

The Cost of Wipes On America's Clean Water Utilities

Executive Summary

National Association of Clean Water Agencies
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In 2019, the National Association of Clean Water Agencies (NACWA), along with other water associations¹, conducted a nationwide study of the impact of wipes on the operating costs of America's clean water agencies. NACWA worked closely with other national and state organizations to conduct this analysis. This Executive Summary presents the headlines of our full report, which is available at www.nacwa.org.

Background

It is estimated that North American businesses and households spent some \$2.5 billion on personal wipes in 2019. There are no reliable statistics about how many wipes are flushed down toilets, but there are hundreds of reports each year of clogged household plumbing and costly damage to public sewer systems and treatment plants caused by wipes when they are flushed. Accordingly, this study is designed to help wipe manufacturers, wipe users, and policy makers better understand the cost of wipes when they are either flushed down toilets despite being labeled as "not flushable" or flushed as "flushable" wipes that in practice do not degrade sufficiently to prevent clogs in household plumbing and/or on-site or municipal wastewater collection and treatment infrastructure.

Study Design

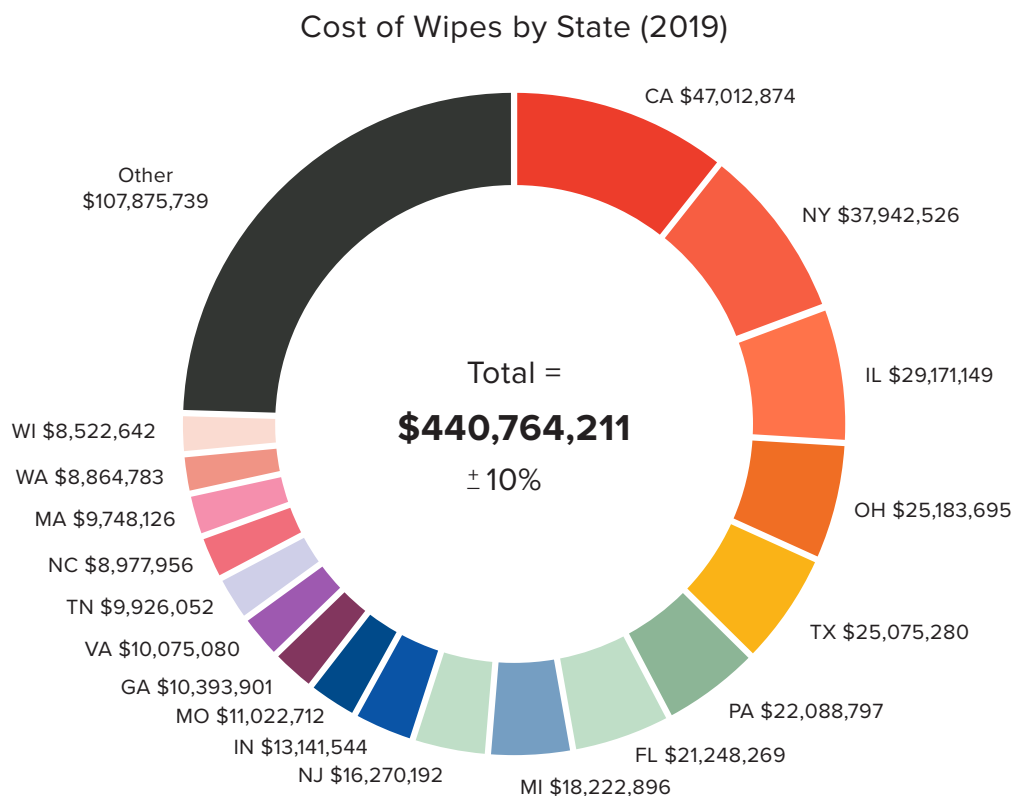
This study was designed to provide reasonable, but conservative estimates of the likely costs of wipes at the national and US state levels. It is based on data collected from 25 utilities in 19 states that were broadly representative of the population of utilities in the US. Utilities documented both capital and operating costs caused by wipes anywhere in their collection and treatment infrastructure, although our estimates scaled to the nation can be considered conservative in that they consider only operating costs. Our estimates are conservative because we did not consider several other types of costs that were reported, but for which we had insufficient data to include: costs associated with household, commercial, or industrial plumbing or laterals that connect these systems to public collection infrastructure; damages that wipes may cause to on-site septic systems; damages caused in the treatment works themselves (we included only costs in collection systems); costs that wipes may impose on treatment infrastructure or in the environment; and fines associated with sewer system overflows or spills.

1. American Public Works Association, Association of Missouri Clean Water Agencies, Bay Area Clean Water Agencies, California Association of Sanitation Agencies, California Water Environment Association, North Carolina Water Quality Association, South Carolina Water Quality Association, Southern California Alliance of POTWs, and Water Environment Federation.

Results

NACWA estimates that wipes result in about \$441 million a year in additional operating costs in the collection systems of US clean water utilities. The distribution of these costs by state, which generally corresponds with wastewater flow volume by state, is presented in the graphic below:

Based on these estimates, wipes impose \$30,467 a year in additional collection system operating costs on the average utility nationwide. In many states, costs are significantly higher, as in California and New Jersey, for example, where the average utility pays about \$100,000 a year in additional collection system operating costs because of wipes.



With an average of \$7.65 per year, wipes impose tangible costs at the household level, but these vary considerably from state to state from a high of just under \$25.00 (Illinois) to a low of less than \$5.00 (Kansas, Oklahoma, Maryland, Puerto Rico, Vermont, Wyoming, Florida, Arizona, New Mexico, North Dakota, South Dakota).

Concluding Thoughts

This is the first comprehensive examination of the cost of wipes on US clean water utilities. NACWA believes that these estimates are low relative to the costs that many utilities experience, given the limits of available, scalable data discussed above. Nonetheless, these results indicate clearly that wipes end up in public wastewater systems and cause damages whether or not they are labelled as “flushable.” Further, our results have documented these effects broadly across the nation, at all size utilities, regardless of collection system configuration, conveyance material, or topography of the service area. When flushed, wipes regularly create problems in home plumbing, public sewer system piping, pump stations and treatment plants.