

Erica Tomlinson - Tioga County Conservation District

Thank you Representative Owlett and the House Majority Policy Committee for this opportunity to address the flooding and stream issues in Tioga and surrounding counties. Over the last 3 years, I have witnessed several intense storm events that have caused flooding throughout the county. These flash flood events have caused not only impacts to local infrastructure but have also put our local residents at risk.

The Tioga County Conservation District has issued 46 General Permit 3's for streambank protection (28) and Gravel bar removal (18) this last year. Working with DEP to provide Emergency Permits and the ability that the district has to issue the General Permits in a matter of days allows for quick response after a flood. However, during site visits we are being told that landowners do not have the financial means to pay for the costly repairs to property and structures that have been impacted. We have worked with many landowners and municipal officials on gravel bar removals over the years. The common theme of these projects is that the gravel just comes back to the same spots and is very expensive to continually complete. The act of removing gravel from the stream in one location will cause additional erosion from upstream locations. So while gravel bar removal at key locations may be a tool that is necessary, we need to be addressing overall watershed issues and working with all landowners.

This issue is very complex and will require coordinated efforts of the community, legislature, and regulatory and funding agencies. Currently, there is potential for access to some of the most diverse funding sources that I have seen in my 15 years with Tioga County. The issue of flooding needs to be addressed, not only from the streambed, but from an entire watershed scale. If we do not work together on every available acre of land, our local streams will continue to degrade. This is a chance to be proactive in preventing flooding instead of always reacting after the fact.

Working to improve the overall health of the watershed is not an overnight activity. It will require additional funding and support from local landowners, municipal officials, commissioners, legislators, and agencies. There is a suite of practices that current policy supports that can make significant improvements to our local waterways including:

- Increasing organic matter in our soils - a 1% increase can increase up to 25,000 gallons of available soil water per acre. The more organic matter in a soil, the more water can infiltrate into the ground reducing peak flood discharges.
- Developing and protecting wetlands - wetlands act as a sponge that absorb water during rain events, reducing overland runoff and erosion, and reducing peak flood discharges.
- Providing access to floodplains - we have entrenched streams that can no longer access the floodplains which greatly increases both flood depth and velocities downstream.
- Streambank stabilization and restoration
- Planting trees both along streambanks and in upland areas - trees can both stabilize the soil and uptake water.

- Reducing impervious surfaces - as impervious surfaces increase, water runoff also increases.
- Replacing undersized culverts that cause excessive gravel deposits and streambank failures
- Encouraging flood insurance - many FEMA/PEMA programs will only assist homeowners with flood insurance.
- Utilizing Floodplain Ordinance's to ensure safe development.

There are a few larger policy changes that would greatly assist in providing flood resiliency and enhance the ability to provide assistance after a storm.

- Include flood resiliency as a component to any FEMA/PEMA funding available. We have projects that were only allowed to be addressed to the condition it was prior to the damage. If the project failed due to flooding, replacing it with the same sized structure will not build resiliency into the system.
- Incentivizing buyouts and structure modifications to both owners and municipalities.
- Addressing the need for affordable flood insurance.
- Availability of funding to quickly address flooding situations after a storm. Months to a year after a storm is too long to let an issue continue to get worse.

As funding is limited, we need to focus on projects that have multiple benefits and can utilize different funding sources to implement. Many of the suggestions listed have benefits that range from improved roadways, drought resiliency, increased crop production, reduced nutrients to our local waterways, and flood resiliency. Likely, a methodical and focused approach that works from the headwaters down will be the most effective. Continuing to operate as we always have will not address the increasing storm events that we are currently experiencing. It is important to keep in mind that the flooding we are experiencing is due to collective issues on the whole landscape and not just in the channel. We will need coordinated funding opportunities to implement a wide range of best management practices that will benefit our citizens as whole.