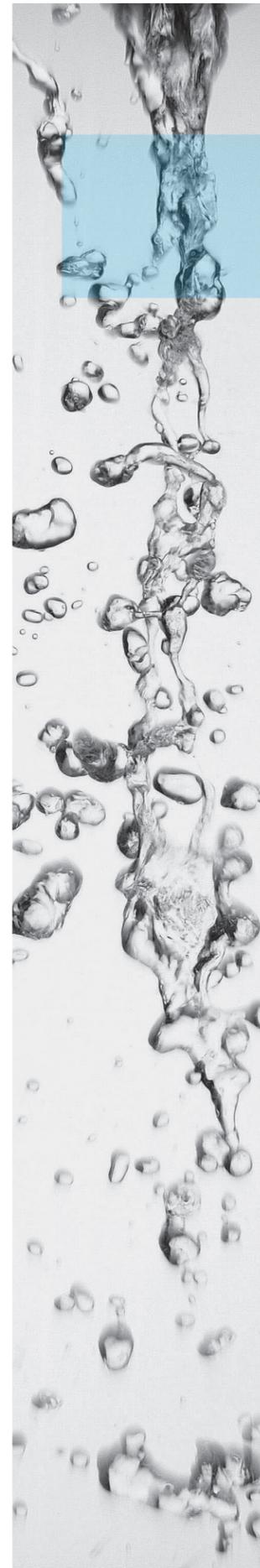
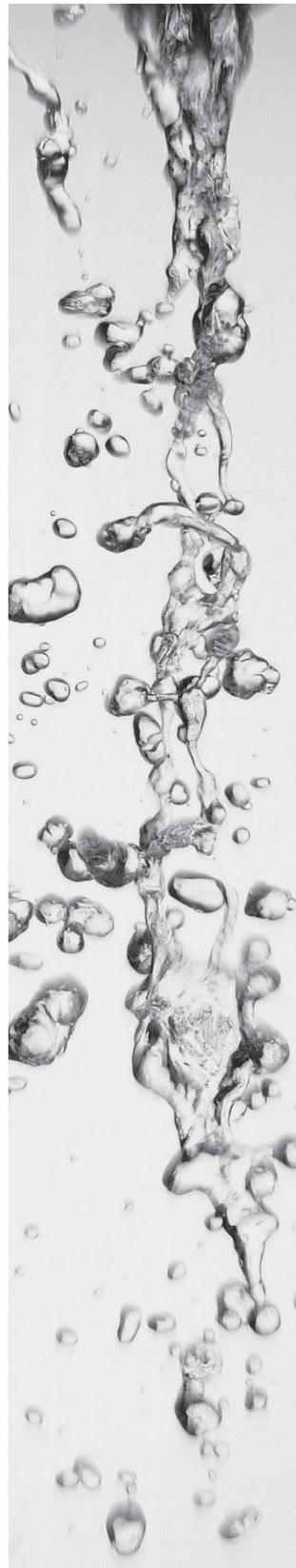
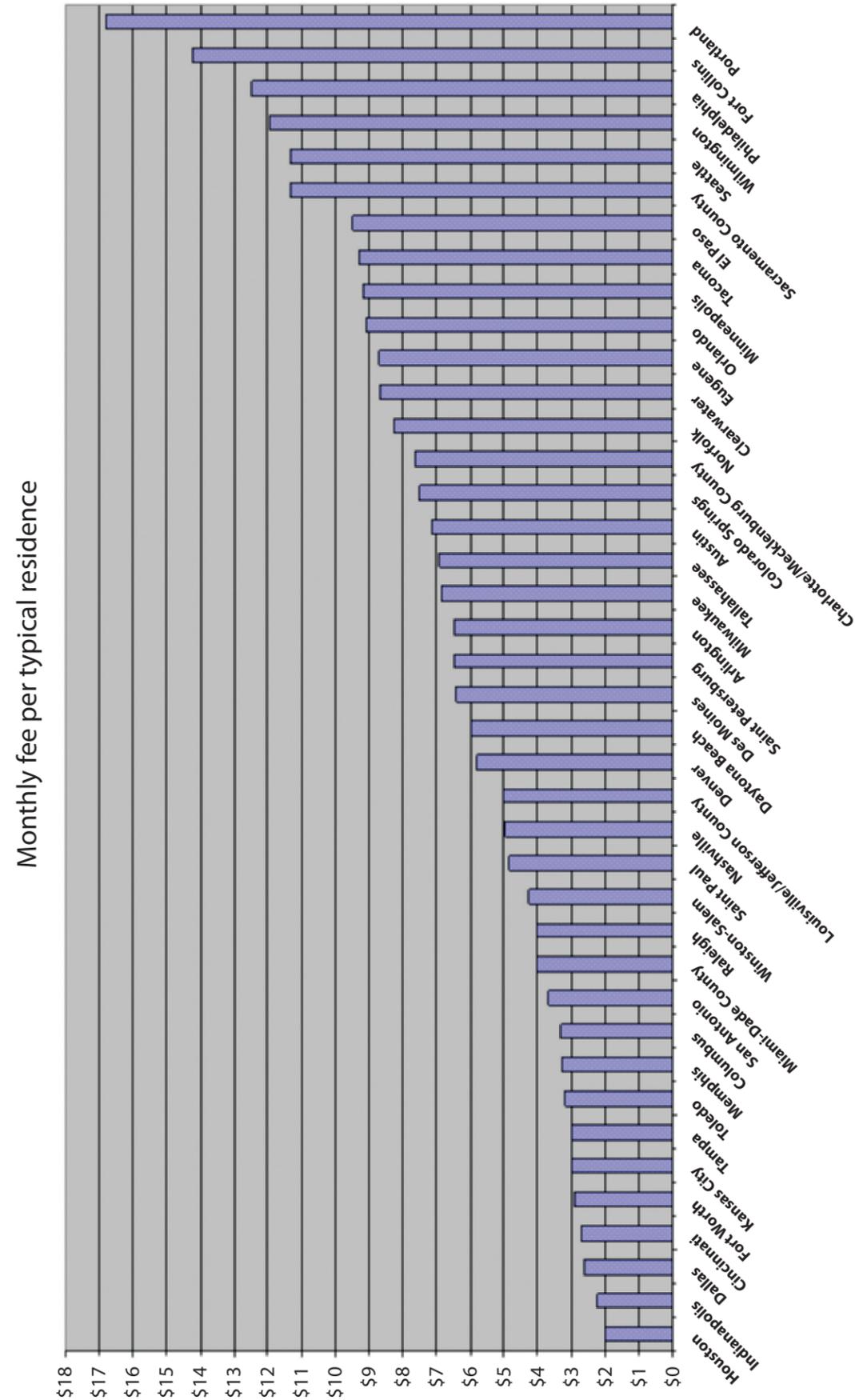


Figure 3: National survey of large community stormwater utility charges



RATE STRUCTURE AND FUNDING

Utility Overview

In the early 1970s, there were only one or two stormwater utilities in existence. Today, there are more than a thousand, with many more in formation. In Ohio, there are over 40 such stormwater utilities, including those in Columbus, Toledo, Dayton, and Cincinnati.

A stormwater utility is based on the premise that the urban drainage system is a public system, similar to water or wastewater systems. When a demand is placed on either of these systems, the user pays. In the same way, when a forested or grassy area is paved, a greater flow of water enters the drainage system. The greater the demand created (i.e. the more the parcel of land is paved), the greater the user fee should be.

The two most common ways to raise funds for stormwater programs are from *general fund revenues* and from *user fees*.

The user fee concept as a source of stormwater funding is fast growing. It has significant advantages over using the general fund, including:

Equity There is a direct causal link between the fee a property owner pays and the impact of their property on the stormwater system and their use of that system. ("The more you pave the more you pay.")

Stability The stormwater revenue stream is tied to land use and not to the vagaries of the annual general fund budget approval, and there is no competition with other community programs that utilize the general fund.

Flexibility The stormwater user fee can be adjusted to reflect individual property differences and other factors.

Adequacy The stormwater fee is sufficient to cover most of the costs of the stormwater program while remaining relatively small compared to other fees and charges.

Determining the User Fee

In setting rates, the stormwater utility should follow a process that includes:

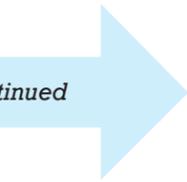
Establishing Revenue Requirements

The stormwater utility's budget needs will address the operations and maintenance of the stormwater program, as well as the establishment and execution of a capital program and staffing.

Cost of Service Analysis This analysis determines, in detail, the utility's total cost over time to provide stormwater services and facilities.

Developing a Fee Structure The measure of impervious area (and in some communities a combination of impervious and gross areas) has been found to be the ideal measure of a property's estimated contribution to the volume of stormwater runoff in a watershed.

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Recommend Fees The resulting fee structure should try to meet the following objectives:

- **Revenue Sufficiency** Rates should generate revenues sufficient to meet revenue requirements.
- **Revenue Stability** Rates should generate stable and predictable revenues from year to year.
- **Defensibility** Rates should be designed according to standard industry practice and in accordance with applicable law such that rate disputes are avoided.
- **Simplicity and Ease of Implementation** Rates should be readily understandable by customers and be able to be implemented using existing staff and the existing billing and collection systems with only minor modifications. This usually involves adding the stormwater fee to the water and/or wastewater bill or to the property tax bill.
- **Minimize Rate Impacts** Rates should be designed and implemented in an effort to avoid inordinately large increases or decreases in customer bills during the course of a single year.
- **Equity Among Customer Classes** Rates should be designed to relate directly to how each *customer class* (i.e. residential or industrial, paved or unpaved) causes the stormwater utility to incur costs. No customer class should subsidize or be subsidized by another customer class. In many cases, residential fees are tiered to account for variability in property size. Non-residential user fees are usually based on the number of equivalent residential units (ERUs) that would add up to equal the square footage of the property.

Commercial Example

By way of example (for illustration only), a typical commercial property is billed on the basis of the number of ERUs of impervious surface it has. Figures 1 and 2 show a typical commercial property with measured impervious area of 63,000 square feet.



Figure 1: Example non-residential parcel bird's-eye view

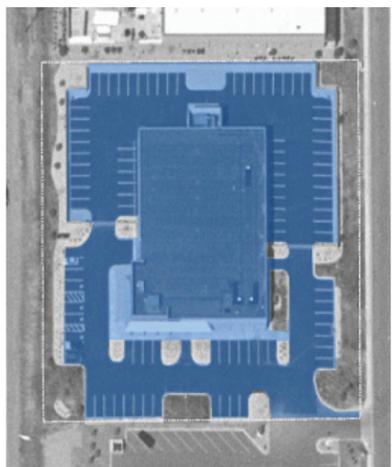


Figure 2: Example impervious coverage

If the ERU area is 3,000 square feet, the monthly charge to the property would be 21 ERUs. If the monthly fee were set at \$4.50/ERU/month, the monthly bill to this property would be $21 \times \$4.50 = \94.50 .

This property has a detention pond in the lower left corner which has been designed to meet standards, and thus the property qualifies for a credit reducing the monthly fee. A typical reduction might be 30%, making the monthly fee \$66.15.

Typical Charges

A study was conducted of the stormwater fees paid by ratepayers of the largest comparable cities across the United States. Figure 3 on the next page shows the results in terms of monthly charge per typical residential unit. The range of fees within the set was from \$2.00 to \$16.82 per typical residence per month, with an average of about \$6.75.

Preliminary studies show that a regional program that meets recognized needs for capital construction, maintenance, and support to local communities will probably be in the range of \$25 to \$45 million per year. This would be reflected by a fee of between \$3 and \$6 per typical residence per month, that is, in the *moderate* range of program costs (on a per acre basis) when compared nationally.



Organizational Imperatives

Regional stormwater organizations have been established in many places, each organized according to its own particular needs. No one example is the "right" way to do it. But in each case, an approach was developed to balance:

- **Equity** Decisions were made based on a sense of fairness in collection and expenditure of funds.
- **Consistency** Decisions were made that treated problems and issues on a rational and consistent basis across the region.
- **Responsiveness** The regional entity was responsive to the needs of the members within its defined set of program duties.
- **Accountability** The regional entity was accountable to its representative governing board for results and its efficiency of operation.
- **Flexibility** The program approach was flexible enough to meet the needs of a varied constituency.
- **Affordability** The levels and costs of service were within the ability and willingness of member communities to pay.
- **Transparency** The regional organization provided clear communication and consistent information about its programs, activities, and budgets.

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