

This article summarizes key points presented during the CWQE Stormwater Authorities & Stormwater Fees Workshop held on December 8, 2021. The workshop presented the following topics and discussion.

OVERVIEW OF STORMWATER AUTHORITY LEGISLATION – WHAT YOU SHOULD KNOW

Susan Smith, Esquire, shared insights into the history of stormwater legislation and what municipalities face today to meet local management responsibilities:

- There are 20-25 different types of Authorities in Pennsylvania today, created to provide expertise in specific areas.
- There can be some blurring of lines between the powers of the municipality and municipal authority and confusion over areas of control; however, there are contractual arrangements to delegate aspects of administration, billing, ownership, operation and financing.
- “Stormwater” is really a modern term. “Drainage” was the term used when first dealing with stormwater issues, mostly of a flooding nature. “Sewer” was interpreted early on to include sewage management and water drainage management. Today the term stormwater is commonly used and the focus has expanded to include velocity and quality of runoff.
- Years ago, civil (common) law determined that stormwater was the common enemy – everyone has the power to control it (you could even send it to your neighbor’s property downstream). That premise slowly changed. The first limitation involved large development up-gradient of other properties in rural areas in the 1950s/early 1960s. The court carved out what is known as “rural exception” with respect to managing stormwater -- when you increase the flow beyond that which was normal for that area or you channel that flow to a new place, you’re now liable if there is harm to the lower gradient property.
- With the passage of the federal Clean Water Act, PA Clean Streams Law, Municipalities Planning Code, and other water quality initiatives such as the Chesapeake Bay cleanup, municipalities have gained powers to regulate stormwater using local ordinances.
- Act 167 requires counties to adopt stormwater management plans on a watershed basis. Only about half have complied. Ms. Smith referred to the Act as the “most ignored law in the history of municipal regulation.” Once an Act 167 plan is approved by DEP, municipalities have 6 months to adopt a stormwater management ordinance that complies with the model ordinance that the County provided to DEP (either through the Subdivision & Land Development Ordinance or as a stand-alone special purpose ordinance).
 - If you are thinking about a Stormwater Authority, understand what else is in your toolbox, such as land development ordinances, so that you can be consistent between ordinances and the fee/rate structures.
- Legislative changes granted new legal authority in recent years:
 - In 2013, the Municipality Authorities Act was amended to provide for the establishment of Stormwater Authorities. One year later, these Authorities were given the authority to charge “rates” to cover expenses. Such rates must be “reasonable” and “uniform.”

- In 2016, second class townships in PA were given the power to charge administrative fees (not a tax) to recover approximate costs associated with implementing stormwater programs.
- To date, there has been no case law related to these new powers.
- It is critical that a municipality follow the procedures as outline in the Municipality Authorities Act for establishing an Authority. Failure to follow procedures can lead to “unlawful” judgements.
- Be clear about an Authority’s purpose and geographic scope – to own, manage, finance? Be clear about where the Authority operates and what the Authority will do.
- Municipalities must have the political will and commitment to make an Authority operate successfully. Important to provide adequate resources for start-up of organization.
- Informing the public BEFORE the adoption of an Authority or stormwater fee is highly important to its acceptance by the public. Expect pushback. Be prepared and be transparent about Authority operations.
- If someone challenges stormwater fees or rates, the issue would go before the Court of Common Pleas. Fees and rates cannot be interpreted as a tax; they must reflect the recovery of costs associated with stormwater management programs.

Q&A/ TIPS AND LESSONS LEARNED

- Authority management involves costs that are all separate from a municipality; therefore, it’s important to consider ALL of these costs when forming an Authority so that your fees cover everything comprehensively.
- Be careful to not confuse a municipality’s authority with that of the Authority. For example, a zoning officer has no authority to send a letter on behalf of the Authority. The Authority is not a municipality’s committee. Be clear when setting up contractual arrangements so there is no confusion over who has the legal power to act.
- Is it better to adopt a fee or an Authority? That depends on the purpose and scope of the authority that is being planned. If you truly want to own, manage and finance stormwater, which MS4 communities are more driven to, then an Authority may be a better course than adopting a fee.

FEE RATE SCHEDULES AND IMPERVIOUS COVERAGE ANALYSIS

Mark Pickering, PE - GHD and CWQE Team Member

- A stormwater system is a utility just like a water or sewer system. Once you decide to manage it as a system, it’s easier to conceptualize adopting a fee.
- MS4 programs are the catalyst, but it’s important to consider a municipality’s entire stormwater management area.
- Borrow or Cash Flow?
 - All comes down to timeline for the permit cycle; will requirements increase and make the investment less valid over time? 20-30 year projects may warrant a loan.
 - Cash Flow can slow things down but some choose to take this approach

- 2023 will be a big year with new permit cycle
- Model fees use ERUs; ERU = Equivalent Residential Unit – i.e. Runoff Unit
 - Based on AVERAGE impervious area – a property’s footprint (rooflines, driveway, sidewalks)
 - County tax parcel data can be used
 - Can use Flat Rate vs. Tiered Rate – Flat Rates can be simpler to administer; Tiered Rates reflect actual impervious areas
 - Commercial, tax exempt and municipal properties use multiples of ERUs
- Budget Basics – consider operations, administration, credit programs, delinquent accounts, capital projects/debt service and annual reporting
- Worked with one community where township decided to structure fee whereby residential fee was raised to help cover the impervious cover charge that would have been applied to farms; public input informed the decision.

IMPERVIOUS LAND COVER DATA FOR STORMWATER

Emily Mercurio, PhD, PG - Civic Mapper

- A defensible, data driven approach to stormwater impact fees.
- Land cover mapping – older satellite imagery is too coarse for this purpose; aerial photos now used; good to use leaf-on and leaf-off imagery.
- Imagery data sets are used to draw geo-referenced polygons around common land cover type.
- Can be many classes – how many depends on goals.
- Classification systems – be careful about calling for too many classes; can be expensive
 - A good land cover classification system will have about 7 classes
- Land Use is NOT Land Cover – not interchangeable terms
 - Land use – how we use the landscape
 - Land cover – physical land type
- Best type of imagery to use includes infrared portion of the spectrum
 - PEMA – great free resource; can form basis of your land classification; near infrared lets you differentiate between pervious and impervious surfaces
 - NATE (National Aerial Imagery Program), USDA – flown every year to check crop production; provides leaf-on data layer
 - State LIDAR data – to distinguish building footprints
- Cost effective approach – training
 - Heads up digitizing can be very costly; better to have geospatial professional build training sets that “train” the algorithm
 - Follow with an accuracy assessment, additional fixes to get to final product; want 90-98% accuracy rating for land cover data
- Where to get land cover data and cost
 - University of Vermont Spatial Analysis Lab – affordable; Emily uses data frequently
 - Ecopia
 - PASDA – generally too old or coarse for stormwater purposes

- Land Cover + Parcels = Insights
 - Sharing the cost among municipalities can be very cost effective and add economy of scale; pays to work together.
 - Dashboards a great tool to display municipal information; ArcGIS Online – now affordable for municipalities.
 - Free imagery on parcel data – Keep in mind that parcel data can be 20-30 ft off; alignments can be way off and can open door to someone appealing a fee. Aerial imagery accurate within 2 feet.

STORMWATER CREDIT PROGRAMS

Sally B. Holbert, RLA - Land Logics Group

- Some municipalities may think that stormwater credit programs mean they collect less money; however, participation of larger private properties can help meet MS4 requirements.
- Cumberland Valley School District (CVSD), Cumberland County – has schools in 3 municipalities, two of which have passed stormwater fees and third is getting ready to adopt one; can be a lot to navigate for a school district.
 - Athletic facility was classified as impervious, but a 3.5 acre area had subsurface detention and infiltration built into the design; IC analyst did not know that.
 - So important to have an appeal process; keep it simple.
- Benefits of Credit Programs
 - Provide incentives for implementing BMPs and increases participation by property owners
 - Keeps the rainwater on a property
 - Helps with initial pushback from community by offering a way to get a reduced fee
 - If have limited land to implement BMPs, credits open the door to other private properties
 - Helps people make connections between the built environment and how that impacts our natural systems
- Stormwater Credits Policy Manual – good to have and share with landowners; can be creative in different types of credits (Silver Spring Township has a Stormwater Partnership Credit – can increase credit to 50% with creative ideas taken to the township).
- Appeals – fees charged to apply for an appeal should reflect only the administrative time involved in handling the appeal.
- Credit Examples
 - One school campus in CVSD saved over \$6,200 a year with credits approved; 11 campuses for CVSD; Return on investment to hire a consultant to help with credit or appeal applications will be paid back in one year.
- PennDOT and other state agencies will not pay stormwater fees – an issue for municipalities; continue to charge as the policy may change in time; CWQE to communicate issue to PENNVEST.