



pennsylvania
EMERGENCY MANAGEMENT AGENCY

Testimony for the House Veterans Affairs & Emergency Preparedness

Committee

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Pennsylvania Emergency Management Agency

Stephen Bekanich, Deputy Director for Preparedness

Chairman Vulakovich, Chairman Costa, and members of the Senate Veterans Affairs & Emergency Preparedness Committee, I am Stephen Beganich, the Deputy Director for Preparedness at the Pennsylvania Emergency Management Agency (PEMA) and I thank you for the opportunity to provide information on the landslides and flooding events that have impacted western Pennsylvania and the Commonwealth.

I come to you today with over 30 years of total public safety experience in emergency management. I have served in law enforcement, as the emergency management director for Luzerne County, and Director of PEMA's Bureau of Recovery and Mitigation (BORM) prior to becoming the Deputy Director for Preparedness.

The mission of PEMA is to help communities and citizens mitigate against, prepare for, respond to, and recover from emergencies including natural disasters, acts of terrorism, cyber incidents, or other human-made disasters. PEMA supports county Emergency Management agencies by coordinating and engaging the whole community including federal and state partners, volunteer organizations involved in disasters, private sector business community, and citizens.

2018 has been a year of unprecedented weather in the Commonwealth. Here are few statistics from the National Centers for Environmental Information:

- January - August 2018 ranks as the wettest year-to-date on record for Pennsylvania (139% of normal precipitation)
- February 2018 was wettest on record for Pennsylvania (208% of normal precipitation)

- Summer 2018 (June-July-August) ranks wettest summer on record for Pennsylvania (154% of normal precipitation)
- July 2018 was wettest on record for Pennsylvania (176% of normal precipitation)
- July 2018 Ranks 12th wettest monthly recording in Pennsylvania history out of 1483 records or the top 1% of all recorded monthly precipitation values since 1895

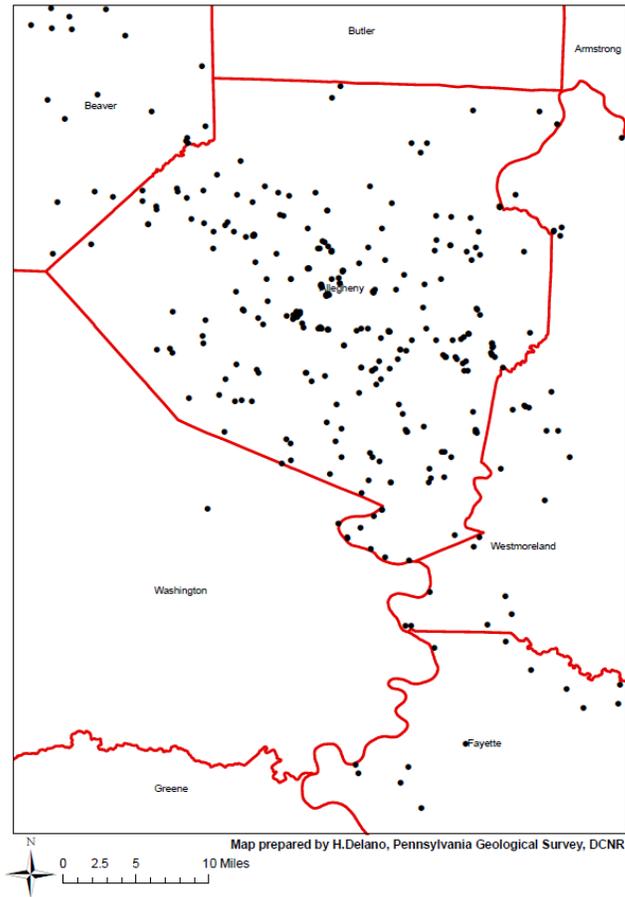
Due to the severe weather patterns that impacted the Commonwealth this year, several of which occurred with limited breaks between storms, areas of the state faced overwhelming impacts such as flash flooding in areas that have never experienced flooding, ice jams, embankment failures and landslides. This is evident in the storms that resulted in landslides in Allegheny and Westmoreland counties. The prolonged heavy rainfall, coupled with the freeze and thaw cycles resulted in over 50 landslides and embankment failures for the entire incident period, February 15, 2018, through April 24, 2018. The weather events severely impacted transportation infrastructure and washed away roadways, berms, and guiderails, making roadways either a single lane or totally impassable. Drainage infrastructure was overwhelmed and compromised; specifically, numerous sanitary sewer lines were damaged or destroyed. Many of the affected local municipalities have a small number of households, but experienced relatively high amounts of dollar damages. Local responders worked to evacuated citizens from at-risk embankment failure and landslide areas, and monitored and compiled preliminary damage estimates.

PEMA, in coordination with county government and our sister agencies, worked to coordinate requests for unmet needs, such as site visits and damage assessments. Assessments are required to determine if counties have met the per capital threshold for supplementary federal assistance.

Based upon the assessments conducted with PEMA and the counties, damage totals for this event have reached \$22,347,548. The severity and magnitude of this disaster exceeded the capabilities of the Commonwealth to manage on its own. On June 22, 2018, Governor Wolf requested of the Federal Emergency Management Agency (FEMA) that a major disaster be declared in the Commonwealth based on the weather events and impacts to the state.

A few weeks later, On July 11, the Commonwealth received notification from FEMA that they would be denying our major disaster declaration request because the damage outlined in our request resulted from separate and distinct events, none of which were of the severity and magnitude to be beyond the capabilities of the commonwealth and affected local government. The Commonwealth respectfully disagrees with FEMA's conclusion that the damage is not beyond the Commonwealth's capabilities, and resulted from "separate and distinct events." After receiving the denial letter, the Commonwealth consulted with geological experts to determine that the early estimates of embankment failures and landslides were vastly underreported. Working with experts from the Pennsylvania Geologic Survey and the U.S. Geologic Survey staff, they show that 173 embankment failures and landslides occurred during the incident period, which is more than a 200% increase over any similar period in this region in reported history.

Landslide locations February - April 2018



A map of all embankment failures and landslides reported in and near Allegheny and Westmoreland counties for February through April 2018, shows a significant, unprecedented pattern of damages throughout the region during the period.

Additionally, experts conducted research to show that the soil moisture content, the most frequent trigger for embankment failures and landslides in this region of Pennsylvania, remained elevated for the entire incident period, February 15, 2018, through April 24, 2018. The persistent elevated base soil moisture played a significant factor in allowing for the landslides to occur over this period. We have submitted this information as a part of the appeal letter to the federal government and ask they reconsider their decision.

While we await a decision from the federal government on our appeal, we continue to look at ways to assist disaster survivors recover from this event. Senator Costa's legislation, SB 1131, to establish the Pennsylvania Landslide Insurance and Assistance Program within PEMA is a step towards that end. The bill includes a total of \$5 million, \$2.5 million for the Landslide Assistance Fund and \$2.5 million for the Landslide Insurance Fund, to aid communities impacted by landslides. PEMA has been reviewing the legislation and believes the program lead may be better served within another agency that can provide expertise and guidance on geological formations, such as DEP or DCNR. PEMA can provide assistance by serving as administering funds to help mitigate the damages from landslides.

We support the idea of having a fund within the Commonwealth to assist disaster survivors when we experience events that have a severe impact but may not result in the Commonwealth receiving a major disaster declaration from the federal government. We will continue to work with Senator Costa on this legislation to ensure that the funding for the program is sustainable. To ensure that funds generated for a landslide assistance program cannot be retargeted for other projects, it may be appropriate to place funds in an account that can only be used for these purposes. That is what the General Assembly did with the 9-1-1 program, Act 147 for radiological matters, and Act 165 for hazardous material.

Flooding

In July and August 2018, another series of slow-moving storms with significant and record-breaking rainfall moved through central and eastern portions of the Commonwealth. On

August 17, 2018, Governor Wolf issued proclamation of disaster emergency due to the impacts caused by these storms.

In Pennsylvania, the most common hazard is flooding. Pennsylvania is the second most flood prone state in the country and has more miles of waterways than any state other than Alaska. Flood mitigation is an important part of the work that we do at PEMA. As I mentioned, prior to serving as Deputy Director of Preparedness, I served as the Director of BORM, where it was my responsibility to oversee matters related to hazard mitigation. Mitigation is another way to say "relieve" or "alleviate." The general idea is to make a dangerous situation less risky.

The standard definition of hazard mitigation that is often used by FEMA: Any cost-effective action taken to eliminate or reduce the long-term risk to life and property from natural and technological hazards. The phrase "cost-effective" is added to this definition to stress the important practical idea that, to be beneficial, a mitigation measure should save money in the long run. If the cost of a mitigation project is less than the long-term costs of disaster recovery and repair for the project area, the mitigation is considered cost-effective. Nationwide, FEMA estimates that for every \$1 spent on mitigation, \$4 are saved.

All funds that PEMA has for hazard mitigation come from the federal government. PEMA administers five mitigation grant programs for FEMA under the umbrella of Hazard Mitigation Assistance: Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA), Pre-Disaster Mitigation (PDM), Repetitive Flood Claims (RFC), and Severe Repetitive Loss (SRL). PEMA's website describes the programs in detail.

The most common mitigation project is acquisition and demolition of flood-risk homes or "buyouts." Since 1994, over 1,400 homes have been removed from dangerous flood areas through mitigation projects. Acquisition is considered the "best" mitigation practice because it eliminates the hazard of flooding in a risk area: no homes = no losses. Other mitigation projects in Pennsylvania include home elevations and small flood control projects, though these are fewer in number than acquisition projects. These types of mitigation activities are not as effective because homes and businesses remain in risk areas and can still be damaged in a flood.

I have attached to my statement a map highlighting hazard mitigation sites across the Commonwealth where acquisitions and elevations were done as well as a list of active hazard mitigation projects in Allegheny County.

On behalf of Governor Wolf, Director Flinn and the twelve million Pennsylvanians we serve, I would like to thank the members of this Committee and the entire General Assembly for your continued support of PEMA and our partners in public safety across the state. I would be happy to answer any questions you may have.