

Stormwater & Flood Management



Identifying a Road Map to Mitigate Flooding

*Public Works Committee
August 4, 2020*

Extreme Weather Events Exceed Our Control

Cheltenham and the neighboring region experience frequent seasonal weather events which:

- Result in flooding and storm drain back-up/blockage
- Contribute to residential, commercial and Township property damage
- Harm infrastructure, even destroying mature trees and greenscape

Severe Weather Events impact property owners both financially and emotionally

- Physical damage
- Shut down or evacuation
- Loss of use
- Lost time, revenue and income



Impact/Implications of Extreme Weather Events

Homeowners, renters and commercial property owners frequently lack adequate property and flood insurance coverages resulting in:

- Significant out-of-pocket expenses
- Uncovered damage claims
- Potential reduced property valuations or eventual selling issues

Township currently diverts resources into situational remediation rather than prevention and future improvements.

These events provoke frustration

- Many turn to the Township, hoping we are obligated to handle damage claims
- Others expect FEMA to buy up flooded properties, which is a rare occurrence



Plain Facts Impacting Residential, Commercial & Township Properties

Cheltenham Township has an aging infrastructure, with a long history of wastewater and stormwater management challenges:

- *Wastewater wise:*
 - Replacement of Interceptor A and the recently-completed sale of the sewer system to AQUA eliminates cost-prohibitive obligations on the Township
 - As much as \$80-\$100 million of debt was avoided and the potential for Township bankruptcy
- *Stormwater wise:*
 - Upstream development floods downstream properties in Cheltenham
 - ACOE Basin and PA DEP Flood Mitigation projects in planning stages
 - Stormwater runoff and flooding add to problems and expenses
 - Accumulated debris from aging/diseased trees and greenery in stream and stormwater management facilities leads to blockage/flow diversion
 - Mud and silt from soil displacement move water in unmanageable ways
 - Individual, unauthorized construction or personal flood mitigation efforts can all contribute to problems and damage during serious weather events



Ongoing/Planned Efforts to Mitigate Stormwater Impacts & Flooding

Township Public Works, Emergency Management, Fire, Police and Engineering resources respond to dangerous, life threatening situations when notified.

- The July 6, 2020 event saw water rescues, submerged vehicles, severe local flooding but...
- No fatalities or storm-related hospitalizations

These same Township resources routinely inspect, monitor and institute preventative measures by removal, clearance, citation issuance or directly communicating with property owners.

- Extensive investment in stormwater management facilities such as pumping stations, levies, reconstruction and point repairs have benefitted many areas
- Public Works actions routinely reduce potential flooding, stormwater incursion and damage through maintenance activities
- Code Enforcement staff routinely notify property owners regarding their obligations to prevent obstructions to stormwater management facilities
- Interventions (by owner and Township) may be needed to improve or reduce the risks of problems associated with severe weather events



What Immediate & Future Fixes are Available?

Public Works and Township Engineers have/are surveying vulnerable areas to:

- Identify and assess locations at risk of flooding
- Look for blockages from accumulated debris at inlets, culverts and storm drains
- Routinely inspect streambanks for risk of overflow and potential for flooding
- Actively respond to reports of potential problem areas
- Identify and prioritize where projects can improve resiliency to extreme weather events

All of these can and do reduce the risks that come with extreme weather events, but they're not enough. Cheltenham requires a systematic and comprehensive initiative to prioritize Stormwater Protection and Management leading to a:

Stormwater Management Initiative



Stormwater Impact Fee Feasibility Study

Following extensive information gathering, Township Staff and the Board of Commissioners initiated a Request for Proposals to identify the best consulting option for establishing a Stormwater Management Utility

- Philadelphia-based Arcadis was selected out of eight competitive proposals to conduct the analysis and identify how the Township can implement a Stormwater Management and Usage Authority
- Extensive community involvement will be incorporated into this initiative
 - Public meetings will be held throughout the process to provide opportunities for property owners to comment and understand the analysis
 - Residential, Commercial and Institutional property owners will be appointed to a Stormwater Advisory Committee (SAC) that will help guide the analysis
 - The Board of Commissioner, Staff, and the Township's technical advisors will also be involved in the discussion
- Bringing this into implementation is expected to be a 15-month commitment
 - Preliminary public activities will be ready to get started early this fall
 - Studies through to adoption of Stormwater Remediation Recommendations are expected to be completed and ready to go into effect by January 2022



Stormwater Management Plan Implementation

It is envisioned that fees will be proportionately imposed on properties with large and impervious surfaces to support flooding and stormwater remediation efforts.

- Tax-exempt properties such as Colleges, Hospitals, Private Schools and Religious Institutions with large amounts of impervious surfaces, contribute to significant water runoff and creek or stream overflow would be expected to pay their fair share of these operating and capital costs, reducing current taxpayer subsidies

In all probability, residential properties could be assessed an Equivalent Residential Unit (ERU) fee based on the typical volume of impervious surface

- In 40 PA municipalities that instituted Stormwater Management Fees, on average, residential properties paid modest quarterly fees of \$22 as their contributions to mitigating flooding and improving water quality
- In contrast, non-profits with sizable tax exempt properties had their calculated impervious surfaces require payments (of up to six figures) based on their impact on the stormwater management and flooding remediation system



Expected Outcomes for Cheltenham Township

Severe Weather Events have the potential to create havoc in the Township

- But extensive Township-wide improvements and preventative measures have the probability to diminish all but the most extreme impacts on frequently effected areas

Predictable locations, either in proximity to the waterways or with some history of flooding/storm water incursion, are identifiable

- With sound engineering and continuing maintenance, effective solutions can be implemented
- Army Corps (ACOE) and PA DEP proposals will be factored into these policies and funding

Generally, properties contributing to local flooding and water quality issues have larger impervious surfaces, but as non-profits, they avoid paying real estate taxes

- This inequity can be addressed via a Storm Water Remediation Initiative to establish adequate funding and fair “ownership” of these obligations

Community initiatives of this nature address short and long term problems that can:

- Limit costly damage to property and infrastructure
- Increase resiliency of stormwater and other infrastructure to minimize damage and lose of use to property/infrastructure during and after weather events
- Improve water quality



More information and updates about the Study can be found on the Township's website: www.cheltenhamtownship.org on the Hot Topics page, under "*Stormwater Impact Fee.*"

