

# User-Fee Funded Stormwater Utilities: Update to the 1994 WEF Manual

weftec  
the water quality event

**STORMWATER**  
CONGRESS



# Overview of the Document

- 1. Introduction
- 2. Overview
- 3. Feasibility Study
- 4. Implementation Phase Elements
- 5. Resource Requirements
- 6. Program Evaluation & Enhancement
- 7. Case Studies

Red items featured in today's presentation

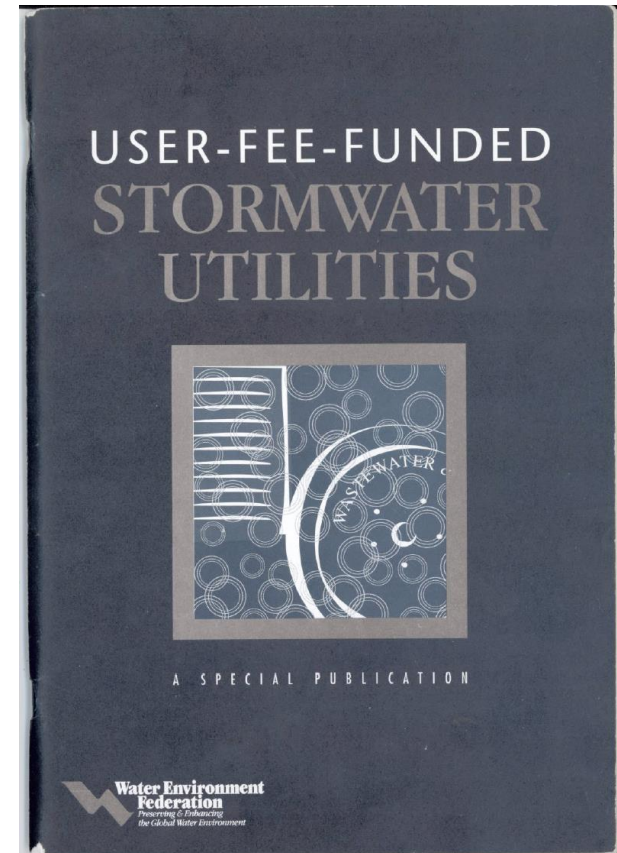
# Overview

- Background
  - Why now?
  - What it is, what it is not
  - The audience
- Overview of the document
- Highlights of the sections not featured in detail in the webcast



# Why now?

- Much has changed since 1994
  - Stormwater programs themselves
    - In the 1990s, flood control was the focus
    - Much broader array of stormwater program components now
  - Legal context
  - Limited literature since 1994, but much greater experience base (1,300 existing fee programs)
  - Technologies (GIS, billing systems, financial models, communications)



# Drivers for Stormwater User Fee Formation

- Economic pressures on local agencies
- Competition for general fund revenues
- Increased needs
  - Compliance
  - Local stakeholder needs

## Headlines

July 19, 2013

### Detroit declares bankruptcy

By Corey Williams and Ed White  
Associated Press

DETROIT — Once the very symbol of American industrial might, Detroit became the biggest U.S. city to file for bankruptcy Thursday, its finances ravaged and its neighborhoods hollowed out by a long, slow decline in population and auto manufacturing.

The filing, which had been feared for months, put the city on an uncertain course that could mean laying off municipal employees, selling off assets, raising fees and scaling back basic services such as trash collection and snow plowing, which have already been slashed.

"Only one feasible path offers a way out," Gov. Rick Snyder said in a letter approving the move.



# Remote Sensing Capabilities Were Not Available in 1994

**FIGURE 7.6** Identification of impervious or nonvegetative cover on an individual site using remote sensing (Vanasse Hangen Brustlin, Inc., 2010).



Web technologies and social media were not widely available as methods to communicate with stakeholders in 1994.

Text Version August 14, 2013

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montgomerycountymd.gov

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**NEW I Want To ...** [DEP Home](#) : [Water](#) : Water Quality Protection Charge

**Department of Environmental Protection**

**Water Quality Protection Charge**

Have you ever wondered where water from your storm drain goes?

In Montgomery County, rain water flows into **storm drains that may lead directly to our streams and rivers**. The water is not treated – so all the trash, oils and pollutants picked up along the way flow into our local waters.

This type of pollution is known as **stormwater pollution**.

The best way to prevent [stormwater pollution](#) is to have rain water be absorbed into the ground before it even reaches storm drains. The difficulty in Montgomery County is that so much land has been covered in concrete, asphalt, driveways and buildings that there is nowhere for the water to go but down the storm drain.



An eroded stream with trash and stormwater pollution.

ADD THIS

Services & Info.  
County Cable 6

DEP Home Page

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- Climate Change
- Community Concerns
- Energy
- Trash & Recycling
- Water

Contact DEP  
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Montgomery County MaryL... Timeline Recent

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**Montgomery County Maryland**  
December 3, 2008

**General Pics** (3 photos)



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**Montgomery County Maryland**  
December 3, 2008

Welcome to the official Facebook site for Montgomery County. This site is one more way for County residents and others to gain valuable information on important issues facing the County. Thanks for visiting and come again.

YouTube  
<http://www.youtube.com/user/montgomerycountymd>

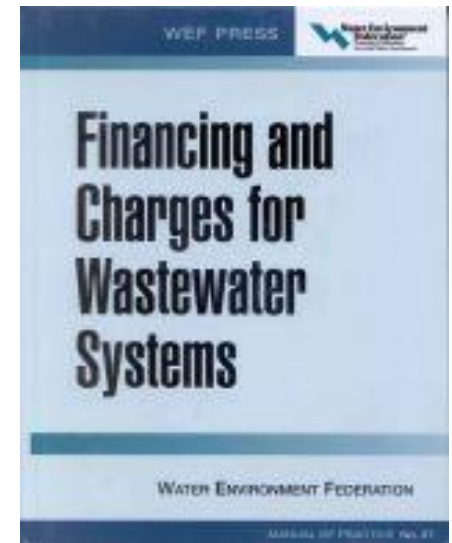
# What's Covered

- User fee program development and implementation
  - Policy issues
  - Rate structure/credit program options
  - Legal issues
  - Stakeholder engagement
- Program evaluation
- Rich library of case studies



# What's **Not** Covered

- Wastewater user fees, cost of service methodologies, already addressed in other WEF publications
- Impact fees, for which there is a rich existing literature



# Target Audience

- Public works, wastewater, and stormwater department leadership and their staffs
- Stakeholder outreach groups
- Finance departments
- Information technology and GIS professionals
- Consultants who support utility fee programs (engineering, legal, finance, stakeholder outreach)

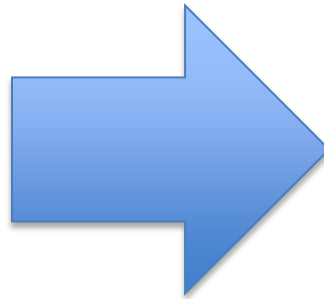
# Written by Professionals for Professionals

- Water resource engineers
- Economists/rate specialists
- GIS & IT specialists
- Attorneys
- Utility Managers

# What is a feasibility study?

**Comprehensive and Integrated evaluation of all aspects of a utility**

**Program  
Definition**



**Implementation  
Plan**

# Benefits of a Feasibility Study

## Feasibility Study



### Build a Compelling Business Case

- Define program needs & requirements
- Perform due diligence evaluation of alternatives



### Educate Stakeholders & Test the Waters

- Engage and solicit input
- Feel the political and public pulse



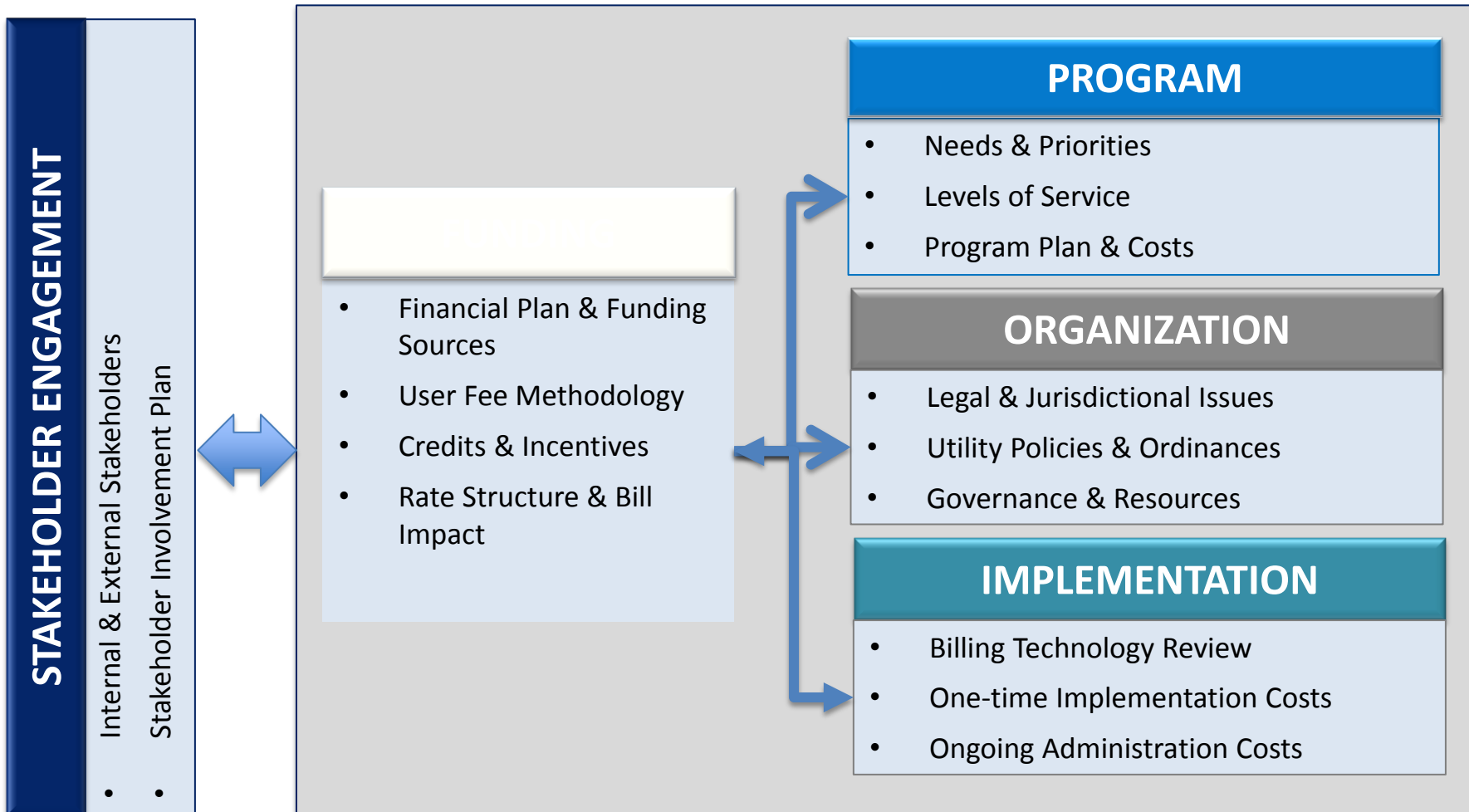
### Develop a Strategic & Tactical Roadmap

- Determine pathways
- Identify and plan for risks

**Informed Decision Making!**



# Feasibility Study Framework



# Feasibility Study: Highlights

## Stakeholder Engagement

- Types of Stakeholders
- Outreach Plan

## Program

- Level of Service
- Program Plan & Costs

## Highlights

## Organization

- Legal Considerations
- Policy Issues

## Funding

- Financing Considerations
- User Fee Methodology

# Why Engage Stakeholders?

## STAKEHOLDER ENGAGEMENT

### Educate

- On program needs, risks of inaction, and benefits

### Solicit

- Ideas and input on key concerns

### Build

- Consensus on key policy issues

### Secure

- Support and buy-in



# A Well Defined Program is Fundamental to Utility Effectiveness

## PROGRAM

### Current

- Evaluate current program and gaps
- Estimate current program costs
  - *Costs directly incurred*
  - *Costs of stormwater services provided by others*

### Future

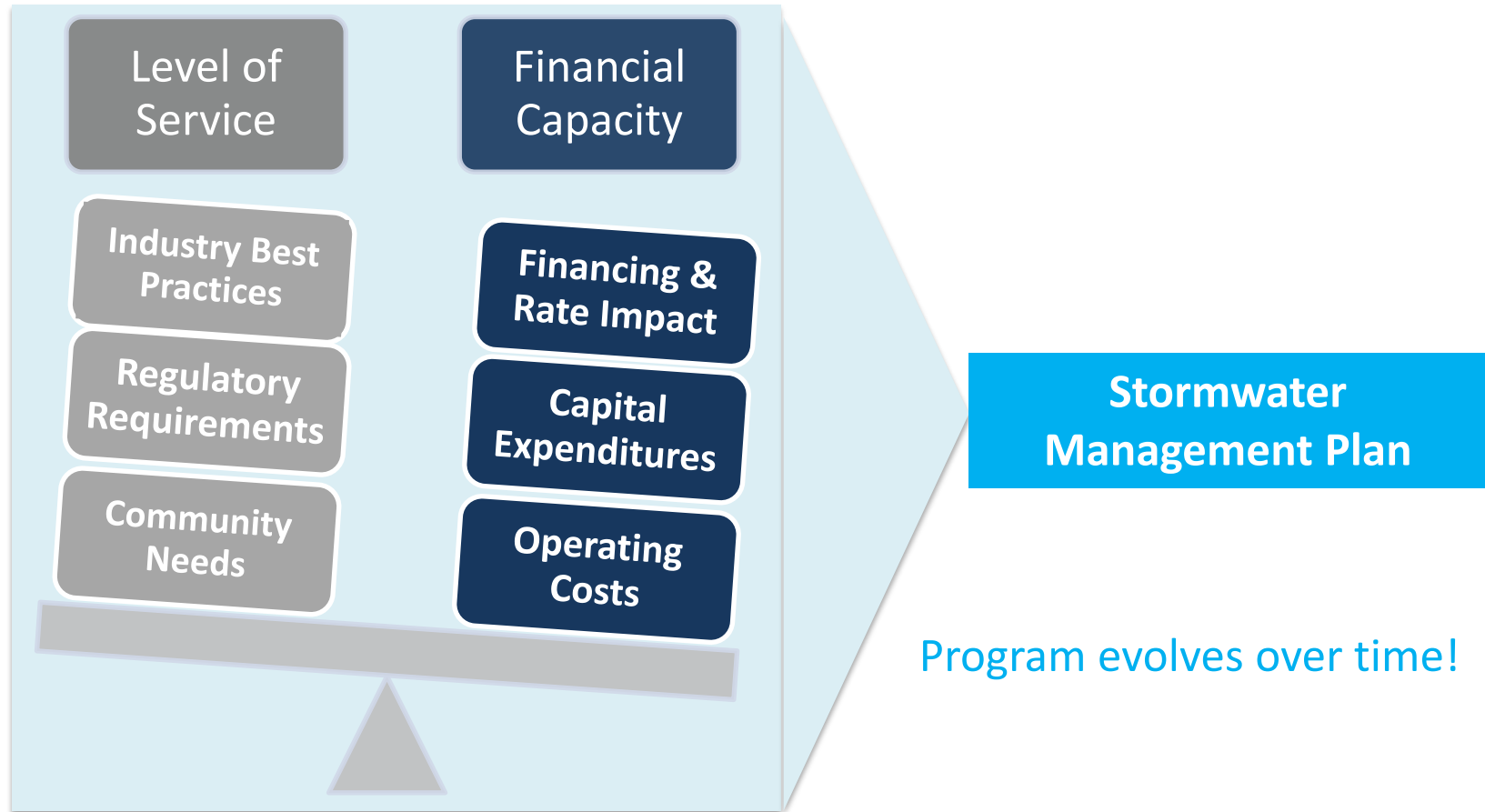
- Estimate future program requirements
- Estimate future program costs

### Desired State

- Define Level of Service Goals
- Prioritize program elements

# Desired State: Level of Service Goals

Strike a pragmatic balance between Level of Service and Financial Capacity





# Key Legal Considerations

## ORGANIZATION

### Three Common Challenges

Authority to adopt a stormwater utility

Nature of the charges

Authority to assess fees on specific  
properties

# User Fee Methodology Facilitates Equitable Cost Allocation

FUNDING

## Define Customer Classes

- Treat customers within a class similarly
  - Residential
  - Commercial
  - Institutional
  - Undeveloped

## Select User Fee Methods

- Reflect property characteristics
  - Gross area & Impervious area
  - Average impervious are for Residential
  - Class Intensity of Development
  - Equivalent Hydraulic Area

## Determine System Unit Cost

- Establish system wide unit rate
  - Rate per Equivalent Runoff Unit (ERU) (OR)
  - Rate per 100 square feet of Impervious Area

Tailor the above to the specific needs of the utility

# Rate Structure and Rate Modification

FUNDING

## Residential

- Single Flat
- Tiered Flat
- Individually Calculated

## Non-residential

- Individually calculated

## Other

- Minimum Charge
- Billing & Collection Charge

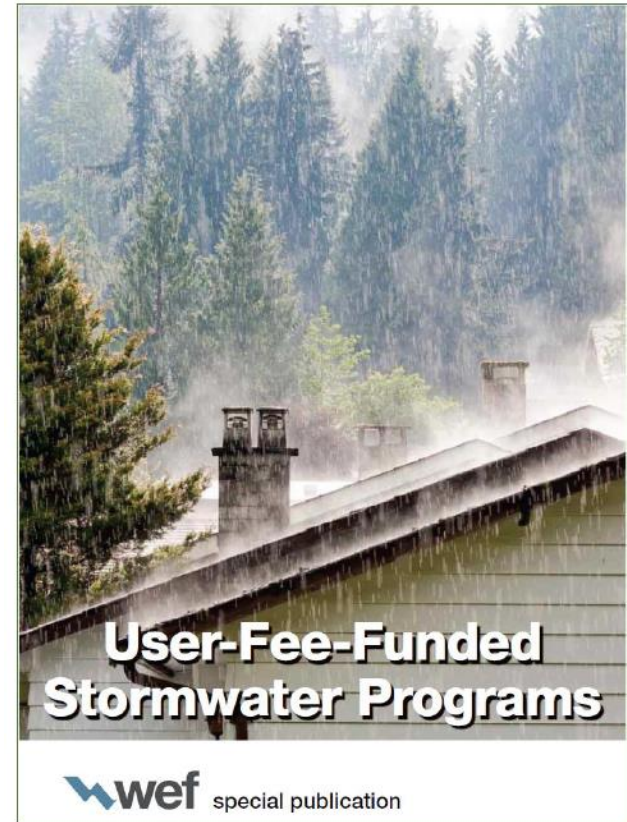
## Rate Modification

- Elderly Discounts
- Stormwater Credits
- Stormwater Exemptions

Flexible rate structure can evolve along with program needs

# 11 Case Studies in 2013 Manual Selected to Reflect Range

Geography	US and Canada
Size	16,000 – 1,000,000
Age/Maturity of Utility	1977 - 2012
Program Needs	NPDES, CSO, MS4, TMDL
Fee Structures	Flat rates, Tiers



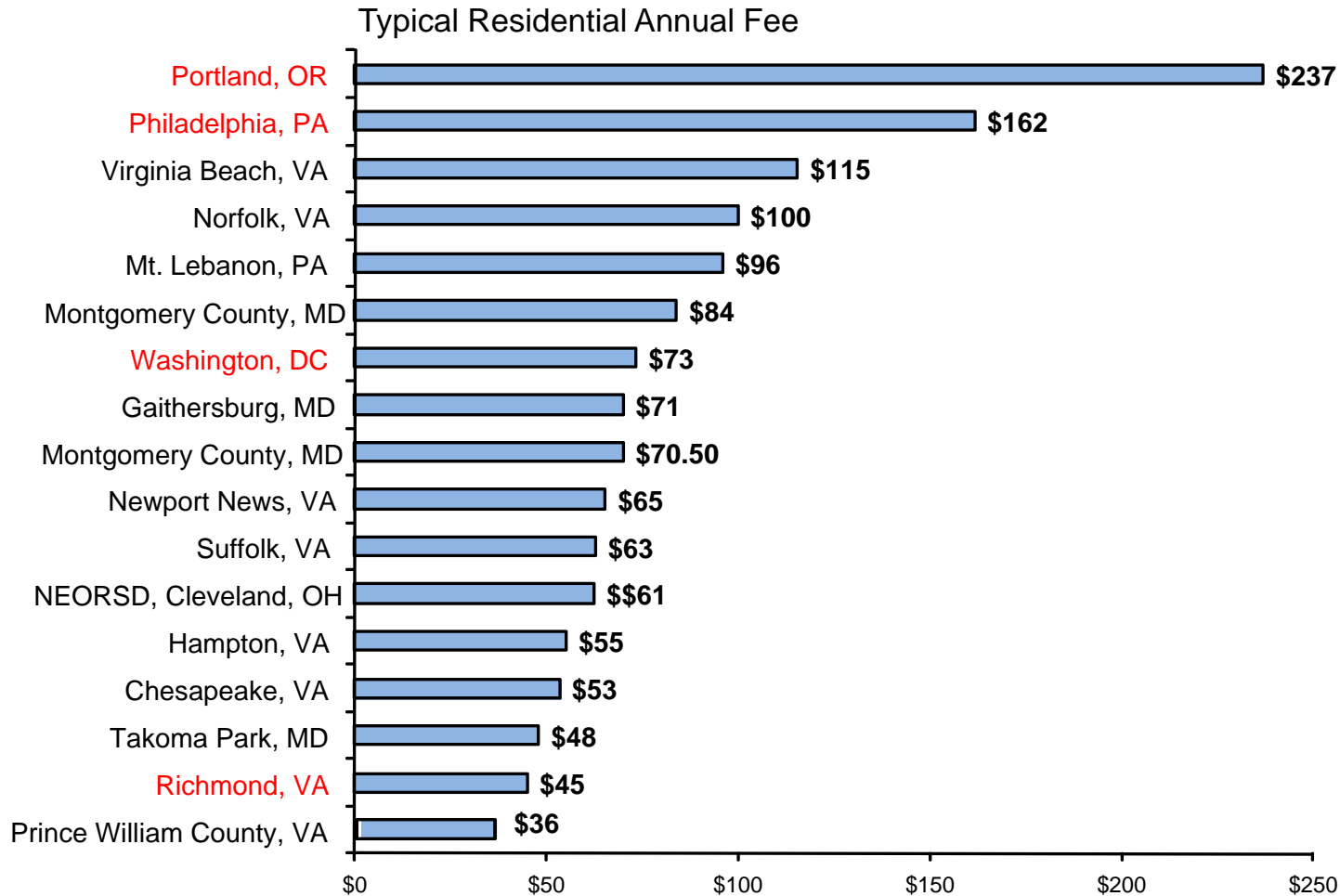
# Case Study Locations in USA and Canada





Location	Year Created	Size (Pop / # accts)	Annual Revenues	Tiers	Fee (\$/ERU/yr or \$/1000 sf /yr)	Credits	Billing	CSO System?
RICHMOND, VIRGINIA	2009	200,000 73,000	\$8 M	3 FOR SFR	\$45/ERU	UP TO 50%, SFR AND NR.	SEPARATE BILL	YES
MONTGOMERY COUNTY, MD	2002	972,000 300,000	\$17 M	7 FOR SFR	\$88/ERU	UP TO 50% SFR AND 60% NR WITH ESD.	PROPERTY TAX BILL	NO
PRINCE WILLIAM COUNTY, VA	1994	419,000	\$8 M	2 FOR SFR	\$36/ERU \$17/1000sf	UP TO 50%, SFR AND NR.	PROPERTY TAX BILL	NO
PORTLAND, OR	1977	586,000 179,000	\$382 M	2 FOR SFR	\$287/ERU	UP TO 35%, SFR AND NR.	WATER AND SEWER BILL	YES
NEORS, D CLEVELAND OH	2012	1,000,000		3 FOR SFR	\$61/ERU	UP TO 100%, SFR AND NR.	WATER AND SEWER BILL	NO (FEE APPLIED ONLY IN NON-CSO)
RALEIGH, NC	2004	400,000 125,000	\$16 M	5 FOR SFR	\$48/ERU	UP TO 20% ONSITE, 30% OFFSITE	UTILITY BILL	NO
CHATTANOOGA, TN	1993	168,000	\$20 M	1 FOR SFR	\$105/ERU	UP TO 85% FOR NR	PROPERTY TAX BILL	YES
KITCHENER, ONTARIO, CANADA	2011	220,000 63,000	\$12 M	3 FOR SFR	\$117/ERU	UP TO 45%, SFR AND NR.		NO
REMOTE SENSING OF IMPERVIOUS AREA, VT & MA	2003	NA/ 4,300	NA	3 FOR SFR	NA	NA	NA	NO
LOS ANGELES, PALO ALTO, SANTA CRUZ, SAN JOSE CA	1990s	VARIES	\$30 M		\$23/ERU, \$143/ERU, \$109/ERU, \$8/ERU	NA	NA	NO
CITY OF STUART, FLORIDA	1993	16,000 4,200	\$619 K	2 FOR SFR	\$47/ERU	UP TO 100%	NA	NO

# Typical Residential Stormwater User Fees (2013)



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# User-Fee-Funded Stormwater Programs

 **wef** special publication

## Questions?



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