

BALTIMORE CITY

Key Facts

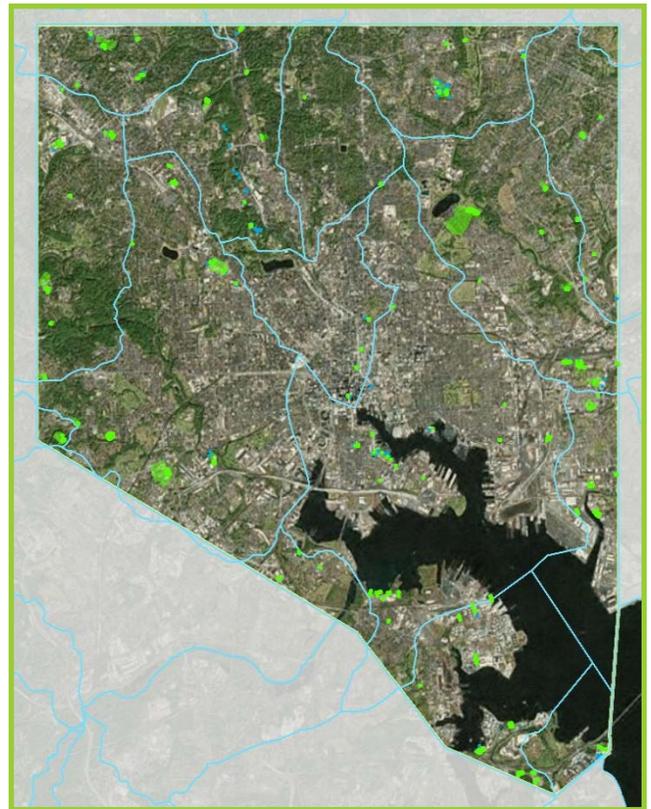
Population ¹	622,793	(4 th of 10)
Impervious Acreage ²	21,455	(4 th of 10)
Current Permit		
Date of Issuance/Expiration	Dec 2013 / Dec 2018	
Impervious Acreage Restoration Goal	4,291 acres	
Spending		
Projected Annual Average ³	\$30.7 million	
Spending as a Percentage of City Budget ⁴	0.8%	(9 th of 10)
Spending as a Percentage of Median Household Income ⁵	0.3%	(2 nd of 10)
Average Annual Residential Fee	\$60	

Summary of County Stormwater Plan and Effort

Summary: The City is challenged right now to meet several very significant water quality obligations simultaneously: an overhaul of its sewer system to eliminate sewage overflows into waterways and backups into homes; a soon to be completed project to install highly advanced pollution reduction technology on the two major wastewater treatment plants to restore water quality in the Patapsco and Back River; and this effort to reduce polluted runoff from the City's stormwater system. Those are three significant initiatives to address three different problems. However, one solution is available to address each of these problems: establishing a greater number of green infrastructure projects to keep precipitation from running off of impervious surfaces and into the City's overburdened system of pipes. Despite making the smart decision to retain its modest stormwater fee to pay for current stormwater management projects and practices, the City's current stormwater plans rely far too much on street sweeping and not nearly enough on these important infrastructure projects.

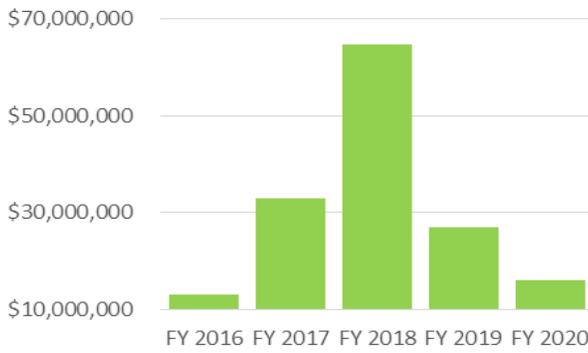
Basics: Baltimore City received its current municipal separate storm sewer system ("MS4") permit under the Clean Water Act by the Maryland Department of the Environment (MDE) on December 27, 2013. This permit requires, among other things, that the county restore 20 percent of the untreated impervious surfaces within the City's MS4 system by the end of the five-year permit term, expiring in December 2018. This requirement is a key strategy to assist in the restoration of both the Chesapeake Bay and several local waterways.

According to the City, its MS4 system contained 21,455 acres of impervious surfaces, of which the county must restore 4,291 acres (20 percent). As of early 2016, Baltimore has restored very little of its impervious surfaces, mostly through a few stream restoration projects, and is treating another 2,341 acres per year, on average, through the use of its street sweeping operations.



Sub-watersheds are delineated with light blue lines. Completed impervious surface and watershed restoration projects are shown in bright green with the associated impervious areas in darker green. Many projects were funded before, or separate from, the City's current MS4 permit.

Restoration Spending



Level of Effort: Baltimore City is off to a relatively slow start in planning and budgeting for the green infrastructure projects needed to restore a more natural landscape from the City’s vast current expanse of roads, parking lots, rooftops, and other impervious surfaces. City officials have made the wise decision to retain the modest fee that supports the City’s stormwater utility and its various stormwater management projects.

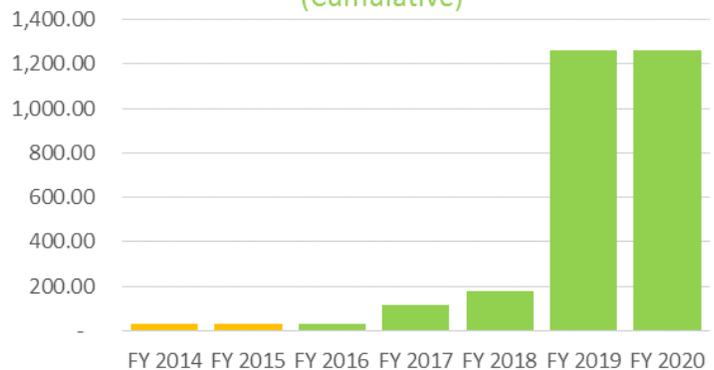
Restoration Strategy: While the City’s budget planners and engineers are working to plan, design, and build the crucial watershed restoration projects in the later years of the current MS4 permit, nearly all of the progress in the early years – fiscal 2014 and 2015 – have been attributed to street sweeping

operations. Baltimore has acquired a sizable fleet of street sweepers and in the most recent year removed over 11,000 tons of sediment and debris from roadways, which represents an enormous volume of potential water pollution.

But a word of caution is warranted about the City’s plan to rely so heavily on street sweeping operations to meet the terms of its MS4 permit and its obligations under state and federal law to restore its waterways. Although street sweeping serves an important role in cleaning roadways and preventing debris and sediment, including toxic chemicals, from washing down storm drains and into the Inner Harbor and other local waters, the latest science has questioned to what extent street sweepers can prevent some key pollutants, like nitrogen and phosphorus, from reaching waterways. More importantly, street sweeping operations provide few of the other environmental, economic, health, and community co-benefits that have made green infrastructure projects so popular recently for cities and counties around the United States.

None of the nine other Maryland counties subject to a Phase I MS4 permit are planning to rely on street sweeping operations at even a fraction of the level that Baltimore City has committed. Because such a large portion of the City is covered in streets and alleys, it is to be expected that Baltimore would utilize street sweeping more than other jurisdictions. Nevertheless, it may be advisable for the City to consider promoting a more balanced approach to meeting its MS4 permit and water quality goals by funding a greater number of green infrastructure projects through its capital budget. Projects that eliminate asphalt, create green spaces, and otherwise allow more rain water and snow melt to sink into the ground rather than run off into waterways will not only help the city meet its stormwater pollution goals, but will also help reduce the prevalence and severity of sewage overflows in the City as more rain falling during storms would remain on site rather than draining into the City’s overwhelmed pipes.

Acres Restored by Projects (Cumulative)



Capital-intensive green infrastructure and stormwater management projects are considered by some to be a relatively expensive option for addressing polluted urban runoff and promoting water quality improvements. But by considering how many of the City’s water problems can be remedied by just one solution, green infrastructure begins to look like a much greater value and a cost-effective option worthy of the City’s investment.

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Notes

- ¹July 2014 Estimate, Maryland Department of Planning
- ²MS4 Annual Report and Financial Assurance Plan (FAP)
- ³FAP
- ⁴Uniform Financial Reporting for Fiscal 2013 and FAP
- ⁵U.S. Census and FAP

*For More Information
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