NPDES MS4 Basics





How Much Will The MS4 Permit Cost You?

The 2016 Massachusetts Small MS4 General Permit was released and published on EPA's website on April 13, 2016. EPA simultaneously published a detailed cost evaluation of the permit, including several spreadsheets that show "sample" costs for three generic sized communities: Rural, Suburban, and Urban.

CEI has simplified this information to assist in helping our municipal clients determine costs for compliance with the permit. The figure below provides a summary of the projected average annual costs to comply with the 2016 MS4 Permit (excluding impaired waters), based on three different-sized communities, along with the typical community statistics used in generating these costs. Why the range? Because complying with the MS4 permit is not a "one size fits all" approach. The costs recognize that each community is different and therefore covers a range of possibilities. For example, the number of outfalls requiring wet weather sampling

and the number of key junction manholes requiring inspection will vary from one community to the next depending on infrastructure. Other variations may include types of public outreach, method of catch basin cleaning or sweeping (rented vs. purchased), number of municipal facilities requiring O&M procedures or stormwater pollution prevention plans, etc. For additional information, including the detailed cost estimate and associated Excel worksheets, see the following EPA website at: <u>https://www3.epa.gov/region1/npdes/sto</u> <u>rmwater/MS4_MA.html</u>.



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Some MS4 communities may also have Total Maximum Daily Load (TMDL) and impaired waters requirements to contend with.

Some of the impaired waters requirements can easily be incorporated into the six minimum measures (e.g., specific public education messages, incorporation of criteria into regulatory updates) at minimal cost. However, other requirements, specifically the development of nutrient based watershed plans, can add a significant expense to your program. A summary of the anticipated costs to prepare these nutrient watershed plans for three generic size watersheds is provided in the table below.

Watershed Size	Cost Range (based on median costs by level of development) ¹			Cost (based on
	Rural (\$18/ac)	Suburban (\$36/ac)	Urban (\$212/ac)	water shea sizej
600	\$10,800	\$21,600	\$127,000	\$79,200
2,000	\$36,000	\$72,000	\$424,000	\$90,000
6,000	\$108,000	\$216,000	\$1,272,000	\$96,000

Notes:

¹Costs are based on actual per acre dollars to prepare nutrient based watershed plans from 15 planning projects performed in EPA Region 1. Projects were divided into three groups by level of development: rural, suburban and urban. The median per acre cost for each group was applied to the generic watershed sizes to generate anticipated cost ranges. This method results in unusually high and low costs at the outer ranges due to the application of a median cost value from a limited data set. ²Costs are based on the full data set, independent of level of development. Cost per acre for each of the 15 projects was plotted to establish an equation used to calculate cost for any watershed size within the range. Actual costs could be higher or lower depending on level of development.

CEI has been providing stormwater design and NPDES compliance services to municipalities for over 20 years. With dozens of clients throughout Massachusetts and hundreds of successful projects, CEI provides elite technical support and exemplary customer service, on time and within your budget.

Ask about our new M\$4CASTERTM tool developed by CEI for pricing total, consultant, and municipal costs for the new MA MS4 Phase II Permit. CEI provides tailored, custom solutions designed for you.



CEI is an award winning civil and environmental engineering firm incorporated in 1987 serving the U.S Northeast.

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