

A Creek Flows Through It: A Report on Collegeville Borough's Stormwater Challenges



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On Oct. 3rd, Council President Cathy Kernen and Crystal Gilchrist, a former director of the Perkiomen Watershed Conservancy, testified about the effect on Hurricane Ida in 2021 on Collegeville Borough. The testimony was requested by the PA House Democratic Policy Committee.

The Perkiomen Creek, which flows through Collegeville Borough, is fed from a very large 362-square mile subbasin above Green Lane. Headwaters originating from four different counties all eventually discharge their waters into our creek and its tributaries. With this extensive headwater system, excessive rainfall can quickly cause massive flooding in downstream towns, such as Collegeville.

This repeated flooding has damaged residents' houses and commercial buildings, deposited significant amounts of flood debris in our wetlands, and severely impacted our historic buildings.

The Perkiomen Bridge Hotel, which dates back to the early 1700s, was extensively damaged by Hurricane Ida last year. The force of the floodwater tore off all the non-historic parts of the building. Miraculously, the original stone structures of both the hotel and Perkiomen Bridge, still stand and are structurally sound.

So just how powerful is this floodwater?

During Hurricane Ida, the water gauge at Graterford in Perkiomen Twp. maxed out at 70,000 cubic feet per second. A simple calculation shows that 70,000 cubic feet per second equates to 7 million, 200 thousand pounds of water, or 3,600 tons of water, like a giant freight train, passing that water gauge every second. That's nearly 13 million tons an hour. No community can withstand that type of impact once the flood waters rise.

Ida destroyed over 20 borough homes in its path. It also inundated our Main Street from First to Second Avenues, flooded out six businesses, and knocked out traffic signal lights. The majority of our flood

victims are retired senior citizens, disabled individuals and those with limited incomes. These residents own or rent homes in a flood plain because it is their cheapest housing option. Many of these individuals, like others surviving disasters, are now experiencing PTSD.

There is no single, local solution that can address flooding of this magnitude. So, what should we do?

First, we know that the climate is changing. Scientists tell us that we can expect weather that is more erratic, with longer periods without rain, and then, torrential storms on a regular basis. Storms like Hurricane Ida will hit us periodically and hard.

Second, we know that in Pennsylvania, that many of our historic communities that grew along the state's 85,000 miles of streams are now in jeopardy or will be.

Third, the Perkiomen Creek is the largest watershed within the Schuylkill River basin. It provides drinking water to residents and businesses throughout the region, both via Aqua PA's Green Lane reservoir and through the hundreds of wells, public and private, that serve most of us. Uncontrolled stormwater, washing too quickly into the largest rivers, here and throughout the state, shortchanges the recharge of our groundwater, which can leave town water systems and personal wells with inadequate water supplies.

What is important in solving this issue is understanding that it isn't just a stormwater and flooding issue. It is also a precious drinking water issue. Due to development, too much stormwater does not properly soak into the ground where it lands.

We recommend three important actions that can help protect downstream towns while also supporting our groundwater supplies.

#1: Currently, different activities related to water resources are handled in different departments at PA DEP. Specifically, the MS4 Regulations review municipal actions within each town's boundaries. Water does not flow according to municipal boundaries. Towns need to be able to work together with upstream and downstream towns to address stormwater before it becomes floodwater.

#2: The metrics we use to measure stormwater and run-off are badly outdated.

We regularly get larger storms than would be anticipated, and the controlling regulations are not sufficient to address the new climate conditions we are facing. We need to update FEMA maps and the regulations that give municipalities the ability to require more stormwater controls.

#3. We need the state to fund comprehensive stormwater studies on a watershed basis under an adapted Act 167 format that allows a more focused approach than the traditional Act 167 plans allow.

These studies are large and expensive, but you cannot address a problem that you don't understand. Once we have determined what will mitigate flooding, we need to fund those projects as quickly as possible, in as many places as possible, both to reduce flooding and to protect water supplies.

In closing, we need a new approach to addressing stormwater so that we treat it like the precious water resource it is rather than a waste product. If we can better understand what techniques reduce stormwater run-off, we can better protect the historic investments in our communities and guide future development that does not exacerbate already difficult stormwater conditions.