



City of Wilmington, Delaware

The City of Wilmington, DE Department of Public Works provides retail drinking water services inside and outside the City’s jurisdiction; sewer and stormwater services within the City; and wholesale sewage treatment services to New Castle County, DE. The expenditures and revenues of the water, sewer, and stormwater utilities are accounted for in the City’s Water/Sewer Enterprise Fund. The City is subject to both Long Term Control Plan (LTCP) requirements to mitigate Combined Sewer Overflows (CSOs), and Municipal Separate Storm Sewer System (MS4) permit

requirements.

In January 2007, Wilmington became the first City in the State of Delaware to implement a Stormwater User Charge as an equitable system of recovering costs associated with the City’s Combined Sewer System (CSS) and MS4.

System Profile:

- Combined Sewer System: Approximately, 94% of the service area
- MS4: Approximately, 6% of the service area
- Service Area: 16.9 square miles
- Population: 71,000

Financial Profile:

- Annual Stormwater Utility Revenues: \$8.5 Million
- Monthly Equivalent Stormwater Unit (ESU) Rate = \$4.95 per ESU
- One ESU = 789 Square Feet of Impervious Area

What are the City’s Key Drivers for Stormwater User Fees?

- Establish an equitable and affordable approach to recover Combined Sewer Overflow (CSO) mitigation costs and direct MS4 costs
- Eliminate recovery of stormwater costs through sewer charges
- Position for long-term sustainable stormwater funding
- Protect Wilmington’s waterways with enhanced focus on stormwater management

What costs are recovered via fees?

- Portion of the City’s CSS O&M and capital expenditures
- All direct O&M and capital expenditures associated with MS4
- Administrative costs associated with program management, stormwater billing, credits/appeals programs and customer service

Key Benefits to the Community

- Support the mission of “Clean Waterways in Wilmington”
- Distinct funding and transparent stormwater budget
- Increased equity in the cost recovery of CSO mitigation costs
- Defensible impervious area based funding mechanism
- Fee reduction opportunities through credit program
- Funding for multi-benefit initiatives (urban forestry; wetlands development/recreation; street flooding mitigation)

Fee Methodology and Impervious Area Determination

- The Stormwater User Charge is based on a property’s [impervious area](#), which is expressed in terms of ESUs. One ESU is equivalent to 789 sq. ft. of impervious area. The ESU value represents the median impervious area of all single family residential parcels in the city.
- **Residential Parcels:** The City computes each parcel’s impervious area based on the actual footprint of (i) the main building area, (ii) any attached structures, and/or (iii) detached structures. The footprint information is obtained from [New Castle County’s Tax Assessment System](#).
- **Non-Residential Parcels:** The City has defined eleven (11) stormwater classes. Each stormwater class has a designated Run-off Factor. Every non-residential parcel is assigned to a specific stormwater class. The Run-off Factor of that specific stormwater class is applied to a parcel’s total lot size to estimate that parcel’s Impervious Area. The total impervious area per non-residential parcel is divided by the ESU value of 789 square feet, to determine total billing units.
- **Condominium Parcels:** The City determines the impervious area associated with an entire condominium complex using the Geographic Information System (GIS) tool, and based on county parcel information and aerial imagery. The total impervious area per condo parcel is divided by the ESU value of 789 square feet, to determine total billing units.

Rate Structure

- A single-family residential property is designated to one of four tiers based on the property’s impervious area, and is assessed the corresponding monthly charge.
- The monthly charge for each non-residential property, including multi-family residential and condominium properties, is calculated based on the parcel’s ESUs and the monthly ESU rate.
- The fees are billed monthly using the City’s water/sewer utility billing system.

Impervious Area tiers	Impervious Area (Square Feet)	ESUs	Monthly Fee
SWR1/SWM1	0 to 799	1.00	\$4.95
SWR2/SWM2	800 to 1,299	1.45	\$7.18
SWR3/SWM3	1,300 to 2,399	2.48	\$12.27
SWR3/SWM4	2,400 and over	4.40	\$21.78

Credit Program

The purpose of the stormwater credits program is to enable non-residential and condominium parcel owners to seek reduction in stormwater charges, if specific onsite stormwater management measures have been implemented [aligned with](#) the City’s defined development regulations.

- Quality Credits for pollutant reduction - 25 percent (max credit)
- Quantity Credits for peak rate reduction – 50 percent (max credit)
- NPDES Credits – 10 percent (max credit)

Total maximum aggregate fee credit that a property can obtain is 70%.

Public Education and Involvement

During the implementation of the Stormwater Utility Fee the City engaged in the following outreach activities:

- Multiple City Council workshops and Public Open Houses in each Council Person’s District
- A Public Open House with Story Boards in the City Hall
- Series of bill insert notifications to all customers and targeted customer notifications
- One-on-one pre-launch meetings with large impervious area non-residential customers

Challenges and Success Factors

The critical challenge was in delineating and apportioning the costs of the Combined Sewer System between sanitary sewer and stormwater utilities. The compelling success factors included (i) lower costs to the residential customers as large non-

residential properties were assigned their fair share of costs, (ii) ability to fund large multi-benefit stormwater wetlands and drainage projects to mitigate flooding and improve water quality, (iii) a user-friendly stormwater billing data management application; (iv) successful integration of stormwater user fee billing in to the City's water/sewer billing system; and (v) successful user fee and credit programs that have been in place for the last 13 years.