

## The Challenges of Inadequate Stormwater Infrastructure Plans: August, 2020

by Andrew Weber, Executive Director, Willingboro Municipal Utilities Authority

The importance of an effective stormwater management system is critical to the safety and health of our community. On June 11, 2018 we experienced several days of rain. Vehicles were stuck on Van Sciver Parkway and Levitt Parkway due to flooding in multiple locations. In some areas of the township the water (some of it raw sewerage) was up to residents doors and windows. Many homes were destroyed. A big part of the problem was inadequate stormwater management.

### **What is stormwater management?**

When storms occur, rainwater runs off impervious surfaces such as roads, roofs, and parking lots, and into stormwater management systems and waterways. This stormwater carries with it oil, pesticides, other chemicals, sediments, and bacteria. When stormwater backs up all these contaminated water flows into our roads and back yards and ultimately into the WMUA sewer system and pollution control plant.

Without proper controls and management of this stormwater, this stormwater backs up into our roads, back yards; then into the WMUA sewer system and pollution control plant. Ultimately, this polluted water flows in the tributaries throughout the Township that lead to the Delaware River.

If a stormwater management system is not in place or not properly maintained it is not able to adequately absorb, capture, or convey stormwater, which may cause flooding and damage to homes, businesses, and property.

Adding to the problem is the projected increase in sea level and more frequent and severe storms such as the one we are experiencing today which will only add to the number of flooding events.

The WMUA will soon be announcing capital improvements to the sewer plant under our ESIP program. Before we start those projects, we want to make sure the stormwater issues are addressed.

### **Why is stormwater management so important?**

**When municipalities plan and develop infrastructure such as roads, buildings and other structures, the water runoff is increased due to the increase of impervious surface. This causes interruption of the natural infiltration of runoff which can result in localized flooding.**

Decreased infiltration and increased runoff create the need for stormwater management, which provides significant benefits to the community. **In order to slow the runoff process there are several methods used such a construction of detention ponds which detain stormwater runoff** holding it or slowly releasing it over time to the nearest water body. Another example is proper the installation of a storm grate system throughout the road system. While this may seem

like solid plans to manage stormwater, it has its shortcomings. Both need to be properly maintained. In addition, all stormwater management systems need to be reevaluated and upgraded.

There are some short-term solutions the township can address immediately.

They include for example:

1. Regular maintenance and cleaning of storm grates
2. Installing a storm grate filtration system
3. Cleaning detention basins
4. Educating the public on green initiatives and maintenance items on their properties
5. Review and update current stormwater plan

If these items are not immediately addressed and properly maintained, we will have a repeat of the effects and aftermath of the June 11, 2018 storm.

Currently we in Willingboro control our own destiny when it comes to stormwater management. However recent law enacted in 2019 and 2020 requires every town to update their stormwater management plan- if they do not implement it- the county could create a county stormwater utility authority which has the power to impose a “rain tax” on residents and businesses for stormwater management.

Therefore, it is incumbent on the township to immediately focus resources and attention to this area. We at the WMUA want to help. Many MUAs throughout the state (including the WMUA) are working with the DEP in helping to implement supplemental regulations.

The Township must take the lead since they are primarily responsibility for developing and implementing the Stormwater Management Plan. We would like to share our experience and knowledge with the township and look forward to being part of the solution.

Stormwater comes from any precipitation falling from the sky including rain, sleet, or melting snow and can be effectively managed through [stormwater management](#) by companies like GreenVest. As more land is developed, we also see a change in the natural patterns and rates of runoff Mother Nature has created. Construction of buildings, parking lots and roadways, however, alters the volume and velocity of natural runoff, leaving a significant need to properly convey our stormwater safely to its final destination (i.e. its designated body of water).

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We would like to share our experience and knowledge with you at the township.

I suggest we form a working group of stakeholders from the township and wmua to meet and start the process.

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