DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
KAGAWARAN NG KAPALIGIRAN AT LIKAS NA YAMAN

BAGONG PILIPINAS

MEMORANDUM

FOR : **The Directors**
Legal Affairs Service
Policy and Planning Service
Climate Change Service

The Executive Directors
National Water Resources Board
Manila Bay Coordinating Office
River Basin Control Office
Pasig River Coordinating and Management Office

All Bureau Directors

All Regional Executive Directors

FROM : **The Director**
Legislative Liaison Office

SUBJECT : **INVITATION TO THE TECHNICAL WORKING GROUP (TWG) MEETING ON THE DRAFT SUBSTITUTE BILL ENTITLED: "RAINWATER HARVESTING FACILITY ACT" FROM THE COMMITTEE ON PUBLIC WORKS AND HIGHWAYS OF THE HOUSE OF REPRESENTATIVES**

DATE : 30 October 2024

In reference to the electronic letter received by our Office, the Committee on Public Works and Highways of the House of Representatives will be having a Technical Working Group (TWG) meeting on **06 November 2024, Wednesday, 09:00AM at Conference Room 6, R.V. Mitra Building House of Representatives Complex, Quezon City** to continue its deliberation on the approval of the draft **Substitute Bill** *(In Substitution of House Bills Numbered 2412, 2553, 2753, 3862, 4441, 4837, 5027, 5640, 7786, 8148, 8957, and 9353)* or the **"Rainwater Harvesting Facility Act"**.

In this regard, may we respectfully request **for comments and recommendations, if any, on the draft Substitute Bill, in anticipation of the Committee meeting,** as requested by the Committee. Kindly send them on or before **05 November 2024, at 5 PM** via email at denrllo@denr.gov.ph. Further, kindly inform us of the name/s of the representative/s from your office who will participate in the meeting so we may include him/her/them as resource person/s.

MEMO NO. 2024 - 974

Attached herewith are the Letter Invitation, Agenda, and the draft Substitute Bill for your reference.

ROMIROSE B. PADIN

Cc: Undersecretary for Special Concerns and Legislative Affairs
Undersecretary for Integrated Environmental Science

COMMITTEE ON PUBLIC WORKS & HIGHWAYS

CTSS-I, Committee Affairs Department, House of Representatives
3rd Floor, Ramon V. Mitra Building, Batasan Hills, Quezon City, Philippines 1126
Telefax: 9310200, TrunkLine: 9315001 local 7135

28 October 2024

HON. MANUEL M. BONOAN
Secretary
Department of Public Works and Highways (DPWH)
City of Manila

HON. ARSENIO M. BALISACAN
Secretary
National Economic and Development Authority (NEDA)
Pasig City

HON. RALPH G. RECTO
Secretary
Department of Finance (DOF)
City of Manila

HON. AMENAH F. PANGANDAMAN
Secretary
Department of Budget and Management (DBM)
City of Manila

HON. BENJAMIN "BENHUR" ABALOS JR.
Secretary
Department of the Interior and Local Government (DILG)
Quezon City

HON. JOSE RIZALINO "JERRY" L. ACUZAR
Secretary
Department of Human Settlements and Urban Development (DHSUD)
Quezon City

HON. FRANCISCO TIU LAUREL JR.
Secretary
Department of Agriculture (DA)
Quezon City

HON. RENATO U. SOLIDUM, JR.
Secretary
Department of Science and Technology (DOST)
Taguig City

HON. MARIA ANTONIA YULO LOYZAGA
Secretary
Department of Environment and Natural Resources (DENR)
Quezon City

HON. MARKLLANDRO L. MENDOZA
Secretary, PLLO
Chief of the Presidential Legislative Liaison Office (PLLO)
Presidential Adviser on Legislative Affairs
City of Manila

ENGR. EMIL K. SADAIN
Senior Undersecretary
DPWH
Quezon City

HON. ROMEO D. LUMAGUI, JR.
Commissioner
Bureau of Internal Revenue (BIR)
Quezon City

HON. NATHANIEL T. SERVANDO
Administrator
Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
Quezon City

HON. EDUARDO EDDIE G. GUILLEN
Acting Administrator
National Irrigation Administration (NIA)
Quezon City

HON. DAKILA CARLO E. CUA
President
Union of Local Authorities of the Philippines (ULAP)
Mandaluyong City

HON. REYNALDO S. TAMAYO JR.
National President
League of Provinces of the Philippines (LPP)
Pasig City

HON. MA. JOSEFINA G. BELMONTE-ALIMURUNG
Acting National President
League of Cities of the Philippines (LCP)
Quezon City

HON. JOSEPH SANTO NIÑO "JB" BERNOS
National President
League of Municipalities of the Philippines (LMP)
Quezon City

Your Honors:

Please be informed that the Committee on Public Works and Highways will hold a Technical Working Group (TWG) Meeting on the date, time, venue and agenda indicated hereunder:

DATE: 06 November 2024 (Wednesday)

TIME: 09:00 A.M.

VENUE: Conference Room 6, Ramon V. Mitra Building
House of Representatives Complex, Quezon City

AGENDA:

Approval of the DraftSubstitute Bill to HBs 2412, 2553, 2753, 3862, 4441, 4837, 5027, 5640, 7786, 8148, 8957, and 9353, entitled: *"An Act Mandating the Establishment and Maintenance of Rainwater Harvesting Facility in All New Institutional, Commercial, Industrial, and Residential Development Projects Nationwide"* by RepresentativesAngelo Marcos Barba, Romeo S. Momo Sr., Alfred C. Delos Santos, Gus S. Tambunting, Fernando T. Cabredo, Rex Gatchalian, Rosanna "Ria" V. Vergara, Christopherson "Coco" M. Yap, Robert Ace S. Barbers, Augustina Dominique "Ditse Tina" C. Pancho, Luis Raymund "Lray" F. Villafuerte Jr., Joseph Gilbert F. Violago, Arthur F. Celeste, Noel "Bong" N. Rivera, Richard I. Gomez, Lani Mercado-Revilla, Bryan B. Revilla, Ramon Jolo B. Revilla,Danny A. Domingo, Ralph Wendel P. Tulfo, Jocelyn P. Tulfo, Erwin T. Tulfo, Salvador A. Pleyto, and Ambrosio C. Cruz Jr.

In line with this, we would like to invite you or your duly authorized representative/s as our resource person/s during the said TWG meeting. Kindly inform the committee as to the details of your attendees as soon as possible for proper coordination.

Your presence will be highly appreciated.

Thank you.

Very truly yours,

REP. ANGELO MARCOS BARBA
TWGChairperson

COMMITTEE ON PUBLIC WORKS & HIGHWAYS

CTSS-I, Committee Affairs Department, House of Representatives
3rd Floor, Ramon V. Mitra Building, Batasan Hills, Quezon City, Philippines 1126
Telefax: 9310200, *Trunk Line:* 9315001 local 7135

19th Congress
3rd Regular Session

Technical Working Group (TWG) Meeting

06 November 2024 (Wednesday), 9:00 A.M.
Conference Room 6, Ramon V. Mitra Building
House of Representatives (HOR) Complex, Batasan Hills, Quezon City

AGENDA

I. **CALL TO ORDER**

II. **INVOCATION**

III. **ACKNOWLEDGEMENT OF MEMBERS AND GUESTS/RESOURCE PERSONS**

IV. **OPENING REMARKS OF THE HONORABLE TWG CHAIRPERSON, REP. ANGELO MARCOS BARBA**

V. **Approval of theSubstitute Bill to HBs 2412, 2553, 2753, 3862, 4441, 4837, 5027, 5640, 7786, 8148, 8957, and 9353,** entitled: "*An Act Mandating the Establishment and Maintenance of Rainwater Harvesting Facility in All New Institutional, Commercial, Industrial, and Residential Development Projects Nationwide*"by RepresentativesAngelo Marcos Barba, Romeo S. Momo Sr., Alfred C. Delos Santos, Gus S. Tambunting, Fernando T. Cabredo, Rex Gatchalian, Rosanna "Ria" V. Vergara, Christopherson "Coco" M. Yap, Robert Ace S. Barbers, Augustina Dominique "Ditse Tina" C. Pancho, Luis Raymund "Lray" F. Villafuerte Jr., Joseph Gilbert F. Violago, Arthur F. Celeste, Noel "Bong" N. Rivera, Richard I. Gomez, Lani Mercado-Revilla, Bryan B. Revilla, Ramon Jolo B. Revilla, Danny A. Domingo, Ralph Wendel P. Tulfo, Jocelyn P. Tulfo, Erwin T. Tulfo, Salvador A. Pleyto, and Ambrosio C. Cruz Jr.

VI. **ADJOURNMENT**

Invited Guests/Agencies/Stakeholders:

A. Agencies

Department of Public Works and Highways (DPWH)
Department of Finance (DOF)
Bureau of Internal Revenue (BIR)
Department of Agriculture (DA)
Department of Science and Technology (DOST)
National Irrigation Administration (NIA)
Presidential Legislative Liaison Office (PLLO)
League of Cities of the Philippines (LCP)
Union of Local Authorities of the Philippines (ULAP)
National Economic and Development Authority (NEDA)
Department of Budget and Management (DBM)
Department of Interior and Local Government (DILG)
Department of Human Settlements and Urban Development (DHSUD)
Department of Environment and Natural Resources (DENR)
Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
League of Provinces of the Philippines (LPP)
League of Municipalities of the Philippines (LMP)

B. Private Stakeholders

San Miguel Corporation (SMC)
SM Prime Holdings (SMPH), Inc.
Philippine Constructors Association (PCA), Inc.
Philippine Institute of Civil Engineers, Inc. (PICE)
Chamber of Real Estate and Builders Associations (CREBA), Inc.
Subdivision and Housing Developers Association (SHDA), Inc.
United Architects of the Philippines (UAP)

DRAFT

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

NINETEENTH CONGRESS
Third Regular Session

HOUSE BILL NO. _____

(In Substitution of House Bills Numbered 2412, 2553, 2753, 3862, 4441, 4837, 5027, 5640, 7786, 8148, 8957, and 9353)

INTRODUCED BY
REPRESENTATIVES ANGELO MARCOS BARBA, ROMEO S. MOMO SR., ALFRED C. DELOS SANTOS, GUS S. TAMBUNTING, FERNANDO T. CABREDO, REX GATCHALIAN, ROSANNA "RIA" V. VERGARA, CHRISTOPHERSON "COCO" M. YAP, ROBERT ACE S. BARBERS, AUGUSTINA DOMINIQUE "DITSE TINA" PANCHO, LUIS RAYMUND "LRAY" F. VILLAFUERTE JR., JOSEPH GILBERT F. VIOLAGO, ARTHUR F. CELESTE, NOEL "BONG" N. RIVERA, RICHARD I. GOMEZ, LANI MERCADO-REVILLA, BRYAN B. REVILLA, RAMON JOLO B. REVILLA,DANNY A. DOMINGO, RALPH WENDEL P. TULFO, JOCELYN P. TULFO, ERWIN T. TULFO, SALVADOR A. PLEYTO, AND AMBROSIO C. CRUZ JR.

AN ACT

MANDATING THE ESTABLISHMENT AND MAINTENANCE OF A RAINWATER HARVESTING FACILITY IN ALL NEW INSTITUTIONAL, COMMERCIAL, INDUSTRIAL, AND RESIDENTIAL DEVELOPMENT PROJECTS NATIONWIDE

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

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

SEC. 2. ***Declaration of Policy.*** – It is a declared policy of the State to protect and advance the rights of the people to a balanced and healthful ecology in accord with the rhythm and

harmony of nature. Pursuant thereto, the State shall mandate the establishment of rainwater harvesting facilities to reduce flooding and devastating effects of typhoons and other rain-bearing weather disturbances. It shall urge the conservation of potable water, and shall engage the active participation of the public and private sector in the flood mitigating efforts and initiatives of the government.

To this end, the State shall mandate the construction of rainwater harvesting facilities in all new public and private institutional, commercial, and residential development projects nationwide. Owners or developers of these development projects requiring the issuance of building permits are likewise mandated to design and construct a rainwater harvesting facility to prevent or delay the release of rainwater and runoff water into the drainage systems, creeks, and natural waterways.

SEC. 3. ***Purpose.*** – This Act seeks to establish minimum rainwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public against the ill effects of flood on one hand, and water shortage on the other. This Act pursues the following objectives:

(a) Reduction of flooding, siltation, increases in stream temperature and stream bank erosion, and maintain the integrity of stream channel by regulating the accumulation of rainwater runoff in any proposed and existing institutional, commercial, industrial, and residential developments;

(b) Prevention of the degradation of water quality by averting non-point source pollution caused by rainwater runoff developments;

(c) Regulation of the annual volume of surface water runoff from any specific site during and following a development so as not to exceed the pre-development hydrologic regime in an area; and

(d) Establishment of standards for rainwater management control to ensure that these and the facilities thus built are properly complied with and do not pose a threat to public safety.

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

(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 person, animals, chattels, or movable property of any kind and which is permanently affixed to the land;

(c) ***Building Official*** –refers to a local building official as appointed or designated pursuant to Presidential Decree (PD) of 1096, or the National Building Code of the Philippines (NBCP);

(d) ***Building permit*** – refers to a legal document issued by the building official which serves as consent to begin any construction, demolition, addition, or renovation of a property;

(e) ***Certificate of occupancy*** – refers to a permit issued by the Zoning Officer indicating that the use of the building or lands is in conformity with the Zoning Ordinance or that has been a legal variance therefrom;

(f) ***Channel***–refers to a natural or artificial watercourse with definite bed and banks that conducts flowing water continuously or periodically;

(g) ***Contour interval***–refers to the vertical distance between the elevations represented by adjacent contour lines on a map;

(h) ***Contour line***–refers to a line on a map or chart connecting all points of the same elevation or depth in a particular area;

(i) ***Detention*** –refers to a rainwater management practice of temporarily storing rainwater runoff to control the peak discharge rate and to likewise induce settling of pollutants through gravity;

(j) ***Developer***– refers to a person or entity who undertakes land improvementand land development activities; a developer may only be contracted to develop and may or may not be the owner of the development, such as a building structure being built;

(k) ***Development***–refers to any man-made change to improved or unimproved real estate, including buildings or other structures, mining, dredging, filling, grading, paving, excavations, or drilling operations;

(l) ***Flood frequency*** – refers to a record of past flood events or occurrences that yield flood estimates used principally to compare expected changes in flood damages with economic and social cost or benefits guiding a contemplated action;

(m) ***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;

(n) ***Infiltration***–refers to the process of percolating or gradually filtering rainwater into the subsoil;

(o) ***Institutional building*** – refers to civic building that can be funded privately or by the government. It also refers to any structure that fulfills a role related to healthcare, education, recreation, or public works. It shall include city, municipal and *barangay* halls, court houses, judicial centers, executive and legislative buildings, police headquarters, detention facilities, military bases, police and fire stations, transportation terminals, schools and universities, museums, art galleries, cultural centers and the like;

(p) ***Land disturbance*** – 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 pipping of any natural or man-made watercourse;

(q) ***Landowner***– refers to the legal or beneficial owner of land, including those holding the right to purchase or lease the land, or any other person holding proprietary rights over the land legally executed by the registered owner of the land;

(r) ***Rainwater***– refers to water fallen as liquid precipitation from roof catchment or other hard impervious non-pedestrian, non-vehicular surface that is captured, filtered and stored;

(s) ***Rainwater collection***–refers to the capture, diversion and storage of rainwater for a number of different purposes including, but not limited to, landscape irrigation;

(t) ***Rainwater Collection System***–refers to a facility designed to capture, retain, and store rainwater flowing off a building, parking lot, or any other manmade, impervious surface, for subsequent onsite use;

(u) ***Rainwater Design Manual*** – refers to the Planning and Design Manual for the Control of Erosion, Sediment and Rainwater of the Department of Public Works and Highways (DPWH);

(v) ***Rainwater harvesting facility*** – refers to a flood control structure such as a vertical detention tank, horizontal water tank, open retarding basin, and multi-use water catchment area, or an on-site regulation pond used to prevent or delay the release of rainwater into the public drainage system;

(w) ***Rainwater management***– refers to the use of structural or non-structural practices that are designed to reduce rainwater runoff pollutant loads, discharge volumes, and peak flow discharge rates;

(x) ***Rainwater runoff***– refers to water flow on the surface of the ground, resulting from precipitation;

(y) ***Rainwater treatment*** – refers to a process by which collected rainwater is filtered or cleaned through either structural or non-structural means to prevent or reduce point source or nonpoint source pollution inputs to rainwater runoff and water bodies, as well as to upgrade rainwater for re-use;

(z) ***Recharge***– refers to the replenishment of underground water reserves;

(aa) ***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;

(bb) ***Return period***– refers to the average length of time in years for a rain-related natural disaster of given magnitude to be equaled or exceeded by the length of time that a rainwater-related disaster may probably recur;

(cc) ***Surface water*** – refers to all naturally occurring water found in estuaries, lakes, rivers, ponds, reservoirs, ponds, seas, etc.;

(dd) ***Watercourse*** – refers to a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface; and

(ee) ***Zoning certification***–refers to a permit issued by the Zoning Officer indicating that the use of the building or lands is in conformity with the Zoning Ordinance or that there has been a legal variance therefrom.

SEC. 5. ***Rainwater Harvesting Facility Requirement.*** – An owner or developer of a new institutional, commercial, industrial, or residential development project shall incorporate in its building plan a rainwater collection system consistent with the purpose of this Act.

It is hereby prescribed that all new government buildings should incorporate in their design a rainwater harvesting facility and facility for storage. It is also prescribed that such rainwater harvesting and storage facilities shall be constructed in all old government buildings.

The DPWH, through its attached agencies, shall install a rainwater treatment facility in all new government institutional buildings. The Department of Health (DOH) shall supervise the filtration and purification processes to ensure that the rainwater is safe for drinking.

The rainwater treatment facility or device shall be regularly monitored and evaluated by the DPWH, in coordination with the DOH and the Department of Environment and Natural Resources (DENR), through the local government units (LGUs) concerned.

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 as provided for under Section 8 of this Act.

SEC. 6. ***Requirements for Rainwater Management Plan.***– All project owners or developers of proposed commercial, industrial, and residential development or any residential multi-dwelling units of more than one thousand square meters (1,000 sqm) land area must submit a 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 in the location of the development site:

i. Topographic map with 1.0 meter minimum contours line or an appropriate contour interval of the land proposed for development or redevelopment;

ii. Location of natural waterways including banks and centerline of streams and channels;

iii. Normal shoreline, coastlines, outline of lakes, natural depressions and ponds, including drainage flow lines; and

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

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

i. Retention/detention basins and lines of inflow and outflow;

ii. 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 wetland areas, green buffers, planting strips, and any designated natural areas for rainwater management.

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

The proposed RMS shall be accompanied by hydrologic and hydraulic calculations to adequately demonstrate the effectiveness of the RMP. It shall be designed to meet the desired flood frequency which is designed to a particular drainage structure as stated in the Design

Manual of the DPWH; *Provided,* That a 25-year flood frequency or higher may be required for major rivers and waterways, subject to the design criteria in Section 9 of this Act.

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

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

(b) Hydrologic and hydraulic design calculations for the predevelopment and post-development conditions of aRMS as required under Section 9 hereof. The calculations for determining peak flows include a description of storm frequency, intensity, 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

(c) Technical specifications of the proposed RMS, including a description of proposed rainwater conveyance practices on-site, existing off-site rainwater conveyance systems including receiving streams, channels, and outfall inlet locations, and 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 DENR that all chemicals used in their operations, their by 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.*** – Rainwater shall be harvested for the following uses:

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

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

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

i. Lagoons or retention pond that allows for natural seepage to the ground water aquifer;

ii. Swales and depression storage;

iii. Porous or paver blocks on some developed areas; and

iv. Retention channels.

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

(c)***Rainwater for firefighting***– Rainwater may be substitute or augment the firefighting requirement, subject to health and corrosion standards. A separate storage tank for fire water reserve shall be constructed. Other laws concerning the requirement of water for firefighting shall be considered.

(d)***Rainwater for construction***– Simple filtration systems and other applicable methods to remove suspended solids and other course materials may be employed to improve water quality and avert adverse effects to construction equipment and the environment.

(e)***Rainwater for other non-potable water supply***– Rainwater shall be subjected to primary and secondary treatment to make it a viable secondary source for the following purposes:

i. Washing of cars, floor yards;

ii. Flushing of toilet (water quality should meet certain standards to avoid discoloration of fixtures); and

iii. Fishponds, aquariums and the like.

(f)***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).

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

SEC. 9. ***Preparation of the Rainwater Design Manual.***– The DPWH shall 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 aRMS to control the peak flow rates of rainwater discharge and to allow RMS facility to treat collected rainwater for both quality and quantity. Peak post-construction rainwater runoff should 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;

(c) A structural and non-structural Rainwater Treatment System (RTS) shall be designed to treat the first 20 millimeter of rainwater runoff;

(d) Thus, for every one (1) hectare or new development, a 200 cubic meter detention or retention tank shall be constructed to minimize flooding and improve water quality. Sanitary wastewater treatment facilities shall be designed and installed to comply with existing health regulations and the effluent standard of the DENR;

(e) Untreated sanitary waste shall not be discharged to waterways and land surface without proper treatment and shall not come in contact with rainwater runoff. The discharge of treated effluent to water bodies shall be in accordance with the river classification. For unclassified rivers and water courses, effluents should meet the Class C water category. To be discharged to an urban drainage system, effluents should meet the Class D water category. In all cases, the prescription provided by the DENR shall be followed;

(f) To protect stream channels from degradation, the velocity of runoff water shall be limited to less than 1.0m/s, otherwise, bank protection shall be provided;

(g) 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 and management restrictions;

(h) Rainwater discharges from land uses or activities with higher potential pollutants loadings, known as "hotspots," must be in accordance with the specific structural and pollution prevention practices;

(i) Rainwater storage and draining systems must be secured from mosquito breeding and those of other similar insects that may endanger public health;

(j) Prior to designing the RDM, an applicant for a building permit must consult with the Building Official to determine compliance with additional rainwater design requirements;

(k) For existing development or developed areas, the RMS requirement must be imposed on the following conditions:

i. The total storage volume of rainwater may be the cumulative volume stored from various source such as cistern, lagoon onsite or offsite, and a depression storage; and

ii. That at least 50% of the required volume shall be met within five (5) years from the effectivity of this Act.

The DPWH, Department of Human Settlements and Urban Development (DHSUD), DENR, and LGUs shall require the incorporation of a RMS 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 of the PAGASA and DENR on requirements that entail scientific bases or study.

SEC. 10. ***Design Approval.*** – The provision for a rainwater harvesting facility shall be required by DHSUD and LGUs to be incorporated in the design of all new commercial, institutional, and residential development projects nationwide and no project design shall be approved for construction unless it includes such facility. The DHSUD and the LGUs shall ensure that these facilities are built during the construction phase of the projects.

The DPWH shall not approve designs of public buildings that do not contain rainwater harvesting and storage facilities. The Department shall also ensure that these are included in the actual construction of buildings.

SEC. 11. ***Design Requirements.*** – The rainwater harvesting facility must be designed by a registered civil engineer to cope with a pre-determined flood and rain return period and must

have a storage capacity prescribed by the DPWH. The design of the rainwater harvesting facility shall include the following:

(a) Size, shape, and physical characteristics of available space;

(b) Construction plans with specified material type, including lining and coating requirements;

(c) Detailed drawing on how the installation will drain into an outfall structure such as a dry well or percolation chamber, storm drain system, drainage channel, or natural wash; and

(d) Mechanism to exclude mosquitoes and not permit mosquito production.

SEC. 12. ***BuildingPermits.*** – If the design of a new commercial, institutional, and residential development project with an area of at least one thousand five hundred (1,500) square meters does not provide for a rainwater harvesting facility, the LGU concerned shall deny the request for issuance of a building permit for such project.

SEC. 13. ***Construction Inspection.*** –

(a) The applicant for a building permit must notify the concerned building official in advance before the commencement of construction;

(b) All applicants for building permits for commercial buildings and multi-family residential buildings over four (4) units are required tosubmit actual drawings of the rainwater management facilities located on-site after final construction. The rainwater facility plan must show the final design specifications for all rainwater management facilities and must be certified by a licensed engineer. A final inspection of the rainwater facility is required before the release of any performance security, performance bond, or guaranty between the owner or developer and the contractor or builder;

(c) The City or Municipal Engineer shall inspect all drainage facilities while under construction. When facilities are not constructed according to approved plans, the LGU shall require the project owner or developer to make necessary corrections. All drainage facilities, whether or not these are owned by or assigned to the LGU, located on private property, shall be accessible at all times for inspection by the City or Municipal Engineer or other responsible public official; and

(d) The City or Municipal Engineer shall inspect all sanitary waste treatment facilities while under construction of building and upon completion to insure proper installation and connection to wastewater collection systems when applicable. The City or Municipal Engineer

shall ensure that sanitary waste treatment facilities are properly functioning before issuing the required 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. 14. ***Issuance of Certification.*** — The LGU concerned through its building official, or in the absence of an Office of Building Official (OBO), the city or municipal engineering office, after proper inspection, shall issue a certification that the owner of an existing institutional, commercial, industrial, and residential building has installed a rainwater collection system in the property. Such certification can be used as proof for tax credit purposes.

SEC. 15. ***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 yearly or regular inspection process at a frequency sufficient to determine the functioning ability of the conveyance system and any repair needs; this shall include inspection prior to the beginning of the typhoon season or any forecasted major rains that may equal the design requirements, and after any major rain events;

(b) All drainage and sanitary waste treatment facilities located on private property whether dedicated to the LGU or not, shall be accessible at all times for inspection by the OBO, or in the absence of an OBO, the City or Municipal Engineer or other responsible public officials especially where there is reason to inspect that a malfunction has resulted in rainwater runoff pollution by unsanitary wastes;

(c) Depending on the type of facility, mosquito or insect screens must be replaced as necessary to avoid infestation or breeding grounds for pathogens;

(d) Parties responsible for the operation and maintenance of a rainwater management facility shall make and keep records of the installation, maintenance, and repairs, and shall retain these records for at least five (5) years. These records shall be made available to the city or municipality during inspection of the facility and other reasonable times upon request; and

(e) The building official concerned shall notify the owner of the rainwater facility in writing that maintenance work is required on it. The owner will have sixty (60) days from the receipt thereof to ensure that the facility is in proper working condition.

SEC. 16. ***Reportorial Requirements.*** – The DPWH shall require the owner or developer of all new institutional, commercial, industrial, and residential development projects covered under this Act to submit a compliance report within 12 months from the date of the completion of the project.

The DPWH shall, henceforth, require the building owners to submit an annual report of the performance of such rainwater retention facility which may include, but is not limited to information on the total volume of retained rainwater and its utilization.

SEC. 17. ***Penalties.*** – The owner or developer of all new institutional, commercial, industrial, and residential development projects who fails to construct a rainwater harvesting facility in violation of Section 5 of this Act shall suffer the penalty of a fine of Two Million Pesos (P2,000,000.00) for every year of non-compliance.The OBO shall not issue an occupancy permit to and shall cancel the business permit of the owner or developer of the development project.

In the case of a partnership, association, corporation, or any juridical person, the fine shall be imposed upon the president, treasurer, or any other officer or person responsible for the violation.

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

The head of the government institution who violates Section 5 of this Act, or government officials, employees, and agents who issue licenses or permits in violation of this Act, shall suffer the penalty of suspension of not less than ten (10) days, but not more than one hundred eighty (180) days after due notice and hearing in an appropriate administrative proceeding.

SEC. 18. ***TaxIncentives.*** —To encourage the public to promote the installation of rainwater collection system, the owner of an existing residential or commercial building who install a rainwater collection system in his/her property shall be entitled to a tax credit of 10%

but not exceeding Ten Thousand Pesos (P10,000.00) of the total real property tax of the said property for a period of two (2) years.

SEC. 19. ***Obligation of the Relevant Agencies.***—The DPWH, DENR, DHSUD, PAGASA, 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. 20. ***Implementing Rules and Regulations.*** – Within sixty (60) days from the effectivity of this Act, the Secretary of Public Works and Highways, in coordination with the Secretaries of Interior and Local Government, Human Settlements and Urban Development, and Science and Technology, shall promulgate the rules and regulations for the effective implementation of this Act. The implementing rules and regulations shall include the standards and guidelines for the design, construction, installation, materials, sites election and planning, site-specific considerations, and maintenance of the rainwater harvesting facility.

SEC.21.*Separability Clause.* – If any provision or part of this Act is declared invalid or unconstitutional, the remaining parts or provisions not affected herein shall remain in full force and effect.

SEC.22. ***Repealing Clause.*** – All other laws, rules and regulations, orders, circulars, and other issuances or parts thereof, which are inconsistent with the provisions of this Act are hereby repealed or amended accordingly.

SEC.23.*Effectivity Clause.* – This Act shall take effect fifteen (15) days after its publication in the Official Gazette or in a newspaper of general circulation.

Approved,