Technical Memorandum
Finance & Funding Policy Considerations

Stormwater Funding Background

There are a series of interrelated funding policy issues that need to be resolved to move the finance track forward as a stormwater utility option is evaluated for Agawam. Many policies can simply be answered at the staff level and are relatively independent of other decisions. Some rely on program decisions, legality, or preferences and past practice. Amec Foster Wheeler has prepared this memorandum which outlines key funding issues and policy decisions to be considered.

Resources, Money, and Revenue

Municipalities and their subsidiary organizations employ a variety of "funding" methods, including service charges, several types of taxes, franchises and other fees, fines, and penalties. It is important to understand the three main ways of providing support to stormwater programs: resources, money and revenue:

- Resources include all the non-cash ways that a local stormwater program can be supported including: free resources available from the internet, shared costs with neighbors, transformation of current programs to better support stormwater needs, volunteer programs, etc. Resources are **not free** in that they often require significant staff time to find, coordinate, and manage.
- Money includes all one-time infusions of funds. This includes Federal and state grants, loans, penalties, bonds, special sales taxes, one-time development related fees and payments, penalties, etc. Money is often targeted to a specific need or program activity. It may, or may not, be sufficient to cover an entire program but its key characteristic is that it is **one-time**.
- Revenue includes all ongoing flows of funds. For local government, this typically includes real property and other ad valorem taxes, sales or gasoline taxes, franchise fees, user fees, etc. The key characteristic of this type of support is that it is **ongoing**.

Each of these basic types of support has advantages and disadvantages and can be targeted toward different aspects of the stormwater program – operational, administrative or capital. However, experience has shown that the bulk of the cost of local stormwater programs must be borne by revenue producing support sources not "resources" or "money". Since stormwater historically has struggled to compete effectively for general fund tax dollars with public safety,

schools, and a myriad of other local needs, most local governments find that establishing a legally dedicated revenue is the most reliable way to fund an effective, long-term stormwater program.

Four Legal Categories

Various funding methods have distinctive characteristics which separate them legally, technically, and in terms of public perceptions. Four major categories of municipal revenue generation include taxes, service charges, exactions, and assessments.

- Taxes are intended primarily as revenue generators, and with some exceptions (such as earmarked taxes), without any particular association with the activities or improvements that they fund. They can be used for the general purposes of local government. These include property tax, income tax, sales tax, etc.
- Service charges or fees are not established simply to generate revenue, but must be tied to the objectives of a specific program to which they are associated. For example, water and sewer service charges are structured to cover the cost of providing those services, not to simply generate revenue. Thus, the total revenue generated must be tied to the cost of providing services and the amount each rate payer is charged must be related to their relative impact or "use" of the system (rational nexus).
- Exactions are related to the extension of an approval or privilege to use. Franchise fees for the privilege of using the right-of-way for cable and phone companies are an exaction. Licenses, tap fees, impact fees, fees in lieu of detention, capital recovery charges and the mandatory dedication of infrastructure during development are also exactions.
- Assessments are geographically or otherwise limited fees levied for improvements or activities of direct and special benefit to those who are being charged, such as an assessment for an extension of a sewer line to a home or business. The benefit must be direct – tied to a specific and measurable or estimable property improvement.

User Fees

A popular source of funding for stormwater management is in the form of a service charge or user fee system typically referred to as a stormwater "utility" – an enterprise or special revenue fund. This form of funding has several advantages over other competing forms of finance including its equitability, stability and adequacy. The user fee concept of a stormwater utility based funding method has grown quickly as stormwater management issues have become more important in terms of both flood control and water quality protection. In the early 1970's there were only one or two true stormwater utilities in existence. By 2017 the number has grown to approximately 2,000 across North America.

A stormwater utility is primarily a fee for service. It is based on the concept that providing public stormwater services by way of an extensive collection and management system is similar to wastewater or water supply utility services. When a demand is placed on either of these two later systems the user pays. The basic premise for a stormwater fee, is that when a property is developed and forested or grassy area is replaced with buildings and pavement, runoff from the property increases and a greater demand is placed on the public drainage system. The greater the demand (i.e. the more the parcel of land is paved), the greater the share of the public burden the property owner should bear.

The distinctions of the four revenue categories are very important. One of the critical issues which typically must be resolved if a utility service charge of any type is legally challenged is whether the service charge is clearly related to and incidental to the activities and improvements of the utility, or is in fact merely a means of creating revenue for all governmental purposes generally (a tax). Thus, a stormwater utility fee must be based on the cost of specific stormwater management services and not simply a perceived financial need or willingness to pay.

A stormwater utility is an umbrella under which individual communities can establish a fund to address their own unique needs in a manner consistent with local problems, priorities and practices. A stormwater utility is typically considered equitable because the cost is borne by the user based on an estimate of the demand placed on the drainage system. It is stable because it is not dependent on the vagaries of the annual budgetary process as are taxes. It is adequate because the stormwater fee is set to cover a specific set of activities. And it is legally defensible as legislatures and the courts have established requirements and precedents for establishment of acceptable user fee approaches.

A stormwater utility is the preferred funding options for many communities because it can be a vehicle for:

- consolidating or coordinating responsibilities that were previously dispersed among several departments and divisions
- generating funding that is adequate, stable, equitable and dedicated solely to the stormwater function
- developing programs that support effective long-term stormwater management and are consistent year-to-year

Rate Structures

Utility funding is based on an independent revenue stream that is dedicated to a specific purpose such as water supply, wastewater treatment, solid waste management, or stormwater management. Service fees provide the bulk of a utility's revenue. A methodology for calculating the service fees, based on customers' demand upon the utility services, must be identified to establish the basis for the revenue stream.

In the case of stormwater services, a user fee recognizes properties' demand on the stormwater system for discharging their runoff and the benefits the community receives from having a functioning stormwater system. The framework that describes how the cost of public services is distributed across properties in a community is called the "rate structure." The rate structure developed for a utility is divided into three modules:

- Basic rate methodology;
- Modification factors, which can be applied to any of the rate concepts to enhance equity, reduce costs, and meet other objectives; and
- Secondary funding methods that can be adopted in concert with the service charges.

Rate structures differ among utilities. The differences sometimes reflect program goals or priorities such as the desire to encourage green designs or preserve open space, the influence of other policy objectives such as growth management or economic development, technical constraints, or the availability of information like geographical information systems (GIS) or other databases.

A key attribute of utility service fee funding is that the governing body of a utility's jurisdiction has broad authority to design its rate methodology to fit local circumstances and practices and achieve an allocation of the cost of services and facilities that it desires, while staying within legal boundaries. The goal of a utility's funding decisions is to design a user fee structure that reflects the character and desires of the community and that meets five tests:

1. is equitable and reasonable;
2. is not discriminatory or confiscatory;
3. has costs that are substantially related to provision of facilities and services;
4. has a rate that is related to demand of the stormwater systems and services for each individual property (rational nexus); and
5. reflects the authority inherent in state law.

Funding Policies

Basic Rate Methodology

The basic rate methodology defines the basis for the rate that users will be paying. The three main impacts on surface water from run-off related to development are increases in peak flow, volume of discharge, and amount of pollution. The variable most closely associated with each of these three major impacts is the conversion of pervious areas (forests and fields) to impervious areas (pavement, roof tops, and other hard surfaces). Rate structures can be designed to be flexible enough to accommodate other key factors as appropriate, although it is important to remember that simplicity is best in terms of both customer understanding and ease of management.

Accommodating the runoff that occurs when pervious area that historically absorbs rainwater is converted to impervious area requires investment in the public drainage system. Therefore, it is appropriate to use a measurement of impervious area or surrogate of impervious area in rate methodologies. Most stormwater programs have taken this approach: The *Black & Veatch 2016 Stormwater Utility Survey* reported that 77% of respondents based their fees on impervious area. This is up from a 2007 on-line survey that found that 65% of utilities used impervious area as the main factor for rate calculation. As impervious data has become more affordable to obtain and manage, impervious area continues to be the preferred rate methodology. While impervious area does not directly account for all stormwater program costs, urbanization of land as reflected in intensity of development is, by far, the best measure of cost causation and provides a court-tested rational nexus for the fee amount.

Most stormwater utilities set their fees based on charging for stormwater services based on either a flat fee per stormwater billing unit for all properties (i.e. a charge for every 1,000 SF of

impervious area on a parcel) or they establish an Equivalent Residential Unit (ERU) as their billing unit and have separate rate structures with two fee classifications based on land use type: Non-Single Family residential (NSFR) and Single Family residential (SFR).

Both options rely on using aerial photography, parcel data, and calculation of impervious area on properties. The ERU is determined by calculating the median or average amount of impervious area on residential properties in a community and then applying the ERU to non-residential properties. Figure 1 shows an example of the impervious coverage on a non-residential parcel in Portsmouth NH that has 10,535 square feet of impervious area. With the ERU set at 2,500 square feet, this parcel contains 4.2 ERUs. Often the charge is based on an "ERUs or part thereof" making this parcel 5 ERUs. So, for example, if the charge per ERU was $6.00 per month, the fee for this property would be $30 per month or $360 per year.

Figure 1. Example of Non-Residential Parcel Impervious Area.

There are, however, additional ways to configure the rate methodology to emphasize certain other impacts or recognize the benefits of certain kinds of development practices. Many of these considerations are handled with a stormwater crediting or secondary funding system, but some factors can also be handled in the makeup of the basic rate methodology itself. Factors commonly considered are:

- Some communities charge for gross parcel area in addition to impervious area, reasoning that stormwater runs off all parcels (even if the parcel is not developed) and thus, all should pay.
- Some communities want to encourage green space and set up charges based on an intensity of development factor – so that the same amount of imperviousness would be charged less if it were located on a larger lot with more green space.
- Some communities attempt to simplify the non-residential rate by charging based on a small number of tiers rather than per ERU or by placing a cap on fees. When compared to a straight impervious methodology, this has the result of shifting costs, sometimes dramatically, to smaller properties, and those on the high side pay proportionally less.

Included in the decisions related to selecting the basic rate methodology are policy issues such as: rounding of billing units, where the break is for tiers and why, and the need for updating or maintaining data that supports cost distribution.

Rate Modifiers or Class Exemptions

Rate modifiers or class exemptions are the second component of the rate structure and are policies that change the user fee charged to certain classes or types of properties. They are designed to appropriately increase simplicity or enhance equity. One should use caution when considering exemptions or fee reductions, keeping in mind that reducing or exempting some properties from the fee results in increasing the rate for other rate payers. That said, nearly all utilities adopt one or more rate modifiers.

Rate modifiers and class exemptions that can be considered include:

- **Residential Charges**. Should residential charges be simplified in some way such as a single flat rate, several tiers, or should they be based on individual measurement? Should condominiums and/or apartments be handled differently than multi-family properties?

- **Fixed Cost per Account**. Should there be a fixed cost per account to recover administrative costs or other costs affiliated with the stormwater program that are not properly allocated based on demand upon the system or its surrogate?

- **Variable Charges Based on Property Class.** Should there be a differing charge based on class of the ratepayer such as: (1) publicly owned property, (2) roads – public or private, (3) non-profits, (4) income disadvantaged, (5) elderly, (6) parkland or others.

- **Stormwater Credits**. Often variable charges are accounted for in the form of credits. Generally, stormwater credits are granted both to increase equity and to provide incentives to implement an overall community stormwater management plan. A credit is an ongoing reduction in a property's calculated stormwater fee for:
    - on-going activities on the property that reduce the demand upon the public stormwater system;
    - on-going activities on the property that reduce the City's cost of service.

  Stormwater programs vary considerably in the amount of the user fees that they make eligible for crediting. The amount of a fee that is eligible for credits may be seen as the relative "generosity" of the credit. The extent or generosity of the credit should include consideration of which stormwater program costs can be reduced by the qualifying activities for which users can receive credits. For instance, while a business may reduce its impact on the stormwater system through installing and maintaining a detention pond, the utility may be unable to credit the business for its entire bill. Reasons for this might include the fact that a detention pond does not reduce all the impacts of the property on the system (volume and pollution) and the reality that there are some fixed program costs that remain regardless of individual actions.

  Common stormwater credits include:
    - detention, retention, or best management practices,
    - education credit,
    - green design credit,
    - NPDES permit credit for industries.

Secondary Funding Methods

Secondary funding methods are employed to enhance the revenue stream of the utility and to increase equity by shifting costs for specific services or service levels to those requiring the services. There are many secondary funding methods employed by local governments that may impact program funding:

- Grants or other state and Federal money
- Revenue or general obligation bond funds or loans
- Public-private partnerships that share costs and risks in development projects
- Plan review and inspection fees associated with new development projects.
- Special charges (often called surcharges) - For example, some homeowner groups maintain their own detention ponds. Others, for a surcharge, may request that the municipality provide such maintenance.
- System development charges or system extension fees - typically one-time charges to a single property or development to fund the extension of stormwater services to those customers
- Fines and penalties for violation of local, state or Federal laws or regulations (i.e. illegal dumping into the stormwater system)

Miscellaneous Considerations

There are numerous other policy considerations that will enter the development of the financial model and setting of rates. These may include:

- Valuation of stormwater assets (if any) and how they are handled;
- Timing of rate changes, escalation factors, program growth curves;
- Estimates for such considerations as: inflation, the cost of money, bad debt, revenue growth, indirect cost allocations, billing and collection charges;
- Timing of debt and capital construction;
- Structure of the stormwater fee in terms of enterprise fund or special revenue fund;
- Policies on credits, appeals, delinquencies and other matters and
- Rate ordinance form and function, hearing process, placement in the municipal code.