

STORMWATER ENTERPRISE FUND – PRELIMINARY EVALUATION

Town of Concord, Massachusetts | January 2024

The Town of Concord is developing a strategy to fund the Town’s stormwater management needs, which include complying with federal permitting requirements focused on water quality; reducing stormwater flooding; ensuring resiliency planning for future flood mitigation; and investing in aging infrastructure, while at the same time adopting a methodology for assigning fees that is fair and equitable to all users. After reviewing available funding mechanisms and examples of other municipalities in Massachusetts leading the way on stormwater management, the Town decided to explore the feasibility of implementing a stormwater enterprise fund. A stormwater enterprise fund collects fees to support the operation, maintenance, rehabilitation, and expansion of the existing stormwater system.

The Town of Concord has considered the possibility of implementing a stormwater enterprise fund for several years to achieve goals relating to preparedness for climate change, hazard mitigation, and the preservation of natural resources. The Town’s 2020 Climate Action and Resilience Plan outlines Concord’s vision of preparedness for future impacts associated with climate change, including extreme storms and flooding. The plan emphasizes that while Concord’s natural resources help minimize how these impacts affect the Town, it is necessary to ensure Concord’s stormwater systems are resilient and can continue to provide valuable services to the community into the future. One of the preparedness goals highlighted in this plan is to ensure that Concord’s critical infrastructure is prepared for climate change impacts through the creation of a stormwater enterprise fund. Adoption of a stormwater enterprise fund or a stormwater user fee is also highlighted in the Town’s 2023 Hazard Mitigation Plan Update. This plan details how extreme weather events are expected to become more intense and more frequent as a result of climate change. The Town highlights that the planning, construction, operation, and maintenance of drainage systems are integral to flood hazard mitigation and includes the adoption of a stormwater enterprise fee as a potential hazard mitigation measure “to provide a dedicated, predictable revenue stream to finance upgrades to the Town’s stormwater infrastructure.” The approach outlined here mirrors that of other Massachusetts communities, driven by regulatory compliance for water quality. It also considers drainage infrastructure maintenance and expansion with a climate resilience focus while ensuring fairness and equity in the stormwater fee system.

Over the last few decades, Concord’s investments in stormwater infrastructure have not matched the Town’s needs. If the Town continues to fall short in funding these needs, the Town will be forced to reactively spend more money over the long-term. The Town requires a dedicated funding source, and the hope is that the priorities outlined herein that are funded as part of a potential stormwater enterprise fund align with Concord’s goals and interests. The environmental benefits are substantial. If the Town chooses to forgo the adoption of a stormwater enterprise, the funding still needs to come from another source and that burden would fall back on non-tax-exempt property owners under the general fund pulling money away from other town interests.

The approach of proactively preparing and funding stormwater management needs through an enterprise fund aligns with the careful planning and predictably that is a hallmark of how Concord

has successfully managed and funded other town utilities and infrastructure needs. This planning and upfront investment in stormwater will translate to less money being spent by the Town for stormwater reactively over the long-term and allow the Town to re-direct those funds to other municipal needs.

STORMWATER MANAGEMENT GOALS



INVEST IN THE FUTURE

The Concord community will need to invest more in stormwater infrastructure to ensure an adequate level of service and regulatory compliance than what has been invested historically. By creating a stormwater enterprise fund, the Town can invest in the future without burdening other departments financed through the General Fund, like schools and highway.



REDUCE STORMWATER FLOODING

Urban stormwater runoff is directly correlated to the amount of impervious area. Impervious area keeps stormwater from seeping into the soil and recharging groundwater. In heavy downpours, the current storm drainage system can become overwhelmed. Funds generated through a stormwater enterprise fund can be used to upgrade existing stormwater conveyance systems and construct green infrastructure, which uses natural properties to filter pollutants and allow water to soak into the soil rather than flood our streets.



MEET REGULATORY REQUIREMENTS

The Town must comply with the extensive requirements of the Environmental Protection Agency's Municipal Separate Storm Sewer Systems (MS4) Permit. The Town will incur significant costs to continue to meet the requirements of this federal permit. A reliable funding source will be necessary for the foreseeable future.



CONTROL WATER POLLUTION

Stormwater flowing from impervious surfaces, like roadways and parking lots, carries pollutants into rivers and streams. Water contamination is harmful to drinking water sources, wildlife and recreation. Water pollution results in both indirect and direct costs.

PROJECTED STORMWATER BUDGET

The projected stormwater budget for FY2025 to FY2034 covers compliance with the 2016 MA MS4 Permit, culvert and drainage improvements, operation and maintenance, as well as staffing and equipment needs. The total target revenue goal to be raised under a stormwater enterprise fund is approximately \$1.5 to \$2 million annually. The proposed enterprise fee would only cover a portion of the projected stormwater budgetary need.



STORMWATER ENTERPRISE FUND FEASIBILITY


A stormwater enterprise fund offers a reliable and equitable funding mechanism to meet the Town's stormwater management needs compared to other funding sources. At present, there are as many as twenty-five (25) communities in Massachusetts with stormwater fee systems in place. There are several other communities actively working to develop stormwater funding mechanisms or that have passed enabling legislation.

Funding	Pros	Cons
General Fund	<ul style="list-style-type: none"> ➤ Historical source of funding where protocol is already in place 	<ul style="list-style-type: none"> ➤ Cost burdens from continued compliance with the MS4 Permit would increase the amount of funding going towards stormwater from the General Fund, which could limit funding for other departments. ➤ Not all properties are taxed, therefore not all property owners would contribute to the cost of stormwater management. Taxes paid by individual property owners also do not correlate to a property's impact on the stormwater system and the Town's water resources. ➤ Stormwater has not historically been recognized as a necessary investment and is often underfunded as part of the annual review process. ➤ Approved budgets have been variable. If stormwater needs appropriated from the General Fund are insufficient, bonds may be needed, which comes at a higher cost.
Grants	<ul style="list-style-type: none"> ➤ Brings in funding from outside of the Town. 	<ul style="list-style-type: none"> ➤ Grants only fund specific types of projects, are not a reliable funding source and often require a cash match. ➤ Grants are typically awarded to communities with greater documented need.
Stormwater Fund	<ul style="list-style-type: none"> ➤ Guaranteed source of funding. ➤ A more equitable fee based on impact to stormwater system with all property owners contributing. 	<ul style="list-style-type: none"> ➤ Initial time and effort involved in implementation and oversight going forward.

HOW WOULD A STORMWATER ENTERPRISE WORK?

One of the fairest ways to create a stormwater enterprise fund is to calculate the fee based on a parcel's impact upon the drainage system and/or the Town's surface water and groundwater resources. Parcels with greater impervious area, and without stormwater controls onsite, discharge greater amounts of stormwater runoff off-site. Even for those parcels that manage stormwater on-site, the property owners utilize the Town's roadways, which drain to the public stormwater system, and therefore they should share in the cost of operating and maintaining the Town's storm drain system. Therefore, the first step in calculating a stormwater enterprise fee is to measure the impervious area on parcels with different types of development. The second step is to analyze various ways to calculate stormwater user fees and corresponding billing rates. Some towns use an Equivalent Residential Unit (ERU) to compare impact to the stormwater system across different land use types and it's typically based on the average impervious area of the dominant land use type. In Concord, the ERU equals the average impervious surface on a single-family residential parcel or 5,570 square feet. The Town reviewed four (4) fee structure scenarios that examined assignment of fees based on a flat rate and/or based on the amount of impervious surface area on a particular parcel. Under some scenarios, a tiered billing system was developed, which correlates to the impervious surface area on a parcel.

	 Residential	 Commercial	
Option 1	Flat Fee	Impervious Area using ERU	5,570 average sq. ft. of impervious area per residential sample
Options 2,3,4	Based on Impervious Area Tiers	Based on Impervious Area Tiers	

 1 ERU

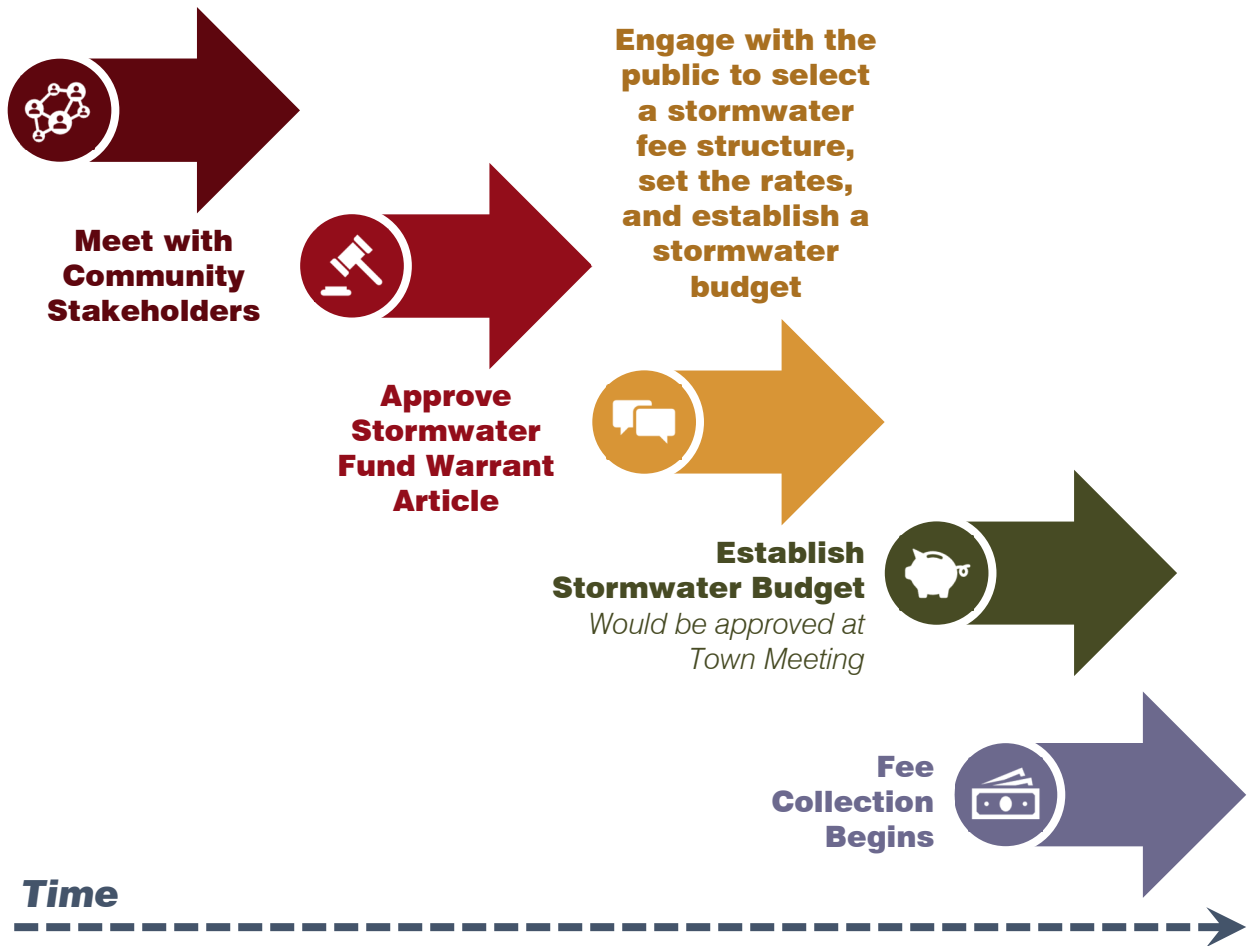
For example, Option 1 would issue a flat fee for small residential customers (households with three units or less). Non-residential properties and larger residential properties would be charged a fee based on their impervious area and its correlation to the ERU. For example, based on an ERU rate of \$100, a property with 11,140 square feet of impervious surface area would pay \$200 per year (see calculation below). Fees would be administered through Concord's existing utility billing system. Abatements would be offered, and a simple credit or incentive program system could be explored.

Commercial Property A

Amount of Impervious Area	11,140 sq. ft.
Equivalent Residential Unit (ERU)	$\div 5,570 \text{ sq. ft.}$
	<hr/> 2 ERUs
Rate per ERU	\$100 per ERU per year
Commercial Property A	$\times 2 \text{ ERU}$
Stormwater Enterprise Fee	<hr/> \$200 per year

PUBLIC PROCESS

The Town will be seeking additional input and feedback from the community. A phased approach will be used as the Town moves forward with the idea of implementing a stormwater fee and actively engages the public to seek their feedback and support during the adoption process. This approach will provide ample time for the public to understand the proposal and for the Town to collect public input. The Town has introduced the concept of a stormwater enterprise and has sought public feedback at recent public meetings including a [Water Symposium](#) held on December 5, 2023, and a [Public Works Commission Meeting](#) held on December 13, 2023. The recordings from these proceedings are available on the Town's website. The Town will be seeking additional feedback from community stakeholders through additional forums in the coming months to be held in conjunction with various boards and committees. A Stormwater Fund Article will be included in a future Town Meeting establishing the framework for advancing the implementation of a stormwater enterprise by seeking public adoption of the state's enabling legislation. If the Article is approved, the Public Works Commission will engage with the public to select a stormwater fee structure, set the rates, and establish a stormwater budget for funding by the enterprise fund that will inform any future rates. The stormwater budget would then be put forth at a future Town Meeting for the public's acceptance.



Timeline of Stormwater Enterprise Fund Implementation