

STORMWATER  
UTILITY  
CASE STUDY

# Lancaster, Pennsylvania



By **Gary Brune, New Jersey**  
**Future** in coordination with  
**Flood Defense NJ**



The City of Lancaster, PA discharges stormwater in two different ways: through combined sewer overflows (CSOs) and through Municipal Separate Stormwater Sewer Systems, each of which accounts for approximately half of the City's land area of 7.4 miles. Eighty-five percent of the time, the City's advanced wastewater treatment facility is able to manage the volume, however during heavy rainstorms it becomes overwhelmed and untreated stormwater overflows into the Conestoga River, which eventually empties into the environmentally-sensitive Chesapeake Bay. To keep its separated sewers in a state of good repair, address flooding issues, and avoid stiff fines for non-compliance of its CSO permit, the City adopted an ordinance in 2014 authorizing a stormwater utility.



**85%**

**Eighty-five percent of the time, the City's advanced wastewater treatment facility is able to manage the volume, however during heavy rainstorms it becomes overwhelmed and untreated stormwater overflows into the Conestoga River, which eventually empties into the environmentally-sensitive Chesapeake Bay.**

---

Federal environmental regulations administered by the Environmental Protection Agency (EPA) limit the quality and quantity of stormwater runoff. Amidst a renewed effort to clean up the Chesapeake Bay, the EPA has increased pressure on communities such as Lancaster. Specifically, the City faces potential fines of up to \$37,500 per day if it cannot show progress towards eliminating at least 750 million gallons of

polluted, combined sewage discharged into the Conestoga River.

The City's adoption of the stormwater utility program was preceded by numerous of public meetings and individual briefings. The related fee was applied to all properties based on the measurement of impervious surface (i.e., "...any surface that prevents or limits the infiltration of water into the ground"). The fee revenue directly supports the cost of the program—an equitable, fair and low-cost solution.

## **HISTORY**

To date, Lancaster has invested more than \$170m in the City's 1998 Combined Sewer Overflow (CSO) Long-Term Control Plan (LTCP), 2010 Amended LTCP, and Green Infrastructure (GI) program in an effort to comply with the Federal regulations. The City's recent focus has been to invest in new green infrastructure projects, specifically natural systems (e.g., tree canopies, native shrubs, green roofs, rain gardens, porous pavement) that manage or treat rainwater where it falls, allowing water to soak into the ground, evaporate into the air or collect in a receptacle such as a rain barrel. Green infrastructure was determined to be considerably less expensive than several other options. For example, enlarging the City's treatment plant and building new holding tanks to store the mixed stormwater and sewage would have cost an estimated \$300 million to construct and another \$750,000 annually for treatment of that stored, combined sewage. In contrast, the city's Green Infrastructure Plan is estimated to cost \$140 million to handle the same volume of stormwater, saving an estimated \$160 million and reducing annual maintenance/treatment costs. As an ancillary benefit, green infrastructure projects will make Lancaster a greener, cleaner, more vibrant city by improving the quality of life in their neighborhoods.

To ensure future compliance, the adoption of a stormwater fee was considered critical.



## HOW WAS THE FEE DEVELOPED?

The stormwater management fee was the product of two years of study by Lancaster's Green Infrastructure Advisory Committee (GIAC), which included business owners, citizens, institutions, environmental groups, state government, and Lancaster City and county staff. The committee, which was charged with reviewing green infrastructure and funding options, evaluated three approaches: a dedicated property tax, an increase in sewer fees, and an impervious area-based stormwater management fee. The GIAC concluded that the impervious area based fee was the most equitable and fair solution b/c fees are based on how much runoff is actually generated from each property.

Under the stormwater management fee, all contributors to stormwater runoff share the costs of maintaining and improving the storm drainage system. It is also a stable funding source, ensuring that stormwater management receives adequate financial support independent of City taxes. Finally, the fee is fully dedicated, with revenue placed into a fund that is restricted to pay for the operation and maintenance of the stormwater system, such

as catch basin cleaning/repair and street sweeping, and associated capital improvements.

Lancaster's outreach effort was key to implementation. Besides a background presentation on the stormwater situation, the associated consent decree, and projected costs of compliance, the City shared cost comparisons to other cities, outlined various fee options (e.g., flat, tiered), and presented a green infrastructure plan. A consultant was tasked with analyzing the basic options for assessing the fee, the results of which were incorporated into the outreach process.

---

**Lancaster's outreach effort was key to implementation. Besides a background presentation on the stormwater situation, the associated consent decree, and projected costs of compliance, the City shared cost comparisons to other cities, outlined various fee options, and presented a green infrastructure plan.**



The City first met with the Lancaster City Consortium Group, which includes the top 80 businesses in town. Subsequently, the City arranged individual meetings with a subset of businesses, including a separate session with the owners of the 20 largest commercial properties. Next, City program staff met individually with many of those businesses. Based on property surveys, the City was able to approximate the annual fee that would be applied to each property, thus answering a key question on the mind of many. The City also explained why no exemptions were contemplated.

The business community had three primary concerns:

- **Timing of Implementation** - with many businesses operating on calendar year budgets, they preferred that the fee be effective in January.
- **Credit Cap** - while many businesses voiced support for credits extending up to 100% of the fee, they ultimately agreed to a credit cap of 50%.
- **Direct Dischargers** - properties that discharge directly to a surrounding waterway lobbied to be exempted on the grounds that their discharge does not enter the stormwater system. However, they ultimately agreed that a complete exemption was not warranted, since all City businesses use the surrounding road network and its associated stormwater system.

Looking back, the City believes that this outreach effort was critical to securing support for the program:

*"There was definitely a lot of anxiousness (from the business community) leading up to it," said Thomas Baldrige, president and CEO of the Lancaster Chamber of Commerce and Industry. Businesses were especially concerned about the immediate budget impact of a quickly implemented fee. In the end, however, the majority of businesses thought the way the city proceeded was fair, he said, and the city involved the Chamber and the business community in the process of developing the fee. Marshall Snively, executive vice president and COO of the Lancaster City Alliance, said most businesses recognized that the city was in a tough position because of the EPA mandate and were satisfied with the transparent process. "No one likes to pay the fees, but knowing what the alternative is, I think everybody understands that," Snively said. "We haven't heard any complaints." (Daniel Walmer, "Commercial Properties Expected to Bear Brunt of Stormwater Upgrades", Central Penn Business Journal, May 22, 2015.)*

## STORMWATER MANAGEMENT FEE - PLANNED USES

This stormwater fee is managed as an enterprise fund and is therefore restricted.

These funds are used solely for:

- The implementation and management of the stormwater program
- Constructing, operating, and maintenance of stormwater facilities (including green infrastructure);
- Payment for other project costs and performance of other functions or duties authorized by law in conjunction with the maintenance, operation, repair, construction, design, planning and management of stormwater facilities, programs and operations.

Within thirty (30) days of the date of any assessment, a property owner may file a petition for review and/or adjustment to the Director in writing if the owner believes that the property has been improperly tiered or that the fee has been calculated incorrectly.





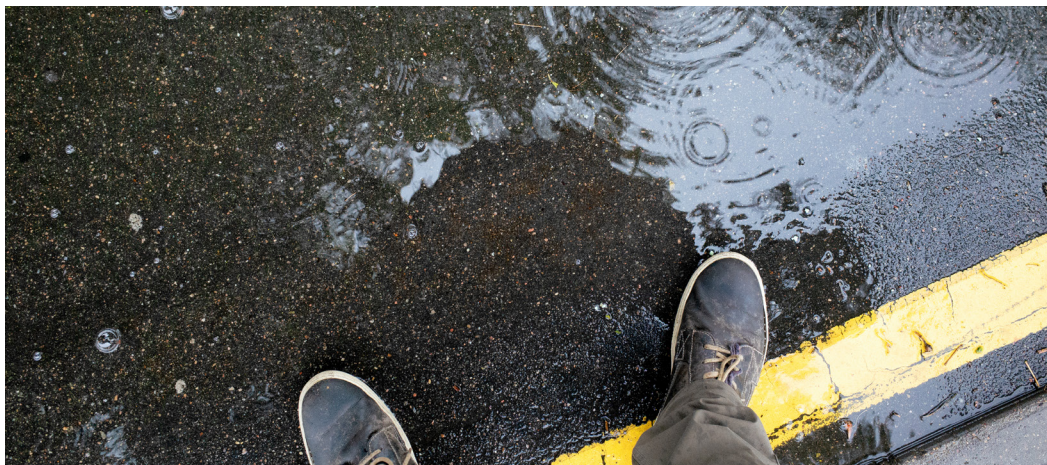
## FEE STRUCTURE - TIERED SYSTEM

Each property in the City is assigned to one of five stormwater management tiers based on the amount of impervious area on the property. The fee for all properties is calculated using a Base Rate of \$52/1,000 square feet of impervious area.

IMPERVIOUS AREA (SQ. FT)	TIER	QUARTERLY FEE	AVE. ANNUAL FEE
0 - 300	0	No Fee	\$0
301 - 1,000	1	\$6.50	\$26
1,001 - 2,000	2	\$19.50	\$78
2,001 - 3,000	3	\$32.50	\$130
3,001 or more	4	Impervious Cover x Base Rate	\$364 (7,000 sq. ft)

Fees for residential property owners are based on the amount of impervious cover on a given property. The stormwater management fee for most single family homeowners ranges up to \$12 per quarter. Most multi-family residential property owners will pay approximately \$66 per quarter. A typical city commercial property will pay an average of \$237 per quarter. The fee appears as a line item on the usual water and sewer bill.

Tax exempt properties, including government parcels, are not exempted from the fee. Unlike property taxes, the stormwater fee is not based on the assessed value of property, but rather on the degree to which a property contributes to stormwater runoff.



## CREDITS/REBATES

Stormwater credits, which are available to all property owners, can help reduce the stormwater fee by up to 50% annually. To qualify, residents and businesses must install a green infrastructure technology on their property to manage their stormwater, and the resulting credits are based on the effectiveness and capacity of the technology. Credits are provided based on the following types of benefits:

CREDIT CAP	STORMWATER INITIATIVE
50%	Volume Controls (Green Infrastructure)
25%	Peak Rate (Flood Control)
25%	Water Quality Controls
15%	Non-Structural Controls
15%	National Pollution Discharge Elimination System (NPDES): Industrial - Permitted Site Improvements

Rebates are also available, providing one-time assistance to offset the cost of constructing green infrastructure. For example, rebates are provided for constructed wetlands, wet ponds/retention basins, and traditional green infrastructure solutions.



**For additional information, the City's website for stormwater control is at the link below:**

[saveitlancaster.com](https://www.saveitlancaster.com)



## **ABOUT NEW JERSEY FUTURE**

Founded in 1987, New Jersey Future is a nonprofit, nonpartisan organization that promotes sensible growth, redevelopment and infrastructure investments to foster vibrant cities and towns, protect natural lands and waterways, enhance transportation choices, provide access to safe, affordable and aging-friendly neighborhoods and fuel a strong economy. The organization does this through original research, innovative policy development, coalition-building, advocacy, and hands-on strategic assistance.

---

## **ABOUT FLOOD DEFENSE NEW JERSEY**

Flood Defense New Jersey is a coalition of state and local nonprofit organizations that works across the state to help local communities set up flood defense programs to control flooding and reduce pollution. By building proven on-the-ground projects that protect against flooding, capture polluted runoff and repair failing infrastructure, we can help New Jersey communities become cleaner, greener and safer.

**FLOOD DEFENSE NEW JERSEY**

[flooddefensenj.org](http://flooddefensenj.org)