Paying for Stormwater

The Benefits of a Municipal Utility to Help Fund Stormwater Management
The Vermont League of Cities and Towns (VLCT) was founded in 1967 as a non-profit, nonpartisan organization dedicated to serving and strengthening Vermont local government. Today, VLCT supports its member municipalities by offering them a comprehensive insurance program, representation before the state and federal governments, and an extensive educational and technical assistance program.

VLCT’s Municipal Assistance Center (MAC) provides local officials with legal and technical assistance, consulting services, and educational workshops as well as handbooks, templates and other resource documents. With grant support from the Vermont Agency of Natural Resources and other granting sources, MAC offers professional assistance for municipalities seeking to promote comprehensive water quality and water resource protection.

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One of the most pressing challenges for local governments today is stormwater management. Stormwater is rain or snowmelt runoff from impervious surfaces such as rooftops, paved and gravel roads, driveways, parking lots, sidewalks and other hard surfaces. When rain and snow fall on pervious surfaces – such as open, undeveloped land not occupied by buildings or pavement – the water is absorbed (infiltrated) into the ground. Filtered by soil and plants, it recharges the groundwater. However, when stormwater travels over impervious surfaces, it picks up pollutants such as fertilizers, oil, sediment and pesticides, which are either discharged directly into surface waters or into public storm sewer systems, which ultimately empty into surface waters. In municipalities with combined stormwater and wastewater treatment systems, the volume of stormwater runoff after a heavy rain can overwhelm the treatment plant and cause combined sewer overflows. Flooding and erosion of the surrounding area can also occur. Local governments find themselves obligated to come up with creative ways to pay for stormwater management as more of the landscape is covered with impervious surfaces that prevent stormwater infiltration.

What is a Stormwater Utility? A stormwater utility, operating much like an electric or water utility, is a way to collect funds to pay for the control and treatment of stormwater. The utility takes care of a community’s stormwater system, and charges all properties a user fee based on the amount of stormwater created. The amount of stormwater created is based on how much impervious surface there is on a particular parcel.

A stormwater utility can be an organizational entity but it doesn’t have to be one. It can simply be a new dedicated source of funds to supplement or replace the community’s current stormwater management funding. In fact, the term “stormwater utility” is synonymous with “stormwater fee,” “user fee,” or “drainage fee.” Stormwater utilities can fit into any size community with any set of goals. If a community decides to set up an authority, i.e. a governing body overseeing the utility’s administration, the stormwater utility becomes an organizational entity, such as a division of the municipal public works department, or at least results in an internal shift within the municipality of who does what, to what extent, and how.
Gray and Green Stormwater Infrastructure

Stormwater runoff from property and streets can be reduced through a combination of gray and green stormwater infrastructure. Gray infrastructure refers to traditional engineered solutions to flooding problems like sewers. Gray infrastructure is often designed to move stormwater to another location to reduce flooding. Alternatively, green stormwater infrastructure treats water where it falls, allowing the water to sink slowly into the ground and thus keeping it out of the sewer system. Green stormwater infrastructure can ease the burden on overwhelmed sewers, especially during heavy storms, and reduce water quality problems. Green stormwater infrastructure also often costs less than gray infrastructure.

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Common green infrastructure practices include:

- Rain barrels and cisterns
- Downspout disconnections
- Permeable pavers or concrete
- Planting trees
- Rain gardens
- Vegetated swales in parking lots
- Green roofs (vegetated rooftops that provide urban greening for buildings)
- Constructed wetlands
• Establishing a stormwater user fee generates a stable dedicated funding source and creates a collective responsibility for a community’s water quality protection.

• The revenue is sustainable and municipalities can generate sufficient revenue with the user fee.

• The stormwater user fee is flexible and provides a constant funding source that increases with the community’s growth.

• A stormwater user fee is equitable. The more stormwater a property owner contributes to the public stormwater system, the higher the fee.

• Through incentive programs (credits) that reduce user fees, the stormwater utility encourages better individual parcel stormwater management, such as the use of low impact development (LID) and green stormwater infrastructure (GSI) practices.

• An established stormwater funding mechanism helps ensure a community’s compliance with federal, state, and local clean water requirements. Future stormwater regulatory requirements will most likely significantly increase and be more costly.
Creating a Stormwater Utility

1. Define needs through a feasibility study.

Typically, communities considering a stormwater utility start with a preliminary feasibility study designed primarily for staff and political leaders to understand what they would be getting into and whether to take the next step. This study should also provide the community with enough information to allow them to decide if implementing the utility is sensible. The feasibility study will typically address preliminary revenue requirements based on the current stormwater budget. It will assess the revenue needed to address the detrimental effects from stormwater pollution by identifying the status of existing public and private stormwater management facilities (that have a municipal responsibility) as well as the funding required for municipal compliance with federal, state, and local stormwater regulations.

2. Determine funding/fee structure.

Municipalities using a fee-based system to pay for a stormwater program have a multitude of ways to set up the rate structure and determine fees. The simplest method may be to levy a single flat fee for all residential properties and another prorated fee for all commercial properties based on the amount of their impervious surface area discharging into the public stormwater system. Although a simple flat fee is certainly a much easier method for generating income, the public may not accept it as fair, since impervious cover is the most important factor influencing stormwater runoff. By disregarding impervious surface area in the fee structure, the “nexus” to the stormwater problem required to establish it as an equitable fee is absent. Impervious surfaces are the areas that cover the natural ground and do not allow the infiltration of rainfall. They include any paved areas (driveways, rooftops, sidewalks, parking areas, roads) and some dirt or gravel areas (parking areas, roads). Drainage from developed properties impact the stormwater system, and the fee can be calculated proportionally for the demand the property puts on the system.
Rather than assessing a single flat fee, the municipality can – if it decides after the feasibility study to develop a stormwater utility – collect user and parcel data including ownership and impervious surface area for each parcel and develop a system to bill property owners.

There are three basic methods that stormwater utilities use to calculate service fees. Each of these billing systems is based on impervious area, the most important factor influencing stormwater runoff.

**The Equivalent Residential Unit (ERU) method** is the most commonly used method. It establishes an annual flat fee based on the average square footage of impervious surface on a single-family residential property. The fee may be tiered downward for duplexes and triplexes or upward for single-family properties having more than a given amount of impervious surface (e.g., ≥ to one acre) to ensure equitability of the bills sent to homeowners. All other developed nonresidential property is assessed a stormwater fee based on the actual amount of impervious surface on the property divided by the ERU.

**The Intensity of Development (ID)** stormwater cost allocation system is based on the percentage of impervious surface relative to the entire parcel’s size. The municipality charges a fee to all parcels, including vacant and undeveloped parcels. The fee rate is based on the intensity of development, i.e., a sliding rate charge based on a range of impervious surface percentages per square foot on the parcel.

**The Equivalent Hydraulic Area (EHA) method** bills parcels based on the stormwater runoff generated by their impervious and pervious areas, charging impervious areas a much higher rate than the pervious areas. Like the ID method, the EHA method accounts for undeveloped and vacant parcels, but parcels are billed based on individual runoff measurements of pervious and impervious areas.
The Difference between a Tax and a Fee: A Critical Policy Distinction

In many cases, municipalities, prior to adopting a stormwater utility, funded their stormwater programs – including all maintenance activities – through property taxes paid into their general funds. In the competition for general fund dollars, stormwater management improvements are typically considered a lower priority unless the municipality is reacting to a recent major storm, flooding event, or regulatory action. This system may be considered inequitable because the basis for determining property taxes (assessed property value) is irrelevant to the cost of stormwater management for that property. Additionally, tax-exempt properties – such as governmental properties, schools, non-profit organizations and churches – do not support any of the cost of stormwater management, even though many of them are major contributors of stormwater runoff. Changing to a utility structure allows the collection of fees from all developed properties within the municipality. The municipality collects revenue generated from stormwater utility fees solely to fund its stormwater management services.

The two most common stormwater billing systems are (1) adding a stormwater utility fee onto an existing water/sewer fee bill and (2) assessments that are not ad valorem (that is, they are not based on a percentage of property value). The stormwater utility user fee is often included with the sewer and water bill or the property tax bill.

**Three conditions differentiate a utility fee from a municipal tax:**

1. the fee must be adopted by ordinance;
2. there must be a direct and transparent relationship between the fee paid and the services provided; and
3. there must be a voluntary provision to the fee, i.e., the fees can be decreased by reducing the use of the stormwater system or program.

More information on stormwater financing options can be found here: https://bit.ly/2KH1LSI
3. **Roll Out a Public Information Program.**

A stormwater utility is an equitable and usually necessary way to pay for stormwater management. However, without a coordinated and thoughtful public engagement program, a few vocal opponents can derail the effort before the ordinance even comes to a vote. The public must want the stormwater service provided by the new revenues before they will agree to pay for it. A critical success factor for utilities is to sell the service before selling the fee. The Environmental Protection Agency has outlined components of a typical organized public information and education effort as follows:

- **Identify key users and groups**
  
  Two important groups are (1) large acreage property owners (like factories and shopping centers) that generate a significant amount of runoff and often receive high stormwater bills, and (2) tax-exempt properties such as schools and churches that are not used to paying fees like this because they do not contribute property taxes into the general fund. Other key groups include those that have historically voiced concern about new fees. Engage these groups early and often.

- **Establish an advisory committee**
  
  Include a cross-section of the community such as representatives from universities, businesses, nonprofits, churches, developers, and business owners. Train the representatives on the facts and how to frame their messaging so they act as consistent spokespersons for the utility.

- **Create a stormwater utility website**
  
  For example: The Town of Colchester’s Stormwater Utility Home Page can be viewed here: [https://bit.ly/2IRYJlQ](https://bit.ly/2IRYJlQ)

- **Prepare pamphlets and presentations**
  
  Materials should explain why the utility is necessary, how the rate will be calculated, and projected rates for different sized properties. Develop materials for a green stormwater infrastructure credit system, including detailed information about the kinds of practices that are eligible.

- **Meet with key user groups and the media**
  
  Meet with civic groups, representatives from the media and your previously identified stakeholder groups, and with customers projected to receive the highest bills to discuss the green stormwater infrastructure credit options. Provide resources to help them apply for the credit.

- **Distribute information before the initial billing**

  Send a stormwater utility brochure to all customers before billing that, ideally, would include the customer’s actual projected bill.
4. **Adopt an Ordinance.**

Adopting an ordinance is necessary for establishing a stormwater utility. Municipalities must follow the required ordinance adoption process per 24 V.S.A. §§ 1972 et seq. As of April 2019, five Vermont municipalities have established stormwater utilities: Colchester, South Burlington, Burlington, Williston, and St. Albans City. A number of other communities are actively exploring the idea. Each municipality operates its utility a little differently to suit their specific needs and situations. For example, they don’t all bill the same way, they don’t all offer the same types of credits, and they all have different levels of staff depending on the amount of work that needs to be funded.

- Burlington’s stormwater utility ordinance can be found at [https://bit.ly/2xjiQck](https://bit.ly/2xjiQck) (see Chapter 26 Wastewater, Stormwater and Pollution Control, Division 5 Stormwater System User Fees).
5. **Provide Credits/Exemptions.**

A stormwater credit is an ongoing reduction to a property’s calculated stormwater charge that is given to a property that either reduces demand on the stormwater system and/or reduces the utility’s cost of service through functional stormwater best management practices. A stormwater credit plays a key role in enhancing the perception of user fees by affording the customer an opportunity to reduce the magnitude of the user fees commensurate with the extent of onsite stormwater management.

Credits or exemptions built into a utility ordinance can be used to provide incentives for certain practices or relief from utility fees to landowners of certain types of land. Property owners can reduce their utility bill by implementing green stormwater infrastructure practices that decrease their property’s contribution to the stormwater management system. In this way, property owners are in control of their bills and their property. The ordinance language should describe the credit categories and application procedures clearly. See, for example, Colchester’s Stormwater User Fee Credit Manual: [https://bit.ly/2X3ZcLV](https://bit.ly/2X3ZcLV)

6. **Implement the Utility and Continue Public Engagement.**

The first bill is the most important one for the municipality. Many customers do not understand the new stormwater fee until they actually receive their first bill. Municipalities should notify customers several months before billing will begin and specify what their projected estimated fee will be. Clearly explain how this money will be used and why it is necessary.

Ongoing stormwater utility public engagement is an important part of implementation. Maintain an updated webpage that explains why the utility matters. Highlight case studies of successes and how the money has been used. Every year, send a letter to the largest landowners reminding them of green stormwater infrastructure credit opportunities. Distribute information about the green stormwater infrastructure credit along with permit applications for new construction or renovations.

During the ordinance adoption process and beyond, it is crucial for the community to support the stormwater projects the utility is funding. Neither property owners nor government officials want to spend money on improvements that no one will ever see. A visible field presence demonstrating both gray and green stormwater treatment practices and regular maintenance will assure the public that they know what they are getting (or will get) for their money and that the stormwater utility will benefit them.
Conclusion

Managing stormwater has become an increasingly important responsibility for local governments. Storm events are increasing in frequency and severity throughout the Northeast. Communities need to repair old systems and build new and modern systems that embrace technological advances from the last 100 years. They naturally also need the money to do it. More and more, communities across the nation are examining the option of stormwater utilities to fund their most immediate stormwater problems.

Recently enacted federal and state stormwater regulations, combined with ageing drainage infrastructure, are compelling local governments to develop and implement creative stormwater management solutions and dedicated funding mechanisms.