



STORMWATER UTILITY CREDIT MANUAL

TOWN OF FRANKLIN, MA

TOWN OF FRANKLIN DPW

PROJECT NO.: 3652210304
DATE: MAY 30, 2023

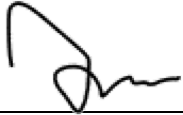
Revised by Franklin DPW: 2/23/2024

WSP
100 APOLLO DRIVE, SUITE 302
CHELMSFORD, MA 01824


T: +1 978-692-9090
WSP.COM

SIGNATURES

PREPARED AND APPROVED BY



Ilana Ton
Consultant, Environmental Scientist



Andrew P. Vardakis, P.E.
Vice President, Civil Engineer

WSP prepared this document solely for the use of the intended recipient, the Town of Franklin, in accordance with the professional services agreement. The intended recipient is solely responsible for the disclosure of any information contained in this document. If a third party makes use of, relies on, or makes decisions in accordance with this report, said third party is solely responsible for such use, reliance or decisions. WSP does not accept responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken by said third party based on this report. This limitations statement is considered an integral part of this report.

The original of this digital file will be conserved by WSP for a period of not less than 10 years. As the digital file transmitted to the intended recipient is no longer under the control of WSP, its integrity cannot be assured. As such, WSP does not guarantee any modifications made to this digital file subsequent to its transmission to the intended recipient.



TABLE OF CONTENTS

| | | |
|-----|--|----|
| 1 | INTRODUCTION | 1 |
| 1.1 | Stormwater Management in Franklin | 1 |
| 1.2 | Stormwater Funding Options | 1 |
| 1.3 | Use of the Stormwater Utility Funds | 1 |
| 2 | STORMWATER UTILITY FEE | 3 |
| 2.1 | Authorization of the Fee | 3 |
| 2.2 | How is the Utility Fee Calculated? | 3 |
| 3 | CREDIT PROGRAM | 5 |
| 3.1 | Standard Credit Policy: Eligibility for All Developed Properties | 5 |
| 3.2 | Standard Credits for Reducing Stormwater Quantity | 7 |
| 3.3 | Credits for Improving Stormwater Quality | 7 |
| 3.4 | Small User Credits | 8 |
| 3.5 | Credit Application and Renewal | 9 |
| 3.6 | Abatements | 10 |

1 INTRODUCTION

1.1 STORMWATER MANAGEMENT IN FRANKLIN

To avoid negative environmental, public health, and economic impacts of pollution and flooding, the Town implements a comprehensive stormwater management program. The program covers the construction, inspection, and maintenance of stormwater infrastructure. The Town also takes actions to ensure that stormwater conveyed through the Town's drainage system reduces contribution of pollutants to local waterways to the maximum extent practicable and helps protect water supplies.

The Town of Franklin is required to have a stormwater management program as part of the Clean Water Act Municipal Separate Storm Sewer System (MS4) Permit. We are among 200+ other Massachusetts communities subject to the requirements of the MS4 Permit, as mandated by the Environmental Protection Agency (EPA). While this is a mandate from the Federal Government, it is also an investment in our future which will ultimately improve Franklin's entire infrastructure system - our roads, our drinking water and our environment.

The Town has been investing in stormwater infrastructure for decades resulting in an enormous asset that must be properly maintained to ensure functionality. The Town's existing infrastructure consists of 138 miles of drainpipes, as well as 124 detention and/or retention basins, 17 rain gardens, 5,700 catch basins, and 152 culverts. The estimated replacement value of the Town's existing stormwater infrastructure is over \$175 million.

1.2 STORMWATER FUNDING OPTIONS

Historically, the cost to operate and maintain the stormwater system has been funded exclusively by General Fund property tax revenue. However, the cost of stormwater management and compliance is expected to continue to rise as the utility deals with aging infrastructure, increased storm events, and water quality protection requirements. By 2024, the local annual cost is anticipated to be approximately \$2.4 million per year.

The Town has been tracking increasing requirements and costs for several years, and in 2018 the Town Council formed an Ad hoc Committee to explore funding source options. It was determined that it is not viable to continue funding stormwater operations through the general fund. The two main revenue source options considered by the Town were 1) a property tax increase or 2) implementing a utility fee. The Committee held several public forums to solicit resident feedback. Implementing a Stormwater Utility was considered the most equitable option - and based upon resident input, the originally proposed fee was reduced by half, with the average single-family home anticipated to be charged about \$56 per year.

1.3 USE OF THE STORMWATER UTILITY FUNDS

Funds from the Stormwater Utility Fee (the Utility) will directly enhance the services provided by the Department of Public Works. Investing in the drainage system will increase the capacity to capture and recharge more stormwater in Franklin. Ultimately this will improve drinking water while reducing stormwater pollution.

Improvements to the drainage infrastructure, like culvert replacement and drainage basin retrofits, will also mitigate the risk of flooding and prevent property damage to local homes. Other specific activities earmarked to be funded from the Utility include:

- Enhancement of existing services: catch basin cleaning, street sweeping, pipe inspections and repairs, and drainage swale maintenance
- Identification and elimination of illicit pollution sources and increased drinking water protection from stormwater runoff
- Inspection and maintenance of stormwater treatment structures: detention basins, stormceptors, tree wells, rain gardens

- Compliance with the MS4 Permit (including inspections, design plan reviews, public education, reporting, and Phosphorus Control Plan (PCP) projects
- Leaf litter collection - Leaves contribute a large amount of phosphorus to our waterways. To help mitigate this pollutant and offer our residents a service, an enhanced program is planned to be implemented as funding is available
- Planning future improvement projects, designing new detention ponds, and minimizing flood risk through new design

2 STORMWATER UTILITY FEE

2.1 AUTHORIZATION OF THE FEE

In April 2022, the Town Council voted to amend Chapter 153 of the Code of the Town of Franklin by rescinding Bylaw Amendment 19-846, previously enacted by the Franklin Town Council on January 8, 2020, and replacing it by adding a new Article V Stormwater Utility. The new Stormwater Utility is effective July 1, 2023. The Town's Stormwater Utility has been established to provide a sustainable and transparent funding source for an effective management program. Simply put - it will allow the Town to take care of existing infrastructure, to effectively collect and treat stormwater, and comply with regulatory mandates for protecting local water resources. Revenue collected through the Utility is to be used exclusively for stormwater activities to maintain and improve the stormwater system. This money cannot be used for other Town expenditures like schools, Police, Fire, Library, etc.

Prior to the Utility, the Stormwater management program was funded through property taxes. With a dedicated fund for stormwater management, the Town will now maintain and improve the integrity of the existing drainage infrastructure based on the amount of impervious area on a property rather than the value of the property. This method of billing is considered more equitable than through the General Fund. Utility billing will subject each property owner in Franklin to a fee based on the amount of impervious area present on their property. Unlike a tax, no organization is exempt, which makes the Utility fee approach more equitable for funding stormwater management than a blanket tax increase.

Property owners in Franklin will receive a quarterly Stormwater Utility bill based on the total amount of impervious area or surfaces on their property. Impervious surface includes any material or structure on or above the ground that prevents precipitation from effectively infiltrating the underlying soil. Impervious surfaces include without limitation, roads, paved parking lots, rooftops, buildings or structures, sidewalks, paved driveways, and other surfaces which prevent or impede the natural infiltration of stormwater runoff which existed prior to development.

The Town used aerial imagery and GIS data to capture the amount of impervious area (IA) on each property. Each parcel in Franklin was individually assessed (by a human) and the IA was digitized and logged. Impervious surfaces within the Town-owned right-of-way (roadways and sidewalks) were not considered as part of the total impervious area of a parcel. Also, pools were not included and pervious driveways, and if inadvertently captured, these may be removed through the abatement process.

2.2 HOW IS THE UTILITY FEE CALCULATED?

Each parcel will be charged based on calculated square footage of IA. Franklin's utility fee is based on a charge of \$18.66 per billing unit and 1 Billing Unit (BU) = 1,000 square feet of IA. Properties with less than 200 sq feet of IA are considered undeveloped and will not be charged a fee. In Franklin, the average Single Family residential lot has approximately 3,200 square feet of IA. This translates to 3 BU or \$56 per year (\$18.66 x 3). See table and figures below for examples of fee calculations:

| AMOUNT OF IMPERVIOUS AREA (IA) ON A BILLABLE PARCEL | NUMBER OF BILLING UNITS | ANNUAL FEE |
|---|--|-------------------------------------|
| 200 SF to 1,499 SF | 1 | \$18.66 |
| 1,500 SF to 2,499 SF | 2 | \$37.32 |
| 2,500 SF to 3,499 SF | 3 | \$55.98 |
| 3,500 SF to 4,499 SF | 4 | \$74.64 |
| Each additional 1000 SF range will be rounded as above. | Adding one billing unit for each additional 1000 SF range. | Each increase adds \$18.66 per year |



1 acre lot – Single Family
 4 billing units x \$18.66
 \$74.64 per year



1/2 acre lot – Single Family
 2 billing units x \$18.66
 \$37.32 per year

3 CREDIT PROGRAM

The Town of Franklin recognizes that this is an extremely difficult time and that adding an additional fee onto property owners can be an enormous burden. To assist residents and recognize property owners that practice good water stewardship, the Town has developed a Credit Program. The goals of the credit program are to recognize on-site stormwater best management actions and provide an incentive for property owners to properly operate and maintain stormwater facilities. This helps reduce a parcel's contribution to stormwater runoff and decrease the Town's stormwater management program costs. Credits will be offered to all property owners for a maximum reduction of 50% off their Stormwater Utility Fee. There are multiple ways to earn credits, as described in the following sections.

3.1 STANDARD CREDIT POLICY: ELIGIBILITY FOR ALL DEVELOPED PROPERTIES

Stormwater BMPs that manage peak flows, runoff volumes and/or minimize pollutant runoff from a property to either the Town system or local water resources will be recognized by the Town's credit program. Eligible BMPs will include, but are not necessarily limited to, the following:

BEST MANAGEMENT PRACTICE

EXAMPLE

Detention and Retention Basins – Detention and retention basins are both designed to hold stormwater runoff, allow for settlement of solids, and reduce downstream flows. A detention, or dry, pond has an orifice level at the bottom of the basin and does not have a permanent pool of water. All the water runs out between storms and it frequently remains dry. Detention basins are typically designed to hold stormwater runoff for approximately 24 hours to allow solids to settle and reduce peak flow flooding downstream. A retention basin or pond has a riser and orifice at a higher point of discharge than a detention basin and therefore retains a permanent pool of water. The pool allows sediments to settle (including fine sediments) and removes soluble pollutants.



Infiltration Basins - Infiltration basins are stormwater runoff impoundments that are constructed over permeable soils. Pretreatment is critical for effective performance of infiltration basins. Runoff from the design storm, a critical rainfall event over a specified time period, is stored until it exfiltrates through the soil at the bottom of the basin.



Raingardens / Bio-retention Basins - Bioretention is a technique that uses soil, plants, and microbes to treat stormwater before it is infiltrated and/or discharged. Bioretention cells (also called rain gardens in residential applications) are shallow depressions filled with sandy soil, topped with a thick layer of mulch and planted with dense native vegetation. Properly designed and maintained cells can remove suspended solids, metals, and unwanted nutrients, and can infiltrate an inch or more of rainfall.



BEST MANAGEMENT PRACTICE

EXAMPLE

Constructed Wetlands - Constructed stormwater wetland systems maximize the removal of pollutants from stormwater runoff through wetland vegetation uptake, retention, and settling. A constructed stormwater wetland temporarily stores runoff in shallow pools that support conditions suitable for the growth of wetland plants.



Sediment Forebays - A sediment forebay is a post-construction practice consisting of an excavated pit, bermed area, or cast structure combined with a weir, designed to slow incoming stormwater runoff and facilitate the gravity separation of suspended solids.



Deep Sump Catch Basins - These are also known as oil and grease or hooded catch basins and are underground retention systems designed to remove trash, debris, and coarse sediment from stormwater runoff. They serve as temporary spill containment devices for floatables, such as oils and grease.



Stormceptors – Stormceptors are prefabricated underground structures utilized to separate out oils, grease, and sediment from stormwater runoff. The systems provide treatment of stormwater runoff by routing runoff into a low-turbulence environment where solids settle, and oils float out of solution.



Leaching Catch Basins - A leaching catch basin is a pre-cast concrete barrel and riser with an open bottom that permits runoff to infiltrate into the ground.



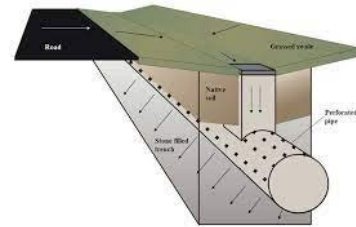
BEST MANAGEMENT PRACTICE

EXAMPLE

Tree Well - Tree wells are typically a box structure housing a single tree. Wells can have walled sides or structural soil systems to protect soil from compaction and retain stormwater.



Other Subsurface Recharge Systems - Subsurface structures are underground systems that capture runoff and gradually infiltrate it into the groundwater through rock and gravel. There are several underground infiltration systems that can be installed to enhance groundwater recharge with the most common types including pre-cast concrete or plastic pits, perforated pipes, and galleys.



More information on these stormwater management activities can be found in Volume 2, Chapter 2 of the Massachusetts Stormwater Handbook.

3.2 STANDARD CREDITS FOR REDUCING STORMWATER QUANTITY

Stormwater reduction credits are available to industrial and commercial property owners that reduce the peak rate of runoff during precipitation events. Credits may be awarded for eligible facilities that meet or exceed regulatory requirements, state standards, and local ordinances at the time in which they were installed. The credit amount is based on the amount of peak runoff reduction achieved through on-site stormwater facilities, up to a **maximum credit of 25%** of the Stormwater Utility bill.

3.3 CREDITS FOR IMPROVING STORMWATER QUALITY

Water quality improvement credits are available to property owners that reduce pollution loading from their property through implementation of stormwater facilities and other best management practices (BMPs). Credits may be awarded for eligible facilities that meet or exceed regulatory requirements, state standards, and local ordinances at the time in which they were installed. The credit amount is based on the water quality pollutant reduction achieved through on-site treatment, up to a maximum credit of 25% of the Stormwater Utility bill.

The combined quantity and quality maximum credit will be 50% for any one developed parcel.

3.4 SMALL USER CREDITS

In addition to the standard credit program identified above, residential properties or small users (properties with a stormwater change of five [5] billing units or less) will be able to apply for credits under a special program that simplifies applying for and obtaining credits. The goal of the small credit program is to engage the community in stormwater management and recognize individual efforts to manage stormwater locally. This will provide an on-going benefit to Franklin's stormwater program.

Activities which could qualify for credit under the small users' program would include, at a minimum, the following:

ACTIVITY

EXAMPLE

Rain gardens - are shallow depressions filled with sandy soil topped with a thick layer of mulch and planted with dense native vegetation.



Vegetated Swales - vegetated open channels that are designed to provide for non-erosive stormwater conveyance that accents natural landscape.



Infiltration Trenches - shallow excavations filled with stone. They can be designed to capture sheet flow or piped inflow. The stone provides underground storage for stormwater runoff. The stored runoff gradually exfiltrates through the bottom and/or sides of the trench into the subsoil and eventually into the water table.



Dry Wells - small, excavated pits, backfilled with aggregate, and used to infiltrate uncontaminated runoff from non-metal roofs or metal roofs located outside the Zone II or Interim Wellhead Protection Area of a public water supply and outside an industrial site.



ACTIVITY

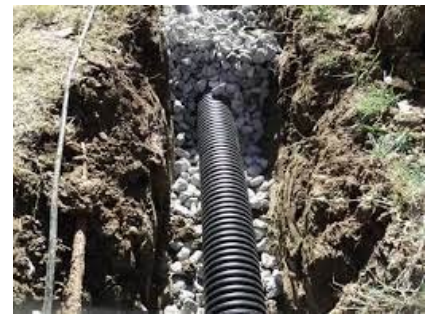
EXAMPLE

Permeable surface construction (porous pavement or pavers) - A paved surface engineered with a higher-than-normal percentage of air voids to allow water to pass through it and infiltrate into the subsoil. This porous surface replaces traditional pavement, allowing parking lot, driveway, and roadway runoff to infiltrate directly into the soil and receive water quality treatment. Permeable paving techniques include porous asphalt, pervious concrete, paving stones specifically engineered to allow for infiltration of stormwater, and manufactured "grass pavers" made of concrete or plastic. Permeable paving may be used for walkways, patios, plazas, driveways, parking stalls, and overflow parking areas.



French Drains - An exterior trench filled with gravel or rock, or both, containing a perforated pipe that redirects surface water and ground water away from an area.

Please note that Interior French Drain Systems are not stormwater management infrastructure and therefore do not qualify for Impervious Area Credit.



Rain Barrels - generally a 55-gallon barrel used to collect the water that runs off rooftops of buildings through a gutter or downspout. The water collected can be used back on-site for watering garden or lawns, as well as other household chores such as washing cars or windows.

Please note the rain barrel must be installed to receive credit.



The Small User Credit provides property owners with a maximum credit of 25% for stormwater quantity controls that capture stormwater runoff from at least 500 square feet of a property's impervious area and a maximum credit of 25% for stormwater quality controls that treat stormwater runoff from at least 500 square feet of a property's area. All small user properties will be billed a minimum charge of 1 Billing unit.

As with the Standard Credit, all infrastructure must be properly maintained to receive a small user credit.

3.5 CREDIT APPLICATION AND RENEWAL

Credits may be applied for through Viewpoint, the Town's on-line permitting and licensing application, found here: <https://www.franklinma.gov/public-works/pages/forms-permits>. Credits may be applied for during "open season" (April 1st - May 31st), unless a property is newly constructed, in which case credits may be applied for upon construction completion.

Credits must be reapplied for to maintain a credit on a stormwater utility fee. The standard credit term is five (5) years for water quality and quantity facilities. The term for Small User Credits is one (1) year and therefore must be applied for on an annual basis.

Note that a credit can be revoked at any time if there is insufficient evidence of proper operation and maintenance.

Credits will not be applied retroactively to prior stormwater utility bills. Credits do not transfer when property ownership is transferred or sold.

As specified in the Town Stormwater Utility By-law:

Any credit allowed against the Stormwater Utility fee is conditioned on continuing compliance with the Town's design and performance standards as stated in the Credit Manual and/or upon continuing provision of the controls, systems, facilities, services, and activities provided, operated, and maintained by the property owner or owners upon which the credit is based. The Town may revoke a credit at any time for noncompliance with applicable standards and criteria as established in the Credit Manual or this by-law.

3.6 ABATEMENTS

An abatement may be applied for at any time if property owners feel their IA is reported incorrectly. Also, property owners with gravel driveways, pervious or porous pavers/pavement may also apply for an abatement if the related IA was inadvertently captured.

In the event that a property owner believes their Stormwater Utility fee is improperly calculated or is otherwise incorrect, the property owner may apply to the Director of Public Works for an abatement. The application for abatement shall be supported by such information as is necessary for a reasonable person to determine the applicability of an abatement. DPW shall have sixty (60) days to consider the request for abatement and render a written decision which may deny the abatement, grant the abatement in full or grant the abatement in part.

Abatements will not be applied retroactively to prior stormwater utility bills.

Abatements may be applied for through Viewpoint, the Town's on-line permitting and licensing application, found here: <https://www.franklinma.gov/public-works/pages/forms-permits>.