



Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City, Philippines

TWENTIETH CONGRESS
First Regular Session

HOUSE BILL NO. 8927



INTRODUCED BY REPRESENTATIVE CARLOS ANDES LORIA

EXPLANATORY NOTE

Legazpi City, the capital of the Province of Albay, remains one of the most flood-vulnerable urban centers in the Bicol Region due to a combination of intense rainfall from typhoons, climate change-induced weather variability, rapid urbanization, insufficient stormwater drainage capacity, and the city's proximity to coastal and river systems. Seasonal flooding has repeatedly resulted in displacement of families, damage to homes and public infrastructure, disruption of commercial activities, traffic paralysis, and significant economic losses.

Studies and local disaster reports indicate that urban flooding in Legazpi costs the local economy hundreds of millions of pesos annually due to property damage, lost business operations, and emergency response expenditures. As climate change continues to increase rainfall intensity and frequency, traditional drainage-based solutions are no longer sufficient.

This measure proposes the establishment of a Legazpi City Flood Water Detention Pond System, consisting of strategically located stormwater detention ponds in the flood-prone barangays of Puting Daga, Bitano, and Bonot. These facilities will function as temporary water storage structures that capture excess stormwater during peak rainfall events and gradually release it through regulated drainage and pumping systems once flood levels subside.

Beyond flood mitigation, the detention ponds are designed as multi-purpose urban infrastructure capable of supporting emergency firefighting water supply, agricultural irrigation during dry periods, environmental management, and urban greening. The project integrates modern engineering design, smart monitoring systems, hazard mapping technologies, and sustainable construction materials, making it a model for climate-resilient urban development.

This bill institutionalizes the development of flood water detention infrastructure in Legazpi City, ensures sustained funding, promotes inter-agency coordination, and

strengthens disaster preparedness while protecting lives, livelihoods, and the local economy.

In view of the foregoing, the immediate passage of this bill is earnestly sought.


CARLOS A. IORIA
2nd District Albay



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AN ACT
ESTABLISHING A COMPREHENSIVE FLOOD WATER DETENTION POND
SYSTEM FOR LEGAZPI CITY, PROVINCE OF ALBAY,
INSTITUTIONALIZING CLIMATE-RESILIENT AND SMART URBAN FLOOD
CONTROL INFRASTRUCTURE, APPROPRIATING FUNDS THEREFOR, AND
FOR OTHER PURPOSES

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: “Legazpi City Flood Water
2 Detention Pond System and Urban Flood Resilience Act.”
3

4 **SECTION 2. Declaration of Policy.** It is hereby declared the policy of the State to:
5

- 6 a. Protect lives, properties, and economic activities from the adverse effects of
7 flooding and climate-related disasters;
8 b. Promote climate-resilient and disaster-adaptive urban infrastructure;
9 c. Strengthen flood mitigation in highly vulnerable cities using modern and
10 sustainable engineering solutions;
11 d. Integrate disaster risk reduction, environmental sustainability, and smart
12 technology in public infrastructure; and
13 e. Support local government units in developing long-term solutions to recurring
14 urban flooding.
15

16 **SECTION 3. Establishment of the Legazpi City Flood Water Detention Pond**
17 **System.** There is hereby established the Legazpi City Flood Water Detention Pond
18 System, consisting of flood control facilities to be constructed in strategic flood
19 catchment areas within the City of Legazpi, Province of Albay, particularly in the
20 following barangays:
21

- 22 a. Barangay Puting Daga;
23 b. Barangay Bitano; and



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20 following barangays:
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- 22 a. Barangay Puting Daga;
23 b. Barangay Bitano; and

1 c. Barangay Bonot.

2
3 The detention ponds shall serve as stormwater retention and detention structures,
4 designed to temporarily store excess runoff during heavy rainfall and regulate its
5 controlled release to downstream drainage systems.

6
7 **SECTION 4. Objectives of the Flood Water Detention Pond System.** The system
8 shall have the following objectives:

- 9
10 a. Reduce flood volume and peak flow in flood-prone urban areas;
11 b. Protect residential, commercial, and public infrastructure from flood damage;
12 c. Improve overall stormwater management efficiency;
13 d. Enhance disaster preparedness and climate resilience; and
14 e. Provide secondary public utility functions through stored water utilization.

15
16 **SECTION 5. Project Components and Design Features** The Flood Water Detention
17 Pond System shall include, but not be limited to:

- 18
19 a. Construction of structurally reinforced detention basins, including hexagonal or
20 efficiency-optimized designs;
21 b. Installation of regulated drainage channels, sluice gates, and pumping stations;
22 c. Sedimentation, filtration, and water-quality improvement structures;
23 d. Flood monitoring, early warning, and hazard-mapping systems integrated with
24 national and local disaster data platforms;
25 e. Safety measures such as fencing, access control, warning signage, and emergency
26 spillways;
27 f. Landscaping and green infrastructure features to allow dual use as community
28 green spaces; and
29 g. Supporting facilities necessary for operation, maintenance, and emergency
30 response.

31
32 **SECTION 6. Multi-Purpose Utilization of Stored Water.** Water collected and stored
33 within the detention ponds may be utilized, subject to applicable regulations, for:

- 34
35 a. Emergency firefighting operations;
36 b. Supplemental irrigation for nearby agricultural and green spaces;
37 c. Urban environmental management, including road dust suppression and street
38 cleaning; and
39 d. Other public service purposes consistent with efficient water resource
40 management.

41
42 **SECTION 7. Smart Technology and Innovation Integration.** The project shall
43 incorporate modern and innovative technologies, including:

- 44
45 a. Smart flood monitoring and automated control systems;
46 b. Integration of hazard mapping data and flood simulation tools for operational
47 decision-making;
48 c. Use of durable, low-maintenance, and climate-resilient construction materials;
49 and

d. Adoption of monitoring technologies for infrastructure inspection and environmental protection.

SECTION 8. Implementing Agencies. The Department of Public Works and Highways (DPWH) shall serve as the lead implementing agency for the planning, design, and construction of the Flood Water Detention Pond System. The DPWH shall coordinate with:

- a. The City Government of Legazpi;
- b. Department of the Interior and Local Government (DILG);
- c. Office of Civil Defense (OCD);
- d. Department of Environment and Natural Resources (DENR); and
- e. Other relevant national and local government agencies.

The City Government of Legazpi shall assist in land provision, community coordination, and localized maintenance support.

SECTION 9. Environmental Compliance and Sustainability. All components of the project shall comply with environmental laws and regulations, including:

- a. Environmental impact assessment, where applicable;
- b. Use of environmentally sustainable construction practices;
- c. Sediment and erosion control measures; and
- d. Ecological landscaping using native vegetation.

SECTION 10. Operation and Maintenance. Upon completion, the operation and maintenance of the flood water detention ponds shall be jointly managed by the DPWH and the City Government of Legazpi, through a defined memorandum of agreement. The City Government shall ensure routine maintenance, inspection, and community awareness programs to sustain long-term effectiveness.

SECTION 11. Appropriations. The amount of Seventy-Five Million Pesos (₱75,000,000.00), or such amount as may be necessary, shall be appropriated for the initial implementation of this Act and charged against the budget of the Department of Public Works and Highways. Thereafter, funds necessary for continued operation, improvement, and expansion shall be included in the annual General Appropriations Act.

SECTION 12. Implementing Rules and Regulations. Within ninety (90) days from the effectivity of this Act, the DPWH, in coordination with the City Government of Legazpi and other concerned agencies, shall promulgate the Implementing Rules and Regulations.

SECTION 13. Separability Clause. If any provision of this Act is declared unconstitutional or invalid, the remaining provisions shall remain in full force and effect.

SECTION 14. Repealing Clause. All laws, decrees, executive orders, rules, and regulations inconsistent with this Act are hereby repealed or modified accordingly.

1 **SECTION 15. Effectivity.** This Act shall take effect fifteen (15) days after its
2 publication in the Official Gazette or in a newspaper of general circulation.
3
4 Approved.