

Good Morning and thank you for the opportunity to address your concerns on flooding and emergency response in Dauphin County.

As you all know, Dauphin County's western border is created by the Susquehanna River, the main tributary of the Chesapeake Bay. We also have the Swatara Creek, which passes through multiple underlying municipalities. These two waterways alone subject a large percentage of our residents and daily visitors to impacts when flooding conditions are either imminent or occurring and the impacts have changed over the years as development has continued throughout the County.

The most common cause of waterway flooding in our region is due to frequent, prolonged precipitation events that occur in a relatively short span of time, thus saturating the ground and rapidly feeding the waterways with runoff until they reach a state of action that is characterized as flood stage, even though some localized impacts can be realized once a waterway reaches Action Stage. As an example, for the Susquehanna River in Harrisburg, Action Stage is eleven feet (11'), Flood Stage is seventeen feet (17'), and the annual average water depth is approximately seven feet (7'). There were multiple similarities between the conditions associated with Tropical Storm Agnes in 1972 and Tropical Storm Lee in 2011, the two most recent and significant flooding events of the last 50 years for our region. However, the impacts were substantially different and more widespread in 2011 when compared to 1972.

In 1972, the river crested at 33.27' as a result of Agnes, the highest level observed since such records were initiated in 1786. The impacts produced days of standing water throughout the communities that border the river, interrupted business and governments, and caused widespread utility outages. In 2011, the river crested at 25.17', the third highest level ever recorded. It too impacted the same areas as had Agnes, however this storm also produced major flooding of the Swatara Creek and many of the impacts from that waterway were every bit as severe as in the communities that border the river. Entire homes and businesses were significantly compromised, some were even completely lost and major structural comprises of roadways, bridges and infrastructure were identified. In total, 28 Pennsylvania counties were designated by the Federal Emergency Management Agency (FEMA) as eligible for disaster assistance funds. As a result, FEMA received 25,406 applications for individual assistance and approved \$103,560,000 in claims to those applicants for housing assistance and/or other needs.

As with any large-scale event that impacts the lives and property of a jurisdiction, countless man hours of first responders are logged to assist their respective communities in any way they are able; Tropical Storm Lee was no exception. Eligible emergency work conducted in response to TS Lee created \$23,010,375 in costs and was reimbursed by FEMA using public assistance funds. An additional \$118,792,353 in permanent work costs was obligated by FEMA to address compromised infrastructures.

Flooding, unlike many other natural disasters, can be forecasted based upon known current and expected short-term conditions. Thankfully, this provides counties and local municipalities enough lead time to convey recommended personal protection actions to their citizens and for the citizens to have time to prepare and decide upon a course of action. Unfortunately, major flooding also creates a long-lasting period of recovery following the initial response to the event, and can result in widespread

uninsured losses to individuals, businesses and communities demonstrated by the high dollar values of losses associated with TS Lee.

Individuals in flood-prone areas are many times required to procure insurance under the National Flood Insurance Program (NFIP). This program significantly subsidizes the costs associated with such insurance in flood prone areas for the respective homeowners. Due to reforms of the program in 2012 and 2014, these rates have begun to increase, and in some instances significantly so. As a result, the potential detrimental impacts to property values of properties required to carry NFIP insurance could be substantial. A multitude of such properties in Dauphin County are within the city limits of Harrisburg.

Flooding will always be a risk to many communities in Dauphin County. Our local municipalities, first responders and utility providers have proven time and again their ability to respond and assist during these events. The long-lasting impacts can create major financial burdens on individuals, businesses and governments that last long after the flood waters recede. The federal programs, some of which I have discussed are imperative to assist in the recovery process and we should actively advocate for their continuation, adequate funding and even their expansion. States should also create similar programs for those events that do not meet the federal thresholds for eligibility.

Again, I thank you for your time and the invitation today. I would be more than happy to address any questions you may have.

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