



Restore Pennsylvania: Storm Preparedness and Disaster Recovery

Pennsylvania has seen a 10 percent increase in precipitation over the last 50 years and by 2050, precipitation will be 8 percent higher than it is now. For many parts of the commonwealth, 2018 was the wettest year on record, with heavy rains demonstrating vividly and tragically that our flood mitigation planning and infrastructure has not kept up with changing precipitation patterns. Short duration, high intensity precipitation events have increased throughout the commonwealth. These events result in significant damages that are localized with lengthy recovery periods. Due to the short duration, the damages from these events rarely reach the threshold for the commonwealth to request federal disaster aid assistance.

There are two programs that can provide federal aid after a disaster: Public Assistance provides reimbursement to state, county and local governments and eligible nonprofits for costs associated with response and recovery efforts; Individual Assistance includes a wide range of programs for homeowners and renters, including cash grants, housing or home repair assistance, etc. Each county included in a Public Assistance request must meet a cost threshold based on population, and in turn, the commonwealth overall must meet a threshold of \$19.1 million in damage costs. For Individual Assistance, federal thresholds require at least 800 homes that meet the criteria of “destroyed” or “major damage.” In 2018, more than 5,000 homes were damaged in a series of incidents, but no single incident met the threshold.

2018 left us with approximately \$63 million in public infrastructure damages alone that were not reimbursable through federal disaster programs. This has left communities and individuals in every corner of the commonwealth with massive cleanup costs and few options for assistance. Communities such as those in Northumberland, Bucks, Berks, Chester and Delaware Counties were denied federal aid for 2018 floods.

Restore Pennsylvania will assist Pennsylvania’s residents, businesses, and communities in adapting to the impacts of extreme precipitation events and with recovery efforts in the following ways:

- Establish the Disaster Assistance Trust Fund to support individuals who suffer losses from flooding and other disasters when federal disaster assistance funding is unavailable because damage thresholds have not been met.
- Provide funding to help towns and cities prepare for flooding and severe weather, upgrade flood walls and levees, replace high-hazard dams, and conduct stream restoration and maintenance.
- Provide grants to municipal separate storm sewer communities (MS4) to implement pollution reduction plans.

Infrastructure Challenge being Addressed

Pennsylvania’s legacy infrastructure was designed for the precipitation events of decades ago and inadequately maintained. Our infrastructure must be updated to handle the changing weather patterns and new development. Current estimates provided by FEMA show that every dollar invested in hazard mitigation and infrastructure improvement saves seven dollars in future recovery costs and protects citizens lives, homes and businesses from the effects of flooding.

Major rehabilitations to Pennsylvania's 120 flood control facilities are the responsibility of the commonwealth. Only 68 of those facilities meet the eligibility criteria established by the Army Corps of Engineers Emergency Rehabilitation Program. The rest are ineligible for rehabilitation coverage under this program. Costly repairs to these facilities after flood events would be borne by the sponsor municipality and the commonwealth.

Areas of the state that are developed need proper stormwater management to divert rain from overflowing sewers, which can flood streets, lawns, and homes, to soil for infiltration and ground water regeneration. A substantial investment is needed in these communities to improve local water quality. Assisting landowners, businesses, and local governments with installing stormwater infrastructure will lessen runoff and pollution and reduce floodwaters in local streams and rivers. Green roofs, rain gardens, swales, curb cuts, vegetated filter strips, and constructed wetlands are practical measures that slow runoff and provide for enhanced community aesthetics.

Detailed Description of Proposed Funding Usage

Restore Pennsylvania will assist Pennsylvania's residents, businesses, and communities in adapting to the impacts of extreme precipitation events and with recovery efforts by allocating funding in four main areas:

1) Disaster Assistance Trust Fund

The Disaster Assistance Trust Fund, to be established by the Pennsylvania Emergency Management Agency, will provide grants to meet disaster-related expenses and serious needs of individuals or families adversely affected by a major disaster, regardless of a presidential disaster declaration for the area. Grants are limited to expenses or needs that are not covered by private insurance or do not qualify for federal assistance.

In 2018, Pennsylvania received one federal disaster declaration for Public Assistance due to flash flooding that affected several counties and resulted in approximately \$62 million in public infrastructure damage (11 impacted counties, approximately 200 applicants). However, the commonwealth experienced \$125.6 million in infrastructure damage from several other events, leaving \$63.6 million of damage that was not covered under any federal disaster declaration.

To meet the threshold for individual assistance at the federal level, at least 800 primary residential dwellings must be destroyed or significantly damaged during one event. Last year, a total of 5,206 homes that were damaged across the commonwealth; however, no single incident exceeded 800 homes.

Significant gaps remain in adequately assisting those directly impacted by disasters. Restore Pennsylvania's Disaster Assistance Trust Fund will help to close these gaps.

2) Stream Improvement Program Grants

Funding through Restore Pennsylvania will be directed to the Department of Environmental Protection's Stream Improvement Program for the purpose of providing grants to municipalities and county conservation districts for stream restoration and maintenance projects. With a priority being placed on

municipalities identified as high-risk and flood prone, grants to municipalities and county conservation districts may be used for, but not be limited to:

- preparation for flooding and severe weather
- conducting stream restoration and maintenance

3) Grants for flood control system infrastructure

The Pennsylvania Infrastructure Investment Authority will provide grants to commonwealth agencies and political subdivisions for acquiring, constructing, improving, installing or expanding security measures, repairing, or rehabilitating all or part of a flood control system including levees, dikes, walls, revetments, dams including high hazard, unsafe dams, lakes, reservoirs, and other works and improvements necessary to prevent floods and control, preserve, restore, and regulate the flow of rivers and streams.

4) Grants to municipalities for storm water management

Under Restore Pennsylvania, the Department of Environmental Protection will establish a Storm Water Control Grant Program for the purpose of providing grants to municipal separate storm sewer communities (MS4) to implement pollution reduction plans and for compliance with the Storm Water Management Act.

Based on population density, over 700 municipalities in Pennsylvania must comply with the U.S. Environmental Protection Agency's MS4 requirements, the most of any state in the country. The cost estimates for installing storm water best management practices (BMPs) such as rain gardens, bioswales, retention basins, open space, legacy sediment removal and wetland development, and other green infrastructure are staggering. The anticipated average cost per MS4 to achieve compliance ranges between \$685,000 and \$1.4 million over five years.

Municipalities are left without enough money to comply with this unfunded federal mandate. The Storm Water Control Grant Program can fund on-the-ground projects to absorb and lessen storm water runoff that will help municipalities fulfill their requirements.

While funding all necessary storm water projects across the commonwealth is difficult, the Storm Water Control Grant Program will prioritize applicants that are currently subject to a federal or state court or agency order, consent decree or new permit discharge requirements, and those that propose to work to achieve cost-effective compliance as part of a regional collaborative approach.