



Stormwater Utility Credit Manual

West Warwick, Rhode Island

PREPARED FOR:

Town of West Warwick
1170 Main Street
West Warwick, RI

PREPARED BY:

ESS Group, Inc.
10 Hemingway Drive, 2nd Floor
East Providence, Rhode Island 02915

ESS Project No. W322-000

DRAFT: July 2016





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ESTUARY PROGRAM**



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1.0 WHAT IS A STORMWATER UTILITY AND WHY HAVE ONE?

The Town of West Warwick (Town) faces very significant stormwater issues (e.g., flooding in many commercial and residential areas). One estimate puts stormwater infrastructure improvement needs in the range of \$50 million. Achieving West Warwick's stormwater water management goals will entail extensive technical analysis and infrastructure design, construction work, and a dedicated budget. To address these issues, the Town is developing a stormwater utility and implementing a capital infrastructure improvement plan. The Rhode Island General Assembly has passed the Rhode Island Stormwater Management and Utilities District Act of 2002 (SWM Act), which authorizes Rhode Island municipalities to adopt stormwater utilities. The Town has conducted a planning study to design and prioritize capital improvements, initiate improvements on the highest priority projects, and conduct a rate study. **The Town has received state and federal grants of over \$280,000 to assist in the initial work.**

What is a Stormwater Utility?

A stormwater utility collects user fees that go into a dedicated fund that may only be used for stormwater services. A storm water utility is similar to a water utility or sewer utility. A stormwater utility in West Warwick will focus on correcting flooding and water quality problems, which have been a persistent in Town.

Town recognizes that some property owners may want to help address stormwater problems and that their fees should reflect management efforts that go beyond minimum requirements. **A stormwater-fee credit rewards enhanced stormwater management with a fee reduction.**



Figure 1.1 Example of Flooding in West Warwick

This photograph shows street flooding in August 2015. Flooding like this occurs several times each at this location.



Figure 1.2 Funding for Stormwater Management

Stormwater funding is a small part of West Warwick’s public works budget, and like most New England towns is inadequate to meet the needs due to competing needs. A stormwater utility will create a dedicated funding source and predictable level of funding.

Why Should West Warwick Have a Stormwater Utility?

The text that follows lists several key reasons that West Warwick has decided to adopt a stormwater utility.

West Warwick’s Stormwater Problem is Bad and Getting Worse

Moderate and large storms create major problems in the Town of West Warwick. Runoff often exceeds the capacity of the Town’s aging and undersized storm drain system while flash floods commonly obstruct roadways, flood business and residences, and damage natural resources. These problems worsen each year because the Town is developed beyond the capacity of its existing stormwater infrastructure and because storm events in the Northeast are growing more and more severe. Since a stormwater utility creates a dedicated budget, the Town will be able to create and implement a long-range plan for improvements with a funding schedule.

Current Funding is Inadequate

The current Town budgeting structure makes adequate funding for stormwater management a near impossibility. Funding for stormwater is mingled with other public works funding. The public works budget is stressed beyond its current capacity and so stormwater management is forced to “wait in line.” A stormwater utility will set up a dedicated budget just for stormwater management and the Town will be able to plan specifically for stormwater management.

Current Payment Structure is Unfair to Residential Taxpayers with Regard to Stormwater Management

The current budgeting structure unduly burdens residential taxpayers. Public works, which is responsible for stormwater system management, is funded through general taxation. Acre for acre, more stormwater is generated by commercial and institutional land uses than residential land uses, while residential uses pay a greater share of taxes. A stormwater utility corrects this imbalance by charging a fee based on the amount of stormwater runoff generated.



Figure 1.3 A Stormwater Utility is Fairer for Taxpayers

Using general taxation to pay for stormwater unfairly burdens homeowners. A stormwater utility redistributes cost based on the amount of stormwater generated.

A Stormwater Utility Can Help to Attract External Investment in Fixing Stormwater Problems

A stormwater utility will show commitment to manage stormwater and a reliable source of revenue. This will help the Town leverage external sources funding through grants and low-interest loan programs. The Town has already received over \$280,000 in grant funding for stormwater management in part because of its expressed interest in considering a stormwater utility.

The Town is in a Good Institutional Position to set up a Stormwater Utility

Much of the institutional groundwork is already laid out. The Town can piggyback a stormwater utility on the administrative framework of its existing sewer utility. Also, state law is specifically set up to allow for municipal stormwater utilities. The Town is well positioned to develop a stormwater utility.

Administering a Stormwater Utility Can Work Well as an Extension of an Existing Utility

West Warwick has successfully administered a sewer utility for many years and could use the existing administrative framework for a stormwater utility.

2.0 STORMWATER-FEE CREDITS AND HOW TO APPLY

The following section discusses eligibility for stormwater credits and how ratepayers may apply for stormwater-fee credits.

2.1 Eligibility

West Warwick makes stormwater-fee credits available to all ratepayers. Ratepayers are eligible for credits of up to 40% in accordance with section 47-6 of West Warwick's Code of Ordinances:

Stormwater-Fee Credits

West Warwick makes stormwater-fee credits available to all ratepayers. Ratepayers are eligible for credits of up to 40% in accordance with section 47-6 of West Warwick's Code of Ordinances.

Credits against storm sewer system user fees shall be granted on a graduated scale for properties providing onsite or offsite Stormwater management measures that reduce the impact of the property on the Town of West Warwick's cost of providing Stormwater management services. To receive credits such management measures must be adequately maintained and meet performance standards specified under Chapter 13, Article V of the Town of Warwick Code of Ordinances "Post-Construction Stormwater Control." The scale for credits shall reflect the extent to which the subject properties reduce the costs incurred by the Stormwater Utility in the delivery of services and shall be determined by the Superintendent of the Storm Sewer. The maximum credit is forty (40) percent of the normal fee for the property.

2.2 Types of Stormwater-Fee Credits

West Warwick currently allows two types of credit against its stormwater fees:

- Conventional stormwater management credits.
- Innovative stormwater reduction credits.

Applicants should note that credits are only issued for fully installed and functional best management practices (BMPs) that meet the following prerequisites:

- All applicable local permits have been issued and a maintenance agreement is in place.
- Rhode Island Department of Environmental Management has issued applicable stormwater-related permits.

Each type of credit listed above can be acquired by the installation and operation of onsite or offsite BMP(s).

The sections that follow discuss requirements for each type of credit and explain onsite and offsite BMP options.

2.2.1 Conventional Stormwater Management Credit

Conventional stormwater management credits are available for property owners who document the installation of BMPs on their property (onsite) that manage stormwater quality and flow above and beyond the requirements of the *Rhode Island Stormwater Design and Installation Standards Manual* (Stormwater Manual) and the *West Warwick Post-Construction Stormwater Control Ordinance* (Post-Construction Ordinance).

Credits are offered for a one-year term and require filling out an initial application. Credits can be renewed each year by filling out a renewal form. For renewal, the credit holder must provide documentation of appropriate inspection, operation, and maintenance of BMPs for which the credit was granted. If the ownership of the property changes, an initial application will need to be completed by the new homeowner in order to receive credit for the BMP on their property. For all types project (i.e., new development, redevelopment, or retrofit) credits are based on stormwater standards in the Stormwater Manual and Post-Construction Ordinance at the time of permit issuance and, therefore, will not be affected by the passage or promulgation of new stormwater standards. The following rubric applies when determining the value of a credit:

- New construction and redevelopment may receive a 20% credit for treating up to twice the required WQV and an additional 20% credit for recharging up to twice the groundwater recharge volume (GRV). The Stormwater Manual This credit will be offered on a graduated scale by adding the results of the following formulae:

$$credit\% = \frac{[WQV (treated) - WQV (required)]}{WQV (required)} \times 20$$

$$credit\% = \frac{[GRV (treated) - GRV (required)]}{GRV (required)} \times 20$$

- Stormwater BMP retrofit projects are projects that manage stormwater from existing development, which is not part of a new development or redevelopment project. Such retrofits may receive a 20% credit for treating the required WQV of existing development and an additional 20% credit for recharging up to the required groundwater recharge volume (GRV). This credit will be offered on a graduated scale by adding the results of the following formulae:

$$credit\% = WQV (treated)/WQV (required) \times 20$$

$$credit\% = GRV (treated)/GRV (required) \times 20$$

- Offsite projects may be allowed at the discretion of the Superintendent of Storm Sewers. To receive full credit, offsite projects must be within the drainage area of the receiving outfall for the new development or redevelopment project being considered for credit. The purpose of this

is balance development with appropriate stormwater management. Credit value for offsite projects that are outside of the receiving outfall drainage area will be discounted by half. Under no circumstances will credit be available for projects outside the stormwater utility jurisdiction (i.e., outside of West Warwick). Offsite BMP consent statements on the initial credit application form must be filled out and signed by the property owner of the property for which the offsite credit is being taken (the applicant) and the offsite BMP property owner. Credit renewals for offsite credits must be signed annually by both parties. If the ownership of either property changes, a new application form must be filled out to receive credit for the BMP. Community assistance credits are intended for ratepayers who wish to take credit for development of a community stormwater reduction assistance program that implements offsite stormwater retrofits in West Warwick. Types of assistance may include construction, engineering, or other assistance. Type of assistance should be described and documented in a brief narrative to be provided at the time of credit application. BMPs to be used for credit must be installed and cannot be otherwise used for credit by their owners. The above listed standards conventional stormwater standards and offsite standards apply when determining the value of a community assistance credit.

2.2.2 Innovative Stormwater Reduction Credit

Innovative stormwater reduction credit applications are intended for ratepayers that have implemented BMPs that are not discussed above. Applicants for such credits are expected to provide documentation of installation of BMPs with the capacity to manage stormwater in a manner commensurate with the standards and equivalent to the volumetric capacity eligible for credit under conventional stormwater management credits.

2.2.3 Reduced Flow to Storm Sewer Credit

The reduced flow to storm sewer credit is available to rate payers who can demonstrate that the amount of impervious surface on their property, which contributes flow to the storm sewer system or surface waters in West Warwick, is less than half of the total amount of impervious surface on that property.

Credits are offered for a five-year term and require filling out an initial application. Credits can be renewed by filling out a renewal form. Applicants may demonstrate eligibility using standard engineering methods for determining drainage areas and flow paths including light detection and ranging (LiDAR) based topographic contours and land survey. Flow paths should be depicted on 1:480 (i.e., 1 inch to 40 foot scale) mapping and should document the name of the receiving water and location of the discharge point. This credit will be offered on a graduated scale using the following formula:

$$\text{credit}\% = \frac{[\text{impervious}(\text{total}) - \text{impervious}(\text{MS4 or waters})]}{\text{impervious}(\text{total})} \times 80$$

3.0 DEFINITIONS

This section defines key terms related to stormwater management and West Warwick's stormwater utility.

Best Management Practice (BMP). The term "best management practice" refers to a device or facility for managing stormwater. For the purposes of this manual, a best management practice should meet the standards of the *Rhode Island Stormwater Design and Installation Standards Manual* and the West Warwick Post-Construction Stormwater Control Ordinance.

Owner. The term "Owner" means any person who alone or jointly has a legal title to real property.



Storm Sewer System. The term "Storm Sewer System" means a conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, ditches, manmade channels, or storm drains: (a) owned or operated by the Town of West Warwick; (b) designed or used for collecting or conveying Stormwater; (c) which is not a combined sewer; and (d) which is not part of a sanitary wastewater treatment works.

Stormwater. The term "Stormwater" means the discharge of runoff associated with rain, snow or other precipitation.

Stormwater Fee. The term "Stormwater Fee" refers to the fee charged to a property owner pursuant to section 47-4 of West Warwick's Code of Ordinances. Fees are determined by a rate study. Generally, this is based on the cost of stormwater management incurred by each property in town as well as an equitable distribution of the cost associated with common properties (e.g., publically owned lands) as defined in section 47-2 of West Warwick's Code of Ordinances.

Stormwater-Fee Credits. The term "Stormwater-Fee Credit" refers to a percentage reduction against the normal fee to be charged by the stormwater utility. The normal fee is based on the area of impervious surface (i.e., hardscapes) on a property. Credits may be issued by the superintendent of storm sewers to the owner for installation of stormwater best management practices.

Stormwater Utility. The term "Stormwater Utility" means the utility created pursuant to section 47-3 of West Warwick's Code of Ordinances and in accordance with chapter 45-61 of the Rhode Island General Laws. Generally, West Warwick's stormwater utility focuses on correcting flooding and water quality problems, which have been a persistent problem in Town. A stormwater utility collects user fees that go into a dedicated fund that may only be used for stormwater services. A storm water utility is similar to a water utility or sewer utility.

Superintendent of Storm Sewers. The term "Superintendent of Storm Sewers" or, for the purposes of this ordinance, "Superintendent" means to the position created pursuant to section 47-3(3) of West Warwick's Code of Ordinances. The Superintendent is responsible for administering and implementing the Town's Stormwater Utility.

Surface Waters. The term "Surface Waters" means any waters of the state, including wetlands that are not groundwaters.

4.0 REFERENCES AND RESOURCES

Rhode Island Stormwater Management and Utilities District Act. RIGL 45-61-4. (2002).
<http://webserver.rilin.state.ri.us/Statutes/TITLE45/45-61/INDEX.HTM>

RIDEM. (2015). *Rhode Island Stormwater Design and Installation Standards Manual.*
<http://www.dem.ri.gov/pubs/regs/regs/water/swmanual15.pdf>

RIDEM. (2005). *Total Maximum Daily Load Analysis for Greenwich Bay Waters Pathogen / Bacteria Impairments.*
<http://www.dem.ri.gov/programs/benviron/water/quality/rest/pdfs/gbtmdl.pdf>

Rhode Island State Conservation Committee. (2014). *Rhode Island Soil Erosion and Sediment Control Handbook.*
<http://www.dem.ri.gov/soilerosion2014final.pdf>



West Warwick. (2012). *Code of Ordinances, Section 13-75, Article V. - Post Construction Stormwater Control.*

https://www.municode.com/library/ri/west_warwick/codes/code_of_ordinances?nodeId=PTIIICOOOR_CH13PLDE_ARTVPOCOSTCO



5.0 CONTACT US

Superintendent of Storm Sewers

TBD

Town Manager

Fred Presley
1170 Main Street, Third Floor
West Warwick, RI

Office Phone: (401) 822-9219
FPresley@westwarwickri.org

Appendix A

Forms

- Credit Application
- Credit Renewal





Date Received: _____

Application Number: _____

**For office use only*

Town of West Warwick, Rhode Island
1170 Main Street
West Warwick, RI 02893

Stormwater Utility Fee Credit Application

Section A: Credit Applicant Information

Name: _____
Last First M.I.

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____
Home Mobile

Email: _____

Property Receiving Credit:

Property ID: _____ (See Section E for directions on how to find your property ID number)

Address*: _____

City: West Warwick State: RI Zip Code: 02893

**Fill this out if property address is different than mailing address*

Section B: Best Management Practice (BMP) Site Information

**Fill this section out if BMP is installed on a property other than the property receiving credit in section A.*

Address*: _____

City: West Warwick State: RI Zip Code: 02893

Property ID: _____ (See Section E for directions on how to find your property ID number)

Owner Name: _____
Last First M.I.

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____
Home Mobile

Email: _____

Section C: Credit Type and Location

What type of credit are you applying for?

- Conventional BMP Innovative BMP Reduced Flow to Storm Sewer

If applying for the conventional BMP or innovative BMP credit, where is the BMP installed?

- Onsite (On applicant's property) or Offsite (On property other than the applicant's property)

**If the BMP is located offsite, please complete Section F*

Section D: Permits

Local Permit Number: _____

Please attach a copy of your approved BMP local permit Attached

Section E: MainStreetMaps Instructions

MainStreetMaps is the Town of West Warwick's on-line property information and mapping system. You can access MainStreetMaps by visiting the direct link: www.mainstreetmaps.com/RI/WestWarwick/

Once on the homepage, you can search for a property by address or owner name. The search bars are located in the center at the top of the page. To search by address, click on the search by address tab. Drop down the street bar to find your street and the address bar to select your street number. Click Search. A property map will pop up. At the top of the map there will be tabs that read "GIS Map," "Property Details", and "Tax Maps." Click on "Property Details." You can find your Property ID number here (your property ID is a combination of your plat number and lot number and will look like this: "plat-lot," e.g., 12-345).

To search by owner, click on the search by owner tab located in the center at the top of the page. Type in the name and click search. A property map will pop up. At the top of the map there will be tabs that read "GIS Map," "Property Details," and "Tax Maps." Click on "Property Details." You can find your Property ID number here (your property ID is a combination of your plat number and lot number and will look like this: "plat-lot," e.g., 12-345).

Section F: Offsite Best Management Practice (BMP) Consent

**If applying for an offsite credit, the applicant and BMP owner are required to sign the below consent statements.*

Applicant

I, _____, represent that I am applying for credit to my property, identified in
Applicant (Print)
Section A of this form. I also represent that I am receiving this credit from the BMP installed on the
property of _____, identified in section B of this form.
BMP Owner (Print)

Applicant printed name: _____

Applicant signature: _____ Date: _____

BMP Owner

I, _____, agree to donate credit to _____ for the
BMP Owner (Print) Applicant (Print)
BMP installed on my property, identified in Section B of this form.

BMP Owner printed name: _____

BMP Owner signature: _____ Date: _____

Section I: Statement and Signatures

I hereby certify the above information to be true and correct to the best of my knowledge. I also hereby certify that I will notify the city should any destruction or damage occur to the BMP referenced in this credit application that prevents it from performing as credited.

Applicant printed name: _____

Applicant signature: _____ Date: _____

BMP Owner printed name*: _____

BMP Owner signature: _____ Date: _____

**Fill this out if different than applicant*

Section J: Office Use Only

Application Complete Yes No

Reviewed By: _____ Date: _____

Application Status Approved Denied

If approved, % of credit to be applied: _____

Reviewed By: _____ Date: _____

Applicant Contacted Yes No

Contacted By: _____ Date: _____

If approved, Credit applied Yes

Entered By: _____ Date: _____

Credit Permit Number: _____



Date Received: _____

Renewal Number: _____

**For office use only*

Town of West Warwick, Rhode Island
1170 Main Street
West Warwick, RI 02893

Stormwater Utility Fee Credit Renewal

Section A: Credit Applicant Information

Name: _____
Last First M.I.

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____
Home Mobile

Email: _____

Section B: Best Management Practice (BMP) Owner Information

**Complete this section if the BMP is offsite and the owner is different than the applicant*

Owner Name: _____
Last First M.I.

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone Number: _____
Home Mobile

Email: _____

Section C: Credit Permit

Credit Permit Number: _____

Please attach a copy of your approved BMP credit permit

Attached

Section D: Statement and Signatures

I hereby certify the above information to be true and correct to the best of my knowledge. I also hereby certify that I will notify the city should any destruction or damage occur to the BMP referenced in this credit renewal that prevents it from performing as credited.

Applicant printed name: _____

Applicant signature: _____ Date: _____

BMP Owner printed name*: _____

BMP Owner signature: _____ Date: _____

**Fill this out if different than applicant*

Section E: Office Use Only

Renewal Complete Yes No

Reviewed By: _____ Date: _____

Renewal Status Approved Denied

If approved, % of credit to be applied: _____

Reviewed By: _____ Date: _____

Applicant Contacted Yes No

Contacted By: _____ Date: _____

If approved, credit applied Yes

Entered By: _____ Date: _____

Credit Renewal Number: _____