT, MAINTENANCE, REGULATION, AND UTILIZATION OF RAINWATER RUNOFF, AND IMPROVEMENT OF ECOLOGICAL CHARACTERISTICS OF CATCHMENTS WITH THE END IN VIEW OF ADDRESSING FLOODING AND WATER SHORTAGE IN URBAN AND RURAL CENTERS

## **EXPLANATORY NOTE**

The Philippines has witnessed an increasing frequency and intensity of rain which causes severe flooding and results in unquantifiable economic losses. Although this has been primarily attributed to climate change, data shows that these woes are the result of poorly planned development with no provisions for control and regulation of runoff flows. Land-use conversion, deforestation, coupled with the lack of a retention/detention system are among the reasons why flooding occurs.

On the other side of the scale is the issue of the security of water supply for the growing urban and rural centers. The problem on one side could be the solution for the other if the necessary management, maintenance, and regulation of such runoff volume of water is established. Thus, the solution being forwarded is to capture and store rainwater through a rainwater harvesting facility, and utilize it for irrigation, groundwater recharge, construction, firefighting, and other water supply purposes. Through this, water is conserved and runoff is reduced.

The quantity and quality of runoff water is directly correlated with the quality and size of our catchment. Hence, emphasis on the protection, planning, management of catchment is at the core of the program. This will require the

participation of the agencies such as the Department of Environment and Natural Resources (DENR), Department of Agriculture (DA), Department of Public Works and Highways (DPWH), Department of Human Settlements and Urban Development (DHSUD) and the respective local government units.

Thus, the immediate approval of this bill is eagerly sought.

grace Poe GRACE POE

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

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

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

In this light, and given the demands of a growing population, the State shall adopt measures and strategies in order to efficiently conserve water and help attain water security. Among other strategies on water conservation, rainwater harvesting facilities shall be established not only to conserve the supply of potable faucet water but also to prevent flooding in communities that sometimes result in devastating effects on human life and property. Both the public and private sectors are urged to actively participate in flood mitigating efforts and initiatives of the government.

1 The State recognizes Metro Manila as one of the densest areas in the country. 2 To mitigate the adverse effects of continuing growth in population and human 3 settlements, the State shall ensure that Metro Manila local governments are 4 capacitated to respond to threats wrought by natural calamities and disasters such as massive flooding. Towards this end, the State shall mandate the construction of 5 rainwater harvesting facilities in all new public and private commercial, institutional, 6 7 industrial, and residential developments in Metro Manila which will serve as a pilot 8 area from which other similar areas can learn. Pursuant thereto, owners and 9 developers of all new public and private realty development projects in Metro Manila 10 requiring the issuance of building permits are mandated to design and construct a 11 rainwater harvesting facility to prevent or delay the release of rainwater and runoff 12 water into the public drainage systems, creeks, and natural waterways.

- Sec. 3. *Purpose.* The purpose of this Act is to establish minimum rainwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public. This seeks to meet that purpose through the following objectives:
- a. Minimize increase in rainwater runoff from any development, both existing and proposed, in order to reduce flooding, siltation, increases in stream temperature, and stream bank erosion and maintain the integrity of stream channels;
- b. Minimize increase in non-point source pollution caused by rainwater runoff development which would otherwise degrade local water quality;
  - c. Minimize the annual volume of surface water runoff that flows from any specific site during and following development to not exceed the predevelopment hydrologic regime to the maximum extent practicable; and
  - d. Reduce rainwater runoff rates and volumes, soil erosion, and non-point source pollution, wherever possible, through rainwater management controls and to ensure that these management controls are properly maintained and pose no threat to public safety.
- 30 Sec. 4. *Definition of Terms.* As used in this Act:

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a) Applicant – refers to a property owner or agent who has filed an application
 for a rainwater management permit;

b) Building - refers to any structure built for the support, shelter, or enclosure of 1 2 person, animals, chattels, or moveable property of any kind and which is 3 permanently affixed to the land:

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- c) Building Official refers to a local building official as appointed or designated pursuant to Presidential Decree (PD) 1096 or the National Building Code of the Philippines (NBCP);
- d) Certificate of Occupancy refers to permit issued by the Zoning Officer 7 8 indicating that the use of the building or land in question is in conformity with the Zoning Ordinance or that there has been a legal variance therefrom, as 9 10 provided by ordinance;
- e) Channel refers to a natural or artificial watercourse with definite bed and 11 12 banks that conducts continuously or periodically flowing water;
- f) Dedication refers to the deliberate appropriation of property by its owner for 13 14 general public use;
- g) Detention refers to a rainwater management practice of temporarily storing 15 rainwater runoff to control the peak discharge rate and to likewise induce 16 17 settling of pollutants through gravity;
- h) Developer refers to a person or entity who undertakes land disturbance or 18 development activities. A developer may only be contracted to develop and 19 may or may not be the owner of the development, such as a building structure being built;
- i) Development refers to any man-made change to improved or unimproved 22 23 real estate, including but not limited to buildings or other structures, mining, 24 dredging, filling, grading, paving, excavation, or drilling operation;
- j) Drainage Easement refers to a legal right granted by the landowner to a 25 grantee allowing the use of private land for rainwater management purposes; 26
- k) Erosion and Sediment Control Plan refers to a plan designed to minimize the 27 accelerated erosion and sediment runoff at a site during construction 28 29 activities:
- 30 I) Flood frequency — refers to a record of past flood events or occurrences that 31 yield flood data estimates, used principally to compare expected changes in

- flood damages with the economic and social costs or benefits guiding a contemplated action;
- m) *Hotspot* refers to an area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in rainwater;
- n) Hydrologic regime refers to the quantity and dynamics of water flow or the variations in the state and characteristics of a water body depending on location and time of the year, which may occur in regular patterns;
- o) *Impervious Coverage* refers to those surfaces that cannot effectively infiltrate rainfall (e.g., building rooftops, pavement, sidewalks, driveways, etc.);
- p) Industrial Rainwater Permit refers to a National Pollutant Discharge
  Elimination System permit issued to a commercial industry or group of
  industries which regulates the pollutant levels associated with industrial
  rainwater discharges or specifies on-site pollution control strategies;
- q) *Infiltration* refers to the process of percolating or gradually filtering rainwater into the subsoil;
- r) *Infiltration Facility* refers to any structure or device designed to infiltrate water into the subsurface. These facilities may be above grade or below grade;

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- s) Land Disturbance Activity refers to any activity which changes the volume or peak flow discharge rate of rainfall from the land surface. This may include grading, digging, cutting, scraping, or excavating of soil, placement of fill materials, paving, construction, substantial removal of vegetation, or any activity which bares soil or rock, or involves the diversion or piping of any natural or man-made watercourse;
- t) Landowner refers to the legal or beneficial owner of the land, including those holding the right to purchase or lease the land, or any other person holding proprietary rights in the land;
- u) Off-Site Facility refers to a rainwater management installation located
   outside the subject property boundary described in the permit application for
   land development activity;

- v) On-Site Facility refers to a rainwater management installation located within the subject property boundary described in the permit application for land development activity;
- w) Rainwater Design Manual refers to the Planning and Design Manual for the
   Control of Erosion, Sediment and Rainwater written by the Department of
   Public Works and Highways (DPWH);

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- x) Rainwater Management refers to the use of structural or non-structural practices that are designed to reduce rainwater runoff pollutant loads, discharge volumes, and/or peak flow discharge rates;
- y) Rainwater Retrofit refers to a rainwater management practice designed for an existing development site that previously had either no rainwater management practice in place or a practice inadequate to meet the rainwater management requirements of the site;
- z) *Rainwater Runoff* refers to water flow on the surface of the ground, resulting from precipitation;
  - aa) Rainwater Treatment Practices refers to measures, either structural or nonstructural, that is determined to be the most effective, practical means for preventing or reducing point source or nonpoint source pollution inputs to rainwater runoff and water bodies;
  - bb) Recharge refers to the replenishment of underground water reserves;
  - cc) *Redevelopment* refers to any construction, alteration, or improvement exceeding one hundred (100) square meters in high-density areas where existing land use is for commercial, industrial, institutional or multi-family residential purposes;
  - dd) Stop Work Order refers to an order issued which requires that all construction activity on a site be stopped; and
- ee) *Watercourse* refers to a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface.
  - Sec. 5. Rainwater Harvesting Facility Requirement. A project owner or developer of a new commercial, institutional, industrial, and residential development project in Metro Manila, with a building footprint area of at least one hundred (100) square meters that requires the issuance of a building permit, shall reserve, develop,

and maintain a rainwater harvesting facility with a minimum storage tank size in cubic meters calculated by dividing the building footprint area by 75.

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

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

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

Sec. 6. Requirements for Rainwater Management Plan. – All landowners or developers of proposed commercial, industrial and residential development or any residential multi-dwelling units of more than 1,000 sqm land area must submit Rainwater Management Plan (RMP) as part of the site development application and approval process.

The RMP shall include the following information:

- a. Description of Existing Conditions Description of the existing condition shall be shown on a map. It shall include:
  - Topographic map with 1.0 meter minimum contours line or an appropriate contour interval of the land proposed for development or redevelopment;
  - 2. Location natural waterways including banks and centerline of streams and channels;
  - 3. The normal shoreline, coastlines, outline of lakes, natural depressions, and ponds, including drainage flow lines; and

- 4. Quantification of flows (discharge and volume) in their natural condition.
  - b. Proposed Site Development Plan The proponent shall provide Site Development Plan (SDP) in an appropriate scale and size showing the following:
    - Retention/detention basins and lines of inflow and outflow;
    - ii. The location, size, and slope of rainwater conduits and drainage swales;
    - iii. Rain, sanitary and combined sewer and outfalls;

- iv. Delineation of upstream and downstream drainage features and watersheds which might be affected by the development; and
- v. Other environmental features including limits of wetlands areas, green buffers, planting strips, and any designated natural areas for rainwater management.
- c. Description of Proposed Rainwater Management System (RMS) The proposed RMS shall be designed to safely and completely manage rainwater runoff onsite or offsite and provide facility to regulate the increased rainwater runoff and help maintain the natural hydrologic cycle and condition of flow in a locality. The purpose of the RMS is to reduce the risk of downstream flooding by reducing the amount of runoff and regulating the discharge release at a given time.

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

The RMP plan shall be accompanied by relevant data such as rainfall data in a locality, maps, and other descriptive material to include the following.

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

2) Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storm proposed in Section 5. The calculations for determining peak flows are found in the Rainwater Design Manual to include a description of design storm frequency, intensity, and duration, time of concentration, soil curve number or runoff coefficients, peak runoff rates and total runoff volumes, infiltration rates, culvert capacities, flow velocities, data on the increase in rate and volume of runoff for the design storm; and,

- 3) Technical specifications of the Proposed SMS, providing descriptions of proposed rainwater conveyance practices to be on-site, existing off-site rainwater conveyance system including receiving streams, channels, and outfall and inlet locations. Include elevations of locations and high water elevations.
- Sec. 7. Chemicals, Effluents, and other Contaminants. Prior to the issuance of a building permit for their development or re-development, all industrial plants and estates shall secure the appropriate certification from the Department of Environment and Natural Resources (DENR) that all chemicals used in their operations, their by-products, effluents, and other operational discharges do not contain harmful contaminants that can be washed by or into the rainwater.

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

- Sec. 8. *Utilization of Rainwater.* The following are the specific utilization of rainwater and the recommended facility to harness its volume for the intended use:
  - a) Rainwater for Rural Irrigation Agriculture in the Philippines is predominantly rainfed. Rainwater catchments thus hold significant potential for improvement of rainwater use efficiency and sustainment of rainfed and upland agriculture in the country.
  - b) Rainwater for Urban Irrigation Most of the urban centers are currently dependent on Class A water quality for irrigation supply which is costly and environmentally unsustainable. Utilization of Class A water for yard irrigation

shall be minimized if not prohibited. Instead, rainwater shall be utilized for such purposes. The irrigation water shall come from the rainwater detention system.

Rainwater as a source for urban irrigation and/or watering of lawns shall be indicated in the development plans. A secondary source of water for irrigation may also come from treated greywater from the effluent of the treatment facility.

- c) Rainwater for Groundwater Recharge The RMS is intended mainly to ensure the natural balance of the hydrologic cycle by allowing rainwater to recharge the groundwater table that sustains the yield and production of deep wells. The proposed facility to allow for recharge may be in the form of the following best management system:
  - 1) Lagoon or retention pond that allows for natural seepage to the groundwater aquifer.
  - 2) Swales and depression storage
  - 3) Porous or pavers blocks on some developed areas
  - 4) Retention channels, etc.

The sizes and dimensions of the above facility is dependent on the rainfall intensity and the size of the development.

- d) Rainwater for Fire fighting Rainwater may substitute or augment the firefighting requirement, subject to health and corrosion standards. A separate storage tank for the fire water reserve shall be constructed. Other laws concerning the requirement of water for firefighting shall be considered.
- e) Rainwater for construction Simple filtration systems and other applicable methods to remove suspended solids and other coarse materials may be employed to improve water quality and avert adverse effects on construction equipment and the environment.
- f) Rainwater for Non-Potable Water Supply Source Rainwater subjected to primary and secondary treatment can be a viable secondary source for water supply in urban and rural areas. It can be used for the following purposes:
  - 1) Washing of cars, floor yards;

- 2) Flushing of the toilet (water quality should meet certain standards to avoid discoloration of fixtures); and
- 3) Fish ponds, aquariums, and the like.

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- g) Rainwater for potable uses To make it potable, rainwater may be collected, processed, subjected to filtering innovations or technological interventions, and used for drinking, cooking, dishwashing, and bathing, subject to water standards. Potable water quality shall at all times comply with the requirements and standards of the Philippine National Standard for Drinking Water (PNSDW).
- h) Rainwater for Ecological Requirements Seasonal fluctuation of rainfall affects the Rain flora and fauna of waterways. The management of rainwater runoff provides a steady release of water to the waterways enhancing their continued supply
- Sec. 9. *Preparation of the Rainwater Design Manual.* –The DPWH is hereby directed to prepare the Rainwater Design Manual (RDM) which must provide, among others, information on the following: (1) conveyance system of the rainwater harvesting facility, (2) make of the rainwater retention facility, (3) management of rainwater discharge to control flooding, (4) protection of the local water bodies from pollution through rainwater discharge treatment, (5) dike or bank protection for water bodies receiving rainwater discharge, and (6) utilization options for collected rainwater.

The RDM shall contain the following guidelines:

- a) All sites shall establish a rainwater management system to control the peak flow rates of rainwater discharge associated with specified design storms and reduce the generation of rainwater for the site to provide treatment for both water quality and quantity. Peak post-construction rainwater runoff will not exceed peak pre-construction rainwater runoff from the site to the greatest extent possible;
- b) All rainwater runoff generated from any development shall not discharge untreated rainwater directly into a jurisdictional wetland or local water body without adequate treatment;

1 c) Structural and non-structural Rainwater Treatment System (RTS) shall be 2 designed to treat the first 20 mm of rainwater runoff. That means for every 3 one (1) hectare of new development, a 200 cubic meters of 4 detention/retention tank shall be constructed to minimize flooding and 5 improve water quality. Sanitary wastewater treatment facilities shall be designed and installed to comply with existing health regulations and meet 7 the Effluent Standard of the DENR:

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- d) Untreated sanitary waste should not be discharged to waterways and land surfaces without proper treatment and shall not come in contact with rainwater runoff. For discharge of treated effluent to water bodies, it shall meet the river classification. For unclassified rivers and watercourses, Class C water shall be met. For discharge to an urban drainage system, the minimum requirement shall be Class D effluent. Any variation with the required standard set by DENR, the prescription provided by the DENR shall be followed;
- e) To protect stream channels from degradation, the velocity of runoff water shall be limited to less than 1.0 m/s otherwise bank protection shall be provided;
- f) Rainwater discharges to critical areas with sensitive resources (including shellfish beds, swimming areas, water supply reservoirs, and groundwater recharge areas) may be subject to additional performance criteria, or may need to utilize or restrict certain rainwater management practices;
- g) Rainwater discharges from land uses or activities with higher potential pollutant loadings, known as "hotspots," may require the use of specific structural and pollution prevention practices;
- h) Rainwater storage and drainage systems must be secured from mosquito breeding and those of other similar insects that may endanger public health;
- i) Prior to design, applicants are required to consult with the Building Official to determine if they are subject to additional rainwater design requirements; and
- j) For existing development or develop areas, the rainwater management system requirement may be imposed on the following conditions:

- Existing or old development shall submit to the Building officials plans
  of the existing rainwater management system to demonstrate its
  contribution to flood control and mitigation and rainwater management
  program;
  - 2) That at least 50% of the required volume shall be met within five (5) years from the effectivity of this Act; and
  - 3) The total required volume of storage may be the cumulative volume stored from various storages such as cistern, lagoon onsite or offsite, and depression storage

The DPWH, Department of Human Settlements and Urban Development (DHSUD), DENR, and local government units (LGUs) shall require the incorporation of a Rainwater Management System in the design of all new commercial, institutional, industrial, and residential development projects in Metro Manila. The LGUs shall ensure that these facilities are built during the construction phase of the projects.

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

Sec. 10. Construction Inspection. -

- a) The applicant must notify the Building Official in advance before the commencement of construction;
- b) All applicants for commercial and multi-family residential units over four (4) units are required to submit actual record drawings for any rainwater management practices located on-site after final construction is completed. The Plan must show the final design specification for all rainwater management facilities and must be certified by a professional engineer. A final inspection is required before the release of any performance security, performance bond, or guarantee;
- c) The City/Municipal Engineer shall inspect all drainage facilities while under construction. When facilities are not constructed according to approved plans, the local government unit (LGU) has the explicit authority to compel compliance and have any situations corrected which are not according to the

approved plans. All drainage facilities located on private property, whether dedicated to the LGU or not, shall be accessible at all times for inspection by the City/Municipal engineer or other responsible public officials; and

d) The City/Municipal Engineer shall inspect all sanitary waste treatment facilities while under construction and upon completion to ensure proper installation and connection to wastewater collection systems when applicable. Proper function of sanitary waste treatment facilities is required prior to final approval and issuance of a certificate of occupancy.

Any contracted architect or civil engineer employed by the owner or developer to plan and supervise the construction of the facility shall not be precluded from inspecting the construction work to check and determine compliance with the plans and specifications of the building, pursuant to the provisions under Inspection and Supervision of Work or Section 308 of the National Building Code of the Philippines.

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

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

- a) All rainwater management facilities must undergo a regular yearly inspection process at a frequency sufficient to determine the functioning ability of the conveyance system and any repair needs; at a minimum, this should include inspection prior to the beginning of Typhoon Season, prior to any forecast major rains that may equal the design requirements and after any major rain events;
- b) All drainage facilities located on private property, whether dedicated to the LGU or not, shall be accessible at all times for inspection by the City/Municipal Engineer or other responsible public officials. All sanitary waste treatment facilities located on private property shall be accessible for inspection for

- proper function by the City/Municipal Engineer or other responsible public officials where there is reason to suspect that a malfunction has resulted in rainwater runoff pollution by unsanitary waste;
  - c) Depending on the type of facility, mosquito or insect screens must be replaced as necessary to avoid infestation or breeding ground for pathogens;
  - d) Parties responsible for the operation and maintenance of a rainwater management facility shall make records of the installation and of all, maintenance and repairs, and shall retain these records for at least five years. These records shall be made available to the City during inspection of the facility and other reasonable times upon request; and
  - e) The Building Official will notify the owner in writing that maintenance is required. The owner will have 60 days from the receipt of such written notice to bring the facility into proper working order.
  - Sec. 12. *Reportorial Requirements.* The DPWH shall require the owner or developer of all new commercial, institutional, industrial, and residential development projects to submit a compliance report within twelve (12) months from the date of the completion of the project.
  - The DPWH shall henceforth require the building owners covered under Sections 5 and 6 of this Act to submit an annual report of the performance of such rainwater retention facility which may include information on the total volume of retained rainwater and its utilization.
    - Sec. 13. Enforcement and Penalties. -

- a) Any person found to be in violation of any of the terms and provisions of this Act shall be found guilty of a misdemeanor and subject to a fine not to exceed Fifty Thousand Pesos (P50,000) or imprisoned for no more than ninety (90) days or both such fine and imprisonment. A continuance of a violation without reasonable effort on the part of the defendant to correct same shall be and constitute a new and separate offense each day;
- b) In the case of a partnership, association, corporation, or any juridical person, the penalty shall be imposed upon the president, treasurer, or any other officer or person responsible for the violation;

c) If the offender is a foreigner, the foreigner shall be deported immediately without further proceedings after payment of the fine;

d) If the Building Official shall find that the provisions of this ordinance are violated, the person responsible for such violation shall be notified in writing, indicating the nature of the violation and ordering the action necessary to correct it. Among those actions which he/she may be ordered is discontinuance of any actions on site.

Sec. 14. *Incentives* — Landowners or developers of existing structures built prior to the implementation of this Act who may opt to install a rainwater harvesting system or a rainwater retrofit in accordance with this law shall receive a realty tax incentive from the local government which may be in the form of a tax discount of not less than three percent (3%) per annum over and above the regular discount provided by the local government. An additional two percent (2%) tax discount per annum will be granted to those who will invest in any innovation or a technology that will recycle collected rainwater for potable uses within the standard prescribed by law.

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

Sec. 16. *Implementing Rules and Regulations*. — Within sixty (60) days from the effectivity of this Act, the Secretary of Public Works and Highways shall, in coordination with the Secretary of Agriculture, Secretary of the Interior and Local Government, Secretary of Environment and Natural Resources, Secretary of Human Settlements and Urban Development, and Secretary of Science and Technology, promulgate the rules and regulations for the effective implementation of this Act. The implementing rules and regulations shall include the standards and guidelines

- 1 for the design, construction, installation, materials, site selection and planning, site-
- 2 specific considerations, and maintenance of the rainwater harvesting facility.
- 3 Sec. 17. Separability Clause. If any provision or part of this Act is declared
- 4 invalid or unconstitutional, the remaining parts or provisions not affected shall
- 5 remain in full force and
- 6 effect.
- 7 Sec. 18. Repealing Clause. All laws, orders, rules, regulations, and
- 8 issuances, or parts thereof, which are inconsistent with this law are hereby repealed
- 9 or modified accordingly.
- 10 Sec. 19. Effectivity Clause. This Act shall take effect fifteen (15) days after
- its publication in the Official Gazette or in a newspaper of national circulation.

Approved,